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

Summary record of the twenty first (21st) meeting of Re-Constituted Expert Appraisal Committee (REAC) held during 30th July, 2020 to 1st August, 2020 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The twenty first 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 **30th July, 2020 to 1st August, 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	30 Jul 20	31 Jul 20	1 Aug 20
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present	Present
2.	Dr. Bipin Prakash Thapliyal, Director, CPPRI.	Member	Present	Present	Absent
3.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present	Absent
4.	Dr. Jagdish Kishwan	Member	Present	Present	Present
5.	Dr. G.V. Subramanyam	Member	Present	Present	Present
6.	Dr. Tejaswini AnanthKumar	Member	Absent	Absent	Absent
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	Absent
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 20th meeting held during 25-26th June, 2020 were confirmed by the EAC as already uploaded on PARIVESH.

30th July, 2020

21.1 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)] **– Environment Clearance – regarding.**

21.1.1 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.

Details submitted by the project proponent

21.1.2 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

21.1.3 The details of the ToR are furnished as below:

Date	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

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

21.1.5 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 Nm^3/hr	21,00,000 TPA Pellet along with Producer Gas 60,000 Nm^3/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.).
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).

21.1.6 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 granted capacity (TPA)	Proposed expansion/modernization	Final Capacity after TOR Amendment (TPA)
1	Sponge Iron	6,50,000	No change	6,50,000 (1 x 350 TPD & 3 x 500 TPD Kilns)
2	Steel Billet	4,00,000	Modernization and enhancement in production capacity of Steel Melting Shop (Billets) from existing 4,00,000 TPA to 7,00,000 TPA by change in configuration of induction furnaces and installation of additional furnaces.	7,00,000 (7 MT x 10, 12 MT x 6, 15 MT x 6 & 30 MT x 4)
3	Power generation (AFBC/WHRB &	73 MW (28 MW + 25 MW + 20 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	73 MW (48 MW + 25 MW)

Sl. No.	Name of the Unit	Existing granted capacity (TPA)	Proposed expansion/modernization	Final Capacity after TOR Amendment (TPA)
	Biomass Power Plant)		(+1 standby)] with one new energy efficient TG set of 48 MW capacity (+standby) and all existing TG shall also be retained for abnormal situations/ in case of no change in configuration due to some unavoidable reasons.	
4	Ferro Alloys or Pig Iron	16,500 or 33,000	No change	16,500 or 33,000
5	H.B. Wire	1,00,000	1,00,000	**2,00,000**
6	Oxygen Plant	12,00,000 NM^3	No change	12,00,000 NM^3
7	Nitrogen Plant	45,00,000 NM^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	22,84,000	**32,84,000**
10	Rolling Mill	4,00,000	No change	4,00,000
11	Arc Furnace	5,000	(to be revised to Induction Furnace for Casting) including Engineering & Fabrication	5,000
12	Iron Ore Pelletization Plants along with coal gasification plant	21,00,000 (Existing 2 Units: Kiln-I of 6,00,000 TPA & Kiln-II of 15,00,000 TPA) along with 60,000 Nm^3/hr coal gasification plant.	Proposed enhancement in production capacity to 24,00,000 TPA without change in plant and machinery or 24,00,000 TPA Pellet.	24,00,000 TPA (within which 22,00,000 TPA will be Pellet + 2,00,000 TPA will be Magnetite Powder) along with Coal Gasifier of 92,000 Nm^3/hr
13	Slag Crushing Plant	-	Proposed	1,75,000
14	Mineral Grinding Plant	-	Proposed	2,00,000

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

21.1.8 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 topo sheet No. 64 G/11 & 64G/15, at an elevation of 282 m AMSL.

21.1.9 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.

21.1.10 The raw material requirement for the proposed project is given as below which would be transported through rail/road.

Sl. No.	**Facilities with capacity (Post-expansion & TOR amendment)**	**Raw Materials**	**Quantity (TPA)**
1	Sponge Iron – 6,50,000 TPA	Pellet	9,42,500
		Coal	6,50,000
		Dolomite	19,500
2	Steel Billets – 7,00,000 TPA	Sponge Iron	7,60,960
		Scrap	92,030
		Calcined Lime	5,954
		Silico Manganese	10,480
3	Power generation (AFBC, WHRB & Biomass based)- 73 MW	Coal	1,13,225
		Dolochar	2,678
		Rice Husk	1,67,111
4	Ferro Alloys – 16,500 TPA or Pig Iron – 33,000 TPA	Manganese Ore	34,650
		High Mn Slag	6,600
		Dolomite	495
		Quartz	1,320
		Coke / Steam Coal	9,900
		Electrode Paste	495
		MS Item	165
		Lancing Pipe	50
5	H.B. Wire – 1,00,000 TPA	MS Wire Rods	**2,03,000**
6	Oxygen - 12,00,000 Nm3 & Nitrogen - 45,00,000 Nm^3 gas plants	Atmospheric Air	4,16,670
7	Fly Ash Brick Plant – 165.00 lakh Nos.	Fly Ash	70,000
		Lime & Gypsum	15,000
		Granulated Ferro Alloys Slag	7,000
		Sand	8,000
8	Iron Ore Beneficiation Plant – 32,84,000 TPA	Crushed Iron Ore	32,84,000
9	Rolling Mill – 4,00,000 TPA	Steel Billets	4,25,500
10	Induction Furnace for	Steel Scrap & Borings	2,511

Sl. No.	Facilities with capacity (Post-expansion & TOR amendment)	Raw Materials	Quantity (TPA)
	Casting / Fabrication – 5,000 TPA	Pig Iron & Silicon	277
		Ferro Manganese	16.5
		Ferro Silicon Magnesium	10.5
		Inoculants	3.3
		Silica Sand	250
		Bentonoide	2.5
		Coal Dust	15
11	Iron Ore Pellet Plant Total proposed capacity - 24,00,000 TPA (with in which 22.00 lac will be manufacture of pellet & 2.00 lac manufacture of magnetite powder)		
	Manufacture of Pellets – 22.00 lac TPA	Iron Ore Fines DRY including Return Fines	22,88,000
		Bentonite/ Binder	22,000
		Lime Stone / Dolomite	35,200
	Manufacture of Magnetite Powder – 2.00 lac TPA	Magnetite Ore	2,00,000
12	Gasification System for Pellet Plant – 92,000 Nm^3/hr	Coal	2,86,364
		F. Oil	F. Oil / Ignite Oil / LDO as and when required not exceeding 2,300 KL
13	Mineral Grinding – 2,00,000 TPA	Mineral Ore	2,00,000

21.1.11 The water requirement of the project is estimated as 17203 m^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 02/02/2019. 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.

21.1.12 The power requirement of the project is estimated as 142 MW, 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.

21.1.13 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 $\mu g/m^3$ to 82.6 $\mu g/m^3$), $PM_{2.5}$ (23.4 to 45.6 $\mu g/m^3$), SO_2 (15.3 to 40.2$\mu g/m^3$) and NOx (16.8 to 45.4$\mu g/m^3$). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.29 $\mu g/m^3$ with respect to the PM_{10}, 6.15 $\mu g/m^3$ with respect to the SO_2 and 3.53 $\mu g/m^3$ with respect to the NOx.

21.1.14 Ground water quality has been monitored in 8 locations in the study area and analyzed. 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 analyzed 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 to22.4 mg/l.

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

21.1.16 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	Used for brick manufacturing and reclamation of low laying areas.
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 reclamation of low laying areas. MOU with cement industry is signed for utilization of non-mag part of slag**.**
Power Plant				
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.
Biomass based Power Plant(100 TPH BOILER)				
H.B. Wire/Rolling Mill				

Solid Waste generation	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Method of Disposal
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 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.

Solid Waste generation	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Method of Disposal
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.

21.1.17 The Green belt of 34.35% (29.700 ha.) has been already developed in the existing land of 86.464 ha and further plantation will be developed in the additionally purchased 7.361 ha. land. An area of 102 acres land has been allotted by Chhattisgarh Industrial Development Corporation in the village Siltara Phase-2 for plantation, in which around plantation of 29500 samplings has been done. Total existing green belt cover is more than 40%.

21.1.18 The Public hearing of the project was held on 17/02/2020 at 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 towards Corporate Environment Responsivity (CER) based on social impact assessment and public hearing issues.

21.1.19 The total capital cost of the project is Rs. 1988.87 Crores including existing 1789.22 Crores. The capital cost for environmental protection measures is proposed as Rs. 230 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 57.0 Lakhs. The total employment generation from the existing and proposed project is 3585.

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

21.1.21 Name of the EIA consultant: Pollution and Ecology Control Services [S.No. 126, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Certified compliance report from Regional Office

21.1.22 The Status of compliance of earlier EC was 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 which was forwarded by RO to the Ministry on 24/06/2020.

Observations of the Committee

21.1.23 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

21.1.24 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.

21.2 Modification of Product Mix of Existing Ferroalloy Plant: 4 X 7.5 MVA and 1 X 5 MVA for production of Ferro-chrome in addition to existing product mix of Ferro-manganese, Silico-manganese and by-product Ferro-manganese Slag **by M/s. Sonic Thermal Private Limited** located at Village- Namobandh-Sitarampur Panchayat/P.O.: Ghutgoria, PS: Barjora Zilla Parishad – Bankura, **District – Bankura, West Bengal** - [Online Proposal No. IA/WB/IND/160576/2017, File No. J-11011/569/2017-IA.II.(I)] **– Environment Clearance - regarding.**

21.2.1 **M/s. Sonic Thermal Private Limited** has made online application vide proposal no. IA/WB/IND/160576/2017 dated 28/06/2020 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.

Details submitted by the project proponent

21.2.2 The details of the ToR are furnished as below:

Date	Consideration	Details	Date of accord
25/09/2017	27th meeting held on 04.01.2017	Terms of Reference	18/01/2018

21.2.3 M/s. Sonic Thermal Private Limited submitted the application vide proposal no. IA/WB/IND/97331/2017 dated 17/05/2019 along with copies of EIA/EMP report and Form – 2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal was considered during the 8th meeting of Re-Constituted Expert Appraisal Committee [EAC] (Industry-I) held on 26th June, 2019 wherein the committee noted that project proponent does not have permission for withdrawal of 506

KLD water from Damodar river. Further, the calculation of the GLC based on the worst case scenario, scheme for rain water harvesting and ground water quality monitoring have not been adequately addressed in the EIA report. Further, CER table given in the EIA report needs to be revised. In view of this and after detailed deliberations, the Committee recommended to return the proposal in present form.

21.2.4 M/s. Sonic Thermal Private Limited again submitted the fresh application vide proposal no. IA/WB/IND/97331/2017 dated 28/06/2020 along with copies of EIA/EMP report and Form – 2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above.

21.2.5 The project of M/s Sonic Thermal Pvt. Ltd., located in Namobandh-Sitarampur village, Barjora Tehsil, Bankura District, West Bengal State, is for modification of product mix for inclusion of Ferrochrome as a product in the existing ferroalloy plants of capacity 4 X 7.5 MVA and 1 X 5 MVA so as to produce 7150 TPM of Fe-Mn, 5060 TPM of Si-Mn and 7465 TPM of Fe-Cr. The existing project was set up prior to EIA Notification 2006 and is operating based on the CTO issued by the West Bengal Pollution Control Board CTO Ref. No. CO107863 dated 26.03.2018.

21.2.6 As EC was not availed from the MoEF&CC earlier, the Status of compliance of valid CTO was obtained from West Bengal Pollution Control Board vide CO107863 dated 26.03.2018. There are no non-compliances reported by WBPCB.

21.2.7 The Proposed capacity for different products for in the existing site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
M/s Sonic Thermal Pvt. Ltd	5 Nos. of Submerged Electric Arc Furnaces for production of Ferroalloys	4 X 7.5 MVA & 1 X 5 MVA	Fe-Mn-7150 TPM Si-Mn- 5060 TPM Fe-Cr-7465 TPM

21.2.8 The total land required for the project is 15 acres the whole of which is industrial land allotted by West Bengal Industrial Development Corporation in the Barjora Plasto Park Area and as such it is Government Land. No forestland is involved. The entire land has been acquired. 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.

21.2.9 The topography of the area is flat and reportedly lies between $23^0$25’40.08” to $23^0$25’53.64” N Latitude and $87^0$15’26.31” to $87^0$15’32.57” E Longitude in Survey of India topo sheet No. 73M/7, at an elevation of 85m AMSL. The ground water table is reported to be 5.95m bgl (average of last 5years) in pre-monsoon period and 2.15m bgl (average of last 5years) below the land surface during the post-monsoon season.

21.2.10 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. No schedule-I fauna is found the study area.

21.2.11 The production of ferro alloys like Fe-Cr, Fe-Mn, Fe-Si will be carried out in submerged electric Arc furnaces in carbo-thermic reduction route.

21.2.12 The targeted production capacity of the Ferroalloy plant is Fe-Cr: 89,580 TPA/ Fe-Mn: 85,800 TPA/ Si-Mn: 60,720 TPA. The ore for the plant would be procured from mines in Odisha, Chhattisgarh, West Bengal and other nearby facilities. The ore transportation will be done through Rail/Road.

21.2.13 The water requirement of the project is estimated as 506 m^3/day, which will be entirely obtained from the water supply system of WBIDC available in the Plasto Park industrial Area. The WBIDC in turn supplies water from the river Damodar which is nearby. The permission for drawl of surface water is obtained from WBIDC vide Lr. No. PI/STPL/PSP/5/2090 dated 22nd January, 2020.

21.2.14 The power requirement of the project is estimated as 39MW, all of which will be obtained from the DVC grid.

21.2.15 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from 1st March 2018 to 31st May, 2018. Ambient air quality monitoring has been carried out at eight locations and the data submitted indicated: PM_{10} (51.8µg/m^3 to 92.3µg/m^3), $PM_{2.5}$ (22.3 to 48.3µg/m^3), SO_2 (7.3 to 21.3µg/m^3) and NO_x (12.8 to 38.1µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.19041 µg/m^3 with respect to the PM_{10}, 0.11838 µg/m^3 with respect to the SO_2, 2.29672 µg/m^3 with respect to the NOx.

21.2.16 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 6.8 to7.4, Total Hardness: 257 to 350mg/l, Chlorides: 58 to 154 mg/l, Fluoride: 0.33 to 0.56mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 8 locations. pH: 6.8 to 7.5.; DO: 5.9 to 6.4mg/l and BOD from to 2.4mg/l to 2.8 mg/l.

21.2.17 Noise levels are in the range of 41.8 to 53.3 dBA for daytime and 35.6 to 43.6 dBA for nighttime in residential areas.

21.2.18 It has been reported that the core zone is located in an industrial area. No R&R issues are involved.

21.2.19 It has been reported that a total of maximum 272 tons of waste (Slag) will be generated per day due to the project, out of which Fe-Mn slag will be used in the manufacture of silico manganese; Si-Mn Slag will be used in road construction. Fe-Cr slag will be used in road construction if it is considered as non- hazardous waste by TCLP Test. If hazardous it will be given to authorized Treatment Storage & Disposal Facility (TSDF) or will be dumped in the earmarked dump yard. It has been envisaged that an area of 6 acres 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.

21.2.20 It has been reported that the Consent to Establish /Consent to Operate from the West Bengal State Pollution Control Board obtained vide Letter No. CO107863, dated 26.03.2018 and consent is valid up to 31.01.2023

21.2.21 The Public hearing of the project was held on 21.12.2018 at Barjora Panchyat Samitee meeting Hall; under the chairmanship of Additional District Magistrate (Gen) for production 85,800 TPA of Fe-Mn /60720 TPA of Si-Mn /89,580 TPA of Fe-Cr & modification of product mix of Ferroalloy plant, under the Barjora CD Block of Bankura district, WB. The issues raised during public hearing are socio-economic development, adherence to environment norms and employment opportunities etc., An amount of Rs 80 lakhs/annum (1.0.% of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.

21.2.22 The capital cost of the project is Rs. 80.00 crores and the capital cost for environmental protection measures is proposed as Rs. 402 lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 40.3 lakhs. The employment generation from the proposed project is nil as the project is for product mix modification.

21.2.23 Greenbelt will be developed in 6 acres, which is about 40% of the total acquired area. A 100m 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 600 trees /acre. Total no. of 3604 saplings will be planted and nurtured in 6.0 acres in 3 years. Presently there are 604 plants over 1 acre of land.

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

21.2.25 Name of the consultant: Centre for Envotech and Management Consultancy Private Limited [S.No. 26, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.2.26 The Committee observed the following:

i. Norm for Stack emissions from BF and other units is given as 150 mg/Nm^3.
ii. Hazard Identification and Risk Assessment is not project specific.
iii. Fourth hole extraction system not provided as per TOR
iv. AAQ values for PM_{10} are as high as 95.30 µg/Nm^3 at certain places for which no explanation is available. Criteria for selecting sampling locations has not been provided.
v. Noise level is monitored at 7 Km away from the plant. Criteria for selecting sampling locations has not been provided.
vi. In Bankura area of WB, the soil carbon is reported as 0.3 %. Moisture in soil sample taken from a depth of 50 cm is only 1.1 %. This appears to be incorrect.
vii. 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.
viii. AAQ modelling has been done only for normal operation, accidental release not considered.
ix. CER Activities have not been taken from public consultation proceeds and SIA out comes. CER calculations are wrong. The activities proposed in the table are not related to CER as per OM dated 1/05/2018.
x. RWH calculation does not include recharge being proposed which should be more than 100% of annual consumption.

Recommendations of the Committee

21.2.27 In view of the forgoing and after deliberations, the Committee deferred the consideration of the proposal cited above and sought the following additional information:

i. Scheme to meet Stack emissions from all units at less than 30 mg/Nm^3 should be furnished.
ii. Proper HIRA should be done and presented.
iii. Fourth hole extraction system should be provided as per TOR.
iv. AAQ values are as high as 95.30 µg/Nm^3 at certain places. No explanation is available. Reasons for the higher values be given along with mitigation plan shall be furnished.
v. In Bankura area Soil carbon is 0.3 %. Moisture in soil sample taken up to 50 cm depth, as reported needs to be justified.

vi. CER Activities have not been taken from public consultation proceeds and SIA out comes. CER calculations needs to be revised. Action plan for CER shall be submitted as per the Ministry's O.M. dated 1/05/2018.

vii. Action plan for RWH more than 100% of annual water consumption shall be submitted.

viii. CEMS shall be installed in next three months and a completion report shall be made available to MoEF&CC.

ix. Scheme to manage chromium bearing waste shall be submitted.

x. Scheme for strengthening of green belt shall be submitted.

21.3 Expansion of smelter from 1,00,000 TPA to 3,60, 000 TPA and captive power plant from 267.5 MW to 967.5 MW by **M/s. Hindalco Industries Limited** located at **Hirakud, Sambalpur, Odisha** - [Online Proposal No. IA/OR/IND/152147/2020, File No. J-11011/400/2006-IA.II.(I)] **– Environment Clearance under para 7(ii) of EIA, 2006 for installation of Ultra Clean Coal Gasification System for Replacing Furnace Oil from Cast Houses of Aluminium Smelter Plant - regarding.**

21.3.1 M/s. Hindalco Industries Limited has made online application vide proposal no. IA/OR/IND/152147/2020 dated 15/07/2020 along with Form 1 &2, pre-feasibility report and addendum to EIA/EMP report seeking Environment Clearance (EC) under para 7(ii) 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

21.3.2 The details of the EC as well as amendment accorded to M/s. Hindalco Industries Ltd (earlier M/s INDAL Industries Ltd) by MoEF&CC as on date with respect to the Aluminium Smelter & CPP at Hirakud in the district of Sambalpur, Odisha is furnished as below:

File No.	Date	Capacity	Date of Public hearing	Remarks
J -13011/18/88 - IA	11/05/1989	Captive Power Plant at Hirakud (60 MW)	Nil	EC was granted in the name of INDAL
J-11011/42/2000-IA.II	10/01/2001	Augmentation of Smelter capacity from 30 KTPA to 65 KTPA	Nil	EC was granted in the name of INDAL
J -13011/1/99 - IA.II (T)	04/08/1999	Setting up of 77 MW coal based Power Plant (Unit II)	Nil	EC was granted in the name of INDAL
J -13011/1/99 - IA.II (T)	25/04/2005	Augmentation from 77 MW to 100 MW coal based Captive Power Plant	Nil	Augmentation from 77 MW to 100 MW EC was granted on the **Basis** – augmentation will not increase the pollution load. EC was granted in the name of INDAL
J-11011/53/2004-IA II	14/07/2005	Augmentation of	Nil	**Basis** – the

File No.	Date	Capacity	Date of Public hearing	Remarks
(I)		Smelter capacity from 65 KTPA to 100 KTPA		project doesn't involve diversion of forest land and displacement of people. EC was granted in the name of HINDALCO
J-13012/ 10/2004-IA.II (T)	21/09/2005	100 MW Captive Thermal Power Plant (Unit-III) expansion	Nil	**Basis –** No involvement of additional land**,** forest land or ecologically sensitive area and no displacement of person. Coal will be primary fuel and LDO will be secondary fuel.
J-11011/400/2006-IA.II (I) **Amendment**: J-11011/144/2006-IA.II (I)	06/02/2008	Expansion of Smelter plant from 100 KTPA to 360 KTPA and Captive Power Plant from 267.5 MW to 967.5 MW	25/06/2007	**Basis** – Conversion of all pots of Smelter with Soderberg technology to prebake technology. All boilers of CPP to be of CFBC/PFC in nature.
	19/10/2009		Nil	**Basis:** Amendment in schedule, no change in final capacity. PH not mandated for the proposal involving amendment in EC.

21.3.3 The details of the product slate accorded by the Ministry for 360 KTPA Smelter and 967.5 MW CPP capacity along with the present status as submitted by the PP is furnished as below:

Sl. No.	Facilities	Units	Sanctioned capacity as per EC dated 06.02.2008	Present status
1	Aluminium Smelter	TPA	360000	216000
2	Captive Power Plant	MW	967.5	467.5

21.3.4 The present proposal of M/s. Hindalco Industries Limited is for seeking amendment in Environment Clearance under the provisions of para 7(ii) of EIA Notification, 2006 for the following:

i. Installation of Ultra Clean Coal Gasification System in two phases, replacing Furnace Oil from Cast Houses of Aluminium Smelter Plant.

ii. Hindalco is proposing for the replacement of start-up fuel LDO (Light Diesel Oil, GCV - 10000 Kcal/Kg, Sulphur 4%), which is used for boiler lit up (approx. 4-5 kl/start-up/boiler), with a green alternate fuel i.e. Petro-Polymer Fuel (GCV - 10480 Kcal/Kg, Sulphur 0.45%) which is made from end of life plastic waste.

21.3.5 The details of the proposed modernization vis-à-vis granted EC capacity is given as below:

- There will be no change in EC granted/existing Smelter capacity of 2, 16,000 TPA and Captive Power Plant of 467.5 MW. The proposed modernization plan is related to replacement of Furnace Oil used in cast houses of Smelter plant by Coal Gas with installation of Ultra Clean Coal Gasification System.
- Project Proponent (PP) proposed to install Ultra Clean Coal Gasification System of capacity 30,000 Nm^3/hr, which will be implemented in 2 phases (Phase-I: 10,000 Nm^3/hr & Phase-II 20,000 Nm^3/hr). Existing facility of FO will be retained and will be kept as standby operation in case coal gasification plant is not in operation stage.

21.3.6 The justification furnished for the proposed modernization/change in fuel furnished as below:

A. Modernization- Installation of Ultra Clean Coal Gasification System

i. There will be no change in Product/Product Mix.

ii. Reduction in pollution load by replacement of Furnace Oil used in Cast Houses of Smelter plant.

B. Change of secondary fuel used for boiler lit up -

i. Replacement of start-up fuel LDO (Light Diesel Oil, GCV - 10000 Kcal/Kg, Sulphur 4%), which is used for boiler lit up (approx. 4-5 KL/start-up/boiler), with a green alternate fuel i.e. Petro-Polymer Fuel (GCV - 10480 Kcal/Kg, Sulphur 0.45%) which is made from end of life plastic waste

ii. Since the proposed green fuel is having high calorific value and low sulphur content, hence there will be decrease in pollution load.

21.3.7 The existing land of the plant is 189.74 ha, inclusive of the land where the proposed Coal Gasification System is envisaged. In addition to that, the PP is also acquiring 8.77 ha land. Out of the said land, PP has already acquired 2.95 ha of land and 90% acquisition process has been completed for the balance land. No R&R and no forest land is involved in the project.

21.3.8 The topography of the project is flat and reported to lie between 21°31'46.86'' N Latitude and 83°54'39.15''E Longitude. The average ground elevation of the project area is 180 m AMSL.

21.3.9 No national park/ wildlife sanctuary/ biosphere reserve etc. are reported to be located in Core and Buffer Zone of the proposed project area.

21.3.10 The existing baseline status based on the data collected during the post project monitoring for the existing EC is given as below:

i. Ambient air quality monitoring: PM_{10} (52.0 μg/m^3-78.0 μg/m^3), $PM_{2.5}$ (26.3 μg/m^3- 39.4 μg/m^3), SO_2 (5.9 μg/m^3-17.7 μg/m^3) and NO_2 (11.1 μg/m^3-22.0 μg/m^3).

ii. Noise level in the project area is in the range of 47.1 to 70.0 dB (A) for day time and 44.1 to 67.0 dB (A) for night time.

21.3.11 The capital cost of the proposed modernization, i.e. installation of Ultra Clean Coal Gasification System is Rs 60 crores and the capital cost for environmental management is proposed as Rs. 5.5 crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 40 lakhs per annum. The fund allocated towards CER is Rs. 60 Lakh.

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

21.3.13 Greenbelt: 33% of total land area including solid waste disposal site has been covered with green belt. The plantation is being carried out in and around the plant premises.

21.3.14 Name of consultant: Vimta Labs Limited [S.No. 166, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020]

Certified compliance report of Regional office, MoEF&CC, Bhubaneswar:

21.3.15 Regional Office of MoEF&CC has visited the plant on 02.09.2019 and issued a compliance status report vide file no.101-266/10/EPE, dated 04.11.2019 for the existing EC. The observations of Regional Office are summarized as below:

i. It is required to conduct the monitoring of HC emissions at stack and fluoride emissions at all AAQ monitoring stations on regular basis and monitoring reports to be submitted along with six monthly compliance reports.
ii. It is required to conduct the monitoring of Fluoride emissions at all AAQ monitoring stations on regular basis and monitoring reports to be submitted along with six monthly compliance reports.
iii. It is required to take necessary measure for secure storage of SPL and proper collection and treatment of rain water leachate from the storage yard.
iv. It is required to approach the Ministry with relevant documents for amendment of General Condition (xi) regarding rain harvesting system.
v. It is required to provide the details regarding the date of financial closure and final approval of the project by concerned authorities and the date of start of the project.
vi. It is required to submit the Environmental Statement in Form V for each financial year ending 31st March by e-mail to Regional Office, Bhubaneswar on regular basis.

21.3.16 Action Taken report was submitted by M/s Hindalco Industries Ltd vide letter dated 14.11.2019. MoEF&CC Bhubaneswar issued closure report vide file no. 101-266/10/EPE/2546 dated 17.12.2019. PP informed that following are the progress made with respect to the observations of RO report.

S.No.	Observations of RO	Present status
i.	It is required to conduct the monitoring of HC emissions at stack and Fluoride	PP has started monitoring of HC emission in all stacks and Fluoride level through all

S.No.	Observations of RO	Present status
	emissions at all AAQ monitoring stations on regular basis and monitoring reports to be submitted along with six monthly compliance reports	the 7 Nos of AAQ stations. The reports of the monitoring has been submitted to the Regional Office of MoEF&CC through six monthly EC compliance report for the period from Oct 19 to Mar 20.
ii.	It is required to conduct the monitoring of Fluoride emissions at all AAQ monitoring stations on regular basis and monitoring reports to be submitted along with six monthly compliance reports.	PP has started monitoring of Fluoride level through all the 7 nos of AAQ stations. The reports of the monitoring has to be submitted to the Regional Office of MoEF&CC through six monthly EC compliance report for the period from Apr 20 to Sep 20.
iii.	It is required to take necessary measure for secure storage of SPL and proper collection and treatment of rain water leachate from the storage yard	The leachate/seepage drain is connected to collection pit from where the water is pumped in to the ETP located near 235 KA are of Smelter Plant for the treatment.
iv.	It is required to approach the Ministry with relevant documents for amendment of General Condition (xi) regarding rain harvesting system.	Proposals for EC amendment to be submitted to the MoEF&CC.
v.	It is required to provide the details regarding the date of financial closure and final approval of the project by concerned authorities and the date of start of the project	PP submitted the details regarding financial closure of the project to Regional Office of MoEF&CC vide letter dated 14.11.2019.
vi.	It is required to submit the Environmental Statement in Form V for each financial year ending 31st March by e-mail to Regional Office, Bhubaneswar on regular basis.	Environmental Statement in Form V for the year 2018 – 19 was submitted to Regional Office of MoEF&CC and will continue to submit the statements in coming years.

21.3.17 In addition to the above, project proponent also sought for amendment in general condition no (xi) of the EC dated 06/02/2008 pertaining to rain water harvesting system for which no formal application was submitted through PARIVESH.

Observations of the Committee

21.3.18 The Committee observed the following:

i. The project proponent was unable to explain the salient features of the proposed coal gasification technology inter-alia including coal tar distillation process, material and energy balance, Sulphur balance, treatment methodology for producer gas plant effluent contaminated with cyanide and phenol.

ii. All pollution loads have been compared with the loads of 2008 EC that has expired and environmental settings of area in 12 years must have changed. There are several units that have not been installed from EC of 2008.

iii. It is understood that ultra clean coal is better than FO firing in Cast House from the point of view of SO_2 and PM emissions. It is however, not clear as to how overall pollution load within the smelter complex would reduce by adding three units of coal gasification.

It may be noted that the coal gasification process has environmental impacts arising from coal handling, VOC release from gasifiers, tar storage tanks, tar sludge removal from tanks, H_2S and Ammonia removal and handling of effluent water from gasification plant and management of additional fly ash generation.

iv. PP claims that SO_2 emission will come down for which supporting documents were not made available. Considering 3% sulphur in FO, the total sulphur input to plant would be about 1.4 TPD, while 309 TPD of coal with 0.5 % sulphur would put in nearly 1.55 TPD of Sulphur. Hence it is expected that the total sulphur input to the plant to be managed would increase in absolute quantity.

v. Project proponent also sought for amendment in general condition no (xi) of the EC dated 06/02/2008 pertaining to rain water harvesting system for which no formal application was submitted through PARIVESH.

vi. PP as well as the consultant changed the presentation which was circulated to the Ministry and EAC members without prior notice.

Recommendations of the Committee

21.3.19 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in present form.

21.4 Expansion of Integrated Cement Plant - Clinker (3.2 to 5.5 MTPA), Cement (3.0 to 5.0 MTPA), CPP (30 to 45 MW) & WHRB (15 to 27 MW) along with Proposed Standby Boiler (100 TPH) & D.G. Set (2180 KW) **by M/s. Emami Cement Limited** located at Villages: Risda & Dhandhani, Tehsil: Balodabazar, **District: Balodabazar – Bhatapara, Chhattisgarh** [Online proposal No. IA/CG/IND/89610/2018; MoEF&CC File No. J-11011/309/2013-IA.II(I)] **– Re-consideration for grant of Environment Clearance based on ADS reply – regarding.**

21.4.1 M/s. Emami Cement Limited has made online application vide proposal no. IA/CG/IND/89610/2018 dated 21/02/2020 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" EIA Notification, 2006 and the project is appraised at the Central level.

21.4.2 The proposal cited above was considered in the 18th REAC meeting held on 29-30th April, 2020. The proceedings of the meeting are given as below:

Proceedings of the EAC meeting held on 29-30th April, 2020

The expansion of Integrated Cement Plant- Clinker (3.2 to 5.5 MTPA), Cement (3.0 to 5.0 MTPA), CPP (30 to 45 MW) & WHRB (15 to 27 MW) along with proposed Standby Boiler (100 TPH) & D.G. Set (2180 KW) at Villages: Risda & Dhandhani, Tehsil: Balodabazar, District: Balodabazar – Bhatapara, Chhattisgarh by M/s. Emami Cement Limited was initially received in the Ministry on 2/05/2019 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry -1) during its 07th meeting held on dated 30/05/2019 and prescribed ToRs to the project on 28/06/2019 vide letter no. J-11011/309/2013-IA II (I) for undertaking detailed EIA study for obtaining Environment Clearance.

The details of the existing Environment Clearances obtained by the unit from MoEF&CC are furnished as below:

i. J-11011/372/2007-IA.II(I) dated 31/10/2011 and subsequent amendment dated 30/12/2013 and 1/02/2016.

ii. J-11011/309/2013-IA.II(I) dated 8/9/2016 and subsequent amendment dated 6/11/2017.

iii. J-11011/309/2013-IA (II) dated 07/02/2019.

The existing and proposed capacity for different units and products are as given below:

S. No.	Particulars	Unit	Capacity (Line - I) as per the existing ECs	Additional Capacity		Total Capacity after expansion
				Through Optimization & Modification in Existing Line - I	New Line - II	
1.	Clinker	MTPA	3.2	0.3	2.0	5.5
2.	Cement	MTPA	3.0	Nil	2.0	5.0
3.	CPP	MW	30	Nil	15	45
4.	WHRB	MW	15	Nil	12	27
5.	Standby Boiler	TPH	Nil	Nil	100	100
6.	D.G. Set	KW	Nil	Nil	2180 {=1000 +480+ 350+350}	2180

The certified compliance report for all existing ECs was issued by the Regional Office (RO) Nagpur vide letter no. 5-62/2011/(ENV)/5772 dated 30/09/2019 wherein partial compliance was reported with respect to the house keeping. Subsequently, PP has submitted Action Taken Report (ATR) to the Regional Office on 03/12/2019 which was forwarded by the RO on 26/12/2019. As per the ATR, the entire kiln area is reportedly concreted and dedicated sweeping machine have been deployed for maintaining better housekeeping at the site. Further, it was noted that as per Annexure - H of the RO certified compliance report pertaining to the annual production, the unit has manufactured 2.7 MTPA cement during 2018-19 against the permitted capacity of 2.5 MTPA. The month wise production of cement during 2018-19 is reproduced as below:

S.No.	Month	Cement production (TPA)	Remarks
i.	April, 2018	222240	Unit has manufactured 2.76 MTPA cement during 2018-19 against the permitted capacity of 2.5 MTPA. The CTO for the enhancement in cement production i.e., from 2.5 to 3.0 MTPA was accorded by CECB only on 28/03/2019.
ii.	May, 2018	247183	
iii.	June, 2018	259108	
iv.	July, 2018	258543	
v.	August, 2018	132652	
vi.	September, 2018	250085	
vii.	October, 2018	278729	
viii.	November, 2018	215474	
ix.	December, 2018	253395	
x.	January, 2019	207490	
xi.	February, 2019	173396	
xii.	March, 2019	267836	
Total		2765931	

The Committee noted that the unit has exceeded the cement manufacturing beyond the sanctioned capacity during 2018-19.

The total land already under the possession of M/s. Emami Cement Limited is 188.35 ha (137.532 ha + 50.818 ha Colony). The proposed expansion will be carried out within the existing plant premises by process optimization & modification in existing Line - l and installation of new Line - II. No forest land is involved. No River passes through the project area. It has been reported that Kukurdih - Dharsharma Canal is passing through the plant site and diversion in the canal is proposed to the parallel of the plant boundary. Application for diversion of the same has been submitted to Irrigation dept. on 26th March, 2015. However, permission from irrigation department has not been obtained till date.

The reserved forest/protected forest exist in the study area are Dhabadih Reserve Forest (Adjacent in SW direction), Latwa RF (6.0 km in NNE direction), Sonbarsa RF (7.5 km in NNE direction) and Mohtara RF (9.0 km in NE direction). The water bodies exist in the study area are Kukurdih - Dharsharma Canal (passing through the plant site), Kukurdih Talav (0.5 km in NNW direction), Mahanadi Canal (3.5 km in NW direction), Khosri Nala (3.5 km in SE direction), Kauwa Nala (5.0 km in SE direction), Tengna Nala (5.0 km in SSE direction) and Banjari Nala (8.0 Km in WNW direction).

The topography of the area is almost flat and reported to lies between 21^0 37' 37.03" N to 21^0 38' 19.59" N Latitude and 82^0 06' 9.94" E to 82^0 07' 22.89" E Longitude. The ground water table reported to ranges between 4m bgl to 9 m bgl below the land surface during the post-monsoon season and 6 m bgl to 17m bgl below the land surface during the pre-monsoon season.

No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger reserve / Elephant reserve etc. are located in the core and buffer zone of the project. The authenticated list of flora and fauna provided through the Primary survey and Secondary data reporting the presence of Two Schedule-I species i.e. Indian Python and Indian Monitor Lizard within 10 km radius of the study area. Wildlife Conservation Plan for three Schedule - I species has been prepared and duly authenticated by Principal Chief Wildlife Warden. The budget allocation for conservation of Schedule- I species is 69.50 Lakhs.

The total raw materials required for the existing and proposed expansion of Integrated Cement Plant are Limestone – 8.57 MTPA; Gypsum (Chemical / Phospho / treated / Mineral) – 0.25 MTPA; Iron ore (Ore / fines / red mud / tailent / laterite) – 0.1 MTPA; Bauxite – 0.10 MTPA, Slag – 2.5 MTPA, Fly ash, Bed ash – 1.65 MTPA & Sand – 0.12 MTPA. Limestone will be sourced from the Captive Mines and transported through covered conveyer belt; Gypsum will be procured through Indigenous/ Imported from Paradip port by rail / road; Fly ash will be sourced from own CPP and nearby area (GMR/KSK/DB) by road; Slag will be sourced from nearby area (BSP/Tata) by rail / road; Iron ore will be sourced from CMDC & nearby areas by rail / road; Bauxite will be sourced from Balco & nearby area by rail / road; Sand will be sourced from nearby area (Mahanadi/Shivnath) by road and Bed ash will be sourced from Own CPP & nearby area by Road/rail.

Water requirement for the project is estimated as 7041 KLD (including Plant/, captive mines and Colony); out of which 4041KLD will be sourced from Ground Water and remaining 3000 KLD will be sourced from recycled water and Mine Pit Water. Permission for withdrawal of 4041 KLD Ground Water has been obtained from CGWA *vide* letter no. CGWA/NOC/MIN/ORIG/2018/3350 dated 20th March, 2018 and corrigendum dated 26th April, 2018. Renewal of water withdrawal permission from CGWA is yet to be obtained.

Total power requirement after expansion is estimated as 73.2 MW; which will be sourced from CPP, WHRB & CSEB grid and D.G Set (for emergency).

Baseline Environmental Studies were conducted during Summer Season i.e. from March, to May, 2019. Ambient air quality monitoring (Composite for Cement Plant and Captive Mine) was carried out at 12 locations during 01st March, 2019 to 31st May, 2019 and the data submitted indicated: PM_{10} (52.3 to 89.7 µg/m^3), $PM_{2.5}$ (23.7 to 45.2 µg/m^3), SO_2 (6.2 to 18.5 µg/m^3) and NO_2 (10.5 to 30.5 µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed expansion project is 4.60 µg/m^3 with respect to the PM_{10}, 3.43 µg/m^3 with respect to the SO_2, 6.24 µg/m^3 with respect to the NO_x.

Ground water quality has been monitored at 9 locations in the study area and analyzed pH: 7.12 to 7.82, Total Hardness: 199.28 to 424.0 mg/l, Chlorides: 42.43 to 150.23 mg/l, Fluoride: 0.37 to 0.69 mg/l. Heavy metals are within the limits. Surface water quality has been monitored at 8 locations in the study area and analyzed pH: 7.23 to 7.86, DO: 4.3 to 7.2 mg/l, BOD: 2.6 to 8.2 mg/l, COD: 10.52 to 32.60 mg/l.

Noise levels are in the range of 48.5 to 64.5 Leq dB (A) for day time and 43.2 to 57.4 Leq dB(A) for night time.

It has been reported that there is no population / habitation in the core zone of the project. No R&R is involved. It has been envisaged that none of families to be rehabilitated, which will be provided compensation and preference in the employment.

No solid waste will be generated in the cement manufacturing process. Dust collected from various air pollution control equipment will be totally circulated into the process. STP Sludge will be utilized as manure for greenbelt development within the plant premises. Fly ash generated from captive power plant will be utilized in cement manufacturing process. No hazardous waste will be generated except the used oil which will be sold to the authorized CPCB recyclers. It has been envisaged that an area of 62.16 ha will be developed as greenbelt within 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 for the Existing capacities from the Chhattisgarh Environment Conservation Board obtained vide CECB letter no. 9962/TS/CECB/2020, dated 07th Feb., 2020 under Air Act & Water Act which is valid up to 31st Jan., 2021.

Public hearing of the project was held on 18th Oct., 2019 at 11:00 am at Open Govt. Land, in front of Govt. Secondary School, Dhandhani (Gram Panchayat Dhandhani), Tehsil: Balodabazar, District: Balodabazar - Bhatapara (Chhattisgarh) under the chairmanship of Shri Jogendra Nayak, (Upper Collector) and Shri S.K. Upadhyay (RO, CECB). The issues raised during public hearing are employment, Environment & Pollution, Education CSR activities related and other Issues. An amount of Rs. 7.7 Crores has been earmarked for Corporate Environmental Responsibility based on public hearing issues.

The capital cost of the project is Rs. 1500 Crores and the capital cost for environmental protection measures is proposed as Rs. 150 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 15 Crores/annum. The employment generation from the proposed expansion project is 1460 persons.

Greenbelt has been developed in 62.16 ha; which is about 45% of the total plant area. Greenbelt has already been developed along the plant boundary as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species has been planted with a density of 1500 trees per hectare. Total no. of 95243 saplings has been planted.

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: J. M. Environet Pvt. Ltd. [S.No. 97. List of Accredited Consultant Organizations (Alphabetically) Rev. 86, April 07, 2020].

Observations of the Committee made during 29-30th April, 2020

The Committee noted several inadequacies in the expansion proposal such as unit has exceeded the cement manufacturing beyond the sanctioned capacity during 2018-19, permission not obtained for diversion of Kukurdih Canal passing through the site, inadequate tree density in green belt development, permission from CGWA for ground water withdrawal, absence of traffic analysis studies in the EIA report, and CER action plan in accordance with the Ministry's O.M .dated 1/05/2018 has not been furnished.

Recommendation of the Committee made during 29-30th April, 2020

In view of the foregoing and after detailed deliberations, the Committee deferred the consideration of the proposal cited above and sought following additional information for further consideration of the proposal:

i. PP shall explain the reasons for achieving higher cement production during FY 2018- 2019 i.e., 2.76 MTPA beyond sanctioned capacity of 2.5 MTPA as per the EC accorded.

ii. In 62.16 ha land of green belt development, PP has planted only 95243 Nos of Trees. Time bound action plan for planting trees @ 2500 Nos per ha shall be furnished.

iii. Kukurdih Canal is passing through plant site. PP has proposed for GW abstraction. PP shall submit detailed plan to draw water from this canal. Also, the diversion plan for the canal shall be furnished including land acquisition involved in it and permission to divert the same from the Competent Authority in the State Government shall be furnished.

iv. Renewal permission obtained from CGWA for withdrawal of 4041 KLD ground water and CGWA permission for usage of mine pit water resulting from intersection of ground water table due to the mining activity shall be furnished.

v. Reasons for increase in PM emission from stacks of 2 MTPA kiln is more than that of 3.2 MTPA Kiln. (PM -16.30 Kg/hour Vs 18.7 Kg/Hour) shall be furnished.

vi. Rain Water Harvesting (RWH) calculations indicate harvesting equivalent to 210 days of consumption. It should be for minimum 365 days. Please furnish revised plan for rain water harvesting including monitoring mechanism for GW recharge.

vii. CER activities indicated are mostly CSR activities. CER activities have not been drawn from SIA and Public Consultation. PP shall submit revised CER action plan in accordance with the Ministry's O.M. dated 1/05/2018 with a time frame of three years.

viii. Time frame for establishment of railway siding shall be furnished.

ix. Energy consumption data for Thermal energy, Sp. energy consumption for OPC and PPC shall be furnished.

x. TOR Compliance for ToR#9 i.e., Corporate Environment Policy shall be furnished point wise.

xi. Commitment on use of Alternate Fuel shall be furnished

xii. Waste Heat Recovery in Line number one is low. It could be up to 18-20 MW. Detailed calculations in this regard shall be furnished.

xiii. AAQ modelling for accidental releases shall be carried out and submitted.

xiv. PP shall furnish the details of process proposed for SO_2 and NOx control to meet latest emission standards for cement and power plants.

xv. CEMS shall be integrated with Main Plant Control Center for process as well as emission control as per CPCB Norms.

xvi. Existing traffic load and traffic management studies for peak production scenario shall be furnished.

xvii. Status of Environment Clearance obtained for the lime stone mines shall be furnished.

xviii. Measures taken to improve the house keeping in the premises along with the supporting photographs shall be submitted.

21.4.3 The ADS reply was furnished by the PP on 19/05/2020. The reply submitted by the project proponent was placed before the EAC in its meeting held on 30 July, 2020 – 1st August, 2020 and the response is summarized as below:

1st Point: PP shall explain the reasons for achieving higher cement production during FY 2018- 2019 i.e., 2.76 MTPA beyond sanctioned capacity of 2.5 MTPA as per the EC accorded.

Reply:

- Emami Cement Ltd. has obtained Environmental Clearance for 2.5 MTPA Cement from MoEF&CC, New Delhi vide letter no. J-11011/372/2007-IA (II) dated 31st Oct., 2011 (amended on 30th Dec., 2013 & 01st Feb., 2016); and for Enhancement in Cement Production Capacity from 2.5 MTPA to 3.0 MTPA by Process Optimization & Modification in existing plant on 07th Feb., 2019. The total cement production of the plant from April, 2018 to February, 2019 is well within the sanctioned capacity of earlier EC (i.e. 2.5 MTPA).
- Thereafter, company had obtained CTE from CECB for enhanced cement capacity (i.e. 3.0 MTPA) on 06th March, 2019 and undergo modifications in the cement plant to achieve increased production.
- After that, company had checked the modifications & optimizations done in the plant by running the cement mill on full enhanced capacity in the month of March, 2019; which results in the rise in the cement production and the same is well within the sanctioned capacity of new EC (i.e. 3.0 MTPA).
- Company has also obtained Consent to Operate for enhanced capacity from CECB during financial year 2018 - 2019 on 28th March, 2019.

02nd Point: In 62.16 ha land of greenbelt development, PP has planted only 95243 Nos of Trees. Time bound action plan for planting trees @ 2500 Nos per ha shall be furnished.

Reply: Company will plant additional 61,500 saplings (@2500 plants / ha, in total area of 62.16 ha by gap filling) in next 03 years. Time bound action plan is given below:

S. No.	Year	Area	No. of trees to be planted for gap filling
1.	2020-2021	20.72	20500
2.	2021-2022	20.72	20500
3.	2022-2023	20.72	20500
Total		62.16	61500

In addition, 10,000 saplings in 5.0 ha in Dhandhani Village as per EC issued on 07th Feb., 2019 has been planted by the company.

03rd Point: Kukurdih Canal is passing through plant site. PP has proposed for GW abstraction. PP shall submit detailed plan to draw water from this canal. Also, the diversion plan for the canal shall be furnished including land acquisition involved in it and permission to divert the same from the Competent Authority in the State Government shall be furnished.

Reply**:** **Water extraction from Kukurdih Canal:**

- In Kukurdih Canal, water is released during summer season only by Irrigation Department; so as to fulfill the requirement of water in the villages for general use and irrigation purpose.
- This canal is not having adequate quantity of water all the year round to fulfill the requirement of Cement Plant.
- Water Resource Department has also denied the request for abstraction of water from Kukurdih Canal.

Diversion of Kukurdih Canal:

- The company has obtained approval from the Water Resource Department, Kasdol.
- The approval is stating that change of alignment of canal and shifting of canal is not technically appropriate. Therefore, it is suitable to make it underground instead of diversion of the same.
- The length of the canal in the plant area is 936 meters. The hume pipes of 1200 mm dia will be used for make the canal underground. Also, cleaning holes at every 30 meter distance will be prepared.
- The entire land is already in the possession of company.
- In view of above, company has modified the Plant Layout in such a way that the canal does not fall on foundations of Line -II Plant. Also, the construction of canal to make it underground will be taken up along-with the project work.

04thPoint: Renewal permission obtained from CGWA for withdrawal of 4041 KLD ground water and CGWA permission for usage of mine pit water resulting from intersection of ground water table due to the mining activity shall be furnished.

Reply:

- Emami Cement Ltd. has obtained permission from CGWA for total water withdrawal quantity of 4041 KLD on 20th March, 2018; which includes, extraction of 1090 KLD Ground Water through existing & proposed bore well and 2951 KLD through dewatering the mine seepage on account of mining intersecting the water table.
- Company has obtained renewal of CGWA NoC for 6471 KLD vide letter no. CGWA/NOC/MIN/REN/1/2020/5670 dated 16th March, 2020 (valid up to 14th March, 2023); which includes extraction of 1090 KLD Ground Water withdrawal and 5381 KLD through dewatering the mine seepage.

05th Point: Reasons for increase in PM emission from stacks of 2.0 MTPA kiln is more than that of 3.2 MTPA Kiln. (PM -16.30 Kg/hour Vs 18.7 Kg/Hour) shall be furnished.

Reply:

- Emissions from the stack are regularly monitored and the existing stack emission details of Line - I is average data of last six months for PM Emission Level Avg. 24.9 mg/Nm^3 or 16.3 Kg/hr.
- In proposed Line -II, Earlier, we have considered the diameter of 6.0 m and Exit velocity of 12 m/s & emission of 25 mg/Nm^3; thus it was come 18.7 kg/hr. Now, PP has revised deign basis of diameter @ 5m, Exit velocity of 13 m /s with emission of 25 mg/Nm^3 to reduce the pollution load and now it come 14 Kg/Hrs which will be well below the Standards of 30 Mg/Nm^3.

06th Point: Rain Water Harvesting (RWH) calculations indicate harvesting equivalent to 210 days of consumption. It should be for minimum 365 days. Please furnish revised plan for rainwater harvesting including monitoring mechanism for GW recharge.

Reply: Total Water Potential:

S. No.	Particular	Recharge Quantity (Cum)
1.	Existing Water Potential in Cement Plant	10,98,747
2.	Proposed Water Potential in Cement Plant	3,80,000
3.	Estimated Harvesting in Plan Period (2023-24) in Limestone Mine	9,45,039.6
Total		**24,23,787 i.e. 6640 KLD**

- The total rainwater harvesting potential in plant and mine will be 6640 KLD against the total water requirement of 6000 KLD after expansion.
- Thus, this will suffice the requirement of Cement Plant more than round the year (365 days).

Monitoring mechanism for GW recharge:

- The existing groundwater monitoring network for the project is deemed adequate and will continue to be utilized. However, additional monitoring bores will be installed within the predicted zone of depressurisation to assess the extent and rate of depressurisation.
- The project manually monitors GW levels on a monthly basis through the current ground water monitoring network.
- Yearly audits of the performance of the monitoring network will be included as part of the annual review and optimization of the monitoring sites and frequency will be undertaken, where required.
- The project currently collects groundwater samples from the GW monitoring network on a quarterly basis for laboratory analysis. This monitoring regime will continue for the life of the project.
- Regular cleaning of the RWH structures helps in the periodic operation and maintenance of recharging structures for safeguarding of catchment areas against possible pollution and degradation activities as well as water harvesting.

07th Point: CER activities indicated are mostly CSR activities. CER activities have not been drawn from SIA and Public Consultation. PP shall submit revised CER action plan in accordance with the Ministry's O.M. dated 1/05/2018 with a time frame of three years.

Reply: CER Plan has been revised based on the issues / suggestions raised during Public hearing and recommendations of SIA Study.

As per Ministry's OM dated 01st May, 2018, company has proposed to spend Rs. 7.75 Crores towards CER activities based on the proposed expansion project cost of Rs. 1500 Crores.

S. No.	Activity Heads	1st Year	2nd Year	3rd Year	Total
1.	Community Infrastructure Development Projects	70	50	22.5	142.5
2.	Road Development & Maintenance	50	30	30	110
3.	Drinking Water Supply	40	40	40	120
4.	Infrastructure for Rain Water Harvesting	40	40	33	113
5.	Electrification in Villages & Solar Lights along the roads	12	4	4	20
6.	Skill Development	18	35	7	60
7.	Health & Family Welfare Programmes	13.5	13.5	13.5	40.5
8.	Plantation In Nearby area	30	30	30	90
9.	Agriculture Development Activities	7	7	7	21
10.	Education Promotion Programmes	15	14	13	42
11.	Women Empowerment & Development	6	5	6	16
Total		301.5	268.5	205	775

08th Point: Time frame for establishment of railway siding shall be furnished.

Reply: The railway siding is proposed in two phases -

- In First phase, the line will be constructed between Nipania to Village-Deori & Saloni (Approx. 4 km). Required land is already purchased and CTE from CECB has been obtained on 10th June, 2020.
- In Phase-II, railway line will be constructed from Village Deori & Saloni to Plant site (Approx. 10 km). For Phase-II, three years required for Land acquisition and after complete land acquisition further 02 years would be required for construction of railway line.

09th Point: Energy consumption data for Thermal energy, Sp. energy consumption for OPC and PPC shall be furnished.

Reply: Thermal Energy is 689 Kcal/Kg for Clinker; and Specific Energy consumption for PPC is 22.35 KWh/Ton and for OPC is 29.02 KWh/Ton.

10th Point: ToR Compliance for ToR#9 i.e., Corporate Environment Policy shall be furnished point wise.

Reply: Corporate Environment Policy has been revised and accordingly, the point-wise compliance of ToR Point No. 9 has also been revised. The same has been submitted to MoEF&CC.

11th Point: Commitment on use of Alternate Fuel shall be furnished.

Reply: Company is committed to use of 2 - 3 % Alternate Fuel for co-processing in the kiln and will try to increase the use of Alternative fuels based on availability.

Presently, company has obtained Authorization for co-processing of Hazardous

Waste (Biomass, Municipal Solid Waste Poultry Waste, Cable Skin Waste, Cow Dug, Jute Waste, Carbon black from Waste tyres, LD Slag, Flue dust / Bag filter dust, Dolachar and Plastic Waste) from CECB and application for amendment in Consent to Operate for use of Non-Hazardous Waste has also applied to CECB.

12th Point: Waste Heat Recovery in Line number one is low. It could be up to 18-20 MW. Detailed calculations in this regard shall be furnished.

Reply: As per standards (Mollier Chart), 4500 Kcal heat is required to generate 1 KWh power from Waste Heat Recovery Boiler.

- In Existing Line-1 i.e. 3.2 MTPA, considering 9600 TPD Clinker Production,
- ✓ Total Waste Heat for utilizing in WHRS - 6,00,18,750 Kcal
- ✓ Total unit generation by WHRS - 13338 KWH or 13.34 MW.
- After proposed expansion in Existing Line-1 i.e. 3.5 MTPA considering 10400 TPD Clinker Production,
- ✓ Total Waste Heat for utilizing in WHRS - 6,43,50000 Kcal
- ✓ Total unit generation by WHRS - 14300 KWH or 14.30 MW.

Based on the production capacity and available heat; company can produce up to 15 MW only in existing Line-1 and also obtained Consent to Operate for the same capacity.

13th Point: AAQ modelling for accidental releases shall be carried out and submitted.

Reply: AAQ modelling for accidental release has been carried out for Cooler ESP and Boiler ESP; and the maximum incremental GLC for Particulate Matter was found to be 4233.17 $\mu g/m^3$ at a distance of approx. 200 m away from the plant boundary. Isopleth showing maximum incremental GLC is given on next slide.

There is no accidental release of Particulate Matter to atmosphere due to RABH/Bag House attached to Raw Mill/Kiln, Coal Mill & Cement Mill; as change in Differential Pressure (DP) is most important variable to know the condition of Bag House.

High DP usually indicates that the system is not running efficiently which lead to higher operational cost and impacts on environment. In such circumstances, Bag House needs urgent action and the plant has to be shut down, which results in no accidental release of PM to atmosphere.

14th Point: PP shall furnish the details of process proposed for SO2 and NOx control to meet latest emission standards for cement and power plants.

Reply: Low NOx Burner and Selective Non-Catalytic Reduction (SNCR) Technology has been proposed for control of NOx emission in Kiln.

As far as SO_2 is concern in Kiln, pyro-process itself acts as a long SO2 scrubber. Kiln with pre- heater / Calciner removes SO_2 emissions. Installation of a good burner system will provide improved combustion efficiency of the feed stock and also avoid flame impingement on the raw materials.

In Power Plant, Flue Gas Desulfurization (Dry / Wet) to be used for control of SO_2 emission in Power Plant. Company is going for high efficiency CFBC boiler (Low combustion temperatures) for low NOx and SO_2 level with limestone dozing arrangements to control SO2 level as per standard.

15th Point: CEMS shall be integrated with Main Plant Control Center for process as well as emission control as per CPCB Norms

Reply: Continuous Emission Monitoring Systems (CEMS) is already connected with the control rooms for regular monitoring of emission level.

16th Point: Existing traffic load and traffic management studies for peak production scenario shall be furnished.

Reply: Road facilities for the transportation of materials are already present near plant premises {(SH - 10 (3.0 Km in North direction) and SH - 9 (~5.5 Km in East direction)}. This is being used for inflow of raw material & finished product.

The existing total Number of Vehicle (PCU) / day is 195 PCU / Day against the bearing capacity of State Highway of 625 PCU / Day; which is 31 % only.

The increase Vehicle (PCU) / day after expansion project will be 271.62 PCU / Day against the bearing capacity of State Highway of 625 PCU / Day; which is 43 % only.

17th Point: Status of Environment Clearance obtained for the lime stone mines shall be furnished

Reply: M/s. Emami Cement Ltd. is having two Captive Limestone Mines. Details on status of Environment Clearance obtained for the limestone mines are given below -

S. No.	Details of Limestone Mine	Details of EC
1.	Limestone Mine with production capacity of 5.5 MTPA ROM (Limestone - 5.0 MTPA & Screen Reject - 0.5 MTPA) at Villages: Kukurdih & Risda, Tehsil: Balodabazar, District: Balodabazar - Bhatapara (Chhattisgarh)*	*Vide letter no. J-11011/372/2007-IA (II) dated 31st Oct., 2011; with subsequent amended on 30th Dec., 2013 & 01st Feb., 2016 by MoEFCC, New Delhi*
2.	Limestone Mine with production capacity of 0.725 Million TPA (ROM) at Village: Dhandhani, Tehsil: Balodabazar, District: Balodabazar-Bhatapara (CG)	Vide letter no. 525/SEIAA/CG/Mine/ Raipur/529 dated 25th Feb., 2019 from SEIAA, Chhattisgarh

***** To cater the additional limestone requirement for project, ECL is proposing expansion in existing Limestone Mine from 5.5 MTPA ROM (Limestone - 5.0 MTPA & Screen Reject - 0.5 MTPA) to 9.0 MTPA ROM (Limestone - 8.1 MTPA & Screen Reject - 0.9 MTPA). ToR letter has been granted by MoEFCC, New Delhi for the same vide letter no. J-11015/135/2015-IA.II (M) dated 29th August, 2019.

18th Point: Measures taken to improve the house keeping in the premises along with the supporting photographs shall be submitted.

Reply**:** For up-keeping and maintaining good housekeeping, company has divided entire plant in 20 zones and zone leader appointed to ensure proper housekeeping. Cross functional audit for housekeeping also implemented. Two Nos. dedicated road sweeping machine deployed for road cleaning.

21.4.4 During the discussion, the Committee asked the PP to revise their ADS reply with respect to Rain water harvesting, revised CER action plan, energy consumption, commitment on alternate fuel and process proposed for SO2 and NOx control. The revised reply is summarized as below:

S.No.	Details	Reply furnished
i.	Rain water harvesting	The total rainwater harvesting potential in plant and mine will be 6640 KLD against the total water requirement of 6000 KLD after expansion. Thus, this will suffice the requirement of Cement Plant more than round the year (365 days). Therefore, Rainwater Harvesting Recharge from Cement Plant and Mine will fulfil the entire water requirement of the project by the end of 2023 - 2024.
ii.	CER activities	Earlier as per OM dated 01st May, 2018, company has proposed to spend Rs. 7.75 Crores towards CER activities but now the CER cost has been increased to Rs. 8.10 Crores to complete the activities considered under CER activities.
iii.	Energy consumption data for Thermal energy, Sp. energy consumption for OPC and PPC shall be furnished.	Thermal Energy is 689 Kcal/Kg for Clinker and specific power consumption for (including clinker) PPC will be 57.53 kWh/t cement and for OPC will be 78.62 kWh/t cement. Overall specific power consumption for cement will be 62.70 kWh/t cement.
iv.	Commitment on use of Alternate Fuel	Company is committed to use of 2 - 3 % Alternate Fuel for co-processing in the kiln and will try to increase the use of Alternative fuels based on availability. Presently, company has obtained Authorization for co-processing of Waste (Municipal Solid Waste, Poultry Waste, Cable Skin Waste, Jute Waste, Carbon black from Waste tyres, LD Slag, Flue dust / Bag filter dust, Dolachar and Plastic Waste) from CECB.
v.	Process proposed for SO_2 and NOx control to meet latest emission standards for cement and power plants.	In Kiln, Low NOx Burner and Selective Non-Catalytic Reduction (SNCR) Technology has been proposed for control of NOx emission. Company will take appropriate measures for SNCR Technology. As far as SO_2 is concern in Kiln, pyro-process itself acts as a long SO_2 scrubber and thus, control the SOx Emission from Kiln. In Power Plant, company will install high efficiency CFBC boiler (Low combustion temperatures) for low NOx emission and limestone dozing arrangements to control SOx emissions within the prescribed standards.

Observations of the Committee

21.4.1 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, action plan and CER plan and found to be addressing the issues in the

study area and the issues raised during the public hearing. The certified compliance report also found to be satisfactory.

ii. Additional information as well as revised reply submitted by the project proponent found to be satisfactory, and addressing the concerns of the Committee.

iii. The EAC has carried out requisite due diligence of the instant proposal as per the provisions laid down in the EIA Notification, 2006.

iv. 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

21.4.2 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under para 7(ii) 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 integrated cement plants based on project specific requirements:

A. Specific conditions

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. Company will plant additional 61,500 saplings (@2500 plants / ha, in total area of 62.16 ha by gap filling) in next 03 years. In addition, 10,000 saplings in 5.0 ha in Dhandhani Village as per EC issued on 07th Feb., 2019 shall be planted by the company.

iii. Kukurdih canal will be made under ground. A 1200 mm diameter Hume pipe of one km shall be laid with cleaning facility at 30 m interval.

iv. The Stack emissions (PM) from all kilns shall not exceed 30 mg/Nm^3.

v. 100% of the water consumed annually shall be recharged through Rain Water Harvesting (RWH) within the plant and/or outside in nearby areas. Recharge system shall have monitoring facility.

vi. The CER amount of Rs. 8.10 Cr shall be spent within 3 years as per the action plan submitted to the Ministry.

vii. In first phase, the railway line will be constructed between Nipania to Village-Deori & Saloni (Approx. 4 km) along with the implementation of cement plant. In Phase-II, railway line will be constructed from Village Deori & Saloni to Plant within 5 years.

viii. The Thermal Energy Consumption shall be 689 Kcal/ T of Clinker and Power consumption shall be 57.57 kwh/t for PPC and 78.62 kwh/t for OPC, overall power consumption shall be less than 62.7 kwh/t.

ix. WHRB from Line 1 shall generate 15 MW power.

x. Low NOx burners and SNCR shall be used for NOx control. Ammonia Monitoring facility shall be provided.

xi. SO_2 control shall be practiced in CFBC boiler of CPP to achieve the norms below the permissible limits.

xii. In order to control fugitive dust, all plant roads shall be paved and industrial vacuum cleaners shall be used regularly to sweep roads and plant floors.

B. General conditions

I. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as 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 labs recognised under Environment (Protection) Act, 1986.

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

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

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

vi. 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

vii. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.

II. Water quality monitoring and preservation

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

ii. Adhere to 'Zero Liquid Discharge'.

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

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

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

vi. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

III. 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

IV. Energy Conservation measures

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

ii. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms

V. Waste management

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

VI. 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.

VII. 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. 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.

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

VIII. 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 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

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.

IX. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21.5 Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2X1500 KVA to 1X3.8 MVA & 3X 1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA) **by M/s. Monnet Ispat & Energy Limited** located at Village Naharpali, Tehsil Kharsia, **District Raigarh, Chhattisgarh** - [Online Proposal No. IA/CG/IND/153300/2020, File No. J-11011/196/2007-IA.II.(I)] **– Amendment in Terms of Reference (ToR) – regarding.**

21.5.1 M/s. Monnet Ispat & Energy Limited has made application vide online proposal no. IA/CG/IND/153300/2020 dated 11/06/2020 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-11011/196/2007-IA.II(I) dated 31/03/2020.

Details submitted by the project proponent

21.5.2 Terms of Reference (ToR) granted vide F. No. J-11011/196/2007-IA. II (I) dated 31.03.2020 for Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2x1500 KVA to 1x3.8 MVA & 3x1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA), Heavy Round Mill (0.4 MTPA) and Lime Dolo Plant (0.28 MTPA) at Village & Post Naharpali, Tehsil Kharsia, District Raigarh, Chhattisgarh.

21.5.3 The product slate as per the ToR dated 31/03/2020 is given as below:

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
IRON DIVISION				
1	Pelletisation Plant	2.20 MTPA	0.3 MTPA	2.5 MTPA
2	DRI Plant (Sponge Iron)	0.50 MTPA (2x100 TPD & 4 X 350 TPD)	0.50 MTPA (2X100 TPD will be replaced by 2X650 TPD)	1.0 MTPA (2X650 TPD & 4X350 TPD)
3	Sinter Plant	0.75 MTPA (90 m^2)	0.75 MTPA (90 m^2)	1.5 MTPA (2X90 m^2)
4	Blast Furnace	0.70 MTPA (550 m^3)	0.70 MTPA (550 m^3)	1.4 MTPA (2X 550 m^3)
STEEL DIVISION				
5	Steel Melting Shop	1.74 MTPA (2x100 Ton EAF, 3x100 Ton LRF, 1x5 Strand CCM Caster)	0.26 MTPA (1x100 Ton LRF, 1x5 Strand CCM Caster, 1x100 Ton Vacuum degassing)	2.0 MTPA (2x100 Ton EAF, 4x100 Ton LRF, 2x5 Strand CCM Caster, 1x100 Ton Vacuum degassing)
6	Rolling Mill	0.45 MTPA	--	0.45 MTPA
7	Plate Mill	0.75 MTPA	--	0.75 MTPA
8	Wire Rod Mill	--	0.5 MTPA	0.5 MTPA
9	Heavy Round Mill	--	0.4 MTPA	0.4 MTPA
UTILITIES				
10	Oxygen Plant	0.132 MTPA (400 TPD)	0.132 MTPA (400 TPD)	0.264 MTPA (2X400 TPD)
11	Coke Oven	--	0.8 MTPA	0.8 MTPA
12	Coal Beneficiation Plant	1.0 MTPA	1.0 MTPA	2.0 MTPA
13	Lime-Dolo plant	--	0.28 MTPA (Lime- 2x250 TPD; Dolo 1x250 TPD & 1x100 TPD)	0.28 MTPA (Lime- 2x250 TPD; Dolo 1x250 TPD & 1x100 TPD)
14	Captive Power Plant	170 MW (90 MW - 2x120 TPH AFBC Boilers + 4x 35 TPH WHRB and 80 MW- 1x336 TPH CFBC boilers)	70 MW (2x120 TPH AFBC Boilers + 2x40 TPH WHRB+ 250 TPH CHP + 60 TPH AHP)	240 MW (4x120 TPH AFBC + 4x35 TPH + 2x40 TPH WHRB; 1x336 TPH CFBC+250 TPH CHP + 60 TPH AHP)

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
15	DG Set	2x1500 KVA	1 x 1500 KVA & 1x 3.8 MVA	3 x 1500 KVA & 1x3.8 MVA

21.5.4 Now the company management has decided for addition, deletion or change in configuration of facilities without changing the capacity granted in TOR No. J-11011/196/2007-IA. II (I); dated 31.03.2020. Proposed changes in configuration & capacity of units is given as below:

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
IRON DIVISION				
1	Pelletisation Plant	2.20 MTPA	0.3 MTPA	2.5 MTPA
2	DRI Plant (Sponge Iron)	0.50 MTPA (2x100 TPD & 4 X 350 TPD)	0.50 MTPA (2X100 TPD will be replaced by 2X650 TPD)	1.0 MTPA (2X650 TPD & 4X350 TPD)
3	Sinter Plant	0.75 MTPA (90 m^2)	0.75 MTPA (90 m^2)	1.5 MTPA (2X90 m^2)
4	Blast Furnace	0.70 MTPA (550 m^3)	0.70 MTPA (550 m^3)	1.4 MTPA (2X 550 m^3)
STEEL DIVISION				
5	Steel Melting Shop	1.74 MTPA (2x100 Ton EAF, 3x100 Ton LRF, 1x5 Strand CCM Caster)	0.26 MTPA (1x100 Ton LRF, **1x6 Strand CCM Caster**, 1x100 Ton Vacuum degassing)	2.0 MTPA (2x100 Ton EAF, 4x100 Ton LRF, **1x5 Strand & 1X 6 Strand CCM Caster,** 1x100 Ton Vacuum degassing)
6	Rolling Mill	0.45 MTPA	--	0.45 MTPA
7	Plate Mill	0.75 MTPA	--	0.75 MTPA
8	Wire Rod Mill	--	0.5 MTPA	0.5 MTPA
9	Heavy Round Mill	--	0.4 MTPA	0.4 MTPA
UTILITIES				
10	Oxygen Plant	0.132 MTPA (400 TPD)	0.132 MTPA (400 TPD)	0.264 MTPA (2X400 TPD)
11	Coke Oven	--	0.8 MTPA	0.8 MTPA
12	Coal Beneficiation Plant	1.0 MTPA	1.0 MTPA	2.0 MTPA
13	Lime-Dolo plant	--	**0.28 MTPA (Lime- 2x250 TPD;**	**0.28 MTPA (Lime- 2x250**

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
			Dolo 1x250 TPD)	**TPD; Dolo 1x250 TPD)**
14	Captive Power Plant	170 MW (90 MW - 2x120 TPH AFBC Boilers + 4x 35 TPH **& 2X 10 TPH WHRB** And 80 MW- 1x336 TPH CFBC boilers)	70 MW (2x120 TPH AFBC Boilers = 52 MW + 2x40 TPH WHRB = 18 MW)	240 MW (2x120 TPH AFBC = 53 MW + 4x35 TPH + **2X10 TPH WHRB = 37 MW**+ 2x40 TPH WHRB = 18 MW; 1x336 TPH CFBC = 80 MW+2x120 TPH AFBC Boilers = 52 MW)
15	DG Set	2.40 MW [2x1500 KVA]	**3.69 MW [3x1250 KVA = 3.00 MW, 1x500 KVA = 0.40 MW & 1x 360 KVA = 0.29 MW]**	6.09 MW **[2x 1500 KVA = 2.40 MW; 3x1250 KVA = 3.00 MW, 1x500 KVA = 0.40 MW & 1x 360 KVA = 0.29 MW]**

21.5.5 With the above amendment, the total production capacity will be unchanged as granted in ToR No. F. No. J-11011/196/2007-IA. II (I) dated: 31.03.2020, only configuration will change in Sr. No. 05, 13, 14 and 15 of table given in Point no. 10 of ToR letter which are elaborated in the above table.

21.5.6 The other amendments sought in the ToR dated 18/07/2019 is given as below:

Particulars	**As per ToR dt. 31/03/2020**	**Total (for Rev. TOR)**	**Change in rev. TOR wrt 31/03/2020**
Subject matter	Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2X1500 KVA to 1X3.8 MVA & 3X 1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill	Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2x1500 KVA to 2x1500 KVA, 3x1250 KVA, 1x500 KVA, 1x 360 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA), Heavy Round Mill (0.4 MTPA) and Lime Dolo Plant (0.28	Change in subject matter

Particulars	**As per ToR dt. 31/03/2020**	**Total (for Rev. TOR)**	**Change in rev. TOR wrt 31/03/2020**
	(0.5 MTPA), Heavy Round Mill (0.4 MTPA) and Lime Dolo Plant (0.28 MTPA) **by M/s. Monnet Ispat & Energy Limited** located at Village Naharpali, Tehsil Kharsia, District Raigarh, Chhattisgarh	MTPA) **by M/s. Monnet Ispat & Energy Limited** at Village & Post Naharpali, Tehsil Kharsia, District Raigarh, Chhattisgarh.	

21.5.7 Case no. 2117 is ongoing in Hon'ble High Court Bilaspur, Chhattisgarh which is related to water discharge from plants through the canal which resulted in affecting agriculture crops.

21.5.8 Name of the EIA consultant: M/s. J. M. Environet Pvt. Ltd. [S.No. 98; List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.5.9 The Committee noted that the project proponent has sought for amendment in the ToR dated 31/03/2020 for change in unit configuration of Steel melting shop, lime/dolo plant, captive power plant and DG sets. There will be no change in the total steel production capacity.

Recommendations of the Committee

21.5.10 In view of the foregoing and after detailed deliberations, the Committee recommended for amendment in the ToR dated 31/03/2020 as mentioned above.

21.6 Enhancement of Production capacity of existing Pellet Plant from 0.6 Million TPA to 0.8 Million TPA along with Upgradation of Existing 0.7 Million TPA Iron Ore Grinding Unit to 1.0 Million TPA Iron Ore Grinding & Beneficiation Plant and 1.2 Million TPA Integrated Steel Plant & 260 MW (110 MW WHRB + 150 M1W Thermal) Power Plant by **M/s. Sarda Energy and Minerals Limited** located at Phase1 of Siltara Industrial Growth Center, Village–Mandhar, **Tehsil – Dharsiwa, Chhattisgarh** - [Online Proposal No. IA/CG/IND/101936/2020, File No. J-11011/45/2012-IA.II.(I)] **– Environment Clearance - regarding.**

21.6.1 **M/s. Sarda Energy and Minerals Limited** has made online application vide proposal no. IA/CG/IND/101936/2020 dated 02/07/2020 along with Form 2, pre-feasibility report and EIA/EMP report seeking Environment Clearance (EC) under the provisions of 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

21.6.2 The details of the ToR details are furnished as below:

Date	**Consideration**	**Details**	**Date of accord**
27/11/2017	27th meeting held on 3rd to 4th January 2018	Terms of Reference	16/01/2018
02/06/2018	33rd meeting held on 9th to 11th July 2018	Amendment in ToR	18/09/2018

21.6.3 The project of M/s Sarda Energy and Minerals Limited located in Village Mandhar, Tehsil Dharsiwa, Raipur District, Chhattisgarh State is for setting up of proposed enhancement, upgradation and expansion project as given below:

S. No.	Project Details	Existing Capacity (TPA)	Capacity Enhancement Upgradation/Proposed Capacity (TPA)		Total (TPA)
			Phase-I	Phase II	
A	Enhancement of Production Capacity				
1	Iron Ore Pellet Plant with Coal Gasifiers Plant	6,00,000	2,00,000 (Capacity Enhancement)		8,00,000
B	Upgradation				
2	Iron Ore Grinding Unit	7,00,000			
	To Iron Ore Grinding & Beneficiation Plant		10,00,000 (Upgradation)		10,00,000
C	Expansion				
3	Iron Ore Pellet Plant		12,00,000	-	12,00,000
4.	Coal Gasifiers Plant (20 Nos)		54092 Nm^3/Hr	-	54092 Nm^3/Hr
5.	Iron Ore Grinding &Beneficiation Plant		20,00,000	-	20,00,000
6.	Coke Oven		2,70,000	2,70,000	5,40,000
7.	Sinter Plant		3,25,000 ($1x15m^2$)	3,25,000 ($1x15m^2$)	6,50,000
8.	Blast Furnace		6,00,000 ($1x650m^3$)	6,00,000 ($1x650m^3$)	12,00,000
9.	Electric Arc Furnace		6,00,000 (1x90T)	6,00,000 (1x90T)	12,00,000
10.	CCM-Cast Billets		5,82,500 (2x3 Strand)	5,82,500 (1x4Strand)	11,65,000
11.	Rolling Mill (TMT, Wire Road, Section & other long products)		5,00,000	5,00,000	10,00,000
12.	Sponge Iron Plant		3,00,000 (2x500 TPD)	3,00,000 (2x500 TPD)	6,00,000
13.	WHRB Power Plant (WHRB) based on coke oven & BF gases		1x35 MW	1x35 MW	70 MW
14.	WHRB Power Plant (Waste Heat from Sponge Iron Kilns)		20 MW	20 MW	40 MW
15.	Thermal Power Plant		-	150 MW	150MW
16.	Oxygen Plant		1x150 TPD	1x150 TPD	300 TPD
17.	Ductile pipe with induction		2,00,000	2,00,000	4,00,000

S. No.	Project Details	Existing Capacity (TPA)	Capacity Enhancement Upgradation/Proposed Capacity (TPA)		Total (TPA)
			Phase-I	Phase II	
	furnace		(2x15 Ton)	(2x15 Ton)	

21.6.4 The existing project was accorded Environment Clearance vide lr.no. J-11011/45/2012-IA II(I) dated 28th October 2016.

21.6.5 The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. No. EC-295/RON/2017-NGP/3778, dated 2nd June 2018. There are no non-compliances reported by Regional officer. The closure report was obtained from Regional Office, Nagpur vide Lr. No. EC-295/RON/2017-NGP/5501 dated 10thJuly 2019.

21.6.6 The total land required for the project is 204.452 ha. Out of total land 142.645 ha is allotted by CSIDC and 61.807 ha Private land is owned by SEML. No forestland 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.

21.6.7 The topography of the area is flat and reported to lies between N 21^0 20' 9.74" to N 21^0 20' 42.57"N Latitude and E $81^0$41'10.57" to E81^0 42'02.48"E Longitude in Survey of India topo sheet No. 64G/11, 64 G/12, 64G/15 at an elevation of 282 m AMSL.

21.6.8 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. Schedule I Fauna available in the study area of Mandhar also include Pavocristatus i.e. Common Peafowl or Peacock. The authenticated wild life conservation plan is submitted to the Ministry.

21.6.9 The targeted production capacity of the proposed expansion is already given above. SEML has already established railway siding within the plant premises. The raw material will be transported by Rail and Road

21.6.10 The water requirement of the project is estimated as 47,635 m^3 /day, out of which 45,758 m^3/day will be fresh water requirement. 45,600m^3 /day will be obtained from the CIBL and the remaining requirement of 158 m^3 /day will be met from the CIBL and groundwater. The permission for drawl of groundwater is obtained from CGWA vide Lr. No. CGWA/NOC/IND/ORIG/2019/4739 dated 26th February 2019. The company has an agreement for supply of 45,600 KL/day and 100 KLD water with CIBL for its industrial use in integrated steel facilities for post expansion requirement vide letter No. L 576826 dated3rd July 2019 and vide letter No.X 737877 dated 25th June 2020 respectively.

21.6.11 The power requirement of the project is estimated as 217.10 MW, which will be catered from the CSPDCL & CPP.

21.6.12 Baseline Environmental Studies were conducted during summer season i.e. from February to May 2018. Ambient air quality monitoring has been carried out at eight locations during February to May 2018 and the data submitted indicated: PM10 (41.6 μg/m^3 to 90.8 μg/m^3), PM2.5 (24.8 to 46.7 μg/m^3), SO_2 (11.3 to 38.1 μg/m^3) and NOx (19.2 to 44.7μg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.19μg/m^3 with respect to the PM10, 8.53μg/m^3 with respect to the SO_2, 4.84 μg/m^3 with respect to the NOx.

21.6.13 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.1 to 7.7, Total Hardness: 219 to 420 mg/l, Chlorides: 42.5 to 187.8 mg/l, Fluoride: 0.3 to 0.7 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 6 locations. pH: 7.1 to 7.9; DO: 5.4 to 6.4 mg/l and BOD: 1.0 to 2.0 mg/l and COD from <4 to 8.9 mg/l.

21.6.14 Noise levels are in the range of 39.8 to 60.8 dBA for daytime and 38.2 to 48.7dBA for nighttime.

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

S. No	Source	Solid Waste	Quantity TPA	Utilization
Capacity Enhancement				
1.	Pellet plant	ESP and Bag filter dust	19,200 (1.84 T/Hr.)	Recycle as a raw material for respective plant
2.	Coal Gasifier	Ash	48900 (6.17 T/Hr.)	Will be raw material for brick manufacturing plant
		Tar	2600 (0.33 T/Hr.)	Will be Sold to the market to Authorized Vendors
Upgradation				
1.	Iron Ore Grinding & Beneficiation plant	Tailings	300000 (37.87 T/Hr.)	Will be used for making bricks Blocks, Tiles, Pavers, etc and sold to Cement Plant.
Proposed Expansion				
1.	Pellet plant	ESP and Bag filter dust	28800 (1.84 T/Hr.)	Recycle as a raw material for respective plant
2.	Iron Ore Grinding & Beneficiation plant	Tailings	600000 (75.74 T/Hr.)	Will be used for making bricks Blocks, Tiles, Pavers, etc and sold to Cement Plant.
3.	Coal Gasifier	Ash	97800 (6.17 T/Hr.)	Will be crushed with slag crusher and utilized in Fly ash bricks, blocks and tiles manufacturing plant and also sold in local market
4.	Coal Gasifier	Tar	5200 (0.33 T/Hr.)	Will be Sold to the market to Authorized Vendors
5.	Sinter Plant	ESP dust	1580	Will be used in sinter plant as raw material
6	Blast Furnace	Slag	300,000	Will be sold to cement plant.
		GCP dust	1,200	Will be Reused in Sinter Plant as Raw Material
7.	Electric Arc Furnace	Slag	84000	Will be Crushed With slag Crusher for recovery of metal and non metallic slag will be utilized in Fly ash Bricks, Blocks and Tiles Manufacturing Plant and also filling of low lying area.
8.	CCM Cast billets	Spillage and waste scrap	34950	Will be Reused as Raw material in EAF
9	Rolling Mill (TMT, Wire Rod, Section & other long products)	Miss Role	2,000	Will be Reused as Raw material in EAF
		End cutting scrap	14,000	
		Mill scale	15,000	
		Hot out	7,000	

S. No	Source	Solid Waste	Quantity TPA	Utilization
10.	Sponge Iron Plant	Char and Dolochar	270,000	Will be used as raw material in power plant
		Back flow	12,000	+6mm will be reused in Sponge Iron Kiln balance will be sold in local market.
		ESP and Bag filter dust	299,400	Will be utilized in Fly ash bricks, Blocks and Tiles Manufacturing Plant and also sold in local market.
		Kiln Accretion	45,000	Will be Crushed for recovery of metal and non metallic will be utilized as a replacement of stone in concrete and for filling of Low lying area
11.	Thermal power plant	Fly Ash	327,782	will be utilized in Fly ash bricks, Blocks and Tiles Manufacturing Plant and also sold to cement plant.
		Bed Ash	81,946	will be utilized in Fly ash bricks, Blocks and Tiles Manufacturing Plant.
12.	Ductile pipe with Induction furnace	Furnace recycled scrap	16,275	Will be recycled in back in process
		Scrap Pipe	4,114	Will be recycled in back in process
		Convertor Slag	3,084	Will be utilized for Road making and filling of low lying areas.
		IF Slag	1,782	Will be Crushed with slag Crusher for recovery of metal and non-metallic slag will be utilized in Fly ash bricks, Blocks and Tiles Manufacturing Plant and also sold in local market
		Waste	26,861	Will be utilized for Road making and filling of low lying areas.
		Recycled Material	735	Will be recycled in back in process

21.6.16 It has been reported that the Consent to Operate for existing Pellet plant from the Chhattisgarh Environment Conservation board obtained vide Lr. No 8338 /TS/CECB/2019 dated 27 / 12 /2019 and consent is valid up to 30/09/2022.

21.6.17 The Public hearing of the project was held on 10th January 2019 at Kundrapara, Gram Panchayat Mandhar, Raipur under the chairmanship of Additional District Magistrate for the expansion of pellet plant from 0.6 MTPA to 0.8 MTPA along with upgradation of 0.7 MTPA Iron Ore Grinding unit to 1.0 MTPA Iron ore grinding and Beneficiation Plant and 1.2 MTPA Integrated Steel Plant and 260 MW (110 MW WHRB + 150 MW Thermal) Power Plant. The issues raised during public hearing are employment, water facilities in nearby villages, construction of community hall and training camp for youths. An amount of Rs. 23.38 Cr. has been earmarked for Enterprise Social Commitment based on public hearing issues.

21.6.18 The capital cost of the project is Rs. 4674.74 Cr and the capital cost for environmental protection measures is proposed as Rs. 194.03Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs. 19.12 Cr. The employment generation from the proposed expansion is 2998. And permanent employment will be given to 1914 people.

21.6.19 Greenbelt will be developed in 81 Ha which is 40 % of the total acquired area. Green belt will be developed as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1500 trees per hectare. SEML has already planted 97250 trees in its plant area. Presently, total plantation at the premises is spread over an area of 64.83 Ha. Further green belt will be strengthened in proposed expansion.

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

21.6.21 Name of the EIA consultant: Pollution and Ecology Control Services [S.No. 126, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.6.22 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 is not in line with Appendix III of EIA Notification 2006. There are 11 chapters in the report. Chapter 1 has 18 pages and carries information that is not relevant.

iii. All relevant information that is to be used as knowledge and should be in different chapters of EIA report has been given in Annexures like TOR compliance in Annexure XIII; TOR 9 compliance. Noncompliance and ATRs etc.

iv. ESPs have been designed for PM emission of 50 Mg/Nm^3(pdf page 122)

v. Details of Blast Furnace configuration with respect to environmental considerations have not been furnished (page 132).

vi. Power generation details from Non Recovery oven have not been given.

vii. Environment and energy conservation issues of 90 T EAF not available (Page140).

viii. Pollution control facilities in coke oven not provided (Page 120)

ix. AAQ values are high at several places. No explanation given.

x. BOD values in Surface water reported is 1.1, 1.4 and 1.5 (Page 193) which fall in not detection limit (NDL).

xi. Noise has been measured at 9 KM from plant.

xii. Organic matter in Soil is 0.3 % which seems to be low for land classification in Siltara Area.

xiii. SIA study reported at page 279 is not as per the norms.

xiv. Hazard Identification and Risk Assessment is not project specific.

xv. RWH harvesting details with respect to how many days of consumption is recharges is not available.

xvi. CER Activities have not been taken from public consultation proceeds and SIA out comes. CER calculations are wrong. The activities proposed in the table are not CER as per MoEF&CC O.M. dated 1/05/2018.

xvii. Only 1500 trees per ha are considered for plantation against 2500 desired.

xviii. Project proponent and the consultant has not considered the following State Government notifications regarding ban on coal based industries in Siltara area.

Industry & Commerce Dept. Govt. of Chhattisgarh	
Order No.& Date	**Implication / Operative Part of the order**
783/205/07 dated 16/03/2007	Ban on establishment of new sponge iron plant and coal based power plant in Urla, Siltara and Borjhara area of Raipur District till further orders.
3529/205/05/11/(E) dated 12/12/2007	Ban on diversification (involving use of coal as fuel or raw material) of the existing industries of above industrial areas
F2044/2012/11/8 dated 15/05/2012	Establishment of Coal Gasifier and Coal Gasifier Based Industries are permitted.

xix. In the presentation made in the EAC meeting, PP has incorporated several changes in the scope from that described in TOR. These changes required TOR amendment in advance and a revised EIA in line with revised TOR. These changes were not intimated to MOEF&CC by PP nor indicated in EIA report.

xx. PP as well as the consultant changed the presentation which was circulated to the Ministry and EAC members without prior notice.

xxi. 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. 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 in the quality of EIA/EMP prepared by them**.

Recommendations of the Committee

21.6.23 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.

21.7 Expansion of existing Pellet Plant (1.2 Million TPA to 6.0 Million TPA) keeping Iron Ore Beneficiation plant 1.5 Million TPA, Producer Gas plant (75000 Nm^3/hr to 200000 Nm^3/hr) with addition of new Wet Grinding unit (4.5 Million TPA), Sponge Iron plant (1.8 Million TPA), Ferro Alloys Plant (0.036 Million TPA) with Chrome briquette & Zigging plant , Steel Melting Shop (1.4 Million TPA) with slag crushing unit, Rolling mill with pickling and Galvanising line (3.5 Million TPA), Wire Rod & Wire Drawing mill (1.0 Million TPA) and CPP 245 MW (120 MW coal and Dolochar Mix Based and 125 MW WHRB based) by **M/s. Rashmi Udyog Private Limited** located at Village Jitusole & Baghmur, P.O-Garhsalboni, P.S- Jhargram, **District Jhargram, West Bengal** - [Online Proposal No. IA/WB/IND/151940/2020, File No. J-11011/180/2012-IA.II.(I)] **– Prescription of Terms of Reference - regarding.**

21.7.1 M/s. Rashmi Udyog Private Limited has made application vide online proposal no. IA/WB/IND/151940/2020 dated 16/05/2020 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

21.7.2 M/s. Rashmi Udyog Private Limited proposes expansion of existing Pellet Plant (1.2 Million TPA to 6.0 Million TPA) keeping Iron Ore Beneficiation plant 1.5 Million TPA, Producer Gas plant (75000 Nm^3/hr to 200000 Nm^3/hr) with addition of new Wet Grinding unit (4.5 Million TPA), Sponge Iron plant (1.8 Million TPA), Ferro Alloys Plant (0.036 Million TPA) with Chrome briquette & Zigging plant , Steel Melting Shop (1.8 Million TPA) with slag crushing unit, Rolling mill with pickling and Galvanising line (3.5 Million TPA), Wire Rod & Wire Drawing mill (1.0 Million TPA) and CPP 245 MW (120 MW coal and Dolochar Mix Based and 125 MW WHRB based)". It is proposed to manufacture steel from Pellet plant-Sponge Iron-SMS route.

21.7.3 The existing project was accorded environmental clearance vide letter No. J-11011/180/2012- IA II (I) dated 22.06.2015 as amended on 04.10.2019 & 28.01.2020.

21.7.4 The project proponent obtained Consent to Establish from West Bengal Pollution Control Board for 1.20 MTPA Pellet Plant, 1.5 MTPA I/O Beneficiation Plant & Producer Gas Plant -75000 Nm^3/hr vide NOC No-159435 vide memo No-34-2N-46/2007 (E)- PART-II; dated 17.01.2020 and amendment vide memo No-103-2N-46/2007 (E)- PART-II; dated 27.02.2020.

21.7.5 The proposed unit will be located at Village- Jitusole & Baghmuri, P.O-Garhsalboni, P.S-Jhargram, District- Jhargram, State- West Bengal.

21.7.6 The land area for EC awarded project is 20.639 hectare (51 acres) and for expansion project additional land required is 36.017 Hectares (89 acres), making it all total 56.656 hectare (140 acres). No forestland involved. Out of the 56.656 hectares (140 acres) of land, 32.375 hectares (80 acres) of land is in possession by M/s Rashmi Udyog Private Limited and for rest of the land mutual agreement obtained from private parties. Of the total area, 18.696 hectares (33 %) land will be used for green belt development.

21.7.7 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.

21.7.8 Total project cost is approximately 1500 Crore rupees. The existing manpower for the EC awarded project is 169 (69 regular & 100 contractual). Proposed additional employment generation from proposed expansion project will be 1000 direct employment and 2000 indirect employment.

21.7.9 The targeted production capacity of the proposed expansion project is DRI (Sponge Iron) 1800000 TPA, Ferro Alloy (FeMn, SiMn, FeSi & FeCr)-36000 TPA, Chrome Briquette plant-20 TPH; Zigging Plant-90 TPD; Steel Melting Shop with matching LRF/AOD & CCM (Billet/Slab)-1800000 TPA; Slag Crushing unit- 100 TPH; Rolling Mill with Pickling & Galvanising Line-350000 TPA; Wire Rod Mill & Wire Drawing -1400000 TPA, I/O Beneficiation plant- 1500000 TPA, Wet Grinding unit-4500000 TPA, I/O Pellet Plant-6000000 TPA, Producer Gas Plant- 200000 Nm^3/hr and Captive Power plant-245 MW [WHRB-125 MW + CFBC (Coal & Dolochar mix based)-2 x 60 MW].

21.7.10 The major raw material which will be handled consists of Iron Ore fines & lumps, Pig Iron, Coal, Coke, Dolomite, Limestone, Manganese Ore, Chromium ore & Quartzite. The raw materials will be purchased from mines located in Orissa, West Bengal, Jharkhand, MP and Chhattisgarh (Iron Ore-Rungta Mines linkage, Pig Iron- Captive unit of Rashmi Group-Consent from Orissa Metaliks Pvt. Limited & Rashmi Metaliks Limited & depending upon availability). Non-Coking coal will be imported. The ore transportation will be done through Rail, Road & Ship.

21.7.11 The proposed capacity for different products for new site area as below:

Sl. No	Particulars of Facilities	Existing		Proposed		Ultimate		Product
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1.	DRI	**	**	900 x 5 TPD	1.8 Million T.P.A	900 x 5 TPD	1.8 Million T.P.A	Sponge Iron
2.	Steel Making Facilities with matching LRF, CCM and oxygen optimized furnace	**	**	(30 T X 8 + 40 T X 2) IF + EAF (1 X 60 T)	1.8 Million T.P.A	(30 T X 8 + 40 T X 2) IF + EAF(1 X 60 T)	1.8 Million T.P.A	Billets, Slab
3.	Slag Crusher	**	**	4 x 25 TPH	100 TPH	4 x 25 TPH	100 TPH	Metal Recovery
4.	Oxygen Plant	**	**	2 x 200 TPD	400 TPD	2 x 200 TPD	400 TPD	Oxygen
5.	Ferro Alloy	**	**	3 x 9 MVA	36,000 TPA	3 x 9 MVA	36,000 TPA	FeMn, SiMn, FeSi & FeCr
6.	Jigging Plant	**	**	3 x 30 TPD	90 TPD	3 x 30 TPD	90 TPD	Metal Recovery
7.	Chrome Briquette Plant	**	**	1 x 20 TPH	20 TPH	1 x 20 TPH	20 TPH	Briquette Plant
8.	Rolling Mill with Pickling Line & Continuous Galvanising Line	**	**	**	0.35 Million T.P.A	**	0.35 Million T.P.A	H.R. Plate , Galvanized Sheets
9.	Wire Rod Mill and Wire drawing	**	**	**	1.4 Million T.P.A	**	1.4 Million T.P.A	TMT Bars, Wire Rod & Wire
10.	Pellet Plant	2 x 0.6 Million TPA	1.2 Million T.P.A	2 x 2.0 Million T.P.A	4.0 Million T.P.A	(2 x 1.0 + 2 x 2.0) Million T.P.A	6.0 Million T.P.A	Iron ore Pellet
	Enhancement of pellet plant capacity			2 x 0.6 Million TPA to 2 x 1.0 Million TPA	2.0 Million TPA			
11.	I/O Beneficiation	1 x 1.5 Million TPA	1.5 Million TPA	**	***	1 x 1.5 Million TPA	1.5 Million TPA	Concentrated Iron ore
12.	Wet Grinding Unit	**	**	2 x 2.25 Million T.P.A	4.5 Million T.P.A	2 x 2.25 Million T.P.A	4.5 Million T.P.A	Concentrated Iron ore
13.	Producer Gas Plant	10 x 7,500 Nm^3/hr	75,000 Nm^3/hr	10 x 12,500 Nm^3/hr	1,25,000 Nm^3/hr	(10 x 7,500 + 10 x 12,500) Nm^3/hr	2,00,000 Nm^3/hr	Producer Gas

Sl. No	Particulars of Facilities	Existing		Proposed		Ultimate		Product
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
14.	Captive Power Plant	**	**	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	245 MW	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	245 MW	Power

21.7.12 The existing connected power demand for EC awarded project is 8.0 MW and the additional electricity load of 312.0 MW will be required for proposed project. Total connected power requirement will be 320.0 MW and is being/ will be procured from Captive Power Plant and WBSEDCL (West Bengal State Electricity Transmission Company Limited). Further the management will have 10 x 720 KVA DG sets to meet the emergency power requirement.

21.7.13 The proposed raw material requirement along with its source and mode of transportation is furnished as below.

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
1	Iron Ore Fines	15,00,000	49,92,000	51,42,000	Applied for captive iron ore mines Alternate source: Purchased from Barbil-Joda, Orissa	270-300	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
2	Iron ore Lumps	---	1,00,000	1,00,000				Train up to PFT RML Siding or Nimpura Public Siding	22-30 KM	By Road NH-6
3	High graded Iron Ore	---	3,45,810	3,45,810						
4	Pig Iron	---	2,75,100	2,75,100	From other unit of group company	---	30-200	----	---	By Road NH-6
5	Non-coking coal	1,44,000	26,26,800	27,70,800	CCL, MCL & Imported Coal. Also, applied for captive Coal mines (Jagnnathpur-B, (Raniganj Coal field West Bengal), vesting order from MOC, Govt. India obtained.	300-500	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10.5 KM	By Road SH-5
								By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed	30 KM	By Road NH-6

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
								by Train up to PFT RML Siding		
6	Coke	---	23,400	23,400	Imported, E-Auction	300	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10.5 KM	By Road SH-5
								By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to PFT RML Siding	30 KM	By Road NH-6
7	Dolomite	---	1,23,130	1,23,130	From Birmitrapur, Orissa / Bilaspur, CG	270-350	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
8	Bentonite	40,000	80,000	1,20,000	From Gujarat, Rajasthan	1000	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
9	Limestone	26,000	2,09,060	2,35,060	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	270-350	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
10	Manganese ore	---	93,600	93,600	From Balaghat, MP & Orissa	1000	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
11	Chromium Ore	---	79,200	79,200	Orissa, Jharkhand etc.	300	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
12	Quartzite	---	9,000	9,000	From Belpahar Orissa /	500		Train up to PFT RML Siding	30 KM	By Road NH-6

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
					Bilaspur, Raipur CG					
Total (TPA)		**93,17,100**								

21.7.14 Water Consumption after the proposed expansion will be 320 m^3/hr and no waste water will be generated. The raw water will be sourced mainly from the supply system of Jhargram Municipality (Subarnarekha River), ground water (bore well) and rain water harvesting pond. Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused in DRI plant, Zigging plant slag granulation plant and also for dust suppression, green belt development & ash handling.

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

21.7.16 Name of the consultant: M/s. Kalyani Laboratories Private Limited [S.No. 101, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.7.17 The Committee noted the following:

i. Plant layout is highly congested. The layout should include facilities around the boundary of the plant including entry and exit gates and also to engineering scale.

ii. Out of 180 acres of land that is required for the project, only 80 acres of land is in their possession and balance is yet to be acquired.

iii. 7665 KLD water would be sourced from municipality whereas the water can be drawn from Subarnarekha River.

iv. Besides, MoEF&CC and SEIAA has accorded following ECs to the Rashmi group companies in the vicinity of the proposed expansion project site.

A. M/s. Rashmi Cement Limited
(Location- at Mouja-Jitusole (J.L No.-702 & 703), Junglekhas (J.L. No.731) and Baghmundi (J.L. No.928), Village-Jitusole, PS-Jhargram, District Jhargram)

Sl. No	Name of the Unit	Total Production	
		Configuration	Capacity
1	Enhancement of Existing DRI production by process optimization **Product:-** Sponge Iron	10 x 100 + 1 x 350 + 4 x 600 TPD	14,90,000 TPA
2	SAF (Ferro Alloy Plant) **Product:-** **(**FeMn, FeSi ,	8 x 9 MVA	96,000 TPA

Environment Clearance details

i. F.No. J-11011/604/2008-IA.II(I) dated 13/02/2009
ii. F.No. J-11011/604/2008-IA.II(I) dated 29/01/2020

Present status:
Following units are under operation.

- DRI (Sponge Iron) 11x 100 TPD + 1 x 350 TPD + 1 x 600 TPD = 8,00,000 MTPA.

	SiMn&FeCr)			• SAF (FeMn, FeSi, SiMn & FeCr) 3 x 9 MVA = 36,000 TPA • Power Plant (WHRB) 43MW = 43MW • Chrome Briquette Plant (1 x 20 TPH) = 480 TPD
3	Zigging plant	6 x 15 TPD	6 x 15 TPD	
4	Chrome Briquette Plant	2 x 40 TPH	2 x 40 TPH	
5	SMS with matching LRF & AOD, CCM **Product-:** Billets/ Slab	8 x 20 T	5,70,000 TPA	
6	Slag Crusher	2 x 20 TPH	2 x 20 TPH	
7	Hot Rolling Mill **Product-:** H.R. Plates, Galvanized sheets	--	2,50,000 TPA	
8	Cold Rolling Mill/ Wire Drawing with Pickling Line & Continuous Galvanising Line **Product-:** TMT Bars, Wire rod & Wire	--	3,00,000 TPA	
9	Captive Power Plant Product: Power	88 MW WHRB based + 1 x 25 MW CFBC (Coal Dolochar based)	113 MW	

B. M/s. Rashmi Cement Limited
(Village- Baghmuri, P.O-Garhsalboni, P.S- Jhargram, District Jhargram)

Expansion of Cement Grinding Plant from 0.18 MTPA to 0.96 MTPA by operating Old Ball Mill-IV (1 x 600 TPD) and adding new 1 x 600 TPD Ball Mill and 1 x 2000 TPD Vertical Rolling Mill base Grinding Units	iii. SEIAA, West Bengal vide File no- 1276/EN/T-III/044/2014 dated 27/05/2015 Present status: The cement grinding unit is under operation.

v. There are 4 Industries of Rashmi Group within the vicinity of the proposed expansion project site manufacturing Steel and Cement. Instant expansion proposal does not consider integrating them for cumulative EIA study.

vi. There is no provision of railway siding. The group companies and this proposal would result in minimum 3000 to 5000 TPD material and product movement by road.

vii. Details regarding mode of inter-transfer movement of material between the group companies exists at the site has not been furnished.

viii. The Committee also taken cognizance of the following issues stated in the pubic representations dated 26/05/2020, 29/05/2020 and 6/6/2020 of Shri. Bijaya Kumar Mishra, Advocate:

- M/s. Rashmi Udyog Private Limited has commenced the construction of 2x0.6 MTPA pellet plant prior to grant of EC and CTE.
- M/s. Rashmi Udyog Private Limited has installed 1 MTPA pellet plant in place of 0.6 MTPA pellet plant without obtaining prior approvals.
- The group companies of M/s. Rashmi Group at District Jhargram are extracting 960 KLD of ground water without prior permission.
- Land records possessed by the companies may be called for as multiple ECs have been given by MoEF&CC for the same land (or) adjoining land.
- Project proponent has concealed the information regarding commencement of construction of pellet plant at the time of obtaining EC from MoEF&CC.

Recommendations of the Committee

21.7.18 In view of the foregoing and after deliberations, the Committee recommended for a site visit by a subcommittee to ascertain the factual status at the site before considering the instant expansion proposal for grant of ToR.

21.8 Expansion of Steel Melting Shop (1,08,000 to 3,50,000 TPA) along with installation of Captive Power Plant of 10 MW (5 MW WHRB & 5 MW AFBC) within existing Steel Plant (66,000 TPA Sponge Iron Plant & 4,56,000 TPA Rolling Mill) **M/s. SPS Steels Rolling Mills Limited (A Unit of Shakambhari group)** at Dr. Zakir Hussain Avenue, G.T. Road (Indo American More), Durgapur, Tehsil Faridpur Durgapur, District Paschim Bardhaman, West Bengal - [Online Proposal No. IA/WB/IND/153933/2020, File No. J-11011/156/2020-IA.II.(I)] **– Prescription of Terms of Reference – regarding.**

21.8.1 **M/s. SPS Steels Rolling Mills Limited (A Unit of Shakambhari group)** has made application vide online proposal no. IA/WB/IND/153933/2020 dated 24/06/2020 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

21.8.2 M/s. SPS Steels Rolling Mills Ltd. proposes for an expansion of Steel Melting Shop (1,08,000 to 3,50,000 TPA) along with installation of Captive Power Plant of 10 MW (5 MW WHRB & 5 MW AFBC) within existing Steel Plant (Sponge Iron Plant 66,000 TPA & Rolling Mill 4,56,000 TPA) within existing plant premises at Dr. Zakir Hussain Avenue, G.T. Road (Indo American More), Durgapur, Tehsil Faridpur Durgapur, District Paschim Bardhaman, West Bengal. The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 05th June, 2020 vide Online Application No. IA/WB/IND/153933/2020.

21.8.3 The units are operating on the basis of Consent to Operate obtained from West Bengal Pollution Control Board. The details of Latest Consent to operate are presented in below table

S. No.	Product/Plant with Capacity	CTO Details with validity
1.	5500 MT per Month Sponge Iron (1 x 100 TPD & 2 x 40 TPD DRI Kiln) & 9000 MT per Month Steel Ingot/Billet (2X15 Ton IF with caster) and DG Sets (380 & 415 KVA)	Consent Letter no. CO 123308 dated 28.05.2019 valid up to 30.09.2023 issued vide Memo NO: 938-dr-CO-S/11/1879 dated 28.05.19
2.	38000 MT per Month TMT Rod (3 x Reheating Furnace)	Consent Letter no. CO 114837 dated 17.05.2018 valid up to 28.02.2023 issued vide Memo No: 1749-dr-CO-O/10/0734 dated 17.05.2018

21.8.4 The expansion is proposed at existing unit at Dr. Zakir Hussain Avenue, G.T. Road (Indo American More), Durgapur, Tehsil Faridpur Durgapur, District Paschim Bardhaman, West Bengal.

21.8.5 The land area acquired for the plant is 9.38 ha (23.2 acres) which is industrial land. No forest land is involved. Out of total area, 3.75 ha (i.e. 40% of the total area) is being/will be developed under greenbelt & plantation in and around the plant premises.

21.8.6 No National Park / Wildlife Sanctuary / Biosphere Reserve/ Tiger Reserve/ Elephant Reserve 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.

21.8.7 Total project cost is approx. 150 Crore rupees. The existing manpower for the plant is 700 persons (100 regular + 600 contractual). Proposed additional employment generation from proposed project will be 50 direct and about 200 indirect employees during operational phase.

21.8.8 The targeted production capacity of Integrated Steel Plant is as mentioned in table below. The Iron ore, Coal, Limestone and other raw materials are being/will be transported through rail and/or through road. The proposed capacity for different products for the area is as below:

Name of the Units	**Existing Production Capacity as per CTO**			**Proposed Additional Production**		**Total (Existing + Proposed) Production**	**Remarks**
	Installed Capacity	**Production (in ton)**		**Capacity**	**Production (TPA)**		
		Annually	**Monthly**				
Sponge Iron Plant (DRI)	2X40 + 1X100 TPD	66,000	5500	No change		66,000 TPA	No change
SMS (M.S. Billets)	2X15 Ton IF with caster*	1,08,000	9000	5X20 Ton with 2 casters and one LRF	3,50,000	3,50,000 TPA	Expansion to meet requirements of rolling mill through hot charging bypassing existing reheating furnace
	* Existing 2x15 Ton IF with Caster will be dismantled after proposed expansion						
Rolling	I 300	4,56,0	38000	No change		4,56,000	No change

Name of the Units	Existing Production Capacity as per CTO				Proposed Additional Production		Total (Existing + Proposed) Production	Remarks
	Installed Capacity		Production (in ton)		Capacity	Production (TPA)		
			Annually	Monthly				
Mill		TPD	00				TPA	
	II	1000 TPD						
Reheating Furnace#	I	18 TPH	-	-	To be dismantled after expansion		-	To be dismantled
	II	18 TPH	-	-	To be dismantled after expansion		-	To be dismantled
	III	18 TPH	-	-	No Change		1 x 18 TPH	No change
	#Both Rolling Mills will be hot charged after expansion. Two reheating shall be dismantled after expansion and only one Reheating will be kept as back up to feed Cold billets.							
Captive Power Plant	NIL				10 MW (5 MW WHRB + 5 MW AFBC)		10 MW (5 MW WHRB + 5 MW AFBC)	New Installation for backward integration

21.8.9 The power requirement of 45 MW (Existing 17.5 MW + proposed 27.5 MW) will be sourced from DPL/ WBERC (Durgapur Projects Ltd./ West Bengal Electricity Regulatory Commission) (35 MW) and from captive generation (10 MW).

21.8.10 Proposed Raw material and fuel requirement for the project are given in table below: -

S. No.	Required Raw Material	Estimated Quantity (in TPA)			Source of Raw Material	Mode of Transportation
		Existing	Additional	Total after expansion		
I	**Sponge Iron Division**					
	Iron Ore (Net)	98492	-	98492	Barbil	**Road**
	Coal	62277	-	62277	Import	**Road**
	Dolomite	2251	-	2251	Katani/Bhutan	**Road**
II	**SMS Division**					
	Pig Iron	20681	46340	67021	SAIL/Local	**Road**
	Sponge Iron	94500	211750	306250	Local	**Internal /Road**
	Ferro Alloys	1296	2904	4200	Local	**Road**
	Scrap	13642	30569	44211	Local	**Internal / Road**
III	**Rolling Mill Division**					
	Billets	474240	-	474240	Internal & Local	**Internal / Road**
IV	**Captive Power Plant**					
	Coal	-	26154	26154	Import & Domestic	**Road**
	Dolochar	-	20985	20985	Internal	**Internal / Road**

21.8.11 Water Consumption after the proposed expansion will be 1625 KLD; which will be sourced from Durgapur Projects Limited (DPL) and waste water generation will be 175 KLD which

will be used for dust separation, quenching and greenbelt development. Domestic waste water generated from plant will be treated in STP and treated water will be used for greenbelt development & plantation.

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

21.8.13 Name of the EIA consultant: J. M. Environet Pvt. Ltd. [S.No. 98, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.8.14 The Committee noted the following:

i. The project is located at Durgapur wherein Comprehensive Environmental Pollution Index (CEPI) score is 65.76.
ii. PP is still running two numbers of 40 TPD kilns.
iii. PP has committed to close 2 RH furnaces and go for 100 % Hot charging. For emergency one RH would be retained to run of FO or CBM available in Durgapur.
iv. No coal shall be used.
v. Water shall be drawn from Durgapur Municipality.
vi. All conditions of CEPI shall be complied with.

Recommendations of the Committee

21.8.15 After detailed 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. PP shall phase out the existing kilns of 40 TPD. These may remain in operation till the replacement kiln is commissioned.
ii. PP shall close 2 RH furnaces and go for 100 % Hot charging. For emergency one RH would be retained to run on LDO or CBM available in Durgapur. Coal shall not be used as fuel in the reheating furnace.
iii. Water shall be drawn from Durgapur Municipality. No GW abstraction shall be permitted.
iv. All conditions of CEPI including 40 % green belt development and 1.5 times CER shall be complied with.
v. PM level from stacks shall be less than 30mg/Nm^3 and 100% solid waste generated shall be utilized.
vi. Air cooled condensers shall be used in power plant.
vii. Plant shall operate on ZLD. STP water shall be recycled/reused.
viii. Green belt development shall comprise plantation of trees @2500 trees/hectare
ix. CEMS shall be installed in the emission stacks and connected with CPCB/SPCB server as specified in CPCB Guidelines and directed by SPCB.
x. Industrial vacuum cleaners shall be used to keep fugitive emission under control.
xi. Action plan for Rain Water Harvesting (RWH) for recharging more than 100% of total annual water consumption shall be furnished in the EIA/EMP report.

21.9 Expansion of Integrated Cement Plant - Clinker (1.98 Million TPA to 5.0 Million TPA), Cement (5.0 Million TPA to 6.0 Million TPA), CPP (20 MW to 40 MW), WHRB (10 MW to 25 MW), DG Set from (1000 KVA to 2000 KVA); Lime Stone (4.8 Million TPA to 8.0 Million TPA) by **M/s. JK Lakshmi Cement Limited** located at Villages Malpuri Khurd, Khasadih, P.O. Ahiwara, Tehsil Dhamdha, **District-Durg, Chhattisgarh** - [Online Proposal No. IA/CG/IND/163618/2020, File No. J-11011/1170/2007-IA.II.(I)] **– Prescription of Terms of Reference - regarding.**

21.9.1 M/s. JK Lakshmi Cement Limited has made application vide online proposal no. IA/CG/IND/163618/2020 dated 15/07/2020 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(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

21.9.2 M/s. JK Lakshmi Cement Ltd. proposes to install expansion of existing manufacturing unit for Integrated Cement Plant - Clinker (1.98 Million TPA to 5.0 Million TPA), Cement (5.0 Million TPA to 6.0 Million TPA), CPP (20 MW to 40 MW), WHRB (10 MW to 25 MW), DG Set (1000 KVA to 2000 KVA). It is proposed to set up the plant for Integrated Cement Plant based on Dry Process technology.

21.9.3 The existing project was accorded environmental clearance vide letter no. F. No. J-11011/1170/2007-IA II(I) on dated 13th May, 2009 Consent to Operate was accorded by Chhattisgarh Environment Conservation Board vide letter no. No.1487/TS/CECB/2020 validity of CTO is up to 30/04/2021.

21.9.4 The proposed expansion unit will be located at Villages: Malpuri Khurd, Khasadih, P.O. Ahiwara Taluka: Dhamdha, District: Durg, State: Chhattisgarh.

21.9.5 The land area acquired for the proposed plant is 200.26 hectare out of which 182.58 hectare is under Integrated cement plant; proposed expansion will be done within the existing plant premises by installation of Line-II, and 17.68 ha is under pipe Conveyor belt from Limestone mines to Plant. No forest land involved for the project. The entire had has been already acquired for the project and the total area 67.2514 ha i.e. 33.58% (of 200.26 ha) land earmarked for green belt development.

21.9.6 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.

21.9.7 Total project cost is approx. 1000 Crore rupees. Capital Cost of EMP will be Rs. 100 Crores and recurring cost of EMP Rs. 10 Crores and Proposed cost of CER will be Rs. 5 Crores. Proposed employment generation from proposed project will be 300 direct employment.

21.9.8 The targeted production capacity of the Integrated Cement plant is Clinker (1.98 Million TPA to 5.0 Million TPA), Cement (5.0 Million TPA to 6.0 Million TPA), CPP (20 MW to 40 MW), WHRB (10 MW to 25 MW), DG Set (1000 KVA to 2000 KVA. The major raw material like Limestone is being/will be sourced from captive limestone mine. The limestone transportation will be done through covered trucks till completion of pipe conveyor belt (Total length 5.5 Km) transporting system which is under progress (8.0 MTPA).

21.9.9 The proposed expansion capacity for different products for are given below:

S. No.	Product	Existing EC Capacity	Proposed Additional Capacity expansion	Total Capacity after expansion
1.	Clinker (in million TPA)	1.98	3.02	5.0
2.	Cement (in million MTPA)	5.0	1.0	6.0
3.	CPP (MW)	20	20	40
4.	WHRB (MW)	10	15	25
5.	DG Set* (KVA)	1000	1000	2000

*DG set is being/will be used as a backup for critical equipment's during emergency situations

Note: Separate application for expansion of Captive Lime Stone Mine (4.8 MTPA to 8.0 MTPA) uploaded on PARIVESH portal vide proposal no. IA/CG/MIN/163807/2020 dtd. 16.07.2020.

21.9.10 The electricity load of 66 MW out of which 6 MW (Existing 5 MW & Additional 1.0 MW) will be procured from CSPDCL Grid whereas 65 MW will be generated through CPP and WHRB. Company has also proposed to install 1000 KVA DG Set in which existing 1000 KVA DG set for only emergency power back purposes. Thus, total DG set capacity after expansion will be 2000 KVA.

21.9.11 The total raw material and fuel requirement after expansion for project are Limestone (8 MTPA). The limestone transportation presently carry out through road by covered trucks where as part of Pipe conveyor belt (Total length 5.5 Km) transporting system is under progress, after completion full capacity of Limestone (8 MTPA) will be transport through pipe conveyor except emergency situations. Flue dust(0.99), Silica Sand (1.44 MTPA) will be source from local markets, Clinker (5 MTPA) will be fulfilled through own clinker unit within plant premises, Gypsum (0.64 MTPA) will be source indigenous or imported, Fly Ash (1.75 MTPA) will be source from nearby thermal power plant as well as own power plant within plant premises, BF Slag (0.67 MTPA) will be source from Bhilai Steel plant and nearby steel plant, Pet Coke (0.88 MTPA) will sourced Indigenously , as well as Imported from outside country. Coal (1.76 MTPA) will be imported (from outside country) or Washed coal (1.76 MTPA will be procured from local market or from from open market. The requirement would be mainly fulfilled by road through covered truck as well as Fuel consumption (5 to 7 KLD) will be mainly HSD Indian/ Imported will be sourced from nearest terminal of HP/BP or Reliance through road.

21.9.12 Water Consumption for the proposed expansion project will be 6680 KLD (Total water consumption) and waste water generation will be 598 KLD Domestic waste water will be treated 175 KLD and industrial waste water generated will be treated 423 KLD and reused 598 KLD. Water requirement will be fulfilled through will be fulfilled through existing water permission Shivnath River - 4500 KLD, Mine Sump - 1860 KLD and Ground water - 320 KLD.

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

21.9.14 Name of the EIA consultant: Anacon Laboratories Pvt. Ltd. [S.No.11, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the Committee

21.9.15 The Committee noted the following:

i. This is an expansion project to increase clinker and Cement production for which EC was granted in May 2009 and the extended validity period expired on 11/5/2019.
ii. There is no provision of Railway siding in the project. Nearly 10 MTPA material and Products would move by road annually.
iii. CER has been calculated wrongly. The amount shall Rs 6.5 Cr and not Rs 5 Cr.
iv. Mechanism to control SO_2 and NOx not furnished.

Recommendations of the Committee

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

i. Scheme for establishing railway siding shall be furnished.
ii. Traffic studies would be carried out and Traffic Management Plan prepared and furnished in the EIA report.
iii. The CER amount shall be Rs. 6.5 Crores. Action plan for CER activities shall be based on the SIA study and Public Hearing proceedings.
iv. Mechanism to control SO_2 and NOx shall be furnished. Monitoring arrangements for ammonia in stack shall be done in case SNCR technology is used to control NOx emissions.
v. PM level from stacks shall be less than 30mg/Nm^3 and 100% solid waste generated shall be utilized.
vi. Air cooled condensers shall be used in power plant.
vii. Plant shall operate on ZLD. STP water shall be reused.
viii. Industrial vacuum cleaners shall be used to keep fugitive emission under control.
ix. GW abstraction shall not be more than 320KLD.
x. Action plan for Rain Water Harvesting (RWH) for recharging more than 100% of total annual water consumption shall be furnished in the EIA/EMP report.

21.10 Expansion of Integrated Steel Plant from 3.6 MTPA to 7.2 MTPA of **M/s Jindal Steel & Power Limited (JSPL)** located at Kalmi and Gorkha villages, **District Raigarh, Chhattisgarh** - [Online Proposal No. IA/CG/IND/153765/2020, File No. J-11011/799/2008-IA-II.(I)] **– Amendment in Terms of Reference (ToR) – regarding.**

21.10.1 M/s. Jindal Steel and Power Limited has made application vide online proposal no. IA/CG/IND/153765/2020 dated 22/06/2020 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-11011/799/2008-IA.II(I) dated 24/10/2019.

Details submitted by the project proponent

21.10.2 M/s. Jindal Steel and Power Limited was accorded Terms of Reference vide letter no. J-11011/799/2008-IA.II(I) dated 24/10/2019 for optimization of existing DRI plant, Sinter plant and Coke Oven of existing Integrated Steel Plant of 3.6 MTPA and further expansion to 7.2 MTPA by addition of new sub-units at Villages Kalmi & Gorka District- Raigarh, Chhattisgarh.

21.10.3 The product slate as per the ToR dated 24/10/2019 is given as below:

S. No	Plant	Capacity as per EC	Proposed additional	Total	Units
1.	DRI	1.32	0.13	1.45	MTPA
2.	Coke Oven I	0.8	0.1	0.9	MTPA
	Coke Oven II (New)	-	2.0	2.0	MTPA
	Total	0.8	2.1	2.9	MTPA
3.	Sinter Plant I	2.85	0.3	3.15	MTPA
	Sinter Plant II (New)	-	5.0	5.0	MTPA
	Total	2.85	5.3	8.15	MTPA
4.	Blast Furnace I	0.8	-	0.8	MTPA
	Blast Furnace II	2.25	-	2.25	MTPA
	Blast Furnace III (New)	-	3.6	3.6	MTPA
	Total	3.05	3.6	6.65	MTPA
5.	SMS I	1.25	-	1.25	MTPA
	SMS II	1.1	-	1.1	MTPA
	SMS III	1.25	-	1.25	MTPA
	SMS IV (BOF) (NEW)	-	3.6	3.6	MTPA
	Total	3.6	3.6	7.2	MTPA
6.	Product mills				
	Rail and Universal Beam Mill (RUBM)	0.75	-	0.75	MTPA
	Plate Mill	1.0	-	1.0	MTPA
	Medium and Light Structural Mill (MLSM)	0.7	-	0.7	MTPA
	Rolling Mills (CSP) (New)	-	3.0	3.0	MTPA
	Total	2.45	3.0	5.45	MTPA
6.	Lime-Dolime plant I	0.4165	-	0.4165	MTPA
	Lime-Dolime plant II (New)	-	0.5	0.5	MTPA
	Total	0.4165	0.5	0.9165	MTPA
7.	Submerged Arc Furnace (SAF)	0.06	-	0.06	MTPA
8.	Producer Gas Plant	79200	-	79200	Nm^3/hr
9.	Oxygen Plant I	37683	-	37683	Nm^3/hr
	Oxygen Plant II (New)	-	87500	87500	Nm^3/hr
	Total	37683	87500	125,183	Nm^3/hr
10.	Captive Power Plant	353.6	-		MW

21.10.4 The amendment sought in the ToR dated 24/10/2019 is given as below:

i. As per the specific ToR no (vi), CDQ will be installed for the existing and the proposed Coke Oven plant as the limiting capacity for installation of CDQ is 0.8 MTPA. However, it may be noted that the installation of CDQ plant in a non-recovery type coke oven plant of such a small capacity is not economically feasible and thus it is proposed to not enhance the capacity of the existing Coke Oven plant to 0.9 MTPA.

ii. Further, in order to utilize the iron ore fines and use pellets for maximum capacity utilization of steel plant, it is proposed to establish a new pellet plant of 6.0 MTPA capacity in the expansion project.

iii. Thus the final configuration and capacity proposed vis-à-vis configuration and capacity granted in the TOR dated 24.10.2019 is tabled below:

S. No	Plant	Units	Capacity as per the ToR dated 24/10/2019	Proposed amendment	Total capacity
1.	DRI	MTPA	1.45	Nil	1.45
2.	Coke Oven I	MTPA	0.9	0.8	0.8
	Coke Oven II (New)	MTPA	2.0	Nil	2.0
	Total	**MTPA**	**2.9**	**Nil**	**2.8**
3.	Sinter Plant I	MTPA	3.15	Nil	3.15
	Sinter Plant II (New)	MTPA	5.0	Nil	5.0
	Total	**MTPA**	**8.15**	**0**	**8.15**
4.	Blast Furnace I	MTPA	0.8	Nil	0.8
	Blast Furnace II	MTPA	2.25	Nil	2.25
	Blast Furnace III (New)	MTPA	3.6	Nil	3.6
	Total	**MTPA**	**6.65**	**Nil**	**6.65**
5.	SMS I	MTPA	1.25	Nil	1.25
	SMS II	MTPA	1.1	Nil	1.1
	SMS III	MTPA	1.25	Nil	1.25
	SMS IV (BOF) (NEW)	MTPA	3.6	Nil	3.6
	Total	**MTPA**	**7.2**	**Nil**	**7.2**
6.	Product mills				
	Rail and Universal Beam Mill (RUBM)	MTPA	0.75	Nil	0.75
	Plate Mill	MTPA	1.0	Nil	1.0
	Medium and Light Structural Mill (MLSM)	MTPA	0.7	Nil	0.7
	Rolling Mills (CSP) (New)	MTPA	3.0	Nil	3.0
	Total	MTPA	5.45	Nil	5.45
7.	Lime-Dolime plant I	MTPA	0.4165	Nil	0.4165
	Lime-Dolime plant II (New)	MTPA	0.5	Nil	0.5
	Total	**MTPA**	**0.9165**	**Nil**	**0.9165**
8.	Submerged Arc Furnace (SAF)	MTPA	0.06	Nil	0.06
9.	Producer Gas Plant	Nm^3/hr	79200	Nil	79200
10.	Oxygen Plant I	Nm^3/hr	37683	Nil	37683
	Oxygen Plant II (New)	Nm^3/hr	87500	Nil	87500
	Total	**Nm^3/hr**	**125,183**	**Nil**	**125,183**
11.	Captive Power Plant	MW	353.6	Nil	353.6
New addition					
12.	Pellet Plant	MTPA	Nil	6.0 656 m^2 (164m x 4m)	6.0

iv. Subsequent to grant of ToR, the consultant has commenced baseline monitoring for one season w.e.f. 01.03.2020. However, due to nationwide lockdown imposed due to COVID- 19 from 25th March, 2020, the movement of the air quality monitoring team

got ceased and recommenced after partial relaxations granted from 20/04/2020. In the intervening period, the Company's automatic ambient air quality stations (located around the plant area and at Raigarh city) continued operation and the data from those will be included in the EIA from 25.03.2020 to 20.04.2020. Also, the baseline data monitoring in study area was continued into the month of June 2020 till the time the monsoon showers commenced in Raigarh area i.e. up to 15th June, 2020.

21.10.5 There is no court case or violation under EIAs Notification to the project or related activity.

21.10.6 Name of consultant: Min Mec Consultancy Private Limited, New Delhi. Min Mec 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

21.10.7 The Committee noted the following:

i. Addition of 6.0 MTPA Pellet Plant
ii. Dropping modification in existing coke oven for capacity enhancement from 0.8 MTPA to 0.9 MTPA and withdrawing the condition of providing CDQ on it.
iii. PP wants to use AAQ Monitoring data generated in house for preparation of EIA. However, Committee did not accept the request from PP to allow use of their in house AAQ data for preparation of EIA report. PP was advised to continue monitoring work from 15/09/2020 for a balance period.

Recommendations of the Committee

21.10.8 In view of the foregoing and after detailed deliberations, the Committee recommended for amendment in the ToR dated 24/10/2019 as mentioned above, the addition of 6 MTPA pellet plant is recommended to be permitted subject to the stipulation of following additional specific ToRs:

i. Overall production of crude steel and finished steel will remain same.
ii. The production from existing Coke Oven at no point in time shall exceed 0.8 MTPA.

21.11 Greenfield Steel Plant (Iron ore beneficiation cum pellet plant- 6,00,000 TPA, Producer Gas plant – 27,000 Nm^3/hr, DRI plant 3,50,000 TPA, Billet Making using Induction Furnaces - 3,20,000 TPA, Automotive Components Manufacturing Facility-1,20,000 TPA using Billets, Ferroalloy Plant - 52,000 TPA, and Captive Power Plant- 35 MW using WHRB and AFBC) by **M/s. Pushp Steels and Mining Private Limited** located at Borai Industrial Growth Centre, Rasmara, District Durg, **Chhattisgarh** - [Online Proposal No. IA/CG/IND/159068/2020, File No. J-11011/393/2018-IA-II.(I)] **– Amendment in Specific condition no. iv of Environment Clearance pertaining to Dolochar usage – regarding.**

21.11.1 M/s. Pushp Steels and Mining Private Limited has made an online application vide proposal no. IA/CG/IND/159068/2020 dated 19/06/2020 along with Form 4 and sought for amendment in the Environmental Clearance accorded by the Ministry vide letter no. J-11011/393/2018-IA-II(I) dated 24/02/2020 regarding specific condition no. iv pertaining to dolochar usage.

Details submitted by the project proponent

21.11.2 M/s. Pushp Steels and Mining Private Limited was accorded Environment Clearance by

MoEF&CC for the project titled *"Greenfield Steel Plant (Iron ore beneficiation cum pellet plant- 6,00,000 TPA, Producer Gas plant – 27,000 Nm^3/hr, DRI plant 3,50,000 TPA, Billet Making using Induction Furnaces - 3,20,000 TPA, Automotive Components Manufacturing Facility-1,20,000 TPA using Billets, Ferroalloy Plant - 52,000 TPA, and Captive Power Plant- 35 MW using WHRB and AFBC) located at Borai Industrial Growth Centre, Rasmara, District Durg, Chhattisgarh"* vide letter no. J-11011/393/2018-IA-II(I) dated 24/02/2020.

21.11.3 As per the specific condition no (ii) of the EC dated 24/02/2020, *"The excess dolochar generated shall be used only for power generation within the plant and no sale is allowed"*.

21.11.4 The project proponent sought amendment in the specific condition no. iv as given below:

"The excess dolochar generated shall only be utilized for power generation and can be sold for the said purpose only".

21.11.5 The justification/reasons furnished by the PP seeking amendment in the specific condition no. (iv) is given as below:

- In order to utilize the dolochar generated from the Project, PP have entered into Memorandum of Understanding with M/s. Mahendra Sponge and Power Limited for using dolochar in their existing plant having AFBC Boilers which is situated within a radius of 60 KM from the Project.
- As per the MoU, the dolochar shall be supplied as follows and shall be inforce for a period of fifteen years with effect from 26/11/2019:
    a. 20,000 TPA from September, 2020 onwards
    b. Additional 30,000 TPA from September, 2021 onwards
    c. Additional 50,000 TPA from September, 2023 onwards
- The quantity of dolochar generated is about 87500 MT per annum, resulting into dispatch of only 8 trucks per day.
- The Project is proposed in an industrial area, which is adjoining to National Highway and transportation of dolochar will be done for its utilization in power plant in properly covered trucks within a radius of about 60 KM.
- In fact, in the current scenario generation of power through AFBC Boiler is not viable in view of higher GCV consumption viz-a-viz sub critical / super critical pulverized boilers and in fact even after blending dolochar with coal, the coal consumption in AFBC Boiler is higher than the coal consumption in pulverized boilers without blending of dolochar. Further, the rates of power currently are lower than the variable cost of AFBC Boilers and hence lenders are reluctant to provide financial assistance for such power plants in the current scenario.

21.11.6 Since, the intent of utilizing dolochar is being met by restricting its sale to existing power plants within a radius of 60 KM being transported through covered trucks, the quantum being about 8 trucks per day, the Project being in industrial area adjoining to National Highway, PP has requested for the aforesaid amendment in the interest of current feasibility and immediate implementation of the Project.

Observations of the Committee

21.11.7 The Committee noted the following:

i. EC was issued on 24.2.2020 with a condition to use entire Dolo char generated in house in its captive Power plant.
ii. PP has come back seeking permission to sell dolo-char for some time so that they are able to earn and finance installation of AFBC/CFBC based CPP.
iii. They have entered into Memorandum of Understanding with M/s. Mahendra Sponge and Power Limited for using dolochar in their existing plant having AFBC Boilers.
iv. As per G.S.R. 894 (E) dated 4/12/2019, MoEF&CC has notified the draft environment standards for Iron and Steel Plants, *"new coal based Sponge Iron Plants shall come up with boiler for utilization of the dolochar produced from the kiln"*.

Recommendations of the Committee

21.11.8 In view of the foregoing and after deliberations, the Committee recommended for amendment in Specific Condition (iv) of EC dated 24/02/2020 as given below:

i. Project proponent is hereby allowed to sell dolo-char only for a period of four years. During this period, PP shall install their own captive power plant to utilize 100 % of dolo-char generated in the plant. Further, project proponent shall also comply with the standards notified from MoEF&CC from time to time in this regard.

31st July, 2020

21.12 Modernization/ Change in configuration of existing ferro alloys plant by adding Sub merged Arc Furnace (SAF) without increasing production capacity (54 TPD Fe-Si/Fe-Mn; 6MW bio mass based power plant) by **M/s Ramnik Power And Alloys Pvt. Ltd**., located at Sarandi Industrial Growth Centre, Tehsil Waraseoni, **Dist-Balaghat, Madhya Pradesh** [Proposal No. IA/MP/IND/162872/2020; MoEF& CC File No. J-11011/161/2011-IA.II(I)] - **Environment Clearance under provisions of para 7(ii) of EIA Notification, 2006.**

21.12.1 M/s Ramnik Power and Alloys Pvt Ltd has made online application vide proposal no. IA/MP/IND/162872/2020 dated 10th July 2020 in the prescribed Form -2 along with other documents seeking Environmental Clearance (EC) under provisions of para 7(ii) 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.

Details submitted by project proponent

21.12.2 EC for the existing configuration for production of Ferro Manganese and Silico Manganese through submerged Arc Furnace was issued by MoEF&CC vide letter no. J-11011/161/2011-IA-II (I) dated 19.11.2014 to M/s. Ramnik Power & Alloys Pvt Ltd, Sarandi Industrial Area, Tehsil- Waraseoni, Dist Balaghat (MP).

21.12.3 All the conditions given in the EC were complied effectively. Emission from SAF is leads to bag filter through suction hood and attached with stack having height of 30 meter. Dust suppression system has been provided at unloading areas & material transfer points. The treated water has been used for ash conditioning, quenching purposes within the premises. Zero liquid discharge condition has been maintained. Water harvesting structure has been constructed and 1,87,000 m^3/annum of rainwater is being harvested. Three stop dam has been constructed for water harvesting purposes. Green belt has been developed with 7000 number of plants. Stack emission, ambient air quality, water quality is being monitored through SPCB and outside NABL accredited laboratory and result are well within the limits.

21.12.4 Certified compliance report from Regional office of MoEF&CC Bhopal was issued vide no. 5-1/2020/Env/289 dated 03.03.2020**.** No noncompliance was reported by RO Bhopal, MoEF&CC.

21.12.5 Baseline Environmental status was assessed through post project monitoring. viz., ambient air quality of **the** area for PM_{10} : 53.6- 69.8 µg/m^3, $PM_{2.5}$: 29.7- 41.2 µg/m^3, SO_2 : 14.8 - 24.4 µg/m^3 and NOx : 27.7 - 31.2 µg/m^3.

21.12.6 Change in configuration of plant is proposed by installation of 3rd submerged Arc Furnace without any change in approved production quantity of 54 TPD. Till date sanctioned production capacity could not be achieved. Annual production could not go beyond 8260 TPA with the existing design of furnaces. Existing Furnaces were designed for low siliceous ore whereas the Manganese ore available in the area is having high silica which require high power consumption due to its higher melting point. It results in reduced production of alloy as high silica bearing ore requires high power consumption for conversion into silico manganese alloy. The details of existing and proposed configuration is given as below:

S.No	Details	Furnace	Installed capacity	Operational availability /optimum operational capacity	Production capacity of Furnace (TPD)
1	**Existing**				
		SAF1	6 MVA	3.5 MVA	14
		SAF2	6 MVA	4.5 MVA	20
2	**Proposed**				
		SAF3	6 MVA	4.5 MVA	20
	Total		3x6 MVA	12.5 MVA	54 TPD

21.12.7 Total 10 acres of land has already been acquired for the project and no further land is required for the proposal.

Particulars	Area in Acres
Built-up Area [existing + proposed]	2.25
Road development	0.50
Green belt	3.50
Storage Biomass	1.50
Other storage area	2.25
Total Area	**10.00**

21.12.8 No additional power, water or raw material is required as SAF-1 is inefficient for Si-Mn for technical reasons, the company is proposed to install additional SAF (SAF-3) of the same capacity (6 MVA) to synchronise with existing facilities and Si-Mn production. Therefore, no additional resources are required for the proposed proposal.

21.12.9 Since no additional water, raw material or any other resources is required and production capacity will remain same and therefore no change is pollution load is envisaged.

21.12.10 Fume extraction & cleaning system with Bag filter with 30 mt stack height is proposed for new furnace. All other control measures have already been provided for the existing operation which includes dust suppression system at unloading areas & material transfer points, conveyer's system with cover, regular maintenance of vehicles, regular maintenance of air pollution control equipment, dense green belt with 7000 number of trees, settling tanks for

water, drip irrigation system etc. Total capital expenditure spent on pollution control equipment is Rs 12.92 Crores whereas recurring expenses spent as Rs 43.40 Lacs per annum for existing unit Rs 1 Crores is proposed for Pollution control measures towards 3rd furnace.

21.12.11 The additional project cost will be Rs 15.0 Crores and as per OM of MoEF&CC, and 1% of the of the cost i.e. Rs 15 Lacs shall be kept as CER fund. However, an average of Rs 10 Lacs per year has been incurred on various CER activities during last 04 years.

21.12.12 The existing project cost is Rs 48.83 Crores whereas Rs 15 Crores shall be invested on 3rd Furnace. Therefore, total project cost will be Rs 63.43 Cr.

Details of litigation

21.12.13 The details of litigation with chronology is being summarized herewith for further reference.

Date	**Events**
Applicant company (Ramnik Power & Alloy Pvt Limited) was established with the intent of conducting business related to manufacturing of various alloys like Ferro Manganese, Silicon Manganese etc. along with power generation, mining and other activities.	
2009	Applicant company established its unit for the production of Ferro Alloys (Ferro Manganese and Silico Manganese) Plant at Industrial Development Area, Village Sarandi, Tahsil-Waraseoni, District-Balaghat (M.P.) with a capacity of Ten Thousand Three Hundred Metric Tons per year along with its 6 MW capacity Biomass Based Captive Power Plant.
22.04.2009	Consent granted by the respondent (MPPCB) to the applicant company under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 to operate its plant.
01.05.2009	Environmental clearance was granted by the respondent for the applicant company to run and operate their 6 MW Biomass Power Plant.
20.02.2011	Application preferred by applicant company for expansion of the production of the Ferro Alloy Unit Plant from 27 TPD to 54 TPD.
18.05.2011	The applicant company as per the direction of respondents applied for necessary environmental clearance.
12.09.2011	The consent for renewal for the power plant for the production capacity of 6 MW for the year 2011-2012 was granted to the petitioner company by the respondents (MPPCB).
23.11.2011	**The petitioner company was served with the closure notice by the respondents (MPPCB).**
09.12.2011	**The applicant company was granted interim stay against the notice dated 23.11.2011 by the Hon'ble High Court of MP in W.P.No.20579/2011.**
29.10.2011	Expert Appraisal Committee, MoEF&CC constituted by Govt. of India considered the application for expansion submitted by the applicant company.
28.11.2011	Applicant company apprised the respondent regarding the application submitted for environmental clearance to MoEF&CC. The proposal was apprised by EAC.
01.12.2011	***The case was disposed of finally by the Hon'ble High Court of MP in W.P.No.20579/2011 with the direction dated 01.12.2011 to MoEF&CC to accord the Environment clearance along with continuation of interim protection to the applicant company vide previous order dated 09.12.2011***

21.12.14 No show cause /direction under air, water and EP act has been issued to the industry except above as submitted.

Observations of Committee

21.12.15 PP had EC in Nov 2014 to put up two SAF to manufacture FeMn /SiMn with a 6 MW Biomass fired Boiler.

21.12.16 Total sanctioned capacity for alloy manufacture was 54 TPD. Till date these furnaces could not achieve 54 TPD due to one of the two existing furnaces suitably designed for FeMn production but it is not suitable for FeSi.

21.12.17 Due to non-availability of low silica manganese ore, project proponent wants to produce FeSi for which a suitable furnace of 6 MVA is required.

21.12.18 It is anticipated that over all pollution by adding third SAF would increase water and energy consumption, solid waste generation and additional land requirement.

Recommendations of committee:

21.12.19 In view of foregoing, after detailed deliberation on the applicability of the proposal under 7(ii), the committee returned the proposal in the present form and advised project proponent to make fresh application with adequate information with respect to pollution load for consideration of the proposal under para 7(ii).

21.13 Manufacturing of Asbestos Cement Sheets (Corrugated & Plain) of Capacity 50,000 TPA & Non Asbestos Flat sheets of Capacity 30,000 TPA by **M/s JRT Industries LLP** located at village Sila, Tehsil Mouza Silasundarighopa, **District Kamrup, Assam** [Proposal No. IA/AS/IND/99846/2019; MoEF&CC File No. IA-J-11011/161/2019-IA-II(I)] - **Environment Clearance-regarding.**

21.13.1 M/s JRT Industries LLP made online application vide proposal No. IA/AS/IND/99846/2019 dated 12/02/2020 and 08/07/2020 in prescribed Form-2, EIA report and other documents for seeking Environmental Clearance (EC) for the proposed asbestos project mentioned above. The proposed project activity is listed in the schedule at Sl. No. 4 (c) Asbestos Milling & Asbestos based Products under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

21.13.2 The project was considered in the Reconstituted Expert Appraisal Committee held on 24-25th February, 2020 wherein the Committee noted that the EIA report has several shortcomings and lacks in technical details, prima facie. The documents have not been mailed on time and none of the EAC members has received the documents. The committee, therefore, deferred the proposal and advised Project Proponent to send documents after necessary revisions for next meeting. The proposal was returned in the present form.

21.13.3 The proposal for 50,000 TPA manufacturing of Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non Asbestos flat sheets of M/s JRT INDUSTRIES LLP is located in Village– Sila, Tehsil–Mouza Silasundarighopa, Distt. – Kamrup, State-Assam was initially received in the Ministry on 19/3/2019 for obtaining Terms of Reference(ToR) as per EIA Notification, 2006.The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 6th meeting held on 29/4/2019 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 20/5/2019 vide Lr. No. F.No. IA-J-11011/161/2019-IA.II (I).

21.13.4 Based on the ToRs prescribed to the project, the project proponent submitted an application

for EC to the Ministry online on 08/07/2020 vide proposal No IA/AS/IND/99846/2019.

Details submitted by the project proponent

21.13.5 The project of M/s JRT Industries LLP, located in village–Sila, Tehsil–Mouza Silasundarighopa, Distt. – Kamrup, State-Assam is for setting up of a new plant for production of 50,000 TPA Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non asbestos flat sheets.

21.13.6 The total land for the project is 4.3241ha which has been taken on lease from the sister concern for 99 years. The land is non-agricultural, Non Forest, Private Land with Khasra No. 43,24,25,122,149,580,195,147,522,353,439, 392. No River passes through the project area. No water body exists around the project and modification/diversion in the existing natural drainage pattern at any stage is not proposed.

21.13.7 The topography of the area is flat lie between 26014'23.94"to26014'31.26"N Latitude and 91042'2.87" to 91042'12.60" E Longitude in Survey of India topo sheet No.78N/12 at an elevation of 64 m AMSL. The ground water table reported ranges between 1.5 to 4.55 m below the land surface during the post-monsoon season and 3 to 6.55 m below the land surface during the pre-monsoon season. As per hydro-geological study of the area, it has been reported that there is no significant change in rise/fall in water level in the last 10 years.

21.13.8 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve etc. are located in the core and buffer zone of the project. The area also does not form corridor for Schedule-I fauna. The list of flora and fauna in the study area is given in EIA.

21.13.9 Raw Materials required for proposed 50,000 TPA manufacturing of Asbestos cement sheets (corrugated & plain) & 30,000 TPA non asbestos flat sheets are O.P.C. cement (36000 TPA), asbestos fibre (4600 TPA), fly ash (20000 TPA), paper pulp (1000 TPA) & virgin pulp (2600 TPA). The Manufacturing of asbestos cement corrugated and plain sheets will be done by wet process known as Hatschek process. Waste generated in the process are empty fibre bags, fibre dust, process sludge, hard broken pieces, cement dust & fly ash dust which will be recycled.

21.13.10 The targeted production capacity of the plant is 50,000 TPA asbestos cement sheets (corrugated & plain) & 30,000 TPA Non-Asbestos flat sheets. O.P.C. Cement will be procured from local industries (Assam& Meghalaya-Joyshree Cement Industries, Kamrup) & transportation through road, by trucks/bulkers from Meghalaya and Guwahati to factory. Asbestos fibre will be imported from Russia & Virgin pulp from Tasmania, Chile & transportation through sea/rail/road, by Rail from Kolkata Port to Changsari railway station, from Changsari to factory by covered trucks via NH-31(4 km). Fly ash will be sourced from NTPC –Assam & West Bengal & transportation through road/rail, by bulkers form NTPC, Bongaigaon, Assam to factory (80-90%), by rail from Farakka to Changsari (10-20%). Paper pulp will be sourced from local suppliers (note book and printing press in Assam) & transportation through road, by trucks to factory.

21.13.11 Total water requirement is approx. 142 KLD. Out of which 75 KLD, 35 KLD, 10 KLD and 12 KLD will be used for process, office/domestic, Canteen & plantation respectively. 10 KLD rainwater will be used for wet mopping, sprinkling, and fire fighting etc. Source of water will be bore well and rainwater. 32 KLD water will be recycled & 110KLD will be make up water (100 KLD from ground water & 10 KLD from rainwater). NOC for GW abstraction for 100 KLD has been issued vide NOC No. - CGWA/NOC/IND/ORIG/2020/8167 dated 03/07/2020 by CGWA.

21.13.12 Power requirement for the plant will be 1513.3 KW per hour and the source of power will be

ASEB and SOLAR (800Kw grid connected Solar power plant). Solar power generation will be on roof tops of buildings, for solar light system for all common areas, streetlight, parking around project area. DG set of 900 KVA & 320 KVA will be available as standby arrangement. Load to of 1500 KW has been sanctioned by APDCL (LAR).

21.13.13 Baseline environmental studies were conducted during pre-monsoon season i.e. from March2019 to May'2019. Ambient air quality monitoring has been carried out at eight locations during March'2019 to May'2019 and the data submitted indicated: PM_{10} (27.67 to 70.4µg/m^3), $PM_{2.5}$ (19.0 to 56.13 µg/m^3), SO_2 (6.03 to 15.5 µg/m^3) and NO_2 (7.1 to 29.8 µg/m^3). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.57974µg/m^3 with respect to PM_{10}, 0.18991 µg/m^3 with respect to $PM_{2.5}$, 0.05734 µg/m^3 with respect to SO_2 & 0.05329 µg/m^3 with respect to NO_2.

21.13.14 Ground water quality has been monitored in eight locations in the study area and analyzed. pH: 7.02 to7.44, Total Hardness: 224 to 256 mg/l, Chlorides: 28 to 46 mg/l, Fluoride: 0.45 to 0.65 mg/l. Heavy metals are within the limits. Surface water samples were analyzedfrom3 locations. pH: 7.77 to 7.86; DO: 5.1 to 5.5 mg/l and BOD < 2mg/l.

21.13.15 Noise levels are in the range of 50.1 to 65.9 dB (A) for daytime and 41.7 to 52.4 dB (A) fortnight time.

21.13.16 There are no people in the core zone of the project. No/ R&R is involved.

21.13.17 It has been reported that expected solid waste generation/ month is 4.1686 MT, which will be recycled and reused.

21.13.18 It has been envisaged that an area of 1.43 ha (33 % of total area) 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.

21.13.19 It has been reported that the Consent to Establish from the Assam State Pollution Control Board is under process.

21.13.20 The Public hearing of the project was held on 7th December, 2019 at Sri Sri Ganesh Mandir Pratohmik Bidalay Campus, Vill. : Huluguri Chowk, Sila, P.O.: Changsari, Dist.: Kamrup (R) under the chairmanship of Sri Satya Jyoti Baruah, ASC, Additional Deputy Commissioner, Kamrup (Rural) for production of 50,000 TPA Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non Asbestos flat sheets.

21.13.21 The issues raised during public hearing are environmental problems, effect on health, wastewater discharge, employment to locals, to carry out some work of interest of the locality, construction and renovation of temple etc. An amount of Rs 144.5 Lakhs has been earmarked for Corporate Environmental Responsibility (CER) based on public hearing issues.

21.13.22 The capital cost of the project is Rs 71.75 Crores and the capital cost for environmental protection measures is proposed as Rs 105 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 12.5 Lakhs. The employment generations from the proposed project is 100 direct employment & 150 indirect employment.

21.13.23 Greenbelt will be developed in 1.43 ha 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 2150 saplings will be planted and nurtured in 1.427 hectares in 5 years.

21.13.24 There is no court case or violation under EIA Notification to the project or related activity.

21.13.25 Consultant: Ecomen Laboratories Pvt. Ltd. QCI/NABET Certificate No. NABET/EIA/1720/SA 95, valid up to September 20, 2020 (Sl. No.47, Rev 89, July 11,2020).

Observations of the committee

21.13.26 The proposal is for setting up of Greenfield project for Manufacturing of Asbestos Cement Sheets (Corrugated & Plain).

Recommendations of the committee

21.13.27 In view of foregoing, after detailed deliberations, the committee recommended the project for Environment Clearance 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. 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. CER shall be implemented within three years

iii. Rainwater harvesting shall be implemented.

iv. Asbestos monitoring in the ambient air shall be carried out periodically and the data shall be submitted along with the six monthly compliance report to the Regional Office.

B. General Conditions:

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

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

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

I. Air quality monitoring and preservation

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

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

iv. 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.

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

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

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

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

ix. 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.

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

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

xii. 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:

- All monitoring transfer points shall be connected to dust extraction system.
- Leakages or dust from machines and ducts shall be plugged.
- Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.
- Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises

II. 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 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'

III. Noise monitoring and prevention

i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

IV. 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.

V. 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.

VI. 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. 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

VII. Corporate Environment Responsibility

i. 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.

ii. 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.

VIII. 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 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.

vii. 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.

viii. 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).

ix. 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.

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

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

xii. 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.

xiii. 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.

21.14 Modernization cum expansion of MS Billets/Alloys billets production (1,58,400 to 7,28,400 TPA) and TMT Bar production (1,58,400 TPA to 7,28,400 TPA) and Additional Unit of production of Ferro Manganese 21500 TPA /Silico Manganese 18000 TPA **by M/s Metarolls Ispat Pvt.Ltd.** located at Gut No. 48, Daregaon, Adjacent to MIDC Phase II, Taluka-Jalna, **District - Jalna, Maharashtra** [Proposal IA/MH/IND/134889/2018; MoEF&CC File No. IA-J-11011/292/2018-IA-II(I)] **- Environmental Clearance -regarding.**

21.14.1 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.

21.14.2 The expansion of steel plant of M/s. Metarolls Ispat Pvt. Ltd. located in Village Daregaon, Tehsil Jalna, District Jalna, State Maharashtra was initially received in the Ministry on 15th Sep.2018 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 36th meeting held on 10th October 2018 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 13th December 2018 vide Lr. No. IA J-11011/292/2018-IA.II(I).

21.14.3 Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 18th July 2020 vide Online Application No. IA/MH/IND/134889/2018.

Details submitted by project proponent

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

21.14.5 The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. No. EC-997/RON/2019 NGP/5499, dated 10.07.2019. Non-compliances reported submitted at Regional Office Nagpur. 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

21.14.6 The total land required for the project is 19.05 acres, out of which 10.5 ha is an industrial land. No forestland 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.

21.14.7 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.

21.14.8 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger 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.

21.14.9 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process.

21.14.10 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.

21.14.11 The Fresh water requirement of the project is estimated as 415 m3/day, water requirement will be obtained from the own water reservoir.

21.14.12 The power requirement of the project is estimated as 55.0 MW, which will be obtained from the Maharashtra State Electricity Board.

21.14.13 Baseline environmental studies were conducted during post monsoon season i.e., 15th Sep to 15th Dec 2017. Ambient air quality monitoring has been carried out at eight locations and the data submitted indicated: PM_{10} (83.8 to 59.0 µg/m^3), $PM_{2.5}$ (53.9 to 40.8 µg/m^3), SO_2 (38.5 to 22.7 µg/m^3) and NOx (39.7 to 19.9 µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 1.0 µg/m^3 with respect to the PM_{10} and 3.1 µg/m^3 with respect to the NOx.

21.14.14 Ground water quality has been monitored in four locations in the study area and analysed. pH: 7.2 to 8.1, Total Hardness: 112 to 235 mg/l, Chlorides: 27.0 to 34.7 mg/l, Fluoride: 0.5 to 0.7 mg/l. Heavy metals are within the limits. Surface water samples were analysed from ten locations. pH: 7.2 to 8.1.; DO: 6.4 to 7.7 mg/l and BOD: 1.0 to 1.6 mg/l.

21.14.15 Noise levels are in the range of 41.7 to 56.6 dB(A) for daytime and 33.6 to 46.06 dB(A) for nighttime.

21.14.16 No R&R is involved.

21.14.17 Total of 24130 TPA of waste will be generated due to the project and it will be used in brick manufacturing. It has been envisaged that an area of 6.25 acres (2.53 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.

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

21.14.19 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 Setting up of additional unit ferro alloys unit for production of Ferro Manganese 21500 TPA or Silico Manganese 18000 TPA. An amount of 1.5 Cr. (0.75% of Project cost) has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues.

21.14.20 Capital cost of the project is Rs 200.0 Cr. 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.

21.14.21 The employment generation from the expansion will be for 850 nos. people through direct employment.

21.14.22 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.

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

21.14.24 Name of the consultant: M/s Paramarsh (Servicing Environment & Development), B 1/67, Sector - G, Jankipuram, Lucknow-226021, UP. [S.No. 122, List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the committee

21.14.25 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.

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

21.14.27 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.

21.14.28 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.

21.14.29 Rainwater harvesting details were not furnished.

21.14.30 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.

21.14.31 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.

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

Recommendations of the committee

21.14.33 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.

21.15 Greenfield integrated clinker/ cement manufacturing unit (5.28 MTPA Clinker; 6.0 MTPA Cement) and captive power plant including waste heat recovery plant and Power generation thorough WHRB (80 MW FBC; 30 MW WHRB) and a township of **M/s Jaykaycem (Central) Ltd** located at village Devra, Hardua, Puraina, Sotipura & Madaiyan, tehsil-Amanganj (old Pawai), Dist. Panna, **Madhya Pradesh** [Online Proposal No. IA/MP/IND/127881/2016; MoEF&CC File No. J11011/224/2016-IA.II(I)] - **Re-consideration for grant of Environment Clearance based on ADS reply – regarding.**

21.15.1 The aforesaid proposal was earlier considered in 18th & 20th meeting of Re-constituted EAC (Industry-1) held during 29-30th April 2020 and 25-26th June 2020. The relevant portion of the minute of the meeting is given as below:

21.15.2 M/s Jaykaycem (Central) Ltd made online application vide proposal no. IA/MP/IND/127881/2016 on 31.03.2020 in the prescribed Form 2, EIA Report and other documents for seeking Environmental Clearance (EC) for the project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants in the schedule under Category "A" in the EIA Notification, 2006 and the proposal is appraised at Central Level.

21.15.3 The project proposal of green field integrated cement plant for production of clinker (5.28 MTPA) and cement (6.0 MTPA) along with captive power plant (80 MW) and waste heat recovery system (30 MW) of M/s Jaykaycem (Central) Limited, is located at villages Harduaken, Puraina, Sotipura & Madayyan, Tehsil Amanganj, District Panna (M.P.). The proposal was initially received in the Ministry on 10th September 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-I) during its 11th meeting held on 26 to 27th September 2016 and prescribed ToRs to the project for undertaking detailed EIA study. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 18th April 2017 vide letter No. J-11011/224/2016-IA.II (I) .

21.15.4 Based on the ToR prescribed to the project, the project proponent made an application for EC through online application vide proposal no. IA/MP/IND/127881/2016 dated 31.03.2020.

Details submitted by the project proponent

21.15.5 The proposed project of integrated cement plant by M/s Jaykaycem (Central) Ltd will be implemented in two equal phases. The proposed configuration and capacity of integrated cement plant are as given below:

Name of Unit	No of Unit	Capacity of each Unit	Production Capacity
Clinker Production Unit	02	2.64 MTPA	5.28 MTPA
Cement Production Unit	02	3.00 MTPA	6.00 MTPA
Captive Thermal Power Generation Unit	02	40 MW	80 MW
WHRS	02	15 MW	30 MW
DG Set	01	500 kVA	500 kVA

21.15.6 The total land required for the project is 199.84 ha. out of which 191.90 ha. is private land, and 7.94 ha. is government land. No forestland is involved.

21.15.7 Total area of ~155 ha. land has been acquired till date. Ken River passes 900 mtrs. away from the project area. It has been reported that for water bodies nearby viz., Ken River, Sonar River, Devra Nala, Jonaro Nadi, Karhawani Nala. Modification/ diversion in the existing natural drainage pattern around the project at any stage has not been proposed.

21.15.8 The topography of the area is flat and reported to lies between latitude 24°19'2.99"N - 24°20'2.02"N and Longitude 79°57'30.02"E - 79°58'42.25"E in Survey of India topo sheet No. 54 P/15 & 63D at an elevation of 308-318m AMSL. The ground water table reported to ranges between 12 meters below the land surface during the post-monsoon season and 24 below the land surface during the pre-monsoon season. Based on the hydro-geological study the stage of groundwater development is reported to be 27 %. and thereby the area was designated as safe area.

21.15.9 No National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve etc. are reported to be located in the study area of the project. Schedule-I species of fauna in Amanganj Range are found in the study area, viz., Black Buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat & Indian Pangolin for which Wildlife Conservation Plan was prepared and was also approved by Chief Wildlife Warden of the Govt. of MP. (Annexure C of EIA report)

21.15.10 Proposed plant will be sustained on Kakra-Panna limestone mining lease admeasuring 1,594.34 ha. (Production Capacity 4.08 MTPA). The northern boundary of proposed site of the plant adjoins the southern boundary of granted Limestone mining lease. The required fuel Coal/ Pet Coke (0.7/0.3 MTPA) will be procured from Linkage/e-auction/ purchase. It is dry process which involve crushing of limestone, pre-blending, drying-cum-grinding of raw materials, homogenization, clinkerisation in a rotary kiln with pre-heater and pre-calciner, clinker grinding, cement storage and packing.

21.15.11 Targeted production capacity of cement is 6.0 MTPA in two phases. The limestone for the cement plant would be procured from the Kakra - Panna limestone mining lease and ore transportation will be done through OLBS system

21.15.12 Water requirement of the project is estimated as 5826 KLD for both phases. The water requirement for phase-I is 2875 KLD out of which domestic water requirement of 195 KLD will be met through ground water abstraction, whereas the industrial water requirement of 2680 KLD will be met from Mine Water Storage Tanks (MWST). The permission for drawl of groundwater water is obtained from CGWA vide Letter. No. CGWA/NOC/IND/ORIG/2020/7350 issued by CGWA, New Delhi.

21.15.13 The power requirement of the project is estimated as 86 MW, out of which will be obtained from the captive power plant (CPP) of 80 MW and Waste Heat Recovery System (WHRS) of 30 MW.

21.15.14 Baseline environmental studies were conducted during summer season i.e. from March 2017

to May 2017. Ambient air quality monitoring has been carried out at sixteen locations and the data submitted indicated as: PM10 (98th percentile) concentrations are reported in the range of 44.3 to 60.0 µg/m3; that of PM 2.5 (98th percentile) in the range of 20.4 to 35.7 µg/m3 ; that of SO2 (98th percentile) in the range of 10.0 to19.9 µg/m3 and that of NOx (98th percentile) in the range of 15.1 to 32.1 µg/m3. Results of the prediction modeling study indicates that the maximum incremental concentrations of GLC for the proposed project is 19.74 µg/m3 with respect to the PM10, 1.97 µg/m3 with respect to the PM2.5, 14 µg/m3 with respect to the SO2 and 34.7 µg/m3 with respect to the NOX.

21.15.15 Ground water quality has been monitored at sixteen locations in the study area and analysed as pH: 6.9 to 7.7 pH, Total Hardness: 72.0 to 688 mg/l, Chlorides: 6.0 to 91.3 mg/l, Fluoride 0.3 .to. 0.7 mg/l, Heavy metals are within the limits. Surface water samples were analyzed from eleven locations for pH: 7.0 to 8.1 pH; DO: 5.4 to 6.8 mg/l and BOD: 2.0 to 10 mg/l. COD: 4 to 30 mg/l.

21.15.16 Noise levels are in the range of 41.8 to 49.4 dBA in daytime and 39.4 to 42.8 dBA in nighttime.

21.15.17 No habitations are in the project area. Thus, R&R is not applicable for the project. However, project proponent made provision for compensation and other benefits for 898 project affected families in terms of land losers {(764 (mines) + 134 (Plant)} in line with LARR 2013 which cost around Rs. 470.92 Cr.

21.15.18 It has been reported that a total of 240 TPD of fly ash in each phase will be generated which will be recycled within the process. Other solid waste will be stored in scrap yard and will be disposed of to a scrap vendor. The Hazardous waste shall be disposed of at TSDF or to authorized recyclers. It has been proposed that an area of 66 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.

21.15.19 Consent to Establish/Consent to Operate shall be obtained from State Pollution Control Board / Pollution Control Committee after obtaining EC for the project.

21.15.20 Public hearing of the project was held on 17.07.2019 at village Devra, Tehsil Amanganj, Dist. Panna (MP) under the Chairmanship of Shri JP Dhurwe (ADM-Panna) for production of 5.28 MTPA clinker and 6 MTPA cement along with 80 MW captive power plant and 30 MW waste heat recovery system. The issues raised during public hearing are employment, drinking water facility, land compensation and land rate issues, development aspects of the area, development of green belt, pollution control, displacement of people and compensation package, hospital and medical assistance and health related issues. An amount of Rs 30.80 Cr has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues.

21.15.21 The capital cost of the cement plant is Rs. 5586.95 Cr (for Phase-I Rs. 2774.34 Cr & Phase-II Rs. 2812.61 Cr) and the capital cost for environmental protection measures for Cement, TPP & WHRB is proposed as Rs. 199.56 Cr for both phases. The annual recurring cost towards the environmental protection measures is proposed as Rs. 11.92 Cr for both phases. Detailed CER plan has been provided in the EMP in its page No. 10.58.

21.15.22 Direct employment generation from the proposed project is envisaged as 820 during operation stage.

21.15.23 Greenbelt will be developed in 66 ha. which is about 33% of the total acquired area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be

planted with a density of 1500 trees per ha. Total Nos. of 99,000 saplings will be planted and developed in 66 ha in 4 years.

21.15.24 A litigation is pending towards the proposed project and land at Lok Adalat, Panna (MP) in notice dated 09.08.2019, through Public Court, Panna (MP) from local person, challenging the Public hearing dated 17.07.2019, conducted by RO – MPPCB, Sagar and ADM, Panna. Notice served to MPPCB, DM-Panna & PP. Copies of replies by MPPCB, DM & PP available for ready reference.

Observations of the Committee (EAC meeting held during 29-30th April 2020)

21.15.25 The committee made the following observations during discussions.

i. A trial case is pending in Lok Adalat of Panna regarding the project.

ii. Required land for the project is199.84 ha. Project proponent has been procured 155 ha (77.5%) so far.

iii. Water is proposed to be abstracted from groundwater, while Ken River is flowing only 900 m away from project site.

iv. Total project cost including mining is Rs 6160 Cr. CER expenditure is not in accordance with the Ministry's OM dated 1st May 2018, i.e., Rs. 38.8 Cr. The activities suggested are not based on the SIA recommendations (Page 130/131 of SIA Report) and public hearing proceedings. Activities envisaged under the CER are mostly related to CSR/ Philanthropy. Project proponent should have included the activities related to COVID-19 also on priority.

v. Specific energy consumption in the proposed plant (725 Kcal/kg of Clinker; OPC - 95 kwh/t and PPC- 70 kwh/t) is very high compared to other cement plants in India (670 kcal/kg; OPC- 85 kwh/t and PPC- 65 kwh/t).

vi. Only 99000 Nos of trees have been considered for plantation in 66 ha land.

vii. Project proponent did not furnish the information related to SO_X and NO_X generation and their control in the process description.

viii. There is no commitment to use alternate fuels in the proposed Plant.

Recommendations of the committee (EAC meeting held during 29-30th April 2020)

21.15.26 In view of the foregoing, and after detailed deliberations, the Committee sought the following additional information for further consideration of the proposal.

i. Current status of the pending case at Lok Adalat, Panna shall be furnished.

ii. Project proponent should submit documents in support of 100% land acquisition, i.e, for 199.84 ha, in accordance with this Ministry's Office Memorandum vide F.No. 22-76/2014 –IAIII dated 07.10.2014.

iii. Project proponent should submit action plan to draw water from Ken River which is 900 m away from project site.

iv. CER shall be revised in accordance with the observations and its implementation mechanism also be furnished.

v. Project proponent shall furnish action plan for optimization of specific energy consumption for production of both clinker and cement. Process plant design parameters shall be revisited, and energy balance shall be furnished.

vi. Recharge water calculations indicate that the amount of rainwater harvested is less than 100 % of the annual consumption. The recharge shall be minimum 100 % of the annual consumption.

vii. Use of Alternate Fuel and Raw Materials (AFR) and corresponding project design and provisions shall be included in the EIA report.

viii. AAQ modelling for accidental releases shall also be carried out. Based on the results, emergency response shall be furnished.

ix. Details of process to control SO_2 and NO_x and corresponding APCD to meet latest emission standards for cement and power plants shall be furnished. .

x. CEMS shall be included in the Environment Management Plan (EMP) to integrate with main plant control center for process as well as emission control as per CPCB Norms.

xi. Scheme for railway siding and the status of the same shall be furnished.

xii. For greenbelt development, 2500 trees per ha shall be taken into consideration in accordance with CPCB guidelines.

21.15.27 Project proponent has replied to ADS on 4th June,2020 on PARIVESH portal. the reply is as given below:

i. Current Status of the pending cases at LokAdalat Panna shall be furnished.

Reply:

Background of the Case: A Mediation Proceeding has been initiated by Advocate Chandrabadan Tiwari of Village Devra, Tehsil Amanganj, District Panna (MP) before the Permanent LokAdalat, Panna against (i) the District Collector, Panna, (ii) R.O., MPPCB, Sagar, (iii) The Member Secretary, MPPCB and (iv) Project Proponent.

The Petitioner alleged that Proper procedure was not followed by the Member Secretary and RO of MPPCB while conducting Public Hearing. He had alleged that no intimation was given for the Public hearing and coercion was used during the public hearing, as well as there is a differentiation in the land rate.

All the Non-Applicant Parties (Respondents) have filed their replies before the Permanent LokAdalat and rebutted all allegations with the contention that Prescribed procedure has been followed at all stages for conducting the Public Hearing on 17.07.2019 after giving intimation of Public Hearing. The Public Hearing was conducted by the Additional Collector of Panna and RO, MPPCB. Total 222 number of persons, out of which 157 were land sellers, actively participated in the Public Hearing and shared their appreciation, comments, requirements and concerns. Further, no coercion was used and every participant presented his views freely. It is pertinent to mention that except the Petitioner, no other Participant / Land seller has expressed any kind of grievance. In fact, the Petitioner had also welcomed the Project during hismore than 1 hour long speech, at the Public Hearing. In short, all allegations are frivolous and intended for extracting undue benefits from the Project Proponent.

Current Status: The Mediation Proceeding is pending before the Permanent LokAdalat, Panna presided by the Additional District Judge (Chairperson), Panna and lastly the matter was listed/fixed for Mediation on 28.03.2020. However, the proceedings could not be taken up till date due to COVID-19 pandemic precautions being followed by the Courts/Permanent Lok Adalat. The next date of hearing has not

been fixed as yet and will be notified once the Lok Adalat resumes its functioning. We are confident that this case will be decided in our favor during next hearing as this matter is devoid of any merit.

ii. Project proponent should submit documents in support of 100% land acquisition, i.e. for 199.84 ha in accordance with this Ministry's Office Memorandum vide F.NO 22-76/2014-IA III dated 07.10.2014.

Reply:

Very humbly, we would like to submit that the Cement Plant project area of 199.84 ha. comprises of township area 44.122 ha. and open land area 15.98 ha. The land deciphered for plant & colony is being purchased through direct negotiation from land owners. Before the declaration of the Lockdown due to Covid-19 Pandemic, about 155 ha. i.e. 77% of land had been purchased/ allotted. During the period of Lockdown, Consent Letters have been provided by the owners of most essential land making it a contiguous block, on which the Plant can be constructed. List of Khasra numbers for which consent letters have been obtained, making the purchased land contiguous are submitted. With this, the total land purchased / secured is approx. 161 ha. i.e. 81% of the total land required. The purchase process would have been completed if the current Lock down situation, due to COVID 19 pandemic, would not have been necessitated and the process is at stand still since March 2020.

It is to mention that the land use breakup of the project site wherein about 60 ha. is designated to township and open land area. Town ship of the project area will be constructed a year after the date of start of the construction and further open land of 15.98 ha. will remain open in near future.

As the Bundelkhand region is industrially very backward, people of the area are supportive of the project for their livelihood and to secure a better future for their families.

Considering these facts, the purchased / secured land of 161 ha. will not be a constraint for the construction of the plant. We request the committee to recommend for grant of EC and we wish to assure that -

"We shall start plant construction activity only after 100% land is purchased by us after duly informing the Ministry. This may take 4 to 6 months from the date of start of land registration by Registrar office, with no restriction on age limit for land sellers visiting Registrar's office (Covid-19 guidelines)".

Plant Layout super imposed on Khasra map showing the Purchased / Secured Land and yet to be Purchased Land is submitted.

iii. Project proponent should submit the action plan to draw the water from Ken River which is 900 m away from the project site.

Reply:

Kindly recall the discussion held during the presentation of case before the committee, wherein we had explained the following:

A. The project is integrated project along with the limestone mining project over 1594 ha. of lease area. The mining operation will intersect the water table during 2nd year of operation and the same will have to be dewatered to carryout mining operations.

We shall use this water for industrial use in Plant and Mines, for which we have already obtained NOC from CGWA.

B. Further, no extraction of ground water is proposed for any industrial use. The ground water extraction of 195 KLD is proposed for domestic use only, for which CGWA has granted permission.

C. Water is available in KEN River for about 6 months only. Also a dam is constructed approx. 50 km upstream of the plant location and one more dam is also proposed on the upstream side. **Considering that surface water from Ken River is available for a limited period and the fact that seepage water has to be dewatered from the mines, we have not considered use of surface water**.

The above explanations were submitted by us before the committee during our presentation on 29th April'20 and thereafter committee has given consent for withdrawal of ground water for domestic use purposes only.

iv. CER shall be revised in accordance with the observation and its implementation mechanism also be furnished

Reply:

A. The activities covered in revised CER budget presented below, are based on recommendations of SIA report (Page130/131) and public hearing proceeding. As advised by the Committee, budget has been created for activities related to Covid-19 also.

B. The activities involving recurring expenditure e.g. Mobile Clinic, Medical Camps, Maternal and Child health, Skill training, Revolving fund for SHGs, Agriculture extension services, Awareness programs etc. have been separately budgeted under CSR head, over and above the CER budget of Rs. 38.80 Cr.

C. Proposed Capital Budget for Corporate Environment Responsibility (CER) of Cement Plant & Mines (Amount in Rs. Lakhs) On the basis of Public Hearing (PH) Issues, Need Based Assessment (NBA) & Recommendations in SIA Report as given below:

S. No.	Activities	Total (in Rs.Cr)
1.	Health (infrastructure for primary health center, mobile health clinic, veterinary hospitals/ dispensaries)	**4.65**
2.	Actions for COVID-19 (supply of hospital beds, ventilator, sanitation equipment, ppe kits, body temperature scanner, etc.).	**3.50**
3.	Education (construction/ extension/ additional facilities e.g. laboratory, library, computer class, toilets, drinking water facilities etc. for village schools)	**3.88**
4.	Drinking water facilities (hand pumps, wells, tap water, water storage tanks, deepening & cleaning of ponds, roof top rain water harvesting structure, promoting drip irrigation etc.)	**4.27**
5.	Sanitation (construct community toilets, construct drainage system, solid waste management etc.).	**4.27**
6.	Activity Centre for SHGs. SHGs planned for tailoring, production of daily need items, etc. Same facility shall be used for Skill Development Training for women as well. e.g.	**2.72**

S. No.	Activities	Total (in Rs.Cr)
	beautician course, handicraft etc.	
7.	Infrastructure (concrete roads, electrification including solar power, panchayat bhawan, community centers, etc.)	**6.98**
8.	Greenery Development Nearby Area -Free distribution of Saplings or seedlings for fruit or non-fruit bearing trees. Community Plantation drive in surrounding villages and schools. Expert guidance to local farmers for adoption of improved agriculture practices to increase of yield of crops & Fodders, Cattle Farming etc.	**2.72**
9.	Others Local Social Needs	**5.82**
Total		**- 3880**
Note: Total Project Cost Plant & Mines is Rs. 6160 Crores, on which the above CER budget has been prepared common for Plant & Mines		

Mechanism of Implementation:

To execute the CER activities, the District Collector, Panna will be requested to constitute the committee comprising of suitable members of the project affected villages along with the representative of Jaykaycem management. The Jaykaycem management shall release the CER funds in coordination with District Collector Panna.

v. Project proponent shall furnish action plan for optimization of specific energy consumption for production of both clinker and cement. Process plant design parameters shall be revisited, and energy balance shall be furnished.

Reply:

Energy consumption on production of Clinker, OPC, PPC and heat consumption on clinker production mostly depends on the quality of various inputs like limestone, fly ash, coal etc. Heat of reaction, chemical composition and grindability of the raw material have a large impact on total fuel and power consumed in producing clinker and cement**.**

With an aim to produce cement with low specific power consumption, selection of technology and equipment shall be done with energy consumption as one of the major deciding factors. Efficient pyro system for clinker production, roller presses and vertical grinding mills for raw material, coal and cement grinding, high efficiency fans, high efficiency HT & LT motors and energy conserving devices such as SPRS and variable frequency drives shall be deployed to reduce the energy consumption.

With the above, we are committed to a specific power consumption of 55.0 Kwh/MT for clinker, 65.0 Kwh/MT for PPC and 85.0 Kwh/MT for OPC and a specific fuel consumption of 705 Kcal/kg clinker. Efforts shall be made to further optimize the energy requirements.

The specific power consumption for the main sections is expected to be as under:

Clinkerization Section		
S.No.	**Area**	**Sp. Power Consumptionin kWh/t Clinker**
1.	Mines & Crusher	2.5
2.	Raw Material Grinding & Aux.	23.0
3.	Pyro-Section & Aux.	21.0
4.	Coal Mill & Aux.	5.0
5.	Misc. (Utilities & Lighting)	3.5
	Total	**55.0**

Cement Grinding & Packing Section			
S.No	**Raw Material**	**Cement Grinding (in %)**	
		OPC	**PPC**
1.	Clinker	95	65
2.	Gypsum	5	5
3.	Fly Ash	-	30
	Total	**100**	**100**

S.No	**Area**	**Sp. Power Consumption in kWh/t**	
		OPC	**PPC**
1.	Clinkerisation	52.0	36.0
2.	Cement Mill with auxiliaries	30.0	26.0
3.	Packing Plant including conveying & other misc.	3.0	3.0
	Total	**85.0**	**65.0**

vi. Recharge water calculation indicate that the amount of rain water harvested is less than 100% of the annual consumption. The recharge shall be minimum 100% of the annual consumption.

Reply:

The total fresh water requirement for the proposed project is

Industrial use in Plant = 2174 m^3/ day

Industrial use in Mines = 210 m^3/day

The water requirement for industrial use will be met from dewatering of mines.

Domestic use in Plant = 195 m3/day

Domestic use in Mines = 20m3/day

The water requirement for domestic use will be sourced from proposed bore wells (3 nos. in Plant + 1 no. in Mines)

Thus, annual requirement for industrial and domestic is **948,635 m^3 / Annum**

Ground Water Recharge Arrangement					
S.No	**Recharge Structure Description**	**Nos.**	**m^3/ Day**	**m^3/ Year**	**Remarks**
1.	Recharge through borewells (all proposed borewells will have a filter pit)	3	259	31,104	Considering 40 Raining days. Rain water falling on roof tops will be collected in drains which are directed to filter pits of the bore wells.
2.	Recharge through recharge pits (3.0 m x 3.0 m x 2 m filled with filter media of coarse sand, gravel and pebble)	12	259	124,416	40 Rainy days considered. In the open areas and paved areas rain water will be drained through lined drains and collected in the pit to recharge aquifer.
3.	Constructed Pond Bore recharge (1 in Plant area + 2 in Mines Area) 1. MWST -1 (Area - 66616.46 m^2) Near plant boundary in mines 2. MWST-2 (Area 26860.86 m^2) - Mines 3. MWST-3 (Area 25514.39 m^2) - Plant	3	259	31,104	Ponds get filled during rainy days by rain water runoff from its catchment area and mine seepage water through pipeline from mine pit to pond. Each pond shall also be drilled with a bore well of 30-35 m depth for the recharge of deeper aquifer in the rainy season.
4.	Constructed 2 Rain water harvesting ponds 1. RWHP -1 (Area 50,000m^2) - Plant area 2. RWHP -2 (Area 50,000m^2) - Mines area	2	1,603	585,000	Total reservoir volume is 900,000 m^3 cumulative for both RWHP considering 3 m head and water penetration to ground considered 65%
A.	**Total Rain water recharge in Plant**	**20**		**771,624**	Adding 1+2+3+4
5.	Constructed 4 Rain water harvesting ponds in mines 1. RWHP -1 (Area 82,555.23 m^2) 2. RWHP -2 (Area 51,956.29m^2) 3. RWHP -3 (Area 51,956.29m^2) 3. RWHP -4 (Area 9,968.	4		943,262	Same is mentioned in CGWA permission

Ground Water Recharge Arrangement					
S.No	**Recharge Structure Description**	**Nos.**	**m^3/ Day**	**m^3/ Year**	**Remarks**
	04 m2)				
6.	Mine Water recharge pond MWRP-1	1	1,562	570,259	Available mine water after industrial use
B.	**Total Rain water recharge through recharge ponds in mines**	**5**		**1,513,521**	
C.	**Total rain water recharge plant and mines (A+B)**	**25**		**2,285,145**	
D.	**Total fresh water required for industrial and domestic use**		**2,599**	**948,635**	
Hence, We are recharging 2.4 times i.e. 240% of the water that will be used from ground water					

Therefore, total water consumption is estimated as 9,48,635 m^3 / annum and total recharge is projected as 22,85,145 m^3 / annum which is 240% of the fresh water requirement.

vii. Use of alternate fuel and raw material (AFR) and corresponding project design and provisions shall be included in EIA report.

Reply:

Use of high calorific hazardous waste in proposed cement plant has been mentioned in EIA/ EMP Report Chapter-2, Para No. 2.12.

Experience of using AFR at group's existing cement plants at Rajasthan and Karnataka, wherein, the company currently using various types of solid and liquid wastes, shall be greatly beneficial in utilizing AFR at the proposed project at Panna. The company currently using RDF from nearby municipal bodies, at our integrated Plants located in Rajasthan and Karnataka. In addition, the company also procuring other solid and liquid industrial wastes from pharma /fast moving commodity goods/chemical industries, through designated waste collection & disposing agencies, under a long term agreement, at a negative cost. Covered storage& conveying as well as calibrated dosing facilities have been installed to use different types of such wastes for co-processing.

Based on the above mentioned experience, the proposed project has already been envisaged to co-process various solid as well as liquid wastes, as per their availability, in the nearby areas of the project. The plant has been conceptualized with proper AFR storage, handling, conveying, dosing and firing of AFR in calciner. Facilities shall be created for storage and consumption of AFR material such as spent sludge, waste polythene, RDF etc. All necessary safety guidelines shall be followed for AFR handing, storage and conveying inside the plant.

viii. AAQ modeling for accidental release shall also be carried out. Based on the result emergency response shall be furnished.

Reply:

Accidental release of pollutant may be attributed to the following scenarios which may be considered as **worst** case scenario as detailed below:

1. Raw Mill + Kiln Bag House (RMBH) - Although there are enough safety interlocks, still the Worst case will be an explosion due to CO. In that case, the RMBH fan will trip instantaneously, say after 10 Sec. of event occurrence and finally come to a standstill in 2 minutes. The dust load in the BH will be equivalent to max 4 minutes of normal operational dust load. This is the quantity that will get released to atmosphere through damaged casing and not through main stack.
2. Coal Mill Bag House - Although there are enough safety interlocks, still the Worst case will be an explosion. In that case, the BH fan will trip instantaneously, say after 10 Sec. of event occurrence and finally come to a standstill in 2 minutes. The dust load in the BH will be equivalent to max 4 minutes of normal operational dust load. This is the quantity that will get released to atmosphere through damaged casing and not through main stack.
3. CPP ESP - Although there are enough safety interlocks, still the worst case will be an Explosion. In that case, the ESP fan will trip instantaneously, say after 10 secs of event occurrence and finally come to a standstill in 2 minutes. The dust load in the BH will be equivalent to max 4 minutes of normal operational dust load. This is the quantity that will get released to atmosphere through damaged casing and not through main stack.
4. Cement Mill Bag House- No possibility of accidental release of dust and hence not to be considered in modeling. In Cement Mill Bag filter, very few bags can fail leading to higher emission. This is sensed by CEMS and immediately corrective action taken after stopping the Cement Mill.
5. Limestone Crusher Bag Filter - No possibility of accidental release of dust and hence not to be considered in modeling. In Limestone Crusher filter, very few bags can fail leading to higher emission. This is sensed by CEMS and immediately corrective action taken after stopping the Limestone crusher.
6. Apart from above, two accident scenarios can take place in storage silos –
   a) Collapse of Clinker Silo roof - This has happened in few Plants due to faulty erection / overheating of structural roof members etc. However, no dust escapes to atmosphere and hence there will not be any effect on AAQ.
   b) Collapse of Blending silo - This has also happened in few cases, the only reason being faulty construction of silo. Silo being a concrete cylindrical tank, if this happens, then the stored raw meal powder material which in our case will be around 12,000 MT, drops and disperses in an area of around 300 to 500 mtrs. all around the silo. Thus, this also remains confined to a large extent in Plant area only.
7. On the basis of that total dust load to disperse has been calculated and modeling has been done through AERMOD. The situation considered for this AAQ modeling is with the assumption that all major pollution control equipment will totally fail at once during full production of the Plant. This is a hypothetical situation and can occur only in a natural calamity. **However, in such a situation the whole plant will in any case be stopped immediately and hence, these emission levels will never occur.** All the major stacks of the plant are provided with CEMS. CEMS of all the stacks

are connected to plant central control room for online display of emission values and alert messages. **Suitable interlocks will be provided for tripping of the Plant in case emission values exceed pre-set values.**

ix. Details of process to control SO2 and NOx and corresponding APCD to meet latest emission standards for cement and power plants shall be furnished

Reply:

A. Cement Plant:

To control the NOx emission in the cement plant, following technologies shall be used:

i. Low NOx Burner - To control the thermal NOx, Low NOx burner utilizes very less amount of primary air, thus reducing the availability of N2 for converting to NOx.

ii. Pre Heater with Low NOx Calciner - The NOx concentration generated through fuel& thermal NOx are reduced through creating localized reducing zone in the Calciner with the help of air split & secondary burner location.

iii. Meal Split - A small amount of un-calcined material from upper stages of Pre-heater is diverted to specific temperature zone at kiln riser & Calciner to convert NOx back to N2 with the help CO2.

iv. The Maximum daily mean concentration of NOx, expressed as NO_2 will not exceed **600 mg/Nm^3** in the main stack.

v. To control the SOx emission following shall be used:

vi. Fuel SOx - It will be minimized with proper raw mix design to control the sulphur & alkalies present in the raw material. Additional alkali source may be used if in case raw material is in-efficient to provide control in the desirable range.

vii. The Maximum daily mean concentration of SOx, expressed as SO_2 will not exceed **100 mg/Nm^3** in the main stack.

B. Captive Power Plant:

i. The Circulating Fluidized Bed Combustion (CFBC) boilers are the most advanced steam generator technology. Among many distinguishable advantage of CFBC boilers, they achieve low NOx & SOx emission by capturing Sulphur contents of the Fuel during the burning process.

ii. The high concentration of bed material in CFBC boilers along with staged air supply ensures that bulk combustion temperature do not exceed 850-900 ^{0}C making it environment friendly (lesser production of NOx) means of utilizing coal.

iii. The Maximum daily mean concentration of NOx, expressed as NO_2 will not exceed **95 mg/Nm^3**in the main stack.

iv. Flue gas desulphurization (FGD) is the process where SO_2 gases are absorbed from the exhaust gases by using alkali reagent & clean gases are exhausted from chimney into atmosphere.

v. Limestone/lime powder shall be injected into combustion furnace and/or in the conversion zone of the boiler for SO_2 absorption. Limestone/lime powder reacts with SO_2 and forms a mixture of calcium sulphites, calcium sulphates and reacted reagents.

vi. The Maximum daily mean concentration of SOx, expressed as SO_2 will not exceed **100 mg/Nm^3** in the main stack.

x. CEMS shall be included in the environment management plan to integrate with main plant control center for process as well as emission control as per CPCB norms.

Reply:

It has already been provisioned and further assured that CEMS shall be integrated with main Plant control center for process as well as emission control as per CPCB norms.

xi. Scheme for railway siding and the status of the same shall be furnished

Reply:

Presently Amanganj does not have any railway connectivity. However, the development of new Railway Line between Jabalpur – Damoh – Amanganj – Panna having approximate distance of 120 km is in the future plan of Indian Railways. Once this proposed Railway Line between Jabalpur – Damoh – Amanganj – Panna is developed, our Company will also get connected with Railway network, through its Railway Siding in accordance with its business requirement.

xii. For green belt development 2500 trees per Ha. shall be taken into consideration accordance with CPCB guideline.

Reply:

It is submitted that the soil of the area is sandy loamy type. Therefore, plantation at the rate of 2,500 number per ha. is difficult. After the detailed discussion in the previous EAC meeting, Honorable Chairman has permitted the green belt plan with 2,000 Number per ha., and therefore, we hereby provide our commitment that instead of 99,000, we shall develop the green belt with 1,32,000 number over 66 ha.of area.

Green Belt Development			
Year	**Area in ha.**	**%**	**Number @ 2000**
1st	15	22.73	30,000
2nd	20	30.30	40,000
3rd	20	30.30	40,000
4th	11	16.67	22,000
Total	**66**	**100.00**	**132,000**

Observations of the committee (EAC meeting held during 25-26th June 2020)

21.15.28 During discussion on the ADS reply, the committee made the following observations.

i. The court case before Lok Adalat is still pending.

ii. The complete land, 199.84 ha has not been acquired. Out of total land, 160.99 ha (approx.80.5) land is available (purchased land 155ha + obtained consent from farmers for land 10.99ha). Several land patches adjacent to the plant, which are owned by farmers, are yet to be acquired or to be obtained consent.

iii. Rs. 38.8 Cr is allocated for CER activities based on issues raised in the public hearing and need based social assessment. District collector will be requested to constitute the committee for implementation.

iv. Optimization of plant and process parameters for minimizing the specific power consumption is satisfactory.

v. Rain Water Harvesting plan is satisfactory.

Recommendations of the committee (EAC meeting held during 25-26th June 2020)

21.15.29 In view of the foregoing, after deliberations, the committee deferred the consideration of the proposal in view of (i) non-availability of part of the project land to the project proponent in compliance with the Ministry's OM dated 7th October 2014 and (ii) pending court case in Lok Adalat, Panna.

21.15.30 Project proponent has submitted additional details on 12.07.2020 as given below.

i. Non-availability of part of the project land to the Project proponent in compliance with the Ministry's Office Memorandum vide F. No. 22-76/2014-IA III dated 07.10.2014:

- As on date, company purchased/allotted 150.41 ha land and secured 5.08 ha land through consent letter duly obtained from the landowners. The total purchased/secured land is 155.49 ha. The certified copies of revenue records (140.98 ha), Govt. land allotment letter (7.44 ha), recent Sale Deeds (1.99 ha), consent letters for the balance land (5.08 ha) were obtained.
- Out of purchased/secured land, 123.25 ha is contiguous land which is sufficient for the proposed cement plant capacity of 2.64 MTPA X 2 Phases along with optimized township, truck parking as well as 33% greenbelt area i.e. 40.67 ha.
- Remaining purchased land area is kept reserved for the future expansion of the Company.
- The purchased / secured contiguous block of land of 123.25 ha land shall not be a constraint for the construction and operation of the existing proposal of Plant.

ii. Pending Court case before Lok Adalat, Panna:

Current Status: The Mediation Proceeding is pending before the Permanent Lok Adalat, Panna presided by the Additional District Judge (Chairperson), Panna and lastly the matter was listed/fixed for Mediation on 28.03.2020. However, the proceedings could not be taken up till date due to COVID-19 pandemic precautions being followed by the Courts/Permanent Lok Adalat. The next date of hearing has not been fixed as yet and will be notified once the Lok Adalat resumes its functioning.

Observations of the committee

21.15.31 Complete land as proposed, 199.84 ha is not available. At present, a contiguous block of 123.25 ha is secured for plant construction.

21.15.32 Case in the Lok Adalat pertaining to various issues has not been resolved. The Committee also noted that one of the issues raised in Lok Adalat was related to the Public Hearing that the due process was not observed. The committee noted that the Public hearing proceedings and action thereon are part of the EIA report which the Committee is expected to examine.

Recommendations of the committee

21.15.33 In view of the foregoing, after deliberations, the committee deferred the consideration of the proposal in view of (i) non-availability of part of the project land to the project proponent in compliance with the Ministry's OM dated 7th October 2014 and (ii) pending court case in Lok Adalat, Panna.

21.16 Cement Plant (Clinker: 3.5 MTPA and Cement: 5.0MTPA), WHRS (17MW) and D.G. Set (2x1250kVA) by **M/s UltraTech Cement Ltd**. (Formerly M/s Jaypee Super Cement Plant) located at Village: Kota (Dalla), Tehsil: Robertsganj, **District: Sonebhadra, Uttar Pradesh** [Proposal No. IA/UP/IND/162025/2020; MoEF&CC File No. J-11011/449/2009-IA.II(I)] - **Prescribing of Terms of Reference-regarding.**

21.16.1 M/s. UltraTech Cement Ltd made online application vide proposal no. IA/UP/IND/162025/2020 on 31.03.2020 in the prescribed Form 1 and other documents for seeking Environmental Clearance (EC) for the project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants in the schedule under Category "A" in the EIA Notification, 2006 and the proposal is appraised at Central Level.

21.16.2 M/s. UltraTech Cement Ltd. (Unit: Dalla Super Cement Works) proposes a Cement Plant (Clinker: 3.5 MTPA and Cement: 5.0 MTPA), WHRS (17 MW) and D.G. Set (2 x 1250 KVA) at Village: Kota (Dalla), Tehsil: Robertsganj, District: Sonebhadra (Uttar Pradesh). It is proposed to set up the plant for Cement/Clinker manufacturing based on dry technology. The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 7th July 2020 vide Online Application No. IA/UP/IND/162025/2020.

Details submitted by the project proponent

21.16.3 EC for setting up the Cement Plant (Clinker: 2.01 MTPA, Cement: 2.50 MTPA) at Village: Kota (Dalla), Tehsil: Robertsganj, District: Sonebhadra (UP) was obtained from MoEFCC, New Delhi on 30th Sept., 2010 by Jaiprakash Associates Limited (JAL).

21.16.4 Consent to Establish (CTE) was obtained from UPPCB vide Order No. F74283C2/N.O.C. /3612/2010 dated 12th Oct., 2010. Cement Plant was constructed except Cement Mill and Packing plant by JAL and JAL could not complete the construction of cement plant and commence the plant operation due to arising the dispute on the land title from Non forest land to forest land under Section-4 of Forest (Conservation) Act, 1980.

21.16.5 Then, the said matter went to CEC, Hon'ble Supreme Court and transferred to Hon'ble NGT. Thereafter, NGT passed the order dated 04th May 2016 and disposed of the matter.

21.16.6 In compliance to the NGT Order, application for diversion of 115.874 ha of forest land for Dalla Super Cement Plant (95.07 ha) & its township (20.804 ha) submitted vide Proposal no. FP/UP/IND/23246/2016. The same has been recommended by State Govt. and under consideration with FC-Division, MoEF&CC for approval of Stage-I.

21.16.7 Meanwhile, M/s. UltraTech Cement Limited (UTCL) has acquired some of the JAL Cement Plants and associated limestone mines which includes Integrated Cement Plant (Dalla Cement Works & Dalla Super Cement Works) along with associated Mining leases by way of scheme of arrangement approved by the Hon'ble National Company Law Tribunal (NCLT) at Mumbai & Allahabad Bench vide it's order dated 15th February 2017 & 2nd March 2017 respectively.

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

21.16.9 Now, UltraTech Cement Ltd intends to commence the Cement Plant operation and therefore, is applying for afresh Environmental Clearance. Meanwhile, UTCL proposed to do minor maintenance/ repair work of the existing plant & machineries for safety purpose.

21.16.10 The proposed project is located at Village: Kota (Dalla), Tehsil: Robertsganj, District: Sonebhadra State: Uttar Pradesh.

21.16.11 The land area for the project is 183.064 ha; out of which 116.114 ha is forest land and 66.95 ha is non-forest land. Application for diversion of 115.874 ha of forest land (DSCW Plant: 95.07 ha & Township: 20.804 ha) has been submitted vide Proposal no. FP/UP/IND/23246/2016. The same has been recommended by the State Govt. and under consideration with FC-Division MoEFCC for approval of Stage-I. Diversion of balance 0.24 ha of forest Land (under Conveyor Belt, Rope Way, Road from DSCW Plant to DCW Plant) has been included in Mines proposal, which is under process. The non-forest land is already under possession of M/s. UltraTech Cement Ltd as all the assets have been transferred from JAL to UTCL by way of Scheme of arrangement approved by Hon'ble NCLT. Out of the total project area i.e. 183.064 ha, about 40% area (i.e. 73.23 ha) will be covered under greenbelt/plantation in compliance of MoEFCC OM dated 31st Oct., 2019 as the area falls in Severely Polluted area Singrauli.

21.16.12 Kaimoor Wildlife Sanctuary is located at a distance of 1.9 km in NE direction and the plant site doesn't fall in the Eco-Sensitive Zone (ESZ) of the sanctuary. ESZ of the Sanctuary has been declared by MoEFCC vide notification S.O. 891 (E) dated 20th March 2017. No National Park / Biosphere Reserve/ Tiger Reserve etc. are reported to be located in the core and buffer zone of the project. The authentication of list of flora & fauna will be obtained from forest department.

21.16.13 Total project cost is approx. Rs. 1350 Cr. Proposed employment generation from proposed project will be for 368 no.s of people through direct employments and for 1500 no.s of people through indirect employment.

21.16.14 The targeted production capacity of Cement Plant- (Clinker: 3.5 MTPA and Cement: 5.0 MTPA), WHRS (17 MW) and D.G. Set (2 x 1250 KVA). The imestone will be sourced from adjacent captive limestone mine by road. Iron ore / Red Mud will be procured from Hindalco Industries Ltd, Renukoot transported through road. Existing railway siding available in Dalla Cement Works (DCW) will be used for transportation of raw material and transport of clinker to split grinding units.

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

Name of Unit	Proposed Capacity
Clinker (MTPA)	3.5*
Cement (MTPA)	5.0
WHRS (MW)	17
D.G. Set (KVA)	2 x 1250

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

21.16.16 The electricity load of 35 MW will be sourced from State Grid and existing CPP of UTCL (Unit: Dalla Cement Works) and Proposed WHRS. Company has also proposed to install 2 x 1250 KVA DG sets for emergency back-up.

21.16.17 Proposed Raw material and fuel requirement for the project are; Limestone will be sourced from Captive Limestone Mine; Iron Ore/ Red mud will be purchased from Hindalco Industries Ltd, Renukoot; Gypsum will be purchased from Bikaner-Rajasthan/ Bharuch-Gujarat/ imported Gypsum (via Port Paradip/ Haldia); Fly ash will be sourced from Obra Power Plant / Nearby TPPs. Fuel consumption will be mainly Indian Coal which will be sourced from M/s. Northern Coalfields Ltd., Singrauli & Petcoke will be sourced from IOCL Haldia (West Bengal)/ IOCL Paradip Odisha/ Bharat OMAN Refinery/ Bina-Madhya Pradesh.

21.16.18 Water Consumption for the proposed project will be 2500 KLD; out of which 2023 KLD will be sourced from Ground Water and remaining 477 KLD of water requirement will be met from rainwater accumulated in pits of existing captive mines. NOC from CGWA for withdrawal of 2023 KLD of Ground Water has been obtained vide letter no. CGWA/NOC/IND/ORIG/2020/7613, dated 6th March 2020.

21.16.19 Domestic wastewater will be treated in STP and treated water will be re-used for greenbelt development/ plantation and dust suppression & blow down water generated will be partially evaporated and partially re-used for dust suppression.

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

21.16.21 Name of Consultant - J.M. EnviroNet Pvt. Ltd., [S. No. in QCI List - 98, Updated List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the committee

21.16.22 The committee discussed the project proposal and observed the following.

i. Hon'ble supreme court transferred the cases pertaining to forest and wildlife in Writ Petition (Civil) 202/1995 to Hon'ble NGT.

ii. Hon'ble NGT in the disposed of the matter M.A. No. 1166 of 2015 & (I.A. No. 2469 of 2009), M.A. No. 1169 of 2015 (I.A. No.3877 of 2015) and M.A. No. 1164 of 2015 (I.A. No. 2939 of 2010) In W.P. (C) No. 202 of 1995 And Original Application No. 494/2015 In C.W.P. No. 130/2011, vide its order dated 4th May 2016 as given below.

In the light of the aforesaid discussions the recommendations of the CEC are accepted with the following directions:

a. The orders passed by the Forest Settlement Officers for exclusion 1083.231 hectares of the land notified under Section 4 of Indian Forest Act are declared null and void as the settlement proceedings directed by the Supreme court was finalized several years prior to M/s. JAL obtained right over the land and also because the Forest Settlement Officer or the Additional District Judge has no power to exclude the said lands from the notification issued under Section 4 which has already been finalized. The fact that no notification under Section 20 in respect of the said land were issued by the state, as against the unambiguous direction of the Supreme Court and the solemn assurance made to the Supreme Court by the state, and as per the judgement on determination of the appeal the order of the Additional District Judge would become final and is an order passed under the Forest Act, will not empower the Forest Settlement Officer or the Additional District Judge to entertain any subsequent application in respect of already settled lands. In view of the declaration by the Hon'ble Supreme Court in Banwasi Seva Ashram case dated 20th November, 1986 the order of the Additional District Judge would be final and the Government had to implement the order. The failure of the State Government to notify the said lands as reserved forest would not enable the State Government or the Forest Settlement Officer to exclude the very same land, when earlier it was found that the lands cannot be excluded and the order has already become final and nobody exercised the liberty reserved by the Supreme Court in the judgment to approach the court if directions are necessary. Therefore, renewal of the mining lease, in favour of M/s. JAL can only be after obtaining prior approval of Central Government as provided under Section 2 of Forest (Conservation) Act, 1980 and that too on payment of NPV and other payments warranted under law. In respect of 256.176 hectares which form part of the Kaimur Wildlife Sanctuary

additionally prior approval of the National Board for Wildlife and the Hon'ble Supreme Court is necessary to renew the lease.

iii. The project site is located at distance of 0.9 km outside the boundary of the Eco sensitive zone notified by the MoEF&CC vide S.O. 891(E) dated 20/03/2017. As per the MoEF&CC O.M. No. F. No. 22-43/2018-IA.III dated 8/8/2019, Proposals involving developmental activity/project located outside the stipulated boundary limit of notified ESZ and located within 10 km of National Park/ Wildlife Sanctuary, prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) may not be applicable. However, such proposals from environmental angle including impact of developmental activity/project on the wildlife habitat, if any, would be examined by the sector specific Expert Appraisal Committee and appropriate conservation measures in the form of recommendations shall be made. These recommendations shall be explicitly mentioned in the environmental clearance letter and shall be ensured by the member secretary concerned.

iv. Initially, the project was established by UPCCL, State Government of Uttar Pradesh and it was taken over by M/s Jaypee Associates Ltd through a global tender. Thereafter, the project was taken over by M/s UltraTech Cement Ltd through scheme of arrangement and resolution passed by NCLT.

v. Some facilities of the plant were constructed by the earlier company, JAL and construction is yet to be completed.

vi. The project is located in the Severely Polluted Area, Singrauli and another cement plant of M/s UltraTech Cement Ltd is located at a distance of 2 km.

vii. Son River is flowing adjacent to the plant from a distance of 1.0 km. But it is proposed to abstract ground water from the river bed.

viii. Study area of the project comprises nos. of crusher units, one cement plant, power plant, abandoned mine voids which forms nos. of water bodies.

ix. Topography area is a typical comprising small hilly terrain in the plant premises, water bodies and residential area. Residential areas were distributed in mid of industrial complexes, stone mining quarries and crushers.

x. A large scale of emissions related issues are due to nos. of quarries, crusher and allied operations in the study area.

Recommendations of the committee

21.16.23 In view of the foregoing, and after detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA/EMP study in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Land use /land cover map shall explicitly furnish the details and figures of water bodies, industrial areas, quarries and crusher units. Land use changes shall be quantified in the temporal scale at least for decadal changes. The same shall be interpreted with the proposed operations of mining, cement plant and its allied activities.

ii. Digital Elevation Models shall be generated based on the recent satellite imagery with appropriate resolution.

iii. Authenticated secondary data shall be furnished and utilized for Air Quality Assessment for baseline as well as for impact assessment and in turn for mitigation measures in the EMP.

iv. Impact prediction for Air Quality Assessment shall be carried out considering site specific meteorology data, terrain features, land use /land cover etc. using suitable models.

v. Noise and ambient air levels shall be monitored around crusher units considering large scale area source. Interpret the data for carrying out impact assessment with suitable methodology.

vi. A details hydrological survey shall be conducted for project site to analyse aquafier characteristics. The same shall be used for designing rainwater harvesting and ground water recharging.

vii. All conditions applicable to CEPI shall be followed. Green belt shall be planted with woody, broad leaf local trees in 73.23 ha area (40%). CER allocation shall be 1.5 times of the normal calculated amount.

viii. Scheme to provide railway siding shall be submitted.

ix. Alternate fuel usage shall be furnished in the EIA report.

x. A detail Social Impact Assessment including socioeconomic needs in the area and health status survey on local people in study area using secondary source data shall be furnished.

xi. Traffic Management study shall be carried out for peak loads on high way.

xii. There are lots of industries around the plant including PPs own Dalla Cement Plant and Several Crusher units. Cumulative Impact Assessment Study therefore shall be carried out.

xiii. GHG Emission Inventorization and carbon footprint reduction programs shall be elaborated in EIA report.

xiv. Considering the ownership change on the project, reporting mechanism of Environmental Management Cell to the Board of Directors shall be furnished explicitly.

xv. Wildlife conservation measures for protection of fauna exist in the study area shall be prepared and submitted along with the EIA report.

21.17 Integrated Cement plant (1.5 MTPA of clinker; 1.875 MTPA of cement) by **M/s TNE Cement Pvt. Ltd.** located at Village Mynkree, Tehsil Khliehriat, **District. East Jaintia Hills, Meghalaya** [Proposal No. IA/ML/IND/160173/2020; MoEF&CC File No. J-11011/162/2020-IA.II(I)] **- Prescribing of Terms of Reference-regarding.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

21.18 Relocating Iron Ore Pelletization plant from Goa to Angre Port and upgrading to 2.4 MMTPA along with 2 x 25 MW Captive Power Plant and 2 x 2 MLD Desalination Plant by **M/s. Chowgule and Company Pvt. Ltd** located at Angre Port, **Dist. Ratnagiri, Maharashtra.** [Proposal No. IA/MH/IND/161164/2020; MoEF&CC File No. J-11011/161/2020-IA.II(I)] **- Prescribing of Terms of Reference-regarding.**

21.18.1 M/s Chowgule and Company Pvt Ltd has made online application vide proposal no. IA/MH/IND/161164/2020 dated 30/06/2020 along with Form 1 and other documents for Terms of Reference (ToR) to undertake detailed EIA study for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) and Schedule 1 (d) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

21.18.2 M/s Chowgule and Company Private Limited (CCPL) proposes to setup following units within its operating Angre Port located at Village Sandelavgan, Ratnagiri District, Maharashtra.

i. 2.4 MMTPA Iron Ore Pellet Plant,

ii. 2x25 MW Captive Power Plant based on Pet coke/coal/FO/NG and

iii. 2x2 MLD Desalination Plant with RO

21.18.3 In addition to the above, proposal also involves a laying of sea water intake and outfall pipeline which requires Coastal Regulation Zone (CRZ) clearance as per the provisions of Coastal Regulation Zone Notification dated 18/01/2019.

21.18.4 CCPL's 1.8 MMTPA plant is lying idle at Goa due to ban on iron ore mining in Goa. CCPL is operating Angre Port Jaigad in Maharashtra where this plant can be relocated and upgraded to 2.4 MMTPA using hematite ore. The proposed project will be located at Latitude: Approx: 17°16'49.36"N and Longitude: Approx: 73°14'4.81"E. Shastri River is at a distance of 0.64 km from the North East direction of project site.

21.18.5 The following are raw material requirement for the proposed project.

S.No	Description	Quantity, TPA	Source	Transportation
A	Pellet plant			
	Iron Ore Fines	25,20,000	Odisha, Karnataka, Chattisgarh, Import	Road/Rail/Sea
	Bentonite	24,000	Rajasthan/Gujarat	Road/Rail/Sea
	Coke Breeze	36,000	Goa /Other Steel Plants	Road/Rail/Sea
	Limestone	84,000	Bagalkot, Karnataka / UAE	Road/Rail/Sea
	Furnace Oil	48,600 MT	Local Supplier	Road/Rail/Sea
B	**Captive Power Plant**			Road/Rail/Sea
	Coal /Pet Coke /FO/NG	1,40,4000 coal eq.	Local purchase Indonesia / South Africa	Road/Rail/Sea

21.18.6 The Environmental Baseline data collection has been done for the period of December 2019 - February 2020 for Air, Water, Noise, Soil, Socio Economic and Ecology and Biodiversity.

21.18.7 Required water for project will be 2x2000 m3/d which will be met from RO based Desalination plant. Intake creek water will be 2x5120 m3/d and also MIDC is alternate water supply.

21.18.8 Total power requirement for the project is 25 MW, which will be met from 2x25MW CPP; Alternate source will be MSEDCL.

21.18.9 Employment generation in the proposed project will be for 350 nos. of people through direct employment.

21.18.10 Total cost of the project is estimated as Rs. 470 Cr.

Observations of the committee

21.18.11 During discussion of the project proposal, the committee observed the following.

i. Existing pellet at Mandovi Goa is to be dismantled and shifted to this location at Angre Port Jaigad in Maharashtra. TOR is being sought for the same and also for increased capacity to 2.4 MTPA from 1.2 MTPA.
ii. Proposal involves setting up of 2x25 MW CPP and 2x2 MLD desalination plant.
iii. Project also attracts the provisions of CRZ Notification.
iv. As per para 7(iv) of CRZ, 2019 Projects or activities which attract the provisions of this notification as also the provisions of EIA notification, 2006 number S.O. 1533(E), dated the 14th September, 2006, shall be dealt with for a composite Environmental and CRZ clearance under EIA Notification, 2006 by the concerned approving Authority, based on recommendations of the concerned Coastal Zone Management Authority, as per delegations i.e., State Environmental Impact Assessment Authority (hereinafter referred to as the SEIAA) or the Ministry of Environment, Forest and Climate Change for category 'B' and category 'A' projects respectively.

Recommendations of the committee

21.18.12 In view of the foregoing, and after detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA/EMP study in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Decommissioning of existing pellet plant and Rehabilitation of the site shall be furnished in the EIA report.
ii. Intake and outfall locations for water source shall be identified with scientific study conducted by institutions recognized by MoEF&CC to deal CRZ related issues.
iii. CRZ mapping of the project site shall be carried out through an authorized agency inter-alia including HTL/LTL mapping, CRZ land classification along with super-imposition of facilities envisaged in the project.
iv. A detailed biodiversity assessment of marine ecosystem in the study area and impact of project activities shall be furnished.
v. A detailed conservation plan including mangroves and mud flats shall be furnished.
vi. Impact on air quality shall be assessed considering the land use pattern, i.e., coastal effects due to internal thermal boundary layer (ITBL), using suitable models.
vii. A detailed hydrology of the study area shall be furnished.
viii. Water quality parameters shall be monitored for the creek in accordance with guidelines of Coastal Water Quality Measurements Protocol for COMAPS.
ix. Water quality modeling study shall be conducted using suitable models for identified out fall facility in the creek.
x. Cumulative impact assessment shall be conducted for port and proposed activities.

xi. Project proponent shall obtain permission from State Government/local authority / Maharashtra Maritime Board/Port Authorities / Ministry of Shipping, as applicable, for setting up of pellet plant in the Angre Port area. The relevant documents shall be furnished.

xii. Project proponent shall follow all statutory procedures for obtaining CRZ clearance and the corresponding documents shall be furnished.

xiii. Risk Assessment study shall be conducted for handling of liquid and gas fuels. Risk assessment study for oil/coal/coke spill in the creek shall be using suitable spill modeling. Disaster Management Plan (DMP) including Emergency Response Plan shall be furnished.

21.19 Integrated Cement Plant - Clinker (3.3 Mill.TPA), Cement (3 Mill.TPA), CPP (27 MW), WHRS (15 MW) and D.G. Set (1000 KVA) **by M/s. Dalmia Cement (Bharat) Ltd** at Villages: Hosahalli and Sedam, Taluka: Sedam, **District: Kalaburagi, Karnataka.** [Proposal No. IA/KA/IND/155559/2020; MoEF&CC File No. J-11011/118/2007-IA.II(I)] - **Prescribing of Terms of Reference-regarding.**

21.19.1 M/s. Dalmia Cement (Bharat) Ltd made online application vide proposal no. IA/KA/IND/155559/2020 on 29/06/2020 in the prescribed Form 1 and other documents for seeking Environmental Clearance (EC) for the project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants in the schedule under Category "A" in the EIA Notification, 2006 and the proposal is appraised at Central Level.

Details submitted by the project proponent

21.19.2 M/s. Dalmia Cement (Bharat) Ltd. proposes to install an Integrated Cement Plant - Clinker (3.3 MTPA), Cement (3 MTPA), CPP (27 MW), WHRS (15 MW) and D.G. Set (1000 KVA) at Village: Hosahalli and Sedam, Taluka: Sedam, District: Kalaburagi, Karnataka. It is proposed to set up the plant for manufacturing of Clinker / Cement based on dry process technology.

21.19.3 The proposed project was earlier accorded EC vide letter no. J-11011/118/2007-IA-II (I) dated 25th August, 2008 and further validity was extended till 24th August 2018 (vide letter dated 15th Oct., 2013 & 10th Aug., 2016 for three and two years respectively). The proposed project could not be implemented within the validity period of EC because of delay in obtaining statutory approval of interlinked mining lease.

21.19.4 Consent for establishment was accorded by Karnataka State Pollution Control Board vide letter no. PCB/HPI/016/Dalmia Cement/2013-14/554 dated 08thMay 2014.

21.19.5 The land area required for the proposed plant is 120 ha, out of which ~117.85 ha is private agricultural land and ~2.15 ha is non-crop land (under Nalla & cart road). No forestland is involved. About 72 % of the total land required for the project is purchased / under agreement to sale. Out of total land area 40 ha (33%) will be used for greenbelt development/plantation.

21.19.6 No National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger 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.

21.19.7 Total project cost is approx. Rs. 1800 Cr. Employment generation from the project will be for 865 nos. of people through direct employment and for 1500 nos. of people through indirect employment.

21.19.8 The targeted production capacity of the Integrated Cement Plant is Clinker - 3.3 MTPA, Cement - 3 MTPA, CPP -27 MW, WHRS-15 MW and D.G. Set -1000 KVA. The Limestone for the plant would be sourced from Captive Limestone Mine. The Limestone transportation from Crusher will be done through covered Conveyor Belt. Laterite/Low grade Iron/Morrum, Bauxite, Clay/Shale, will be transported by road and gypsum will be transported by rail/road. The proposed capacity for different products for new site area as below:

Name of Unit	***Proposed Capacity***
Clinker (MTPA)	3.3
Cement (MTPA)	3.0
CPP (MW)	27
WHRS (MW)	15
D.G. Set (KVA)	1000

21.19.9 The electricity load of 55 MW will be sourced from proposed CPP (27 MW), WHRS (15 MW) and the state grid. Company has also proposed to install 1000 KVA DG Set.

21.19.10 Proposed Raw materials required for the project are Limestone; which will be sourced from proposed Captive Limestone Mine; Laterite/ Bauxite will be purchased from Belgaum; Clay/Shale will be purchase from open market, Low grade iron/Morrum will be purchased from Purchase from Bagalkot and Bellary; Slag will be purchased from Bellary steel plant, Hospet. Fly ash will be sourced from Captive Power Plant and Kudgi STPP, KPCL Bellary & Yermarus TPP (Yeganur); Gypsum will be sourced from Vizag/RCF Mumbai etc. Fuel for Cement Plant & CPP will be Indigenous coal which will be sourced from Singareni/E-auction; Imported coal from South Africa/ Indonesia through Goa port and Petcoke for Cement plant will be sourced from Saudi/ US/India through Goa Port.

21.19.11 Water Consumption for the proposed project will be 3148 KLD; which will be sourced from Kagina River, Ground water, Rain water harvesting and mine sump water as & when developed. RO reject water & blow down water will be used for dust suppression after proper neutralization. At various stages water used for cooling will be total absorbed/evaporate throughout the process. Domestic waste water generated from plant will be treated in STP and treated water will be used for greenbelt development / plantation.

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

21.19.13 Name of Consultant - J.M. EnviroNet Pvt. Ltd., [S. No. in QCI List - 98, Updated List of Accredited Consultant Organizations (Alphabetically) Rev. 89, July 11, 2020].

Observations of the committee

21.19.14 During the discussions, the committee made the following observations.

i. It is a green field project for which EC was granted in 2008. The project could not come up as ML could not be granted in Time.
ii. 120 ha land is required for the project. Almost 72 % land is in possession of PP.
iii. Project cost is Rs 1800 Cr and CER component shall be Rs 17 Cr.
iv. 3138 KLD water shall be drawn from Kagina River. No GW abstraction is envisaged.
v. Railway siding has been proposed.

Recommendations of the committee

21.19.15 In view of the foregoing, and after detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA/EMP study in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Scheme for captive railway siding shall be furnished.
ii. Usage of alternate fuel shall be furnished.
iii. Provision of installation of FGD in CPP shall be furnished in the action plan to control SO_2.
iv. Action plan to maintain the particulate matter emissions less than 30 mg/Nm^3 from stacks shall be furnished.
v. Action plan for utilization of 100% solid waste generated shall be furnished.
vi. Action plan to control fugitive emissions shall be furnished.
vii. Action plan to recharge rainwater more than 100% of annual water consumption shall be furnished based on the detailed hydro geological survey.
viii. Details of control mechanism for NOx shall be furnished.
ix. Status of limestone mining lease and the statutory permissions obtained for the limestone mines shall be furnished in the EIA report.

21.20 Expansion of Steel Plant by enhancement of Iron Ore Beneficiation (63,000 to 2,00,000 TPA); Sponge Iron (62, 700 to 4,58,700 TPA); Captive Power Plant (4 to 22 MW WHRB;15 MW AFBC) and Installation of Iron Ore Crushing and Screening Plant (2,00,000 TPA), Iron Pellets Plant (1.0 MTPA) and Coal Gasifier (40,000 Nm3/hr) ha by **M/s Llyods Metals and Energy Ltd** at MIDC Konsari, Tahsil: Chamorshi, **District Gadchiroli, State Maharashtra** [Proposal No. IA/MH/IND/157601/2020; MoEF&CC File No. J-11011/163/2020-IA.II(I)] - **Prescribing of Terms of Reference-regarding.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

21.21 Establishment of Integrated Steel Plant {DRI Kilns (3,30,000 TPA), Induction Furnace with Concast (MS Billets/Hot metal for hot charging) along with 1 x 35 T Ladle Refining Furnace (LRF) & 1 x 3 Strand Billet Caster (3,56,400 TPA), Rolling Mill (3,56,400 TPA), Power Generation 50 MW [24 MW through Waste Heat Recovery Boiler (WHRB) and 26 MW through Fluidized Bed Combustion (FBC) Boiler} by **M/s Ankur Udyog Ltd** (Steel Division) located at Plot No. AL-2, Sector 23, GIDA Industrial Area, Village Sahbazganj & Domharmafi, Tehsil Sahjanwa, **District Gorakhpur, Uttar Pradesh** [Proposal No. IA/UP/IND/159657/2020; MoEFCC File No. J-11011/416/2017-IA.II(I)] **– Amendment in Environment Clearance -regarding.**

21.21.1 M/s Ankur Udyog Ltd has made online application vide proposal no. IA/UP/IND/159657/2020 dated 22/06/2020 along with Form 4 and other documents for seeking amendment in 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.

21.21.2 M/s Ankur Udyog Ltd was accorded EC for the project Integrated Steel Plant {DRI Kilns (3,30,000 TPA), Induction Furnace with Concast (MS Billets/Hot metal for hot charging)

along with 1 x 35 T Ladle Refining Furnace (LRF) & 1 x 3 Strand Billet Caster (3,56,400 TPA), Rolling Mill (3,56,400 TPA), Power Generation 50 MW [24 MW through Waste Heat Recovery Boiler (WHRB) and 26 MW through Fluidized Bed Combustion (FBC) Boiler} vide letter File No. J-11011/416/2017-IA.II(I) dated 18/09/2019.

Details submitted by the project proponent

21.21.3 The amendments were sought n the existing EC for 1) Including the Rainwater harvesting cost in the CER budget and there by amendment of CER budget allocation 2) 100 % hot charging of billets. The details are as given the table below.

POINT NO. 1		
As per EC	**As per EC Order vide dated 18th September 2019**	**Request**
Pg. No. 5, Paragraph no. 21 of the EC	"Further, an action plan for recharging rainwater within and outside plant premises comprising a budget provision of Rs.91.25 lakhs was submitted based on the study conducted ***in addition to implementation expenditure of CER and EMP*****"**	We would like to bring to your kind notice that the Budget **provision of Rs. 91.25 Lakhs for recharging rain water is a part of the CER Budget** submitted as per the advice of EAC during presentation. Please refer to Page no. 35 & Point no. 7.1.30 of the MoM of 7th meeting of the Re-constituted EAC (Industry-I) held during 29-31st May, 2019 stating **"Revised CER after considering the Cost for artificial recharging i.e. Rs. 91.25 Lakhs"** which has been indicated in the table as below.
Point no. -2		
Page no. 6, Specific Condition no. Ii of the EC	**"Project Proponent shall adopt 100 % hot charging and the coal gasifier shall not be installed"**	In the EIA report submitted to the Hon'ble Ministry as part of EC appraisal we have proposed **1 x 800 TPD Rolling Mill** to produce 2,64,000 TPA of MS Re-Bars (TMT) & Structural Steel with **Hot charging** (75% of total Billets) & **1 x 280 TPD Rolling mill** to produce 92,400 TPA of MS Re-Bars (TMT) & Structural Steel **using re-heating furnace** (25% of total billets). This issue of re-heating furnace was discussed at length before the Hon'ble EAC. Please refer to the MOM of the 4th Meeting of the Re-constitue EAC (Industry -1) page no. 16, paragraph 24(vii) recommendation of the committee **"Confirmation regarding use of FO only in reheating furnace"** As advised by the Ministry/EAC we have dropped the coal gasifier

		proposal in the reheating furnace and the same has been confirmed to the Ministry/EAC in our reply submitted to **ADS dated 27th February, 2019 wherein we have undertaken that *"We do hereby confirm that we will use Furnace Oil (FO) /Pulverised coal in reheating furnace."*** 100% Hot Charging is technically not possible. This matter was discussed in detail before the Hon'ble EAC. Accordingly our submission for use Furnace Oil (FO) /Pulverised coal in reheating furnace was found satisfactory and we were advised not install coal gasifier. Even in the **General Conditions no. V** under **Energy Conservation measures** condition **No. (ii)** Of the EC accorded to us, it has been mentioned that **Use hot charging of slabs and billets/blooms as far as possible**. Hence it is requested that this condition be corrected as below- ***"Use Hot Charging of slabs and billets / blooms as far as possible and the coal gaisfier shall not be installed".***

Observations of the committee

21.21.4 During the discussions, the committee opined that Rain Water Harvesting is a regulatory requirement and it cannot be considered under CER activities as it was not drawn from Public hearing issues or SIA studies during the preparation of EIA report.

21.21.5 Hot charging of billets upto 90% is possible and LDO can be allowed for reheating furnace in case of emergency.

Recommendations of the Committee

21.21.6 In view of foregoing, after detailed deliberations, the committee recommended to amend the EC for 90% billets for hot charging and use of LDO for reheating furnace during emergency for remaining billets, i.e., for 10% of production.

1st August, 2020

21.22 Expansion of Integrated Steel Plant from 0.785 MTPA to 1.039 MTPA by **M/s. Rungta Mines Limited** located at Villages Chaliyama, Bankasai and Kuju District Saraikela – Kharsawan, Jharkhand [Proposal No. IA/JH/IND/151458/2020; MoEF&CC; File No. J-11011/305/2012-IA-II(I)] **- Environment Clearance under para 7(ii) of EIA Notification, 2006 – regarding.**

21.22.1 M/s. Rungta Mines Limited has made an online application vide proposal no. IA/JH/IND/151458/2020 dated 17/07/2020along with Form 1 &2, pre-feasibility report and Addendum to the existing EIA report seeking Environment Clearance (EC) under para 7(ii) 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.

Details submitted by the project proponent

21.22.2 The details of the existing ECs as well as amendments accorded to M/s. Rungta Mines Limited (RML) by MoEF&CC for setting up of the Integrated Steel Plant at villages Chaliyama, Bankasai and Kujuis, District Saraikela – Kharsawan, Jharkhand furnished as below:

File No.	Date	Capacity	Date of Public hearing	Remarks
J-11011/838/2007-IA.II(I)	04/11/2008	0.21 MTPA Integrated Mini Steel Plant with 39 MW CPP (including WHRB)	07/06/2008	PH was conducted for 0.20 MTPA ISP capacity with 39 MW CPP on 7/06/2008. Amendment was granted vide letter dated 21.06.2010 for change in configuration of ladle furnace from 2X15 T to 1X20T and CCM from 1X2 to 1X3 strand. EC validity extension was granted vide letter dated 15.12.2014 till 02.11.2018.
J-11011/305/2012-IA.II(I)	01/04/2016	Expansion of ISP from 0.2 MTPA to 0.5 MTPA and CPP from 39 to 119 MW with setting up of additional units	04/09/2013	PH was conducted for 0.5 MTPA ISP capacity, 119 MW CPP and additional units on 04/09/2013.
-do-	07/08/2018	Expansion of ISP capacity from 0.5 MTPA to 0.70 MTPA, CPP from 119 to 158 MW and additional units	14/06/2017	PH was conducted for 0.5 MTPA to 0.70 MTPA ISP capacity, CPP from 119 to 158 MW and additional units on 14/06/2017.

File No.	Date	Capacity	Date of Public hearing	Remarks
-do-	28/01/2019	Expansion of ISP capacity from 0.70 to 0.7854 MTPA as well as amendment in EC for change in steel making route, change in configuration of power plant and Ladle Refining Furnace.	Nil	EC accorded under para 7(ii) of EIA, 2006 **Basis** With the improvement of operational practice, PP is able to achieve the 350 days campaign of DRI Kiln instead of 330 days sanctioned in earlier EC. In the past operational experience, the single heat of I.F. could take 2 hours 10 minutes. By using superior quality of raw material, improved the operational efficiency and availability of uninterrupted power in the future, the heat can be taken in a shorter time of 1 hour 48 minutes. The total saving in each heat will be 22 minutes. So, it is possible to take more 2.3 heats of Induction Furnaces per day which amounts to 20% increase in production.
-do -	17/06/2019	Amendment in EC for change in configuration of pellet plant from 2x1.32 MTPA to 1x2.64 MTPA	Nil	Nil

21.22.3 The details of the product slate accorded by the Ministry for 0.70 MTPA and 0.7854 MTPA ISP capacity along with the present status as submitted by the PP is furnished as below:

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019 & amendment dt.17/06/2019	Present status
	TOTAL PRODUCTION	**MTPA**	**0.70**	**0.7854**	
1	DRI Plant				
1.1	DRI (7X100 TPD kiln)	TPA	300,300	318,500	under operation
1.2	DRI (1X100 TPD kiln)	TPA	42,900	45,500	under operation

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019 & amendment dt.17/06/2019	Present status
1.3	DRI (2X350 TPD kiln)	TPA	277,200	294,000	under operation
	Sub Total	TPA	**620,400**	**658,000**	under operation
2	Mini Blast Furnace	TPA	458,500 (2x262 cum)	458,500 (2x262 cum)	Yet to installed
3.0	SMS				
3.1	SMS (I)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 2x20 T)	under operation
3.2	SMS (II)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 1x35T)	IF under operation and LRF under construction
3.3	SMS (III)	TPA	231,000 (EAF 1X30 T, LRF 1X30 T)	231,000 (4X15T IF, LRF 1X35 T)	under construction
		Total	**693,000**	**785,400**	
4	Billets/slab/bloom caster				
4.1	Billet caster (I)	TPA	226,380	271,656	under operation
4.2	Billets caster (II)	TPA	226,380	271,656	under operation
4.3	Billets caster (III)	TPA	226,380	226,380	under construction
		Total	**679,140**	**769,692**	
5	Continuous casting machine		3x4 strand	3x4 strand	2x3 strand under operation and remaining under construction
6	Rolling mill (TMT/ flat/ Round/ wire rod/ structural mill/ others				
6.1	Rolling mill (I)	TPA	217,325	260,790	under operation
6.2	Rolling mill (II)	TPA	217,325	260,790	under construction
6.3	Rolling mill III	TPA	217,325	217,325	under construction
		Total	**651,975**	**738,905**	
7	Captive Power Plant	MW	158 (8 X 20 MW TGs)	158 (4X20 + 2X40 MW TG)	58 MW under operation, 80 MW is under construction as described below
7.1	WHRB	MW	53	53	33 MW DRI WHRB under operation and 10 MW WHRB from MBF and 10 MW from Coke oven yet to be implemented

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019 & amendment dt.17/06/2019	Present status
7.2	AFBC/ CFBC	MW	105	105	25 MW AFBC is under operation and 80 MW CFBC is under construction
8	Pelletisation plant	TPA	2,640,000 (2x1.2 MTPA +10%)	2,640,000 (1x2.64 MTPA)	Under construction
9	Coal washery	TPA	1,260,000	1,260,000	Yet to be installed
10	Oxygen	cum/ annum	7,350,000 (1x30 T)	7,350,000 (1x30 T)	Yet to be installed
11	Lime Plant	cum/ annum	31,500 (1x90 T)	31,500 (1x90 T)	Yet to installed
12	Vacuum Degassing	Tonnes	30	30	Yet to installed
13	Ferro Alloy Plant (9MVA +18 MVA)				
a	Ferro Manganese OR	TPA	9 MVA= 18,000 18 MVA=36,000 Total = 54,000	9 MVA= 18,000 18 MVA=36,000 Total = 54,000	Yet to installed
b	Silico Manganese OR	TPA	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	Yet to installed
c	Ferro Chrome OR	TPA	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	Yet to installed
d	Ferro Silicon	TPA	9 MVA= 6,400 18 MVA=12,800 Total = 19,200	9 MVA= 6,400 18 MVA=12,800 Total = 19,200	Yet to installed
	Briquette Plant for ferro chrome	TPA	88,320	88,320	Yet to installed
	Briquette Plant for ferro manganese	TPA	112,380	112,380	Yet to installed
15	Sinter plant	TPA	532,224 (2x24 sqm)	532,224 (2x24 sqm)	Yet to installed
16	Coke oven plant	TPA	280,000 (4 batteries x70000 TPA)	280,000 (4 batteries x70000 TPA)	Yet to installed
17	Producer gas plant	Nm^3/hr	51,000	51,000	Yet to installed

21.22.4 The present proposal of M/s. Rungta Mines Limited is for seeking Environment Clearance again under the provisions of para 7(ii) of EIA Notification, 2006 for the following:

i. Change in configuration of Ladle Refining Furnace, Blast Furnace and Sinter Plant.

ii. Capacity enhancement of DRI, SMS, Billets/Slab/Bloom Caster, TMT/Round/Wire Rod/Flat/ Structural/ others, Oxygen plant, Pelletisation Plant and Sinter Plant due to change in configuration followed by the usage of superior coal quality with better Fixed Carbon content and increase in feed of iron ore/pellet.

21.22.5 The details of the proposed change in configuration and enhancement in production quantities are furnished as below:

Sl.	**Facilities**	**Units**	**Sanctioned production & configuration as per EC dated 07/08/2018**	**Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019**	**Additional proposed production & configuration**	**Total Proposed production & configuration (TPA)**	**% Change w.r.t. 7/8/2018**
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**	**(h) w.r.t. (d)**
	TOTAL PRODUCTION	**MTPA**	**0.693**	**0.7854**	**0.2541**	**1.0395**	**(+) 50.0**
1	DRI Plant						
1.1	DRI (7X100 TPD kiln)	TPA	300,300	318,500	41,825	360,325	(+) 19.98
1.2	DRI (1X100 TPD kiln)	TPA	42,900	45,500	5,975	51,475	(+) 19.98
1.3	DRI (2X350 TPD kiln)	TPA	277,200	294,000	46,800	340,800	(+) 22.94
	Sub Total	TPA	**620,400**	**658,000**	**94,600**	**752,600**	**(+) 21.30**
2	Mini Blast Furnace	TPA	458,500 (2x262 cum)	458,500 (2x262 cum)	458,500 (configuration change)	458,500 (1x350 initially, upgradeable to 1x524 cum)	0
3.0	SMS						
3.1	SMS (I)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 2x20 T)	69,300 (configuration change)	346,500 (IF 4x15 T, LRF 3x20 T)	(+)50
3.2	SMS (II)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 1x35T)	69,300 (configuration change)	346,500 (IF 4x15 T, LRF 2x35T)	(+)50
3.3	SMS (III)	TPA	231,000 (EAF 1X30 T, LRF 1X30	231,000 (4X15T IF, LRF 1X35 T)	115,500 (configuration change)	346,500 (4X15T IF, LRF 2X35 T)	(+)50

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019	Additional proposed production & configuration	Total Proposed production & configuration (TPA)	% Change w.r.t. 7/8/2018
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**	**(h) w.r.t. (d)**
	TOTAL PRODUCTION	**MTPA**	**0.693**	**0.7854**	**0.2541**	**1.0395**	**(+) 50.0**
			T)				
		Total	**693,000**	**785,400**	**254,100**	**1,039,500**	**(+) 50**
4	Billets/slab/ bloom caster						
4.1	Billet caster (I)	TPA	226,380	271,656	67,914	339,570	(+) 50
4.2	Billets caster (II)	TPA	226,380	271,656	67,914	339,570	(+) 50
4.3	Billets caster (III)	TPA	226,380	226,380	113,190	339,570	(+) 50
		Total	**679,140**	**769,692**	**249,018**	**1,018,710**	**(+) 50**
5	Continuous casting machine		3x4 strand	3x4 strand	0	3x4 strand	0
6	Rolling mill (TMT/ flat/ Round/ wire rod/ structural mill/ others						
6.1	Rolling mill (I)	TPA	217,325	260,790	65,198	325,988	(+) 50
6.2	Rolling mill (II)	TPA	217,325	260,790	65,198	325,988	(+) 50
6.3	Rolling mill (III)	TPA	217,325	217,325	108,663	325,988	(+) 50
		Total	**651,975**	**738,905**	**239,059**	**977,964**	
7	Pelletisation plant	TPA	2,640,000 (2x1.2 MTPA +10%)	2,640,000 (1x2.64 MTPA)	360,000 (no change)	3,000,000 (1x2.64 MTPA)	(+) 13.64
8	Oxygen	cum/ annum	7,350,000 (1x30 TPD)	7,350,000 (1x30 TPD)	19,600,000 (Configuration change)	26,950,000 (1x100 TPD)	(+) 233
9	Sinter plant	TPA	532,224 (2x24 sqm)	532,224 (2x24 sqm)	133,056 (Configuration change)	665,280 (1x48 sqm)	(+)25

21.22.6 The consolidated product slate after change in configuration and enhancement in production quantities are furnished as below:

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019	Additional proposed production & configuration	Total Proposed production & configuration (TPA)
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**
	TOTAL	**MTPA**	**0.693, say, 0.7**	**0.7854**	**0.254**	**1.0395**

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019	Additional proposed production & configuration	Total Proposed production & configuration (TPA)
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**
	PRODUCTION					
1	DRI Plant					
1.1	DRI (7X100 TPD kiln)	TPA	300,300	318,500	41,825	360,325
1.2	DRI (1X100 TPD kiln)	TPA	42,900	45,500	5,975	51,475
1.3	DRI (2X350 TPD kiln)	TPA	277,200	294,000	46,800	340,800
	Sub Total	TPA	**620,400**	**658,000**	**94,600**	**752,600**
2	Mini Blast Furnace	TPA	458,500 (2x262 cum)	458,500 (2x262 cum)	458,500 (config change)	458,500 (1x350 initial, upgradeable to 1x524 cum)
3.0	SMS					
3.1	SMS (I)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 2x20 T)	69,300 (config change)	346,500 (IF 4x15 T, LRF 3x20 T)
3.2	SMS (II)	TPA	231,000 (IF 4x15 T, LRF 1x20 T)	277,200 (IF 4x15 T, LRF 1x35T)	69,300 (config change)	346,500 (IF 4x15 T, LRF 2x35T)
3.3	SMS (III)	TPA	231,000 (EAF 1X30 T, LRF 1X30 T)	231,000 (4X15T IF, LRF 1X35 T)	115,500 (configchange)	346,500 (4X15T IF, LRF 2X35 T)
		Total	**693,000**	**785,400**	**254,100**	**1,039,500**
4	Billets/slab/bloom caster					
4.1	Billet caster (I)	TPA	226,380	271,656	67,914	339,570
4.2	Billets caster (II)	TPA	226,380	271,656	67,914	339,570
4.3	Billets caster (III)	TPA	226,380	226,380	113,190	339,570
		Total	**679,140**	**769,692**	**249,018**	**1,018,710**
5	Continuous casting machine		3x4 strand	3x4 strand	0	3x4 strand
6	Rolling mill (TMT/ flat/ Round/ wire rod/ structural mill/ others					
6.1	Rolling mill (I)	TPA	217,325	260,790	65,198	325,988
6.2	Rolling mill (II)	TPA	217,325	260,790	65,198	325,988
6.3	Rolling mill (III)	TPA	217,325	217,325	108,663	325,988
		Total	**651,975**	**738,905**	**239,059**	**977,964**
7	Captive Power Plant	MW	158 (8 X 20 MW TGs)	158 (4X20 + 2X40 MW TG)	0	158 (4X20 + 2X40 MW TG)
7.1	WHRB	MW	53	53	0	53
7.2	AFBC/ CFBC	MW	105	105	0	105

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019	Additional proposed production & configuration	Total Proposed production & configuration (TPA)
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**
8	Pelletisation plant	TPA	2,640,000 (2x1.2 MTPA +10%)	2,640,000 (1x2.64 MTPA)	360,000 (Config change)	3,000,000 (1x2.64 MTPA)
9	Coal washery	TPA	1,260,000	1,260,000	0	1,260,000
10	Oxygen	cum/ annum	7,350,000 (1x30 TPD)	7,350,000 (1x30 TPD)	19,600,000 (Config change)	26,950,000 (1x100 TPD)
11	Lime Plant	cum/ annum	31,500 (1x90 T)	31,500 (1x90 T)	0	31,500 (1x90 T)
12	Vacuum Degassing	Tonnes	30	30	0	30
13	Ferro Alloy Plant (9MVA +18 MVA)					
a	Ferro Manganese OR	TPA	9 MVA= 18,000 18 MVA=36,000 Total = 54,000	9 MVA= 18,000 18 MVA=36,000 Total = 54,000	0	9 MVA= 18,000 18 MVA=36,000 Total = 54,000
b	Silico Manganese OR	TPA	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	0	9 MVA= 14,400 18 MVA=28,800 Total = 43,200
c	Ferro Chrome OR	TPA	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	9 MVA= 14,400 18 MVA=28,800 Total = 43,200	0	9 MVA= 14,400 18 MVA=28,800 Total = 43,200
d	Ferro Silicon	TPA	9 MVA= 6,400 18 MVA=12,800 Total = 19,200	9 MVA= 6,400 18 MVA=12,800 Total = 19,200	0	9 MVA= 6,400 18 MVA=12,800 Total = 19,200
	Briquette Plant for ferro chrome	TPA	88,320	88,320	0	88,320
	Briquette Plant for ferro	TPA	112,380	112,380	0	112,380

Sl.	Facilities	Units	Sanctioned production & configuration as per EC dated 07/08/2018	Sanctioned production configuration as per EC dated 28/01/2019& amendment dt.17/06/2019	Additional proposed production & configuration	Total Proposed production & configuration (TPA)
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)= (e)+(f)**
	manganese					
15	Sinter plant	TPA	532,224 (2x24 sqm)	532,224 (2x24 sqm)	133,056 (Config change)	665,280 (1x48 sqm)
16	Coke oven plant	TPA	280,000 (4 batteries x70000 TPA)	280,000 (4 batteries x70000 TPA)	0	280000 (4 batteries x70000 TPA)
17	Producer gas plant	Nm^3/ hr	51,000	51,000	0	51,000

21.22.7 The justification furnished for the proposed enhancement in production capacities due of various units is furnished as below:

A. DRI Unit

iii. In EC dated 07.08.2018, kiln operation days were 330 days which are now proposed to be increased to 355 days.

iv. Use of Brokk machine for accretion cutting to minimize the accretion cutting days.

v. Better control in the operational parameters possible due to experience.

vi. Ensuring Constant quality of feed raw material and minor changes in feed air lead to increase in capacity with same configuration of DRI kilns

vii. Superior quality of coal with better Fixed Carbon is proposed to be used : GCV (kCal/kg) ~ 5800-6400; Ash ~ 18-20%; Fixed carbon >50%.

viii. Provision for washery in ISP in case of Indian Coal, washed to <28% ash.

B. Induction furnace

i. Replacement of the presently used silica based acidic lining (life- 20 heats) by alumina based neutral lining (life-100 heats) in induction furnaces.

ii. Furthermore, 100 heat life of neutral lining can be further increased to 350 heat by hot patching.

iii. Therefore, as compared to present utilisation of 50%(2x15T working, 2x15T crucible undergoing re-lining), in future company can utilise 75% (3X15T working, 1X15 T crucible undergoing re-lining) due to increased life of lining.

C. Rolling mill

i. Increase in number of hours of operation everyday from 16-19 to 22 hrs to cater to increase in production

D. Pelletisation Plant

i. Increase in grate factor by increase in speed & bed height

ii. Material Handling Belt Conveyors carrying capacity can be increased by increasing the belt speed from 1.5 to 1.8 m/sec.

iii. Raw material storage capacity is sufficient to meet the increased production.

iv. Installation of two additional pressure filters and one additional pelletizing disc.

v. Iron ore fines & additives (lime, coal & bentonite) grinding mills are capable to operate and meet the requirements for increased production quantity by increasing the run hour per day.

vi. The mixer can handle the increased production requirement.

vii. Additional burners can be installed in the Induration Furnace (Pellet heat hardening furnace) to get required heat input for heat hardening of pellets.

viii. Process fans can cater to the higher volume and higher pressure drop caused due to increase in bed height

ix. Increase in number of working days (330 to 345 i.e. 5%)

21.22.8 Total land of the project is 591.16 acres. No additional land shall be required for change in configuration of MBF, Sinter &LRF and enhancement of production in the facilities as mentioned previously.

21.22.9 The topography of the project is flat and reported to lie between 22°33'58''to 22°35'49''N Latitude and 85°53'07''to 85°54'49''E Longitude in Toposheet No. 73F/14. The average ground elevation of the project area is 198 m AMSL.

21.22.10 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 Dalma WLS is located at a distance of 49 km from the site. Site specific wildlife conservation plan has been prepared and approved by PCCF (WL)Government of Jharkhand vide letter no. 196 dated 25.01. 2018. Nearest Critically Polluted Area is Saraikela, a town which is approx. 11.6 km aerially from plant site

21.22.11 The existing baseline status based on the data collected during the post project monitoring for the existing ECs is given as below:

Ambient air quality monitoring: PM_{10} (49 to 74.20 μg/m^3), $PM_{2.5}$ (28.7 to 42.5 μg/m^3), SO_2 (9 to 14 μg/m^3) and NO_2 (10.2 to 16.3 to μg/m^3).
Wastewater from the project: pH 7.9, TSS 10 mg/l, DO 6.9 mg/l, BOD 10 mg/l, COD 23 mg/l and O&G 4 mg/l.
Noise level: in the range of 59.06 to 69.43 dBA for day time and 51.79 to 65.70 dBA for night time.

21.22.12 The resource requirement and the pollution load assessment for the enhancement in ISP capacity 1.0395 MTPA from 0.7 & 0.7854 MTPA is furnished as below:

Sl. No.	Item	As per EC dt.07/08/2018	As per EC dt.28/01/2019	Proposed additional	Total	% change w.r.t 2018
	Production of finished steel	**0.693, say, 0.7**	**0.7854**	**0.2541**	**1.0395**	**+50.0**

Sl. No.	Item	As per EC dt.07/08/2018	As per EC dt.28/01/2019	Proposed additional	Total	% change w.r.t 2018
1	**Raw Material**					
1.1	Coal (for Washery), TPA	1,260,000	1,260,000	0	1,260,000	0
	Coal for DRI, TPA*	527,155	559,103	5,347	564,450	+7.07
	Coal for PGP, TPA*	190,442	190,442	0	190,442	0
	Coal for CPP, TPA*	140,203	133,527	0	133,527	-4.76
1.2	Iron Ore & fines, TPA	3,350,078	3,367,678	516,273	3,883,951	+15.94
1.3	Steel Scrap, TPA	50,218	50,218	11,657	61,875	+23.21
2	**Finished Product**					
2.1	Pellets	2,640,000	2,640,000	360,000	3,000,000	+13.64
2.2	DRI	620,400	658,000	94,600	752,600	+21.31
2.3	Steel Products	651,975	738,905	239,059	977,964	+50
2.4	Ferro Alloys	54,000	54,000	0	54,000	0
2.5	Pig Iron	200,869	140,407	45,426	185,833	-7.49
3	Manpower	1830	1830	100	1930	+5.46
4	Power, MW	143	147.17	36.83	184	+28.67
5	**Water & wastewater**					
5.1	Fresh water consumption (cum/hr)	1778	1827.9	-827.9	1000	-43.76
5.2	Wastewater generation (cum/hr)	236	244.4	-139.4	105	-55.51
5.3	Utilisation of wastewater (%)	100% in Ash quenching, dust suppression, brick plant, horticulture				
6	Common monitoring basin		35x30x5m	enhance	35x30x5m	0%
7	Transport, trucks per hour	2294	2502	398	2868	25%
8	Air Quality based on Terrain based AAQ modelling carried out using ISCST3 (all results in $\mu g/m^3$):					

Parameter	Existing (0.554 MTPA)	EC 2018 (0.785 MTPA)	Proposed (1.0395 MTPA)	Increment of 0.785 MTPA wrt 0.554 TPA)	Increment of 1.0395 MTPA wrt 0.554 TPA)	Difference between increment due to 0.785 & 1.0395 MTPA	Impact
PM_{10}	16.889	20.677	19.296	3.788	2.407	-1.381	reduce
$PM_{2.5}$	9.711	11.889	11.095	2.178	1.384	-0.794	reduce
SO_2	34.126	36.258	37.815	2.132	3.689	1.557	increase
NO_2	17.618	18.626	18.641	1.008	1.023	0.015	increase

*In absence of washing

21.22.13 The solid waste generation will reduce in Pellet Plant Sludge, Blast Furnace Sludge and rolling mill rejects while the rest of the solid waste generation will increase in DRI, Blast Furnace, SMS, Rolling Mill, Pelletisation Plant and Sinter Plant. The details of solid waste

generation and its utilization are given as below:

Sl.	Source	Total (TPY) As per EC dt. 07/08/2018	Additional (TPY)	Total (TPY)	Remarks
1	DRI- Char	111,672	8,336	1,20,008	100% Char will be used for power generation
2	DRI- ESP & In plan t Dust	31,020	1,984	33,004	100% dust will be used in Sinter Plant
3	DRI- Kiln Accretion	3,102	473	3,575	100% Stored in in land fill temporar ily till reused in road sub-base
4	Blast Furnace Slag	124,322	0	124,795	100% Slag will be granulated and s old for cement making.
5	Blast Furnace Dust (ir on ore, coke, sinter fin es)	22,925	0	22,925	100% dust will be reused in Sinte r Plant.
6	Blast Furnace Sludge	2,292.5	-2,292.5	0	Eliminated by changeover from we t to dry gas cleaning plant
7	SMS - IF & LRF Slag	13,870	6,930	20,800	100% slag will be given for metal r ecovery, converted to aggregates (s pecial balls) and used in road makin g
8	Rolling Mill- Reject	20,828	-103	20,725	100% reused in SMS
9	Rolling Mill- Mill Sca le	20,198	10,062	30,260	100% Re-used in Sinter & SMS
10	CPP- Fly Ash	404,229	0	404,229	100% reused as per MOEF Notifica tion 2009.Used in cement making, b rick making, block making, aggrega te making, low- lying area filling and road making.
11	PGP- Coal Ash	93,317	0	93,317	Same as above
12	Coal Washery- Reject	94,500	0	94,500	Proposed to mix washery reject was te with the backfill in iron ore mine s
13	Pelletisation Plant -Du st (iron ore, coke fines)	72,900	59,100	72,900	100% Re-used in Sinter
14	Pelletisation Plant -Slu dge	-13,200	0	-13,200	Eliminated due to change in treatme nt system to dry
15	Ferro Alloys - Slag	64,821	0	64,821	100% Re-used in sinter making wit hin plant, grinding & road filling/ la ndfilling, sellable
16	Ferro Alloys - Fines	10,821	0	10,821	100% Reused in sinter plant
17	Sinter Return Fines	29,400	82,670	1,12,070	100% Reused In sinter plant
18	Coke Oven Bag Filte r Dust	12,684	0	12,684	100% reused in sinter plant

21.22.14 The capital cost of the proposed amendment and enhancement is Rs 100 crores and the capital cost for environmental management is proposed as Rs. 1 crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 50 lakhs per annum. The fund allocated towards CER is Rs. 1 crore.

21.22.15 The total green area is 79.08 ha, which is 33% of the total area. A 5-20 m wide green belt, consisting of at least 3 tiers around boundary is developed as green belt and green cover as per CPCB/ MOEF&CC, New Delhi guidelines. Total 195410 trees have been planted till date. Further augmentation & gap filling will continue from time to time. A tree bank consisting of 14000 sapling is being developed.

21.22.16 Public hearing for the existing project was held on 14.06.2017 as per the provisions laid down in the EIA Notification, 2006. The issues raised during public hearing were employment opportunity, provision of health care and water supply facility, pollution control measure, compensation to land losers, etc. Commitment made in the public hearing such as employment to all the land losers, green belt development, construction of toilets in the village, control of water pollution etc., are being fulfilled as follows:

Commitment in PH dated 14.06.2017	**Status as on 24.07.2020**
To provide employment to local people	Management of Chaliyama steel plant already provided 120 people direct employment in the plant.
Provision for adequate preventive measures for protection of environment and to control pollution	The plant is under operation with ESP and bag filters. Level of particulate matter is within limits
To provide Drinking water	Providing sufficient Potable water through pipeline in Chaliyama, Bankasai villages under CSR activities. Where there is no pipeline, potable water is being and will be supplied through tankers.
To provide Health care	Provided free ambulance facility on call and the same will be extended to long distance major hospitals in Chaibasa / Tata Nagar. Free Medical camp also organized.
Plantation	Green belt plantation is completed around periphery of plant. Fruit bearing saplings are being distributed to the villagers every year for planting in their cultivation land. Last year 5,000 nos. of fruit bearing saplings were distributed. The effort will continue in future also.
To provide road from NH to Chaliyama	Provided
To provide study and sports material in the village school	Providing study material and sport kits in school in village Chaliyama
To provide 10 ft. Road for going from village Bankasai to river	Provided Over bridge from Bankasai village to Kharkai river, construction will be completed soon
Construction of two toilets in each tola of village	Toilets constructed inChaliyama and Bankasai villages
Provision of toilets to truck drivers should be there	Toilets have been constructed in Bankasai villages for Truck drivers.
Mosquito nets should be distributed	Distribution of 100 Mosquito nets shall be completed by August 2020
Technical education should be provided to youth	Company provided scholarship to meritorious students.

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

21.22.18 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.

Certified compliance report by Regional Office

21.22.19 Certified compliance report of MoEF&CC Regional office, Jharkhand was issued vide letter no. 103-498/ROR/2019/4053 dated 07/07/2020 for all the existing ECs. Action taken report was submitted by Rungta Mines Limited (Chaliyama Steel Plant) to MoEF&CC RO Ranchi for compliance to the observations made in the certified report on17/07/2020. MoEF&CC (RO), Ranchi evaluated the same and has issued letter dated 23/07/2020. The details of the observations made by RO in the report dated 23/07/2020 along with its present status as furnished by the PP is given as below:

Sl.	Non-compliance details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
1	Monitoring/ analysis and reporting requirement	Recent TCLP test report not furnished.	04 Nov 2008	9	-	IMMT BBSR is conducting TCLP Test & report shall be submitted within 3 months.Future analysis frequency-annual.
		Monitoring data from Induction Furnace not furnished.	01 Apr 2016	3	-	Stack emission monitoring report of IF has been submitted. Stacks referred are being monitored. GSR 414 requires reporting of CO in% while submitted value were in different units. Resubmission done.
		Stack monitoring facility as per G.S.R. 414(E) dated 30thMay 2008 not monitored and not furnished.	07 Aug 2019	-	2	
		Monthly summary report on fugitive emission not furnished.	07 Aug 2018	-	4f	It was being monitored quarterly, now will increase to monthly. July' 20 data submitted.
		Piezometers yet to be installed	07 Aug 2018	-	5b	Will be installed by September 2020 by supplier
2	Document requirement	Six monthly compliance reports not submitted for EC dated 04.11.2008. after 17	04 Nov 2008	-	11	The validity of the 2008 EC expired in 2018 and new expansion ECs obtained in 2016 & 2018, conditions of which were being complied & reports submitted.
		Advertisement regarding accord of Environmental Clearance not published in seven days	04 Nov 2008	-	12	Company received EC dt. 08.11.2008 through Indian Postal Service and published within 7 days after receipt .
		Date of financial closure and final approval of the project by the concerned authorities has not been furnished.	04 Nov 2008	-	13	This is a 100% self –financed project and therefore no loans have been taken from the banks. This financial closure and final approval from any authority is not required.
			01 Apr 2016	-	15	
			07 Aug 2018	-	35h	
		Concurrence letter from MOEF for allowing the change in source of coal has not been furnished	01 Apr 2016	13	-	Expansion for 0.5 to 0.7 MTPA was granted by MOEF&CC on 07.08.2018 wherein the source of coal was outside purchase/ South Africa/ E-Auction for existing as well as proposed units
		Item-wise details along with	01	20	-	Details have submitted.

Sl.	Non-compliance details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
		time bound action plan on ESC has not been submitted	Apr 2016			
		Details not furnished on expenditure as per CER	07 Aug 2018	-	1	Item wise details were submitted. Will be completed with the project completion.
		Approved copy of Emergency preparedness plan has not been furnished.	07 Aug 2018	-	21	Fully copy of On-Site Emergency Plans report has been submitted.
3	Air pollution control & house keeping	Dust extraction and suppression system at all the transfer point not observed. Water sprinkler partially observed. Raw materials found in open causing fugitive emission. The road silted, unpaved causing fugitive emission. Reverse air bag filter not installed at the material unloading area. Fume extraction system with suction hood partially provided in induction furnace. Online monitoring facility has not been provided to all the stacks.	01 Apr 2016	5, 6, 22	8	Dust extraction system with bag filters has been provided to kiln inlet area, crushing unit and cooling outlet area to control particulate matter. Missing fume extraction system repaired & installed in IF. Water sprinklers have been installed inside the plant to cover the entire premises. One water tanker provided for Water sprinkling. 5.7 kms of Concrete Roads constructed inside the existing Plant & 2,83,870 sq. mtrs of plant area paved. Frequency of vacuum cleaning has been increased to thrice a day. Online monitoring facility will now also be provided for IF and a work order has been issued for it.
			07 Aug 2018	-	4a, 6a, 6e, 21, 38	
		Wind shelter fence not observed	07 Aug 2018	-	6n	The temporary raw material storage has been covered with tarpaulin. Wind shelter will also be made in future
		Tyre washing facility at the entrance not observed.	07 Aug 2018	-	7e	Company is now installing permanent tyre washing facility by October 2020
4	Rainwater management	A small rainwater harvesting pond observed. A reservoir of capacity to meet the maximum water requirement has not been constructed.	01 Apr 2016	10	-	The water requirement is met from Kharkai river with permission of State Government. Water is available in lean season also. Hence, reservoir to meet maximum requirement is not required.
		Garland drains and collection pits for each stockpile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface runoff not observed.	07 Aug 2018	-	7d, 38	Peripheral drains connected with catch pits had already been constructed around stockpiles. The pre-monsoon maintenance work has been carried out and now they are clearly visible. Photographs submitted.
		Storm water drains & bottom holes for direct flow of the rainwater from east side of the plant into Kharkai river in west not observed.	07 Aug 2018	6	-	The plant is still under construction. The storm water drainage will be constructed along the internal roads, over the next few years, as per the drainage plan. Bottom holes have been now constructed
		Runoff Water from the raw material storage, waste disposal areas are yet to be treated before discharge and monitoring data	07 Aug 2018	-	5a, 38	The runoff will be duly settled, and quality tested prior to release on rainy days, in in-house lab. A 1000 KLD ETP is to be constructed as part of expansion

Sl.	Non-compliance details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
		of discharge water not furnished.				phase. Its excess capacity will be utilised for raw material storage runoff water treatment.
		Details of utilization of rainwater during lean season not furnished	01 Apr 2016	-	7	It is utilised for sprinkling, supply through pipeline from plant main gate to Chaliyama school
		This Steel Plant complex is located very close to almost abutting the bank of Kharkai River. Potential environmental implications need consideration at the time of processing the application	07 Aug 2018	-	33	The operation of the steel plant is taking place all precautions such as ensuring no discharge of any effluent, treated or untreated, from the plant takes place. There are garland drains and collection tanks collect & settle suspended solids prior to release.
5	Solid waste	Hundred percent utilization of solid waste has not been achieved and time bound action plan for proper utilization and disposal not furnished	01 Apr 2016	16	-	Char storage will get completely consumed by Dec 2020. Fly ash utilisation is also underway and by 2021, it will be completely disposed. The action plan for utilization of fly ash has been submitted
			07 Aug 2018	3	19, 21,	
		Briquetting/ agglomeration unit for recycle and reuse of iron ore fines, coal and coke fines, lime fines not observed	07 Aug 2018	-	6f	The coal fines can be & are 100% reused directly in the AFBC. There is no coke fines or lime fines generated in the plant. Iron ore fines are sold
6	PH commitments	Commitment made in the public hearing such as employment to all the land losers, green belt development, health check- up of the villagers, control of water pollution etc. has not been satisfactorily implemented.	01 Apr 2016	22	8	Commitments fulfilled related to 120 land losers direct employment, indirect employment through contractors, potable water through pipeline in villages, free ambulance facility on call, health camps, fruit bearing saplings distributed to the villagers, environment compliances
			07 Aug 2016	-	38	
		Over bridge from Banksai village to Kharkai river was under construction	07 Aug 2018	7	-	It will be completed by July 2020.
7	Green belt	Green belt all along the boundary not observed.	07 Aug 2018	4	38	Undertaking plantation in the identified area & 14000 gap plantation proposed
8	Others	Solar light systems for common areas	07 Aug 2018	-	9i	A 45 KWp roof top solar power system is under installation by August 2020 in plant
		Programme for reduction of the Green House Gas yet to be implemented	07 Aug 2018	-	20	Will be undertaken in phased manner after construction & operation of units under expansion phase.

21.22.20 During the discussions, the Committee sought for a written commitment from project proponent with respect to hot charging, installation of low NOx burners, restriction of PM emission levels, rain water harvesting, installation of ToP Recovery Turbine (TRT) on 524 m^3 blast furnace etc., In this regard, the written commitment furnished by PP during the course of meeting is given as below:

i. Installation of automated combustion control system will be adopted.
ii. Installation of low NOx burners and NOx control systems along with ammonia monitoring system in power plant.
iii. Further reduction in specific energy consumption by increasing hotcharging to rolling mill from 80% to 90%
iv. PM emissions will be restricted to 30 mg/Nm^3.
v. Dust collected from the various air pollution control equipment shall be utilized in sinter plant.
vi. The roads within the plant will be made of concrete and industrial vacuum cleaners deployed to keep them dust free.
vii. Air cooled condensers in all power plant units to be installed.
viii. Installation of Slip power recovery system for energy optimization will be done.
ix. 100% waste reutilisation and no solid waste dumps shall be created. A slag recycling plant will also be established.
x. Producer Gas Plant shall be closed circuit type and tar shall be recovered and 100% reused
xi. 100% of the rainwater within the plant premises is and will continue to be harvested
xii. Superior quality coal shall be used with ash <28% and high calorific value.
xiii. The 524 cum blast furnace will be provided with TRT.
xiv. Dry gas cleaning plant shall be used instead of wet technology for process gas in pellet plant and blast furnace.

Observations of the Committee

21.22.21 The Committee noted the following:

i. As per the records made available by the project proponent, the capacity of Integrated Steel Plant is increasing from 0.785 MTPA to 1.039 MTPA by change in configuration of the units followed by the usage of superior coal quality with better Fixed Carbon content and increase in feed of iron ore/pellet. There will be no change in land requirement and no increase in particulate matter emission levels and reduction in freshwater consumption due to the adoption of higher configuration units.

ii. The Committee noted that the addendum EIA/EMP report is found to be in order reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data reported and incremental GLC due to the proposed project are within NAAQ standards.

iii. The Committee satisfied with the action taken report submitted by PP with respect to the compliance status of all the existing ECs as well as the aforementioned written commitment submitted by the project proponent.

iv. The EAC has carried out requisite due diligence of the instant proposal and considered the same under para 7(ii) (a) of the EIA Notification, 2006 and dispense with the requirement of conducting fresh public consultation in light of the observations mentioned above.

v. 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

21.22.22 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under para 7(ii) of EIA Notification, 2006 in supersession of all the existing ECs for the said integrated steel plant 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 integrated steel plants based on project specific requirements:

A. Specific conditions

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. An affidavit shall be submitted to the Ministry as well as the Regional Office stating that observations made in the inspection report of Regional Office has been complied within six months from date of issue of the EC.

iii. PP shall adopt 90% direct hot charging in rolling mills in order to reduce energy consumption and overall emission levels of PM, SO_2 and NOx.

iv. 100% of the water consumed annually shall be recharged through Rain Water Harvesting (RWH) within the plant and/or outside in nearby areas. Recharge system shall have monitoring facility.

v. One Blast Furnace of 350 m^3 with a production capacity of 4,58,500 TPA shall be installed in place of 2x262 m^3. The same will be upgraded to 1x524m^3at a later stage and PP shall install a Top-Gas Pressure Recovery Turbine (TRT) on 524 m^3 blast furnace for recovery of waste heat for power generation.

vi. BF shall be equipped with the following to improve energy efficiency and reduce GHG emission further:

- Slag granulation system with exhaust chimney for evacuation of steam and fumes.
- Cast house de-dusting system.
- Dry gas cleaning plant for better cleaning of blast furnace gas in comparison to wet cleaning and elimination of water requirement.
- Bag Filters and dust suppression system at day bins and other materialhandling areas of blast furnace

vii. PP shall set up a facility for recycling of slag by separation into metal for recycling to SMS, flux for recycling to Sinter plant/pellet plant and slag for construction industry.

viii. All units existing as well as those to be installed now shall comply with the PM emission level of 30 mg/Nm^3. The dust recovered (100%) from pollution control systems shall recycled in the sinter plant/pellet plant.

ix. Water consumption shall be less than 4.11 m^3/t of Long Products.

x. In order to control fugitive dust, all plant roads shall be made in concrete and industrial vacuum cleaners shall be used regularly to sweep roads and plant floors.

xi. Air cooled condensers shall be used in power plant to be installed.

xii. The additional CER of Rs1.0 Cr will be spent in the next 3 years as committed.

xiii. Producer Gas Plant shall be closed Circuit Type and shall be equipped with tar and tar sludge management facility. Phenolic water shall be used in DRI plant for destruction of phenol and cyanide.

xiv. SO_2 emission from power plant shall be well below the permissible limits.

xv. PP should take steps for reduction in NOx emissions from the proposed CPP boilers by maintaining optimal temperature in the furnace, installation of Low NOx burners and adoption of SNCR (selective non catalytic reduction) systems based on aqueous ammonia to achieve the NOx emissions from the boiler well below the permissible limits.

xvi. PP shall create a dedicated "Resource Efficiency Group" in the Company and draw an improvement target and monitoring of resource (e.g. conservation of 10% resources in the first year) by way of Resource Efficiency (consumption/ recycling), including new technology, Encouraging R&D for Resource Efficiency, new market, new products etc.

B. General Conditions

I. Air quality monitoring and preservation

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

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

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

v. Secondary emission control system shall be provided at SMS Converters.

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

vii. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

viii. Land-based APC system shall be installed to control coke pushing emissions.

ix. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

x. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.

xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

xiii. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.

II. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs 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. The project proponent shall provide the ETP for coke oven to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;

iv. Adhere to 'Zero Liquid Discharge'

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

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.

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

viii. CO_2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning.

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

x. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

III. 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

IV. 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.

V. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.

ii. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximize heat recovery.

iii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

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

v. 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.

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

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

VI. 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.

VII. 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.

VIII. 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 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

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.

IX. 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.

21.23 Proposed Integrated Steel Plant (Iron ore Beneficiation & Pellet Plant-1.2 MTPA; DRI Plant - 0.6 MTPA; Blast Furnace - 0.4 MTPA; SMS-Steel Billets- 0.7 MTPA; Rolling Mill - 0.65 MTPA; Coke Oven- 0.2 MTPA; Sinter Plant - 0.4 MTPA; Oxygen Plant- 400 TPD) along with 100 MW Captive Power Plant [25MW – FBC based power plant, 4x12.5MW – WHRB and Turbine, 13MW using BF gas and 12 MW using Coke Oven Gas] by **M/s Jayaswal Neco Industries Limited located** at villages Dagori, AmeriAkberi and Udgaon, Tehsil Bilha, **Dist Bilaspur, Chhattisgarh**[Proposal No. IA/CG/IND/153687/2020; MoEF&CC File No.J-11011/302/2011-IA.II(I)]**– Reconsideration for validity extension of EC based on ADS reply - regarding.**

21.23.1 M/s. Jayaswal Neco Industries Limited has made online application vide proposal no. IA/CG/IND/153687/2020dated 21/05/2020 along with Form 6 and sought for validity extension of the Environment Clearance accorded by the Ministry vide letter no. J-11011/302/2011- IA-II(I) dated

6/6/2013.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.

21.23.2 The proposal cited above was considered in the 20th EAC meeting held on 25-26th June, 2020 and the proceedings are reproduced as below:

M/s. JayaswalNeco Industries Limited has been granted Environment Clearance by the Ministry for a project titled *"Proposed Integrated Steel Plant (Iron ore Beneficiation & Pellet Plant-1.2 MTPA; DRI Plant - 0.6 MTPA; Blast Furnace - 0.4 MTPA; SMS-Steel Billets- 0.7 MTPA; Rolling Mill - 0.65 MTPA; Coke Oven- 0.2 MTPA; Sinter Plant - 0.4 MTPA; Oxygen Plant- 400 TPD) along with 100 MW Captive Power Plant [25MW – FBC based power plant, 4x12.5MW – WHRB and Turbine, 13MW using BF gas and 12 MW using Coke Oven Gas] at villages Dagori, AmeriAkberi and Udgaon, Tehsil Bilha, District Bilaspur, Chhattisgarh"* vide letter no. J-11011/302/2011-IA-II(I) dated 06/06/2013.

The units along with its production capacity envisaged in the EC dated 06/06/2013 is furnished as below:

S.No.	Name of the Unit	Capacity	Products
1.	Iron ore Beneficiation and Pellet Plant	1.2 MTPA	Iron ore pellets
2.	Blast Furnace	0.4 MTPA	Hot metal/ Pig iron
3.	DRI Plant	0.6 MTPA	Sponge iron
4.	Coke Oven (non-recovery type)	0.2 MTPA	Metallurgical Coke
5.	Sinter Plant	0.4 MTPA	Sinter
6.	Steel Melting Shop	0.7 MTPA	Steel
7.	Rolling Mill	0.65 MTPA	Steel Products
8.	Oxygen Plant	400 TPD	Oxygen
9.	Captive Power Plant	100 MW#	Electricity

[25MW – FBC based power plant, 4x12.5MW – WHRB and Turbine, 13MW using BF gas and 12 MW using Coke Oven Gas]

JNIL Obtained Permission to Establish from Chhattisgarh Environment Conservation Board vide letter no. 3538/TS/CECB/2013 dated 10.10.2013.

The project is being established in phase manner. In first phase 2x500 TPD DRI for manufacturing 0.3 MTPA sponge iron and 2 x 12.5 MW WHRB Power Plant work has been undertaken and the same is likely to be commissioned by December 2020. M/s. Jayaswal Neco Industries Limited obtained the water permission from Water Resource Department for withdrawal of 7 MCM water from Shivnath River. Around Rs. 497 Crores have been incurred on the project so far.

The remaining project activity is yet to commence the construction because of the change in various policy of the Government on land acquisition, financial constraints, and the banks had kept on hold all the funding for the company due to cancellation of coal block. In light of this, the project could not be implemented within the validity

period of seven years. Hence, validity period of the EC dated 6/06/2013 may be extended for a period of five years beyond 05/06/2020.

The implementation schedule of various units envisaged in the EC dated 6/6/2013 is given as below:

(i) For the units to be commissioned by December 2020

Sr. No.	Name of the Unit	Capacity	Expected date of Commissioning
1	2x500 TPD DRI	0.3 MTPA	December-2020
2.	2 x 12.5 MW WHRB Power Plant	25 MW	December-2020

(ii) For the remaining units

S.No.	Name of the Unit	Capacity	Products	Implementation schedule
1.	Iron ore Beneficiation and Pellet Plant	1.2 MTPA	Iron ore pellets	June 2025
2.	Blast Furnace	0.4 MTPA	Hot metal/ Pig iron	June 2025
3.	DRI Plant	0.3 MTPA	Sponge iron	June 2025
4.	Coke Oven (non-recovery type)	0.2 MTPA	Metallurgical Coke	June 2025
5.	Sinter Plant	0.4 MTPA	Sinter	June 2025
6.	Steel Melting Shop	0.7 MTPA	Steel	June 2025
7.	Rolling Mill	0.65 MTPA	Steel Products	June 2025
8.	Oxygen Plant	400 TPD	Oxygen	June 2025
9.	Captive Power Plant	1*25 MW AFBC 2x12.5 MW-WHRB BF GAS -13 MW Coke Oven Gas – 12 MW	Electricity	June 2023 June 2025 June 2025 June 2025

Observations of the Committee held on 25-26th June, 2020

The Committee noted the following:

i. Project proponent was unable to implement the facilities envisaged in the EC dated 06/06/2013 due to change in various policy of the Government on land acquisition, financial constraints, and the banks had kept on hold all the funding for the company due to cancellation of coal block.

ii. Current status is that only 2x500 TPD DRI Kilns and WHRB of 2x12.5 MW shall be commissioned by Dec 2020. 25 MW AFBC CPP shall be ready by June 2023. Work on remaining units started as yet.

iii. The entire land envisaged in the EC dated 06/06/2013 is still not under the possession of project proponent.

iv. The validity period of the EC dated 06/06/2013 can be extended only for a period of three years beyond 05/06/2020 as per the provisions of the EIA Notification, 2006. Validity of EC cannot be extended beyond ten years as requested by the project proponent.

v. The committee was of the view that balanced facilities envisaged in the EC dated 6/06/2013 may not be able to be commissioned by the proponent with the validity period of 5/06/2023.

Recommendations of the Committee held on 25-26th June, 2020

In view of above and after deliberations, the Committee deferred the consideration of the proposal and sought following additional information for further consideration of the proposal:

i. The land details under the possession of project proponent shall be furnished.

ii. Revised implementation bar chart containing time schedule for the units which can be commissioned within the available land and the EC validity period i.e, 5/06/2023 shall be submitted. Request for dropping of remaining units shall also be submitted.

iii. Action plan for utilization of dolochar to be generated in the DRI plant shall be submitted.

21.23.3 The project proponent submitted the ADS reply to MoEF&CC on 15/07/2020. The reply submitted by the PP is summarized as below:

i. The land details under the possession of project proponent shall be furnished.

As per the original program the company required around 207 hectares (512 acres) of land for implementing the total project. Up to date the company had purchased 211 acres land and additional 19 acres agreement had been executed and payment have been made, for which the registry is pending, with this the total land will be 230 acres. Company want to establish and commissioned those projects which would be established within available land and completed within extended period, hence some of the projects had been dropped the revised requirement of land unit wise along with green belt is as below:

Sl. No	Proposed Project (Sub-head)	Proposed Unit Capacity	Land requirement in acres	Status
1	Pellet Plant	1.2 MTPA	20	In possession
2	DRI with Raw Material yard	0.6 MTPA	60	In possession
	WHRB + AFBC Power plant with Raw Material yard	75 MW (WHRB 50 MW + AFBC 25 MW		
3	Steel Melt shop	0.7 MTPA	10	In possession
4	Rolling Mill	0.65 MTPA	20	In possession
5	Oxygen plant	400 TPD	1	In possession
6	Water Reservoir		12	In possession

Sl. No	Proposed Project (Sub-head)	Proposed Unit Capacity	Land requirement in acres	Status
7	Railway Siding yard		10	In possession
8	Switch yard		5	In possession
9	Administration Building		2	In possession
10	Central stores		2	In possession
11	Solid Waste disposal yard		3	In possession
12	Miscellaneous Utilities / FP yard		5	In possession
	Total		150	
13	Green Belt (33% of above)		75	In Possession
	Grant total		225	Total land in possession

ii. Revised implementation bar chart containing time schedule for the units which can be commissioned within the available land and the EC validity period i.e, 5/06/2023 shall be submitted. Request for dropping of remaining units shall also be submitted.

In first phase 2x500 TPD DRI and 2 x 12.5 MW WHRB Power Plant work has been undertaken and is under progress. The first phase is likely to be completed by December 2020. The company had a valid sanction of 7 MCM water from Water Resource Department Government of Chhattisgarh. The company had deposited Rs. 6.50 Crores to Water Resource Department for construction of Anicut at river Seonath. The survey for electricity Transmission line had been completed for transmission of power to the national grid. A total of around Rs. 497 Crores had been invested in the project so far.

Dropping of units:

Sl. No	Particulars of Project	Capacity as per EC dated 06/06/2013 (MTPA)	Revised Capacity (MTPA)	Remarks
1	Iron ore Beneficiation and Pellet Plant	1.20	**1.20 MTPA Pellet plant**	Only Beneficiation plant dropped
2.	Blast Furnace	0.40	**0.00**	Dropped
3.	DRI Plant	0.60	**0.60**	To remain
4.	Coke Oven (Non recovery type)	0.20	**0.00**	Dropped
5.	Sinter Plant	0.40	**0.00**	Dropped
6.	Steel Melting Shop	0.70	**0.70**	To remain
7.	Rolling Mill	0.65	**0.65**	To remain
8.	Oxygen Plant	400 TPD	**400 TPD**	To remain
9.	Captive Power Plant	WHRB 4*12.5 = 50 MW FBC 1*25 = 25 MW BF Gas 1*13 = 13 MW CO Gas 1*12 =12 MW Total 100 MW	**WHRB 4*12.5=50MW FBC 1*25 = 25 MW** **Total 75 MW**	BF Gas and Coke Oven Gas based power plant to be dropped.

Revised implementation schedule

Sl.No	Particulars of Project	Capacity	Expected dated of commissioning	Status
1	Pellet Plant	1.20	February 2023	To start from September 2020 and end on March 2023
3.	DRI Plant	0.60	0.30 MTPA to be commissioned by June 2021, Balance 0.30 MTPA to be commissioned by January 2023	Commissioning Work in progress for the 0.30 MTPA Capacity and the balance will be commissioned before January 2023.
6.	Steel Melt Shop	0.70	To be commissioned by February 2023	Project implementation to start from To remain November - December 2020.
7.	Rolling Mill	0.65	To be commissioned by February 2023	Project implementation to start from To remain November - December 2020.
8.	Oxygen Plant	400 TPD	To be commissioned by February 2023	Project implementation to start from To remain June 2021.
9.	Captive Power Plant	WHRB (4x12.5 MW) = 50 MW FBC 1 x 25 = 25 MW	2 x 12.5 = 25 MW to be commissioned by December 2020. (WHRB) 1 x 25 MW to be commissioned by December, 2021. (AFBC) 2 x 12.5 = 25 MW to be commissioned by January 2023 Total 75 MW	2 x 12.5 MW will be commissioned by December 2020 (WHRB) 1 x 25 MW AFBC will be commissioned by December, 2021. 2 x 12.5 MW WHRB Implementation to start from January 2021 will be commissioned by January 2023. (WHRB) Total 75 MW

iii. Action plan for utilization of dolochar to be generated in the DRI plant shall be submitted.

Year	Plant specification	Qty of Dolochar generation (MT)	Utilization	Remarks
2020-21	2 * 500 TPD DRI Plant	6500	To store	Only three months production considered @ 60% plant utilization

Year	Plant specification	Qty of Dolochar generation (MT)	Utilization	Remarks
2021-22	2*500 TPD DRI Plant	41580	To be utilized in Raipur Plant	Raipur SPD has 15 MW (66 TPH AFBC Boilers) Thermal Generation.
2022-23	4*500 TPD DRI Plant	41580 + 6500 = 48080	Partially to be consumed at Dagori and balance will be utilized on Raipur Plant	25 MW AFBC will be installed in January 2023.
2023-24	4 * 500 TPD	83000	To be fully consumed in the captive FBC power plant	Total In-house consumption.

Observations of the Committee

21.23.4 The Committee noted the following:

i. Project proponent was unable to implement the facilities envisaged in the EC dated 06/06/2013 due to change in various policy of the Government on land acquisition, financial constraints, and the banks had kept on hold all the funding for the company due to cancellation of coal block.

ii. The validity period of the EC dated 06/06/2013 can be extended only for a period of three years beyond 05/06/2020 as per the provisions of the EIA Notification, 2006.

iii. PP wants to drop BF, Coke Oven Sinter Plant CPP part which cannot be completed within the extended three-year period validity of EC.

Recommendations of the Committee

21.23.5 In view of above and after detailed deliberations, the Committee recommended to extend the validity of the Environment Clearance for a period of three years beyond 05/06/2020, i.e., from 06/06/2020 to 05/06/2023 subject to stipulation of following conditions in addition to the environmental safeguards prescribed in the EC dated 06/06/2013.

i. The validity of 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. PP shall be permitted to use dolo-char in their Raipur Complex till Dec 2021 only. Sale of dolo-char is not permitted. The AFBC boiler to use entire amount of dolo-char in the plant itself shall be commissioned by December 2021.

iii. Tree Plantation on both sides of railway track shall be carried out.

iv. Total green belt development shall be in 75 Acres area within the plant premises.

v. Blast Furnace, Coke Oven Plant, Sinter Plant and CPP part which cannot be completed within the extended three-year period stands dropped from the EC dated 06/06/2013.

21.24 Proposed 1200 MT/day (396000 MT/annum) Cement Plant by **M/s. Kashmir Cements** to be located at village Bhatayan, Khrew, Tehsil Pampore, **District Pulwama, Jammu and Kashmir** - [Online Proposal No. IA/JK/IND/76457/2018, File No. IA-J-11011/269/2018-IA-II(I)] **– Environment Clearance - regarding.**

21.24.1 M/s Kashmir Cements has made an online application vide proposal no. IA/KA/IND/1543277/2020dated 25.05.2020in the prescribed Form -2alongwith other reports to the Ministry for seeking Environmental Clearance (EC) for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.24.2 Proposal for Establishment Rotary Kiln base OPC cement Plant of M/s Kashmir Cement located in Village Bhatayan, Khrew Pampore, District Pulwama, State Jammu and Kashmir was initially received in the Ministry on 28thAugust, 2018 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 35thmeeting held on17th to 18th September 2018 and prescribed ToRs to the project for undertaking detailed EIA study. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 9th October 2018 vide Lr. No. IA-J11011/269/2018-IA.II(I).

21.24.3 Based on the ToRs prescribed to the project, the project proponent submitted an application for EC to the Ministry online on online on 15th November 2019 vide Online Proposal No. IA/JK/IND/76457/2018.

21.24.4 The project of M/s Kashmir Cements located in village Bhatayan, Khrew Pampore, District Pulwama, State Jammu and Kashmir is for setting up of a new Rotary Kiln Base Cement Plant for production of 0.396 million tones per annum (MTPA) of OPC Cement.

21.24.5 Proposed cement plant is a green field project. The total land required for the project is 3.89 ha which was already acquired. No forestland involved. No River passes through the project area and its vicinity. 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.

21.24.6 Topography of the area is hilly terrain and reported to lies between 34. 03'11.35'' to 34.03'07.58'' N Latitude and 75.01'03.76'' to 75.01'10.36'E Longitude in Survey of India toposheet No. I43J4, I43P1, I43I16 & I43O13, at an elevation of 1897m AMSL. The ground water table reported to ranges between 1.5 to 2.5 m below the land surface during the post-monsoon season and 2 to 3 m below the land surface during the pre-monsoon season. The stage of groundwater development is reported to be 8.38 % and thereby these are designated as safe areas.

21.24.7 Dachigam National Park is located at a distance of 3.37 km from the site. The sturdy area was reported to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the site-specific conservation plan reporting presence of schedule-I fauna in the study area.

21.24.8 Targeted production capacity of the project is 0.396 MTPA of cement. The limestone for the

plant would be procured from local mines located nearby the project site. The mineral transportation will be done through road.

21.24.9 Water requirement of the project is estimated as 350 m3/day and the requirement will be obtained from the tube well .The permission for drawl of groundwater has been initiated and under active consideration of Chief Engineer, Kashmir PHE Department, Srinagar vide letter no CE/PHE/DB/36129-30 Dated 27-01.2020.

21.24.10 The power requirement of the project is estimated as 9 MW, which will be obtained from the state electricity supply and 2×2500 KVA DG set will be established for standby purpose.

21.24.11 Baseline Environmental Studies were conducted during post monsoon season i.e. from 1st October 2018 to 31st December 2018. Ambient air quality monitoring has been carried out at eight locations during the study period and the data submitted indicated: PM10 (32 to 71 µg/m3), PM2.5 (18 to 39 µg/m3), SO2 (5.4 to 10.2 µg/m3) and NOx (9.8 to 23.4 µg/ m3). Results of the modeling study indicate that the maximum increase of GLC for the proposed project is 5.6 µg/m3 with respect to the PM10, 3.7 µg/m3 with respect to the SO2 and 2.4 µg/m3 with respect to the NOx

21.24.12 Ground water quality has been monitored in eight locations in the study area and analyzed. pH: 7.26 to7.46, Total Hardness: 118 to 145 mg/l, Chlorides: 44.6 to 57.2 mg/l, Fluoride: 0.21 to 0.29 mg/l. Heavy metals are below detectable limits. No surface water body is present within the study area

21.24.13 Noise levels are in the range of 42.2 to 63.9 dB(A) for daytime and 37.3 to47.8 dB(A) for nighttime.

21.24.14 It has been reported that no population is there in the core zone of the project. No/R&R is involved.

21.24.15 It has been reported that no solid wastes except metal scraps during construction phase will be generated from the project. All the wastes generated would be reused for the production of cement. It has been envisaged that an area of 1.29 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.

21.24.16 It has been reported that the no Consent to Establish/Consent to Operate from the J&K State Pollution Control Board.

21.24.17 Public hearing of the project was held on 18th May 2019 at Town Hall, Pampore under the chairmanship of Additional District Magistrate (designation) for production of 0.396 MTPA of green field cement plant. The issues raised during public hearing are employment to local and pollution problems due to the existing cement plants. An amount of Rs. 347.9 Lakhs (1.75 % of Project cost) has been earmarked for Corporate Environment Responsibility based on public hearing issues.

21.24.18 The capital cost of the project is Rs 198.6 Cr and the capital cost for environmental protection measures is proposed as Rs 1040.0 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 215.0 Lakhs. The employment generation from the proposed project / expansion is 200.

21.24.19 Greenbelt will be developed in 1.29 ha 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 2500 trees per hectare. Total no. of 7500 saplings will be planted and nurtured in 1.29 hectares in 5 years.

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

21.24.21 Name of the consultant: M/s Ardra Consulting Services Pvt Ltd, Bhubaneswar, Odisha.

Observations of the committee

21.24.22 This is a green field project of 1200 TPD clinker and cement grinding unit which is located at a distance of 3.7 km of Dachigam National Park. Project proponent has submitted application for obtaining the recommendation of Standing Committee of National Board for Wildlife (NBWL).

21.24.23 Project proponent has changed the earlier consultant M/s Enviro Infra Solutions Pvt Ltd which was unable to present facts with analysis of baseline data before Expert Appraisal Committee (EAC). Therefore, project proponent engaged M/s Ardra Consulting Services Pvt Ltd after obtaining NoC from earlier consultant. In this regard, as desired by committee, project proponent has submitted a letter through email during the meeting for consideration.

Recommendations of the committee

21.24.24 In view of foregoing, after deliberations, the committee recommended the proposal for Environment Clearance 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 integrated steel plants based on project specific requirements:

A. Specific Conditions:

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. Particulate emissions from stacks shall be maintained less than 30 mg/Nm^3.

iii. Project proponent shall install low NO_x burners.

iv. Greenbelt shall be developed within 2 years.

v. Ground water abstraction shall phase out after 4^{th} year of operation and switch over to surface water.

vi. CER shall be implemented within three years.

B. General Conditions

I. Statutory Compliance

i. Project is located at a distance 3.7 km from Dachigam National Park for which ESZ is yet to be notified. Therefore, project proponent shall obtain the recommendation of Standing Committee of National Board for Wildlife.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986. The CEMS and CAAQMS shall beconnected 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 fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.

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

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

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

vi. Ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;

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

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

v. The project proponent shall practice rainwater harvesting to maximum possible extent.

IV. Noise monitoring and prevention

i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.

ii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

iii. Maximize utilization of alternate fuels and co-processing to achieve best practice norms.

VI. Waste management

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

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.

IX. Corporate Environment Responsibility

i. 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.

ii. 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.

21.25 Expansion of the Ductile Iron Pipe Plant b installing 4x100 TPD Sponge Iron (1,30,000 TPA) Steel Making facility (1,25,000 TPA), 4X9 MVA Ferro Alloy (Fe-Si: 25,000 TPA or Si-Mn: 60,000 TPA or Fe-Mn: 75,000 TPA) along with 12 MW Captive Power Plant (8 MW WHRB and 4 MW FBC) by **M/s. Srikalahasti Pipes Ltd** at Villages Merlapaka&Rachagunneri, Mandal Yerpedu&Srikalahasthi, **District Chittoor, Andhra Pradesh** [Online Proposal No. IA/AP/IND/163531/2020, File No. J-11011/158/2011-IA.II(I)] **– Amendment in Environment Clearance – regarding.**

21.25.1 M/s. Srikalahasthi Pipes Ltd has made online application vide proposal no. IA/AP/IND/163531/2020 dated 07/07/2020 in prescribed Form 4 and other documents for seeking amendment in Environmental Clearance (EC). 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.

21.25.2 The existing EC was accorded to M/s Lanco Industries Ltd for 'Expansion of the Ductile Iron Pipe Plant by installing (4x100 TPD) Sponge Iron (1,30,000 TPA), Steel Making facility (1,25,000 TPA), 4X9 MVA Ferro Alloy (Fe-Si: 25,000 TPA or Si-Mn: 60,000 TPA or Fe-Mn: 75,000 TPA) along with 12 MW Captive Power Plant (8 MW WHRB and 4 MW FBC) within the existing plant premises' located at Villages Merlapaka & Rachagunneri, Mandal Yerpedu & Srikalahasthi, District Chittoor, Andhra Pradesh vide letter No. J-11011/158/2011-IAII(I) dated 11.01.2013.

21.25.3 Later on, the project was taken over by M/s Sirkalahasthi Pipes Ltd. Subsequently, the Environmental Clearance dated 11.01.2013 was transferred to M/s Srikalahasthi Pipes Ltd vide letter dated 17.10.2016.

21.25.4 An amendment to the EC was accorded vide letter dated F.No. J-11011/158/2011-IA.II(I) dated 28.02.2020.

Details submitted by the project proponent

21.25.5 Andhra Pradesh Pollution Control Board was accorded CFE/CTE for the project vide order No. 391/APPCB/CFE/RO-TPT/HO/2005 dated 21.07.2016 which is valid for a period of 7 years from date of issuance.

21.25.6 The status of implementation of the project is given below:

Sl. No.	Product	Capacity as per EC dt. 11.01.2013	Capacity already installed and CFO obtained	Balance capacity to be set up	Implementation status
1	Ductile Iron Pipes	4,00,000 TPA	3,50,000 TPA	50,000 TPA	Will be completed by Mar 2021
2	Pig Iron	5,25,000 TPA	3,50,000 TPA	1,75,000 TPA	Will be completed by Dec 2022 in Phases
3	LAM Coke	4,62,000 TPA	2,80,000 TPA	1,82,000 TPA	Will be completed by Dec 2022 in Phases
4	Captive Power generation	52.5 MW	16 MW	36.5 MW	Will be completed by Dec 2022 in Phases
5	Slag Cement	3,90,000 TPA	99,000 TPA	2,91,000 TPA	Will be completed by Dec 2022
6	Sponge Iron (4x100 TPD)	1,30,000 TPA	Yet to be implemented	1,30,000 TPA	Will be completed by Dec 2022
7	Steel Products	1,25,000 TPA	Yet to be implemented	1,25,000 TPA	Will be completed by Dec 2022
8	Ferro Alloys Unit	FeSi-25,000 TPA SiMn-60,000	FeSi-16,000 TPA SiMn-32,000 TPA FeMn-42,000TPA	FeSi-9,000 TPA SiMn-28,000	Will be completed by Dec 2022

Sl. No.	Product	Capacity as per EC dt. 11.01.2013	Capacity already installed and CFO obtained	Balance capacity to be set up	Implementation status
		TPA FeMn-75,000 TPA (4x9 MVA)	(2x9 MVA)	TPA FeMn-33,000 TPA (2x9 MVA)	

21.25.7 Project proponent purchased 6 MW biomass power plant of M/s Rithwik Energy Systems Ltd which is adjacent to the steel plant sharing common boundary. Total area of the bio mass of power plant is 11.32 acres.

21.25.8 It is intend to use turbine of the power plant by providing steam generated in the WHRB of the steel plant. The cooling tower blow down water nearly 300 KLD would be used for Slag granulation or Coke quenching or any other use maintaining Zero liquid discharge.

21.25.9 Consequently, the area of the steel plant will be changed by additional of 11.32 acres for which amendment of EC is required. The following are requested for amendment.

S.No	Reference of Approved EC	Description as per approved EC	Description as per Proposal.	Remarks
1	EC letter J-11011/158/2011-IA-II(I) dated 11.01.2013.	Total Land - 230.85 acres. Plant area – 130 acres. Greenbelt – 50 acres. Area for future development- 50.85 acres.	Additional land 11.32 acres by addition of Rithwik Energy Systems Ltd.	Final Total land 242.17 acres. Additional green belt – 3.7 acres Total greenbelt area- 53.7 acres.
3	J-11011/158/2011-IA-II(I) EC validity extension order dt 28.02.2020 condition S.No.-10	The green belt shall be developed 50 acres.	No additional green belt area proposed.	-

Observations of committee

21.25.10 An additional area of 11.32 acres of M/s Rithwik Energy Systems Ltd is to be added to the existing plant area of 11.32 acres.

21.25.11 A pipeline was proposed for supply of steam for the turbine of 6 MW. Cooling tower blow down is the additional wastewater generation of 300 KLD to the existing wastewater.

Recommendations of the committee

21.25.12 In view of foregoing, after detailed deliberations, the committee recommended the proposal for amendment of EC by addition of 11.32 acres to the existing area of 230.85 acres with the following conditions.

i. Cooling tower blow down water shall be reused for slag granulation.

ii. Green belt shall be developed in the additional area of 3.7 ha, so that total green belt shall be 53.7 acres out of total area 242.17 acres.

21.26 Expansion of Sponge Iron unit from 5500 MT/M to 20500 MT/M, Billets production from 12333 MT/M to 36333 MT/M, expansion of Rolling Mill from 12000 MT/M to 36000 MT/M, WHRB based power generation from 4 MW to 12 MW and AFBC based power generation from 4 MW to 21 MW Unit in existing premises by **M/s. A.S.R. Multimetals Pvt. Limited** at Village Chhadwada, Taluka Bhachau, **District Kutch, Gujarat** [Proposal No. IA/GJ/IND/164426/2020; MoEF&CC File. No. J-11011/251/2007- IA II (I)] – **Amendment in Terms of Reference regarding waiver of public hearing – regarding.**

21.26.1 M/s. ASR Multimetals Pvt Ltd has made online application vide proposal no. IA/GJ/IND/164426/2020 dated 21/07/2020 in prescribed Form 3 and other documents for seeking amendment in prescribed ToR for undertaking EIA study 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.

21.26.2 ToR was prescribed for undertaking detailed EIA study for the project of M/s ASR Multimetals Pvt Ltd vide letter dated 07.07.2015.

21.26.3 Baseline study was conducted during the period 15th March – 15th June 2015 for preparation of EIA report.

21.26.4 Validity of ToR was extended for further period of one year, i.e. upto 06.07.2019 subject to the condition that the baseline data and public consultation shall not be more than three years at the time of submission of the proposal for Environmental Clearance to the Ministry.

21.26.5 Public Hearing for the proposed project was conducted on 07.08.2018.

21.26.6 The application of Environmental Clearance (EC) was received in the Ministry vide proposal No. IA/GJ/IND/85547/2015 dated 26.12.2018.

21.26.7 The proposal was considered in the EAC meeting held during 9-11th January 2019. The committee recommended for rejection of the proposal and advised the Project Proponent on the basis of following observations:

'The committee noted that the baseline data is more than three years old; the EIA report is not in as per the generic structure as mandated in the Appendix –III of EIA Notification 2006; number of ToRs prescribed were not properly addressed. The committee noted that the baseline data shall not be older than 3 years by the time of application for EC to the Ministry as per the Office memorandum issued by the Ministry. Further the committee observed that the details made in the presentation and EIA EMP report is not matching.'

21.26.8 Project Proponent made application afresh for ToR and it was considered in the EAC meeting held during 20-22nd February 2019. The committee did not considered the request to exempt Public Hearing and recommended ToR with Public Hearing.

21.26.9 Project Proponent made representations vide letters dated 21.02.2019 and 07.03.2019 for exemption of Public Hearing. After detailed examination, the Ministry prescribed fresh ToR vide letter dated 27.05.2019 for undertaking EIA study with Public Hearing.

21.26.10 Again, the Project Proponent represented vide letter s dated 01.07.2019, 27.0.2019 and 28.12.2019 for exemption of Public Hearing as the Public Hearing was not older than 3 years at the time of consideration for fresh ToR. There is no industrial development was taken place around the project in the study area, i.e no land use change in the study area.

21.26.11 Ministry considered the request of project proponent and hold a personal hearing on 16th March 2020 with project proponent and EIA consultant. The Ministry referred the proposal to EAC based on the following facts which were noted during the meeting.

i. *At the time of earlier EC application, Public Hearing was valid and it was only six months* older. *Since, the project has not been implemented and the concerns of the Public Hearing will be the same. Conducting of Public Hearing for the same capacity /same proposal is difficult task to the company and this may cause inordinate delay.*

ii. *EIA consultant mentioned that baseline data was already collected during the period March –May 2019. There are no industrial developmental activities came up in the vicinity of the project area and no change in the land use. Therefore, there is no change in the environmental status of the study area and in the vicinity of the project site. In the previous EIA study also baseline data was collected in summer season only. Eventually, the revised EIA report will also validate the data with fresh data. The Revised EIA report will be ready within a week and EC application will be submitted, if the Ministry exempts the Public Hearing.*

21.26.12 In accordance with the procedure, project proponent has made application vide proposal No. IA/GJ/IND/164426/2020 dated 21/07/2020 for amendment in prescribed ToR.

Observations of the committee

21.26.13 Earlier application for EC was rejected as the EIA report was not as per the guidelines of QCI/NABET. Now, the project proponent has changed the consultant. The base line data generated in the year 2015 i.e., March 2015 to May 2015 has been revalidated by collecting fresh baseline data during March 2019 to May 2019.

Recommendations of the committee

21.26.14 In view of foregoing, after detailed deliberations, the committee recommended for amendment of ToR by exempting public hearing for undertaking EIA study and also agreed upon to use the baseline data collected during March 2019 to May 2019 for preparation of EIA report.

21.27 Proposed Expansion of the Steel Plant by installation of Pellet Plant with Grinding Facility (2x0.85 MTPA), Sponge Iron Plant (1x350 TPD Kiln), Induction Furnaces (3x25T), Capacity revision from 600 TPD to 1000 TPD of Rolling Mill along with 7 MW capacity Captive Power Plant (WHRB based, utilizing waste heat from the proposed sponge plant) and Producer Gas Plant (12x4000 Nm^3/hr) by **M/s. Bravo Sponge Iron Pvt. Ltd.,** located at Village Mahuda, P.O. Rukni, P.S. Para**, District Purulia, West Bengal**[Online Proposal No. IA/WB/IND/125425/2015; File No. J-11011/758/2009-IAII(I)] **– Environment Clearance - regarding. [Tabled agenda with permission of the Chair].**

21.27.1 The aforesaid proposal was considered in the 14th meeting of the EAC (Industry -1) held on 23-24th December, 2019 and further reconsidered in the 18th meeting of the EAC (Industry - 1) held on 29-30th April, 2020 wherein the Committee deferred the consideration of the instant proposal till the requisite actions as per extant provisions of rules are completed for commencing the civil and foundation works for the pellet plant without obtaining EC by the project proponent. Further, the Committee requested Ministry to issue Show Cause notice as per Ministry Office Memorandum dated 07/02/2020, in view of commencement of civil work for pellet plant by project proponent.

21.27.2 The Member Secretary apprised the Committee that based on the EAC recommendations, the file was processed and the Show Cause Notice was issued on 21/06/2020. Further, informed that the project proponent has submitted their SCN reply on 6/7/2020 and Regional Office has furnished their comments on 17/07/2020 and 21/07/2020 which are under examination.

Also apprised the EAC that Competent Authority in the Ministry has taken a following decision in another case and has directed principle to be followed in all cases where violation is suspected or alleged.

i. Send the matter to the Sector EAC for consideration of the case on merit.
ii. Take action against the alleged violation as per law.
iii. Do not wait for either the evidence of action having been started or violation proceedings to finish before taking up the case on merit.
iv. The EC if given after consideration on merit would be valid from the date it is given and not with retrospective effect. For the period before it, if violation is established by the court or the competent authority, the punishment/penalty as per law would be imposed.

Observations of the Committee

21.27.3 The Committee taken cognizance of the decision of the Competent Authority with respect to the cases wherein violation is suspected or alleged.

Recommendations of the Committee

21.27.4 In view of the foregoing and deliberations, the Committee requested the Ministry to place the instant proposal under consideration in its forthcoming meeting for consideration on merit as per the decision of the Competent Authority.

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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. Corporate Environment Responsibility (CER)

i. To address the Public Hearing issues, an amount as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018 amounting to Rs. .....crores, shall be earmarked by the project proponent, towards Corporate Environment Responsibility (CER). Distinct CER projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These CER projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat& District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above CER budget

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).

The following general points shall be noted:

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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