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

Summary record of the twenty sixth (26th) meeting of Re-Constituted Expert Appraisal Committee (REAC) held during 16-17th December, 2020 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The twenty sixth 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 **16-17th December, 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	16/12/20	17/12/20
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present
2.	Dr. Bipin Prakash Thapliyal, Director, CPPRI.	Member	Present	Present
3.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present
4.	Dr. Jagdish Kishwan	Member	Present	Present
5.	Dr. G.V. Subramanyam	Member	Present	Present
6.	Dr. Tejaswini AnanthKumar	Member	Present	Present
7.	Shri. Ashok Upadhyaya	Member	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present
9.	Dr. Sanjay Deshmukh	Member	Absent	Absent
10.	Prof. S.K. Singh	Member	Present	Present
11.	Dr. R. Gopichandran	Member	Absent	Absent
12.	Shri Jagannadha Rao Avasarala	Member	Present	Absent
13.	Shri. J.S.Kamyotra	Member	Present	Present
14.	Shri. A.K. Agrawal	Member Secretary	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 25th meeting held during 25-27th November, 2020 were confirmed by the EAC as already uploaded on PARIVESH.

16th December, 2020

26.1 Proposed change in configuration of 450 TPD paper plant by agro pulp (from 165 to 200 TPD), hard wood pulp (200 to 180 TPD), conventional chemical recovery plant (580 Tons black liquor solids per day to 730 Tons black liquor solids per day) and co-generation power plant (from 28 MW to 38 MW) by **M/s. Kuantum Papers Limited** located at village Saila Khurd, Tehsil Garhshanker, **District Hoshiarpur, Punjab**. [Online Proposal No. IA/PB/IND/182645/2020; File No. J-11011/344/2008- IA. II(I)] **– Environment Clearance under section 7 (ii) of EIA Notification, 2006 – regarding**.

26.1.1 **M/s. Kuantum Papers Limited** has made an online application vide proposal no. IA/PB/IND/182645/2020 dated 24/11/2020 along with Form 1 & 2, and feasibility 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 schedule 5(i) Pulp & paper industry and schedule 1(d) Thermal Power Plant of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

26.1.2 M/s. Kuantum Papers Limited is presently operating at a capacity of 450 TPD to produce writing & printing grade of paper using both wood and agro residues. For this Environment Clearance was obtained from Ministry of Environment, Forest & Climate Change (MoEFCC), New Delhi vide File No. J-11011/344/2008-IA-II(I) dated 01/01/2009. Thereafter, company obtained another Environment Clearance from MoEF&CC vide letter no. J-11011/344/2008-IA.II(I) dated 14/06/2017 for Upgradation and modernization in agro pulping capacity 165 TPD bleached pulp paper and expansion in Hard wood pulping capacity (from 60 to 200 TPD bleached pulp), conventional chemical recovery plant (from 230 to 580 TPD of black liquor solids) & co-generation power plant (from 17.5 to 28 MW) at village Saila Khurd, Tehsil Garhshanker, District Hoshiarpur, Punjab.

26.1.3 PP has not implemented the facilities envisaged in the EC dated 14/06/2017. However, Consent to Establish has been obtained for the said EC from Punjab Pollution Control Board (PPCB) and renewal of the same is under process. Consent to Operate has been renewed by PPCB vide letter dated 11/08/2020 for a period valid till 30/06/2025.

26.1.4 The company is now proposing change in configuration of 450 TPD paper plant by agro pulp (from 165 to 200 TPD), hard wood pulp (200 to 180 TPD), conventional chemical recovery plant (580 Tons black liquor solids per day to 730 Tons black liquor solids per day) and co-generation power plant (from 28 MW to 38 MW) under the provisions of EIA Notification, 2006. The proposed changes are furnished as below:

Name of Unit	**Sanctioned capacity as per existing ECs dated 01/01/2009 & 14/06/2017**	**Present operational capacity as per CTO of PPCB**	**Proposed changes**	**% increase in production**
Paper	450 TPD	450 TPD	450 TPD	No change
Agro-Pulp	165 TPD	165 TPD	200 TPD	Increase in capacity (+35 TPD) by upgradation and modernization with chlorine free technology
Hard Wood Pulp	200 TPD	60 TPD	180 TPD	Decrease in capacity (-20 TPD) *Existing 60 TPD hard wood pulp plant will be replaced by 180 TPD based

Name of Unit	**Sanctioned capacity as per existing ECs dated 01/01/2009 & 14/06/2017**	**Present operational capacity as per CTO of PPCB**	**Proposed changes**	**% increase in production**
				on Chlorine free technology
Pulper for Waste Paper/ Purchased Wood Pulp	$20m^3$	$20\ m^3$	$20m^3$	No change
Conventional Chemical Recovery Plant	580 T Black Liquor Solids per day, existing FBR Soda Recovery Plant will be kept as standby plant for planned and unplanned shuts of CRP. LPS plant will be operated based on market demand of Lignin.	230 T Black Liquor Solids per day for Caustic Soda Recovery, FBR Soda Ash Recovery Plant with capacity of 100 T Black Liquor Solids per day, Lignin Precipitation System (LPS) Plant to recover 25 MT Lignin per day	730 T Black Liquor Solids per day	Effective increase in capacity (+50T) because instead of 350 T (as proposed in earlier proposal), 580 T will be installed with 65 TPH recovery boiler. Black liquor solids will be treated in Chemical Recovery Plant and effluent load on ETP will also reduce.
Co-generation Power Plant	28 MW (Existing 1.5 MW will be abandoned) <u>5 boilers</u> 1x80 TPH (Power – 2x 26 TPH, 1x 60 TPH Recovery – 1x21TPH)	10 + 5 + 1.5+1 = 17.5 MW (+1.5 MW turbine will be dismantled) <u>4 boilers</u> (Power – 2x 26 TPH, 1x 60 TPH Recovery – 1x21TPH)	38 MW 20 MW + 8 MW +10 MW (Existing 5 MW & 1 MW and 1.5 MW turbine will be dismantled) <u>6 boilers</u> 1x130 TPH in place of 1x80 TPH, 1x60 TPH Recovery 1x21 TPH existing & 1x65 TPH new proposed (2x26 TPH boilers will be kept on standby)	Increase in capacity of Power plant by increase in capacity of turbine but no increase in capacity of boilers. Existing total capacity 192 TPH will be reduced to 190 TPH.
Effluent Treatment Plant	30,000 m^3/day	10000 m^3/day	30,000 m^3/day	No change

26.1.5 KPL has its operations at Village Saila Khurd, Tehsil Garhshanker, District Hoshiarpur in Punjab and spread in an area of 104.4 ha (258 acres). Proposed change in plant configuration will be done within existing plant premises. The plant premises lie between 31º17'57.11"N to 31°18'53.33"N latitude and 76°04'08.40"E to 76°04'56.28"E longitudes on SOI Toposheet No. 44M/15, 44M/16, 53A/3 & 53A/4. 45 % of existing plant area i.e. 47.1 ha (116.4 acres) is already developed as greenbelt which will be maintained in future also.

26.1.6 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 for corridor for Schedule-I fauna. No schedule-I fauna is found the study area.

26.1.7 PP has reported that following resource will be required after the proposed change in configuration:

Particulars	**As per EC obtained in 2017**	**After change in plant configuration**	**Remarks**
Land	104.4 ha (258 acres)	104.4 ha (258 acres)	No change
Greenbelt & Plantation	47.1 ha (116.4 acres)	47.1 ha (116.4 acres)	No change. Will be maintained and made denser
Water Consumption	23500 KLD	23500 KLD	No Change
Power Consumption	24.4 MW	30 MW	+ 5.6 MW

26.1.8 The raw material requirement after the proposed change in configuration in the existing ECs will be as follows:

S. No.	**Name of Raw Material**	**Requirement/Day**		
		As per existing ECs	**Additional for change in plant capacity**	**After Change in plant capacity**
1.	Agro-residues	413 TPD	67 TPD	480 TPD
2.	Woody Raw Materials	500 TPD	(-) 70 TPD	430 TPD
3.	Purchased Pulp	62 TPD	(-) 36 TPD	26 TPD
4.	Fillers	91 TPD	(-) 6 TPD	85 TPD
5.	Cooking Chemicals (Caustic & white Liquor)	130 TPD	NIL	130 TPD
6.	Total Chlorine (Elemental & Hypochlorite)	9.2 TPD	NIL	Reduced to Zero
	Elemental Chlorine	4.6 TPD (will be further reduced to Zero after implementation of Chlorine dioxide bleaching in agro street as well)	NIL	Reduced to Zero

S. No.	Name of Raw Material	Requirement/Day		
		As per existing ECs	**Additional for change in plant capacity**	**After Change in plant capacity**
	Hypochlorite	4.6 TPD (will be further reduced to Zero after implementation of Chlorine dioxide bleaching in agro street as well)	NIL	Reduced to Zero
7.	ClO_2	8 TPD	NIL	8 TPD
8.	Oxygen	8.6 TPD	NIL	8.6 TPD
9.	Hydrogen Peroxide (H_2O_2)	5.0 TPD	NIL	5.0 TPD

26.1.9 The pollution load assessment after the proposed change in configuration vis-à-vis with the existing ECs is given below:

Particulars	**As per EC obtained in 2017**	**After change in plant configuration**	**Remarks**
Steam Consumption	206 TPH	223 TPH	+ 17 TPH
Boiler Capacity & Numbers	***Power*** – 2x26 TPH, 1x60 TPH & 1x 80 TPH ***Recovery*** – 1x 21 TPH	***Power*** – 1x 60 TPH & 1x130 TPH ***Recovery*** – 1x21 TPH & 1x 65 TPH	80 TPH boiler will be replaced by 130 TPH boiler 2x26 TPH boiler will be kept as stand by
Fuel for boiler	784 TPD (237 TPD Husk + 547 TPD coal)	770 TPD (236 TPD Husk + 534 TPD Coal)	- 14 TPD (-1 TPD Husk - 13 TPD Coal)
Generation of Black Liquor Solids/day	580 T BLS per day	630 T BLS per day	+ 50 T BLS per day
Capacity of treatment plant for black liquor solids/day	580 T BLS per day + 100 T Ligin Precipitation System (LPS)	730 T BLS per day	+ 50 T BLS per day
Effluent Generation	18500 KLD	17114 KLD	Decrease by 1386 KLPD
Treatment effluent recycled in plant	Nil	500 KLD	Reused in ETP/Floor Cleaning/Gardening/Ash Handling
Treated	18500 KLD	16614 KLD	Decrease by 1886

Particulars	As per EC obtained in 2017	After change in plant configuration	Remarks
effluent utilised in ferti-irrigation			KLPD
Effluent Generation per ton of paper	40 KL/Ton of Paper	< 40 KL/Ton of Paper	Will decrease
ETP Sludge	20 TPD	20 TPD	No Change
Fly Ash	190 TPD (150 TPD Coal Ash + 40 TPD Rice Husk Ash)	200 TPD (160 TPD Coal Ash + 40 TPD Rice Husk Ash)	+ 10 TPD
Lime Sludge	220 TPD	220 TPD	No Change
Used Oil	< 600 Litre/Annum	< 600 Litre/Annum	No Change
Air Pollution Load (kg/hr)	< 50 mg/Nm^3	< 30 mg/Nm^3	Decreasing
Chlorine Consumption	9.2 TPD	0	Decreasing (Reduced to zero)

26.1.10 Total cost of the project is Rs. 409.75 Crores (Rs. 337.06 Crores - EC, 2017 + Rs. 72.69 Cr – For change in plant configuration). The budgetary allocation for Environment management plan is 182.43 Crores (Capital) and Rs. 30 Crores/annum (recurring).

26.1.11 The major activities which will be undertaken for environment management are Installation of new 500 TPD Chemical Recovery plant, Installation of Oxygen Delignification Plant, Installation of ClO_2 plant, Upgradation in ETP, Odour control measures, Installation of Electrostatic Precipitator for stack emission of 30 mg/Nm^3, as against norms of 50 mg/Nm^3, Chlorine free technology to be adopted.

26.1.12 Out of the total plant area (i.e. 258 acres), 116.4 acres (i.e. ~45%) has already been developed under greenbelt & plantation and the same will be maintained. Different plant species such as Eucalyptus, Bamboo, Poplar, Acacia, Leucaena are planted in and around the plant boundary.

26.1.13 The proponent has mentioned that following court cases pertaining to the existing project are pending before the Hon'ble National Green Tribunal and Hon'ble Supreme Court.

Description	CASE I	CASE II
Name of Court	**National Green Tribunal**	**Supreme Court**
Case No	Original Application No. 850/2018	CIVIL APPEAL Diary No(s). 22822/2019
Orders/directions of the Court, if any and its relevance with the proposed project.	NGT took notice of the interim order passed by the Hon'ble Supreme Court on 26.07.2019 stating that SPCB may pass final order but the order passed by the SPCB may not be given effect to without permission of the Hon'ble	Stay order from NGT Proceedings has been granted as under. Subject to the final decision, let the proceedings by Punjab

Description	CASE I	CASE II
	Supreme Court. In view of above, NGT on 30.7.2019 passed an order stating that the SPCB may proceed to pass its order but the same may not be given effect to without permission of the Hon'ble Supreme Court. The matter may be listed for hearing before the Tribunal after the same is disposed of by the Hon'ble Supreme Court.	Pollution Control Board go on. However, in case any order is passed the same may not be given effect to without permission from this Court.
Brief about the case	The Hon'ble NGT initiated suo-moto proceedings in the matter of State of Punjab VS. Residents of Saila Khurd & others, on the basis of an unsigned letter written by residents of Saila Khurd and other villages which alleged that Kuantum Papers was causing pollution by discharging polluted air and water. A Joint committee of CPCB & PPCB was constituted to carry out inspection and provided factual data to the NGT. The inspection was carried out by the Joint Committee and on the basis of the results of sampling, certain directions were given by PPCB to the company in the end of April 2019. As Kuantum Papers was not impleaded as a party in the order of the NGT, it made all efforts to ensure that it was not wrongly implicated and accordingly filed a Special Leave Petition (SLP) with the Supreme Court to get relief from any untoward order of the NGT. The Hon'ble Supreme Court in its wisdom, has taken cognizance of the fact that the NGT has denied Natural Justice to the company and had initiated proceedings suo- moto on the basis of a mere unsigned letter of the villagers. Accordingly, vide its order dated 26/07/2019 it has provided relief to the Company by stating in its order that "In case any order is passed the same may not be given any effect to without permission from this Court" NGT has also taken the Order of the Supreme court on record on 30/07/2019 and stated that the "SPCB can proceed to pass its order but the same may not be given effect to without the permission of the Supreme Court. The matter may be listed for hearing before the Tribunal after the same is disposed of by the Hon'ble Supreme Court"	
Current Status	A stay order has been passed by the Supreme Court as stated above and also the company has been granted five year Consents to Operate on 11 Aug 2020 under both the Water & Air (Prevention & Control of Pollution Act (valid up to 30th June 2025) which further makes this case infructuous.	

26.1.14 Name of consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S.No.39, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Certified compliance report from RO

26.1.15 The company obtained Certified compliance report for conditions stipulated in existing Environment Clearance from RO, MoEF&CC, Chandigarh vide letter no. 5-169/2009

(ENV)/92-94 dated 06.02.2020. As per the RO report, several non-compliances inter-alia including the following have been reported against the stipulated EC conditions:

i. As per the joint inspection report of CPCB and PPCB, the parameters such as BOD, COD and TSS in the effluents are beyond the prescribed standards.

ii. Six monthly compliances reports are not being furnished to the RO.

iii. Study report on bio-accumulation on the soils of surrounding agricultural fields has not been carried out.

iv. Action plan on solid waste management, activities undertaken as part of Enterprise Social Commitment has not been made available to the RO during the visit.

v. No details provided with respect to specific water and power consumption and increase in recycling of wastewater.

vi. No details made available with respect to CREP compliance document, compliance to the commitment made during the public hearing and CSR action plan etc.

In this regard, PP informed that action taken report has been submitted to RO on 4/03/2020.

Observations of the Committee

26.1.16 The Committee noted the following:

i. Agro Pulp production increase is from 165 TPD to 200 TPD, Wood pulp decrease from 200 TPD to 180 TPD and Chemical recovery from 580 to 730 TPD keeping total paper production as 450 TPD only. Purchased pulp shall reduce from 62 TPD to 20 TPD.

ii. Certified compliance report of RO has reported several non-compliances and formal closure report from RO has not been obtained.

iii. PP extracts GW to the tune of 23500 KLD, permission for which has not been renewed so far.

iv. Water balance diagram has not been submitted.

v. There is a coal gasifier provided with chemical recovery plant. No details are made available for treatment of phenolic contaminated wastewater originating from coal gasifier.

vi. Addendum report inter-alia including the proposed change in configuration as deliberated, resource consumption, material and energy balance, water balance, existing base line status, impact prediction & pollution load assessment and Environment Management Plan etc., is required for taking a decision.

Recommendations of the Committee

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

i. Addendum to the existing EIA report as mentioned under para 26.1.16 (vi).

ii. Action plan to address the non-compliances reported in the RO report (or) formal closure report from RO.

iii. Present status of the court case pending before the Hon'ble National Green Tribunal and Hon'ble Supreme Court.

iv. Action plan to reduce the PM emission from all the stacks to less than 30mg/Nm^3.

v. Action plan for gradual shifting from ground water to surface water.

26.2 Mill Development Plan (MDP) Comprising of augmentation of pulp mill and existing paper machines, installation of Multi-layer Coated Board Machine and installation of 35 MW steam turbine with 135 TPH FBC Boiler by **M/s. The West Coast Paper Mills Limited** at P.B. No. 5, Bangur Nagar, **Dandeli, District Uttar Kannada, Karnataka**. [Online Proposal No. IA/KA/IND/184771/2017; File No. J-11011/408/2006-IA-II(I)] **– Environment Clearance – regarding**.

26.2.1 The salient features of the proposal cited above submitted by the project proponent is given as below:

Details submitted by the project proponent

26.2.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
13/02/2017	16th meeting held on 6th–7th of March, 2017	Terms of Reference	30/03/2017
01/08/2018	35th meeting on 17th – 18th September, 2018	Amendment in ToR	09/10/2018

As per the amendment to the EIA Notification, 2006 issued vide S.O. 751(E) dated 17/02/2020, the Terms of Reference for the projects or activities issued by the regulatory authority concerned, shall have the validity of four years from the date of issue. Accordingly, the validity of the aforesaid ToR is till 29/03/2021.

26.2.3 The project of M/s. West Coast Paper Mills Ltd, located in Dandeli Taluk, Uttara Kannada District in the State of Karnataka is proposing for Mill Development Plan (MDP) comprising of augmentation of pulp mill to enhance the pulp production capacity from 725 Bone Dry(BD) TPD to 844 BD TPD, augmentation of existing paper machines to increase the production capacity from 3,20,000 TPA to 3,45,000 TPA, installation of new Multi-layer Coated Board Machine with total capacity of 1,05,000 TPA, installation of new De-Inking Plant of capacity 200 BD TPD and installation of 35 MW steam turbine with 135 TPH FBC Boiler to increase the captive power generation capacity from 74.8 MW to 109.8 MW.

26.2.4 The existing project was accorded environmental clearance vide Letter F.No. J-11011/408/2006-IA.II (I) dated 19/07/2007. Consent to Operate for the existing facility under the Water (Prevention and Control of Pollution) Act, 1974 and emissions under the Air (Prevention and Control of Pollution) Act, 1981 was obtained vide combined consent order No: AWH-301773, dated on 29/12/2016 with the validity up to 30/06/ 2021.

26.2.5 The following are the existing and proposed plant configuration and production capacity:

Description	Unit	Existing	Post MDP	Incre-mental	Proposal
Paper Machines					
Paper/Board PM #1 to # 6	TPA	320,000	345,000	25,000	Modernisation /Upgradation
Board	TPA	--	105,000	105,000	New
Total Paper/board	TPA	320,000	450,000	130,000	
Pulp Plant	BD TPD	725	844	119	Upgradation
DIP Plant	BD TPD	-	200	200	New
Evaporator	tph of water evaporation	330	560	230	Proposal New Evaporator Plant 230 tph. Evaporator. 100 TPH will be kept as standby
Recovery boiler	TPD of black liquor solids	1600	1800	200	Existing Recovery boilers will be upgraded
Lime kiln	TPD of lime	365	425	60	Existing lime kilns will be upgraded
Recausticising plant	TPD of AA	350	450	100	Existing recausticising will be upgraded
Power Boilers					
Power Boiler s	TPH of steam	330 (FBC#1 standby) FBC#2, #3, #4 operating	405	75	FBC#1–60 tph - Retired FBC#2-65 tph-Standby. FBC#3,4-205 tph-Operating FBC #5 – 135 tph – New.
Turbo Generators	MW of power	74.8 (1x5 (Standby) +1x5.3 - Standby +1x14.5+1x15.5 (Standby) +1x34.5)	109.8	35	5 MW Standby 5.3 MW Standby 14.5 MW - Standby 15.5 MW- Part Load 34.5 Mw – Operating 35 MW (New) operating
ClO_2 plant	TPD	15	15	--	Existing adequate. No change

Description	Unit	Existing	Post MDP	Incre-mental	Proposal
Water Treatment Plant capacity and water drawl permit	m^3/day	1,00,000	1,00,000	--	Existing facility is adequate.
Waste Water Treatment capacity	m^3/day	85,885	85,885	--	Existing facility is adequate.

26.2.6 No additional land is required since the available vacant spaces within the existing mill will be used for project facilities. The mill has total land area of 375.73 acres. The entire land has been already acquired for the project (Industrial Use). 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.

26.2.7 The topography of the existing mill area is flat and lies at coordinates of latitude 15°15'11.21"N and longitude 74°37'38.30"E and falls under the Survey of India Topography Map No. 48 I/11, 48 I/12. The ground water table reported to ranges between 11.5-12.5 m during the pre-monsoon season and 10.6-11.8 m during the post-monsoon season.

26.2.8 As per the recent distance measurement by PCCF (Principal Chief Conservator of Forests) and Chief Wildlife Warden Karnataka, vide letter no. KFD/WL/LAND(LND)/49/2019 dated 20.01.2020, WCPM plant site is located at 9.4 km away from the boundary of Dandeli Anshi Tiger Reserve (new name of Dandeli Wildlife Sanctuary) and 6.6 km away from Eco sensitive zone as per MoEF&CC draft notification No.SO.3369 (E) dated 02.11.2016. Besides, the project proponent also submitted their site is falling outside the Eco sensitive area as per the MoEF&CC directions issued vide letter no. 1-4/2012-RE(Part) dated 13/11/2013. There is no presence of schedule I species within the study area.

26.2.9 As per the Ministry's O.M. No. 22-43/2018 -IA.III dated 8/8/2019, Proposals involving developmental activity/project located within 10 km of National Park/Wildlife Sanctuary wherein final ESZ notification is not notified (or) ESZ notification is in draft stage, prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) is mandatory. In such cases, the project proponent shall submit the application simultaneously for grant of Terms of Reference/environmental clearance as well as wildlife clearance. In the instant case, PP has applied for SCNBWL approval for the existing plant through 'PARIVESH' vide online proposal no. FP/KA/IND/5495/2020 dated 19/11/2020. There is no schedule I fauna

26.2.10 The major raw material required for the project is wood. Total wood required in the post MDP scenario will be in the order of 11,39,000 TPA as against the current consumption of about 9,58,000 TPA.

Sl. No.	Description	Unit	Existing	Post MDP	Incremental	Source
1.	Wood	TPA	9,58,000	11,39,000	1,81,000	Procuring from Karnataka, Tamil Nadu, Maharashtra and Andhra Pradesh

2.	Waste Paper	AD TPA	24,000	24,000	-	Mumbai, Vapi, Pune
3.	Market Pulp (HWP)	TPA	800	29,600	28,800	Import
4.	Market Pulp (SWP)	TPA	3700	14,800	11,100	Import
5.	BCTMP	TPA	--	22,500	22,500	Import

26.2.11 The targeted paper/board production capacity is 4,50,000 TPA, bleached chemical wood pulp production capacity is 844 BD TPD, De-Inking Plant (DIP) capacity is 200 TPD, Captive power generation capacity is 109.8 MW. Black liquor (generated in-house), imported coal and furnace oil are the fuels.

Fuel	Unit	Existing	Post MDP	Incremental	Source
Coal	TPA	3,18,000	4,45,000	1,27,000	Additional coal will be Imported from Indonesia/ local
Furnace oil	kl	15300	17,700	2,400	Local Market

26.2.12 The total fresh water requirement or the proposed MDP is estimated as 69,700 m^3/day as against the existing fresh water consumption of about 57,000 m^3/day. Specific fresh water consumption will be reduced from current level of 58 m^3/t to 49.6 m^3/t of product. The Existing mill already has water withdrawl permission of 1,00,000 m^3/day from River Kali.

26.2.13 The total power requirement of the project is estimated as 63 MW. It is proposed to increase the capacity of existing captive power plant from 74.8 MW to 109.8 MW by adding a new 35 MW TG and 135 TPH boiler.

26.2.14 Baseline Environmental Studies

Period	5th April 2017 and 3rd July 2017
AAQ parameters at eight locations	$PM_{2.5}$ = 12.6 μg/m^3 to 36.2 μg/m^3 PM_{10} = 30.1 μg/m^3 to 74.9 μg/m^3 SO_2 = 3.1 μg/m^3 to 15.2 μg/m^3 NOx = 3.6 μg/m^3 to 27.8 μg/m^3
AAQ modelling	PM_{10} = 0.94 μg/m^3 SO_2 = 9.6 μg/m^3 NOx = 4.5 μg/m^3
Ground water quality at eight locations	pH 7.2 to 8.2, Total Hardness 192 mg/l to 1030.2 mg/l., Chlorides 41 mg/l to 357 mg/l, Fluoride 0.14 mg/l to 0.28 mg/l. Heavy metals are within the limits.
Surface water quality at two locations	pH 7.2 and 7.5; Do 7 and 6.9 mg/l, BOD< 2 mg/l, COD <4 mg/l respectively for upstream and downstream of River Kali.
Noise levels	49.7 dB(A) to 60.8 dB(A) for daytime and 39.3 dB(A) to 51.0 dB(A) for night time.

26.2.15 It has been reported that no R&R is involved as no additional land is required for the project.

26.2.16 The expected increase in the solid/hazardous waste due to proposed MDP and the respective proposed disposal practices are presented below.

S.No	Source	Composition	Quantity in TPD		Disposal Method
			Existing	Post MDP	
1	Fly ash	Silica	370	590	Cement manufacture/brick manufacture.
2	Lime Mud	Calcium carbonate and silica	375	440	Recycled using lime kiln with make-up lime
3	Saw dust	Organic	60	80	Fired in boiler/ Sold to external party for secondary use
4	Waste ETP sludge pulp from WWTP	Fines and fibre	50	80	Used for card board /egg tray manufacture
5	Plastic Waste	Plastic	-	5	Will be collected in dedicated bins and will be disposed to authorized recyclers
6	De-Inking Plant (DIP) Sludge	Organic and Inorganic including traces of heavy metals	-	30	Sludge from the de-inking plant will be sent to authorized dealers/fired in boilers
7	Used Oil, KLD	-	0.05	0.06	Sold to KSPCB approved recyclers

26.2.17 The public hearing of the project was held on 29/07/2019 at Dr. B.R. Ambedkar Bhavan, Township Dandeli, Dandeli Taluk., Uttar Kannada District, Karnataka State under the chairmanship of Additional Deputy Commissioner. The board issued public notice of 30 days in two daily newspapers on 29/06/2019 namely, 'The Times of India' (English Daily), "Udayavani"(Kannada Daily). In addition, wide publicity regarding the public hearing was also published in the local newspapers namely "Karavalli Munjavu", Kannada Janantharanga" and in "Loka Dvani" daily on 30/06/2019. The issues raised during public hearing are related to pollution issues, health status, CSR activities implemented, etc. Rs. 575 Lakhs has been embarked for the local community development within the vicinity of the project area for 5 years. PP has submitted the following action Plan along-with Time frame and budget to address the issues raised during public hearing.

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
1.	Improvement in Social infrastructure & support facilities in Dandeli and surrounding areas	• Construction of two rooms in the Primary Health Centre (PHC), Gandhinagar, Dandeli	25	One year from the start of construction of the new project.
		• Providing required Medical Testing	15	6 Months from the construction of the

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
		Equipment to above PHC		above rooms.
		• Providing Bio Medical Laboratory facilities in the above PHC	7	6 Months from the construction of the above rooms.
		• Construction of 3 additional rooms in Employees State Insurance Corpn. (ESI) Hospital of Dandeli	45	One year from the start of construction of the new project.
		• Providing Required Medical Testing equipment to ESI hospital	35	6 Months from the construction of the above rooms.
		• Construction of Two Anganwadi Buildings in Dandeli	40	One year from the start of construction of the new project.
		• Providing Kids playing toys, slides, table, chairs etc. in Anganwadi	10	Three months from the construction of the above building.
		• Construction of Post-Graduation Blocks in Bangur Nagar Degree College, Dandeli	55	One & half year from start of construction of the new project.
		• Providing modern Analytical Laboratory for the rural Pre-University College.	5	Nine months from the start of construction of the new project.
		• Construction of One additional classrooms for Rural Degree College	5	Nine months from the start of construction of the new project.
		• Providing of modern Analytical Laboratory for Bangur Nagar Junior College	4	Nine months from the start of construction of the new project.
		• Providing Smart class rooms facilities in Four nearby schools	8	Eighteen months from the start of construction of the new project.
		• Distribution of desks cum benches in	8	6 months from the start of construction of the

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
		schools of surrounding villages.		new project.
		• Replacement of laying new pipelines for potable water supply under Jal Nirmal Yojana in Seven villages surrounding Dandeli for potable water supply.	45	Twenty four months including monsoon season from the start of construction of new project.
		• Supplying of 35 Water Purifier in Schools, Colleges, Hospitals & Bus Stand in Dandeli.	21	Ten months from the start of construction of new project.
		• Construction of Toilet Blocks in Gandhi Nagar & Maruti Nagar of Dandeli.	48	Eighteen months excluding monsoon season from the start of construction of new project.
		• Providing Incinerators to City Municipal Council, Dandeli	10	Nine months from the start of construction of new project.
		• Construction of facilities such as shed, platform, washing, drinking water for two Burial/ Cremation Grounds in Patel Nagar & Kogilban of Dandeli.	24	Eighteen months excluding monsoon season from the start of construction of new project.
		• 5 Lakes of nearby villages	22	Pre monsoon months in the first year of the start of construction of new project
		• Providing Solar Street Lights in 7 nearby villages	15	One year from the start of construction of the new project.
		• At Dandakaranya Eco Park Dandeli - Open Air Gym Facility.	5	Twelve months from the start of construction of new project.

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
		• At Nandagokul Garden Dandeli - Playing equipment	4	Twelve months from the start of construction of new project.
		• Construction of Room with modern facilities	5	One year from the start of construction of the new project.
		• Construction of Community & Vocational Training Centre at Hasanmaal for the benefit of villagers of Ambewadi Panchayat.	8	Twenty four months including monsoon season from the start of construction of new project.
		• Providing Ten Specially Designed Scooters	7	Eight months from the start of the construction of new project.
		• Providing tailoring training for 50 Women and free distribution of tailoring machines.	4	Six months from the start of the construction of new project.
		• Construction of Five Bus shelters in surrounding villages of Dandeli.	15	Twenty four months including monsoon season from the start of construction of new project.
		• Supplying of LED lamps to the residents of nearby villages.	5	Nine months from the start of construction of new project.
		• Planting of trees on Road Dividers	12	Twenty four months from the start of construction of new project.
		• Sponsoring of LED street lights	13	Nine months from the start of construction of new project.
2	Increase employment opportunities to local	• In proposed MDP, additional 175 direct and 125 indirect employment required. Around 375	-	From the start of construction to commissioning as per the requirement.

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
		employment will be for auxiliary activities like transport, maintenance etc.		
3	Improving labour welfare	• Renovating of Labour Colony including roads	50	Twenty-four months including monsoon season from the start of construction of new project.
		Total	**575**	

26.2.18 The capital cost of the project is **Rs 750 crores** and the budget allotted for environmental protection measures is proposed as **Rs. 20.57 crores**. The annual recurring cost towards the environmental protection measures is proposed as **Rs 40 Lakhs**. The project will create direct employment to about 175 persons. In addition, it would generate indirect employment to about 500 persons.

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

Section	Rs Crore
Power boiler ESP and stack	10.00
Ash handling	1.50
Online environmental protection and monitoring	0.50
Effluent treatment plant upgradation	3.00
Water conservation/recycling	4.00
Additional Green belt	1.00
To address the public hearing concerns	5.75
Total	**20.57**

26.2.20 The existing facility has developed green belt/plantation of 103 acres (27 %) in its premises with a total no. of plants of about 1,13,000. Additional 24 acres of greenbelt will be developed within the existing facility to increase the greenbelt area to 127 acres (33%).

26.2.21 Name of the EIA consultant: Cholamandalam MS Risk Services Limited [S.No. 113, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Certified compliance report from Regional Office

26.2.22 The status of compliance of earlier EC was obtained from Regional Office (Southern Zone), Bangalore vide letter File No. EP/12.1/478/Kar dated 13.03.2020. The observations made by the RO in the report are summarized as below:

i. Low NOx burners have not been installed.

ii. Total Organic Carbon (TOC) in the treated effluent has not been monitored.

iii. Prior approval from the Standing Committee of National Board for Wildlife has not been obtained so far in pursuance to the specific condition no. xvii of the EC dated

19/07/2007.

iv. 33% green belt is yet to be achieved by the company.

26.2.23 M/s West Coast Paper Mills Ltd has made an online application vide proposal no. IA/KA/IND/117479/2018 dated 29/04/2020 in prescribed Form-2 along with EIA Report and other documents for seeking Environmental Clearance (EC) for proposed Mill Development Plan (MDP) of existing paper mill. The proposed project activity is listed at Sl. No. 5(i) Pulp & Paper Industry in the schedule under Category "A" in the EIA Notification, 2006 and the proposal is appraised at Central Level.

26.2.24 The proposal cited above was considered by the EAC (Industry 1) in its meeting held on 20-21st May, 2020. The observations and recommendations of EAC is given as below:

Observations of the Committee held during 20-21st May, 2020

i. The structure of the EIA report including chapters have not been prepared in accordance to Appendix-III of EIA Notification, 2006.

ii. Details of machinery for proposed enhancement of production of paper and board is not provided in the EIA report.

iii. It is proposed to expand 119 TPD of production by modernization but the details of the same has not been furnished. Water consumption and production depends on the type of the technology and same has also not been furnished as per design details.

iv. Increase in capacity of lime kiln and recovery boiler is proposed and technical re-design/modernization details of the same were not given.

v. Project site is Nine (9) km away from the boundary of Dandeli Wildlife Sanctuary and Two (2) km away from the boundary of proposed ESZ of Dandeli Anshi Tiger Reserve for which draft ESZ notification was issued on 2nd November 2016. Project proponent has not obtained the prior approval of SCNBWL for the existing plant and the non-compliance for same was categorically reported by Regional Office, MoEF&CC, Bangalore in its certified compliance report.

vi. Baseline studies were carried out in rainy season, i.e April to July.

vii. CER table is not clearly addressing the issues raised in the Public Hearing and Social Impact Assessment and the amount earmarked towards CER has not been calculated as per the slabs prescribed in the MoEF&CC O.M. dated 1/5/2018.List of annexures including attendance as mentioned in the proceedings of Public Hearing and the written response received during the consultant along with its reply has not been submitted.

viii. Details of ETP to ensure adequacy for increased capacity have not been provided. The report should be comprising of all the design parameters of ETP in terms of flow dynamics, sludge, mass flow in and out, HRT, SRT, recycle of treated effluents and optimization for shock loads etc.

ix. SO_2 and NO_x control details to meet statutory norms have not been provided.

x. Water balance for the entire plant has not been given.

xi. Compliance of CREP guidelines is not addressed in the EIA Report.

xii. Regional Office has reported non-compliance with respect to green belt development.

xiii. Details of sourcing of wood from renewable forests and contract farming have not been furnished.

xiv. As per Ministry's O.M. No. J-11015/286/2007-IA.II(I) dated 7/2/2020, any specific non-compliance singled out while the project is being appraised by the EAC, the concerned sector shall issue Show Cause Notice.

Recommendations of the Committee held during 20-21st May, 2020

In view of foregoing, after detailed deliberations, the committee recommended to return the proposal in the present form and to issue show cause notice for not obtaining recommendation of NBWL for the existing operations till date.

26.2.25 M/s. The West Coast Paper Mills Limited has again submitted the online application after incorporating the concerns of EAC raised during 20-21st May, 2020 vide proposal no. IA/KA/IND/184771/2017 dated 24/11/2020.

26.2.26 In this regard, the Member Secretary apprised the EAC that the Ministry has issued Show Cause Notice (SCN) to the unit on 18/11/2020 based on the EAC recommendations and the PP has submitted the reply to the SCN on 4/12/2020 which is under examination. MoEF&CC will initiate action against the alleged violation as per law based on the outcome of the SCN. Further informed that as per the directions of the Competent Authority following principle to be adopted 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.

26.2.27 In pursuance to the aforesaid directions, the proposal is being placed before the EAC for consideration on merit.

Written submissions during the course of meeting

26.2.28 PP has submitted written clarifications on the following points during the course of meeting:

a. Location of the project site with respect to Western Ghat area
b. Revised action plan to address the concerns raised during public hearing

Observations of the Committee

26.2.29 The Committee noted the following:

i. The Committee noted that the 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.

ii. The Committee has also deliberated on the public hearing issues as well as action plan to address the issues raised public hearing submitted during the course of meeting by the project proponent and found it satisfactory.
iii. Project site is falling outside the Eco sensitive area as per the MoEF&CC directions issued vide letter no. 1-4/2012-RE(Part) dated 13/11/2013.
iv. The EAC has considered the proposal only on merit as per the directions of the Competent Authority and no cognizance of violation has been taken place.

Recommendations of the Committee

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

A. Specific conditions:

i. The project proponent shall obtain the necessary permission from the competent authority concerned for drawl of surface water before commencement of work.

ii. Green belt shall be developed in an area equal to 34% of the plant area with a native tree species (density 1000 trees per acre) in a time frame of two years in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

iii. Action plan for management of wastewater during rainy season shall be submitted to the RO.

iv. PTFE bags shall be used in filter bag house and designed for 150% of normal design air flow.

v. PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system.

vi. FGD system for SOx Control shall be used.

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

iv. The project proponent shall install high volume, low concentration NCG collection & destruction system to mitigate all malodorous gases emitted.

v. Emissions shall be controlled from chemical recovery section through primary and secondary venturi scrubbers.

vi. Pollution control system in the pulp and paper plant shall be provided as per the CREP Guidelines of CPCB.

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

viii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

ix. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

x. The company shall install Oxygen Delignification (ODL) Plant and shall maintain AOX below 1 kg/tonne of paper production

xi. Elemental Chlorine Free (ECF) technology shall be used and lime kiln shall be installed to manage lime sludge.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. The project proponent shall provide the ETP to meet the standards prescribed in vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) as amended from time to time.

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

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

vi. Tyre washing facilities shall be provided at the entrance of the plant gate(s).

vii. Ensure that there is no black liquor spillage in the area of pulp mill, no use of elemental chlorine for bleaching in mill, installation of hypo preparation plant.

viii. Ensure that no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE in the Chemical recovery process directly to ETP
ix. The project proponent shall practice rainwater harvesting to maximum possible extent.
x. Water meters shall be provided at the inlet to all unit processes.
xi. The project proponent shall make efforts to minimize water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
ii. Provide LED lights in their offices and residential areas.

VI. Waste management

i. Deinking sludge and fine sludge from ETP shall be disposed through TSDF.
ii. Black Liquor shall be separately processed for recovery of energy and chemical in a Chemical Recovery Process.
iii. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
v. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

IX. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

26.3 Proposed Expansion of Integrated Cement Plant-Clinker (2.00 MTPA to 5.00 MTPA), Cement (2.85 MTPA to 7.00 MTPA), WHRB (12 MW to 30 MW) and Installation of new 25 MW Captive Thermal Power Plant by **M/s. Udaipur Cement Works Limited** at Shripati Nagar, P.O. CFA 313022, Dabok, Tehsil Mavli, **District Udaipur, Rajasthan**. [Online Proposal No. IA/RJ/IND/184900/2007; File No. J- 11011/807/2007-IA.II(I)] **– Environment Clearance – regarding**.

26.3.1 The salient features of the proposal cited above submitted by the project proponent is given as below:

Details submitted by the project proponent

26.3.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
24/12/2019	5th meeting held on 16th–17th of January, 2020	Terms of Reference	05/02/2020

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

26.3.4 The existing project was accorded environmental clearance vide lr.no J-11011/807/2007-IA-II (I) dated 09/01/2008. It has been reported that the Consent to Operate for cement plant from the Rajasthan State Pollution Control Board obtained vide Lr. No F (CPM)/Udaipur (Girwa)/9(1)/2013-2014/5784-5786dated 11/03/2020, with validity till 30/11/2024 and CTO for 12.0 MW Waste Heat Recovery Plant vide letter no. F (CPM)/Udaipur (Girwa)/9(1)/2013-2014/10972-10974 dated 27/02/2017 with validity till 30/09/2021.

26.3.5 The following are the existing and proposed plant configuration and production capacity:

S. No.	Product	Existing (MTPA)	Proposed Additional (MTPA)	Total After Expansion (MTPA)
1	Cement (Ordinary Portland Cement (OPC),	2.85	4.15	7.0

	Portland Pozzolana Cement (PPC), Portland Slag Cement (PSC), Sulphate Resisting Portland Cement (SRPC) and Composite Cement)			
2	Clinker	2.00	3.0	5.0
Power Generation (MW)				
3	CTPP	0	25	25
4	WHRB	12	18	30
5	Solar Power (MW/Day)	7.6	7.6	15.2
6	DG Set	0.5	2.0	2.5

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

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

26.3.8 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the Dy. Conservator of Forest (North) Udaipur vide letter no. F ( ) survey/Dy.CF-North/2019-20/4564 dated 02.08.2019 reporting presence of no /schedule-I fauna in the study area.

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

S. No.	Raw Material	Existing	Proposed	Total (TPD)	Source	Mode of transport
1.	Limestone	10740	16968	27708	Captive Daroli Limestone Mine 1 & 2	Over Land Belt Conveyor (OLBC) (6 KM)/Road

2.	Additive (Red Ochre, Alumina Clay, China Clay, Copper/ Zinc/ Iron Slag, Pond Ash, Feldspar, Siliceous Sand/Stone Sand, Laterite, Iron Dust, Bentonite Clay etc.)	1010	2760	3770	Chittorgarh, Dariba, Rajsamand,Gandhinagar (Gujarat) etc.	120 – 250 KM by Road
3.	Gypsum (Mineral/ Chemical etc.) (Anhydrous/ Hydrated)	510	740	1250	Bikaner, Ahemdabad, Gandhinagar (Gujarat) etc.	250-550 km by Road
4.	Fly Ash (Dry/Wet)	1000	2786	3786	From proposed CTPP & nearby PPs (Rajasthan, Gujarat etc.)	250 - 280 km by Road
5.	Coal/Pet coke (Imported/ Indigenous)/AFR/MSW/ RDF/Haz. Wastes/Biomass etc.	1067	1600	2667	Indigenous / Imported from local/open market	50 – 550 KM by Road/Rail
6.	Coal /AFR / Biomass/ MSW for CTPP (Petcoke – Subject to future approval for CTPP)	-	500	500	Indigenous / Imported from local/open market	50-550 km by Road/Rail

The Various process involved are raising, crushing, conveying, grinding, pyro-processing, fine grinding and packing. No waste generation in mentioned processes

26.3.10 The Limestone for the plant is being/will be catered from captive limestone mine (linkages Daroli- Limestone Mining-1 Project (ML-No.-02/88) & Daroli- Limestone Mining-2 Project (ML-No.-64/79)) through Over Land Belt Conveyor (OLBC) & Road. Mine ToR application are under process to apply.

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

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

MW to 2.5 MW) and installation of a new CTPP (25 MW). DG Sets will be used as an Emergency Back-up only.

26.3.13 Baseline Environmental Studies

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

26.3.14 It has been reported that no R&R is involved as no additional land is required for the project.

26.3.15 The details of existing and additional solid & hazardous waste generation have been shown in the table below.

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

26.3.16 The Public hearing of the project was held on 15.07.2020. at project site of UCWL under the chairmanship of Mr. O.P. Bunkar- Additional District Collector (Administration) Udaipur.

The issues raised during public hearing are about employment, woman empowerment and skill development. An amount of Rs.400 lacs has been earmarked to address the issues raised during public consultation.

26.3.17 The capital cost of the proposed expansion project is about Rs 1600 Crores. And capital cost for environmental protection measures is proposed as Rs. 18785 Lacs. The annual recurring cost towards the environmental protection measures is proposed as Rs 410 lacs/annum. The direct employment generation after proposed expansion will be 120 and apart from this indirect employment will also be generated.

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

S. No.	Description of Item	Existing (Rs. In Lacs)		Proposed (Rs. In Lacs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1	Air Pollution Control/ Noise	10741	375.9	18000	390
2	Water Pollution Control	49	1.7	15	2.5
3	Environmental Monitoring and Management	196	6.9	330	7.5
4	Green Belt Development	19	0.7	30	1.0
5	Occupational Health	33	1.2	10	2.0
6*	Jobs & Sustainable employment	-	-	110	5.0
7*	Infrastructure development	-	-	150	1.0
8*	Medical & Health	-	-	60	0.50
9*	Water supply line works required nearby area	-	-	46	0.50
10*	For improvement in survival rate of plantation eaten by stray cattle	-	-	12	-
11*	Greenbelt Development/plantation in nearby village (Schools, Hospitals and institutions)	-	-	22	-
Total		**11038**	**386**	**18785**	**410**

Note: **indicates budgetary provisions as per MoEF&CC O.M. No. 22-65/2017-IA.III dated 30/09/2020.*

26.3.19 About 55 ha i.e., 33.98 % of the existing plant area (161.78 ha) has already been developed under greenbelt & plantation. An additional area of 10 acres (i.e. 4.0 ha.) will be developed under greenbelt. Total 59 ha (36.4%) of the existing plant area (161.78 ha) will be developed as green belt with proposed expansion project. A 100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 10000 saplings will be planted and nurtured in 4.04. ha in next 5 years.

26.3.20 The proponent has mentioned that there is no court case or violation under EIA Notification

to the project or related activity.

26.3.21 Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd., Jaipur [S.No. 102, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Certified compliance report from Regional Office

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

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

26.3.24 The proposal was considered by the EAC in its 24th meeting held on 27-29th October, 2020. The observations and recommendations of the EAC is given as below:

Observations of the Committee held during 27-29th October, 2020

i. 2525 KLD water is abstracted from ground. NOC renewal for abstraction of ground water has not been obtained.
ii. TOR Point #9 has not been addressed in EIA. It is given in annexures.
iii. Dioxins/Furans emissions during usage of alternate fuels have not been monitored and reported for existing plant in the EIA report.
iv. There is no methodology given in EIA Report for collection of baseline data. Criteria for selection of sampling locations not defined.
v. Dust level at project site are higher indicating that fugitive emission controls are not effective.
vi. Hydrogeological status of the region has been described without any mention of status specific in the study area.
vii. Interpretation of baseline data has not been done.
viii. There is no distinction between primary and secondary data for EB and SE base line.
ix. Project specific HIRA has not been done. In DMP Chapter, Ammonia shall be used for NOx control and HW used as alternate fuels, have not been addressed at all.
x. Green belt development has been proposed in 55 ha. It should be 57.5 ha as 10 acre additional green belt was committed in ToR dated 5/02/2020.
xi. Action plan to address the issues raised during public consultation as per the MoEF&CC O.M. No. 22-65/2017-IA.III dated 30/09/2020 shall be submitted.
xii. EIA does not describe Administrative measures like vision, mission, policy SOP for addressing non-compliances and quantified EMPS with time frame.
xiii. Status of environment clearance for the limestone mines has not been furnished.

Recommendations of the Committee held during 27-29th October, 2020

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

26.3.25 **M/s. Udaipur Cement Works Limited** has again submitted the online application after incorporating the concerns of EAC raised during 27-29th October, 2020 vide proposal no. IA/RJ/IND/184900/2007 dated 25/11/2020. The proposal was placed before the EAC for consideration.

Written submissions during the course of meeting

26.3.26 PP has submitted written clarifications on the following points during the course of meeting:

a. Revised action plan to address the concerns raised during public hearing
b. Existing green belt development details at site.

Observations of the Committee

26.3.27 The Committee noted the following:

i. The Committee noted that the 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.

ii. The Committee satisfied with the compliance status of the existing EC conditions as reported by the RO.

iii. The Committee has also deliberated on the public hearing issues as well as action plan to address the issues raised public hearing submitted during the course of meeting by the project proponent and found it satisfactory.

Recommendations of the Committee

26.3.28 In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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 project proponent shall obtain the necessary permission from the competent authority concerned for drawl of groundwater before commencement of work.

ii. Dioxin/furan to be monitored by NABL accredited laboratory half yearly basis and report shall be furnished to the RO.

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

iv. Green belt shall be developed in an area of 59 ha of the total plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

v. Action plan to address the issues raised during public hearing shall be implemented and compliance status shall be furnished to the RO on six monthly basis.

vi. Public Health Centres shall be established in villages, Daroli, Dabok, Modi, Khemli, Nandbel and Dhunimata in consultation with local administration.

vii. PTFE (or) equivalent bags shall be used in filter bag house and designed for 150% of normal design air flow.

viii. PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system.

ix. FGD system for SOx Control shall be used.

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (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.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R.

No. 612 (E) dated 25th August, 2014 (Cement)and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(in case of Co-processing Cement)as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall 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.

iii. Adhere to 'Zero Liquid Discharge'.

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

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

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

vii. 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.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.

ii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.

iv. Provide the project proponent for LED lights in their offices and residential areas.

v. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

vi. 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.

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

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

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

IX. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

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

26.4 Expansion of Steel Plant [Up-gradation of existing DRI Kiln (from 29,700 TPA to 30,000 TPA); establishment of New DRI Kilns (2,31,000 TPA); New Induction Furnaces (Mild Steel Ingots & Billets – 3,96,000 TPA); Change of route in existing Induction Furnaces – 1,00,000 TPA (Change of product from Billets & Ingots to TMT Bars & Structural Steel by Hot Charging); New Rolling Mills (TMT bars & Structural Steel – 3,96,000 TPA); WHRB based Power Plant from 7 MW to 23 MW; CFBC based Power Plant (from 8 MW to 22 MW); New Ferro Alloys Plant (FeSi-15,600 TPA / FeMn-32,400 TPA / SiMn – 32,400 TPA) **by M/s. Mahendra Sponge & Power Ltd** located at Villages Sarora & Parsada, Tehsil Tilda, **District Raipur, Chhattisgarh**. [Unit – II] [Online Proposal No. IA/CG/IND/185563/2007; File No. J- 11011/1154/2007-IA.II(I)] **– Environment Clearance – regarding**.

26.4.1 **M/s. Mahendra Sponge & Power Ltd** has made online application vide proposal no. IA/CG/IND/185563/2007 dated 30/11/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

26.4.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
16/07/2018	34th meeting held on 6th–7th of August, 2018	Terms of Reference	16/08/2018

26.4.3 The project of M/s. Mahendra Sponge & Power Ltd. [Unit – II] is an existing steel plant at villages - Sarora & Parsada, Tehsil - Tilda, District - Raipur, Chhattisgarh. It has been proposed to upgrade the existing DRI Kiln from 29,700 TPA to 30,000 TPA, establishment of New DRI Kilns (Sponge Iron - 2,31,000 TPA), New Induction Furnaces (Mild Steel Ingots & Billets – 3,96,000 TPA), Change of route in existing Induction Furnaces – 1,00,000 TPA (Change of product from Billets/ Ingots to TMT Bars & Structural Steel through Hot Charging), New Rolling Mills (TMT bars & Structural Steel – 3,96,000 TPA), WHRB based Power Plant 22 MW (6 MW from existing DRI Kilns & 16 MW from proposed DRI Kilns), CFBC based Power Plant 14 MW, New Ferro Alloys plant (FeSi-15,600 TPA / FeMn-32,400 TPA / SiMn – 32,400 TPA). Proposed expansion will be taken up partially in the existing plant area i.e. 7.79 ha. (19.25 Acres) and the remaining in the land adjacent to the existing plant i.e. 13.05 ha. (32.25 Acres). Total land after the proposed expansion will be 20.84 ha. (51.50 Acres). Entire land is acquired and under the possession of project proponent.

26.4.4 Chronology of Clearance obtained are as follows:

- CTE was accorded by Chhattisgarh Environment Conservation Board (CECB) to the Existing DRI Kiln to produce 29,700 TPA of sponge iron in the Name of M/s. Arsh Iron & Steel Ltd., which was prior to EIA notification 2006. EC was not applicable to this project as per EIA notification 1994, as the cost of the DRI kiln was less than Rs 100 Crores.
- Later, Environment Clearance was obtained for expansion proposal from MoEF vide F.No. J-11011/1154/2007-IA-II (I) dated 27th January 2010.
- Environment Clearance was transferred from M/s. Arsh Iron & Steel Ltd. to Mahendra Sponge & Power Ltd. (Unit - II) by MoEF&CC, New Delhi vide letter dated 30th November 2015.
- EC validity extension was accorded by MoEF&CC vide dated 17th July 2017 till 26th January 2020.
- Consent to Operate has been accorded by Chhattisgarh Environment Conservation Board vide order No. 4418/TS/CECB/2019 Naya Raipur dated 26/08/2019 for 95,700 TPA of sponge iron production through 3 nos. of DRI kilns and same is valid till 31/08/2022. Remaining units for which EC was obtained are not implemented and the validity also got expired.

26.4.5 The following are the existing and proposed plant configuration and production capacity:

S.No.	**Unit (Product)**	**Plant configuration & Production Capacity**			
		Existing (in TPA)	**EC obtained in Jan. 2010 (in TPA)**	**Present Proposal (in TPA)**	**After Present Proposal (in TPA)**
1.	DRI Kilns (Sponge Iron)	29,700 (1x90 TPD)	***** 66,000 (2 x100 TPD kilns)	Upgradation of existing 29,700 to 30,000 + 2,31,000 (2 x 350 TPD)	3,27,000 (1x 90 TPD; 2x100 TPD and 2 x350 TPD)
2.	Induction Furnaces	---	---	3,96,000 (8 x 15 MT)	3,96,000 TPA

S.No.	Unit (Product)	Plant configuration & Production Capacity			
		Existing (in TPA)	**EC obtained in Jan. 2010 (in TPA)**	**Present Proposal (in TPA)**	**After Present Proposal (in TPA)**
	(Mild Steel Ingot & Billets)				
3.	Induction Furnaces (Hot billets will be taken directly to rolling Mill to produce TMT Bars & Structural Steel)	---	# 1,00,000 (3 x 10 MT)	Change of product from Billets & Ingots to TMT Bars & Structural Steel (by Hot Charging) [Now proposed to establish 2 x 15 MT instead of 3 x 10 MT]	1,00,000 TPA
4.	Rolling Mill (TMT Bars & Structural Steel) along with Gasifier 24,000 Nm^3/Hr. (Hot charging 90% and remaining through RHF with producer gas / LDO as fuel)	---	---	3,96,000 TPA (2 x 600 TPD)	3,96,000 TPA (2 x 600 TPD)
5.	Power Plant (Electricity)	---	****** 15 MW (7 MW WHRB + 8 MW CFBC)	36 MW (22 MW WHRB + 14 MW CFBC)	36 MW (22 MW WHRB + 14 MW CFBC)
6.	Submerged Electric Arc Furnaces (FeSi/SiMn/FeMn)	---	---	2 x 9 MVA (FeSi – 15,600 / SiMn – 32,400 /FeMn – 32,400)	2 x 9 MVA (FeSi – 15,600 / SiMn – 32,400 / FeMn – 32,400)

Note:
***** 66,000 TPA (2 x 100 TPD) DRI Kilns are implemented and in operation with valid consent.
#3 x 10 MT Induction Furnaces are considered under expansion proposal and proposed to establish 2 x 15 MT instead of 3 x 10 MT with change of product from Billets & Ingots to TMT Bars & Structural Steel
(by Hot Charging)

S.No.	Unit (Product)	Plant configuration & Production Capacity			
		Existing (in TPA)	**EC obtained in Jan. 2010 (in TPA)**	**Present Proposal (in TPA)**	**After Present Proposal (in TPA)**
****** 15 MW (i.e. 7 MW WHRB + 8 MW CFBC) could not be implemented by January 2020 (no construction activity started), *However to integrate the existing DRI plants, 6 MW WHRB Power plant has been considered in the present proposal.*					

26.4.6 Existing plant is located at Villages- Sarora & Parsada, Tehsil - Tilda, District -Raipur, Chhattisgarh in an area of 7.79 ha. (19.25 acres) of land. Proposed expansion will be taken up partially in the existing plant area i.e. 7.79 ha. (19.25 Acres) and remaining in the land adjacent to the existing plant i.e. 13.05 ha. (32.25 Acres). Total land after the proposed expansion will be 20.84 ha. (51.50 Acres). Entire land is acquired. No River / stream passes through the plant area. It has been reported that no natural water body / stream exists in the plant area and any modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

26.4.7 The site lies between 21°33'7.89"N to 21°33'33.17"N Latitude and 81°44'42.42"E to 81°45'3.91"E longitude in Survey of India Topo sheet no. 64 G/10 at an elevation of 276m AMSL. The ground water table reported to range between 0.56to 0.86 mbgl below the land surface during the post-monsoon season and 15.0 to 2.75 mbgl below the land surface during the pre-monsoon season.

26.4.8 There are no National Parks/ Wild life sanctuaries / Biosphere reserves / Tiger Reserves/ Elephant Corridors / migratory routes for Birds with in 10 Km. radius of the plant. Bilari RF –0.7 Kms.; Bilari Ghughua RF- 4.0 Kms are present within 10 Kms. radius of the plant site. No forest land is involved in the proposed Plant site. There are no Schedule- I fauna exists in the study area.

26.4.9 The list of raw material for the proposed expansion project is given below.

S.No.	Raw Material		Quantity (TPA)	Sources	Distance (w.r.t Plant)	Mode of Transport
For DRI Kilns (Sponge Iron) – 2,31,000 TPA						
1	Iron Ore		3,70,000	NMDC, Bailadila / Bachheli	~ 500 Kms.	By Rail & Road (through covered trucks)
2	Coal	Indian Coal	3,00,000	SECL, Chhattisgarh / MCL Odisha	~ 160 Kms.	By Rail & Road (through covered trucks)
		Imported Coal	1,92,000	Indonesia / South Africa / Australia	600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
3	Dolomite		11,500	Raipur	~ 90 Kms.	By road (through covered

S.No.	Raw Material		Quantity (TPA)	Sources	Distance (w.r.t Plant)	Mode of Transport
						trucks)
For Steel Melting Shop (Hot metal) – 1,00,000 TPA						
1	Sponge Iron		80,000	Own generation & Purchased from outside (Raipur)	--- ~ 90 Kms.	By Covered Conveyers By road (through covered trucks)
2	MS Scrap		40,000	Raipur	~ 90 Kms.	By road (through covered trucks)
3	Ferro alloys		5,300	Own generation	---	By Covered Conveyers
For Steel Melting Shop (MS Billets) – 3,96,000 TPA						
1	Sponge Iron		3,00,000	Own generation	---	By Covered Conveyers
2	MS Scrap		1,40,000	Raipur	~ 90 Kms.	By road (through covered trucks)
3	Ferro alloys		5,300	Own generation	---	By Covered Conveyers
For Rolling Mill (TMT bars & Structural Steel) – 3,96,000 TPA						
1	MS Billets		4,20,000	Own generation & Purchased from outside (Raipur)	--- ~ 90 Kms.	By Covered Conveyers By road (through covered trucks)
2	LDO		19500	Raipur	~ 90 Kms.	By road (through Tankers)
3	Coal (for Gasifier 24000 NM^3/Hr.)	Indian Coal	79200	SECL, Chhattisgarh / MCL Odisha	~ 160 Kms.	By Rail & Road (through covered trucks)
		Imported Coal	50688	Indonesia / South Africa / Australia	600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
For Rolling Mill (TMT bars & Structural Steel) – 1,00,000 TPA (through hot charging)						
1	Hot Billets		1,00,000	Own generation	---	----
For CFBC Boiler - Power Generation 1 x 14 MW (1 x 56 TPH Boiler)						
1	Dolochar		69,300	Own generation	---	By Covered Conveyers
2	Coal	Indian Coal	75,600	SECL,	~ 160	By Rail & Road

S.No.	Raw Material		Quantity (TPA)	Sources	Distance (w.r.t Plant)	Mode of Transport
				Chhattisgarh / MCL Odisha	Kms.	(through covered trucks)
		Imported Coal	48,000	Indonesia / South Africa / Australia	600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
For Ferro Silicon unit (for 15,600 TPA)						
1	Quartz		26520	Chhattisgarh / Andhra Pradesh	~ 300 Kms.	By Road (covered trucks)
2	LAM Coke		8580	Chhattisgarh / Bihar Imported from Australia, China	~ 100 Kms. ~ 500 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)
3	MS Scrap		395	Own generation	---	By Covered Conveyers
4	Mill Scales		7920	Own generation	---	By Covered Conveyers
5	Electrode paste		360	Jharkhand	~ 300	By Road (Covered Trucks)
6	Bag filter dust		780	Own generation	---	---
For Ferro Manganese unit (for 32,400 TPA)						
1	Manganese Ore		73710	Balaghat (M.P.) Imported from South Africa	~ 500 Kms. ~ 480 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
2	LAM Coke		11826	Chhattisgarh / Bihar Imported from Australia, China	~ 100 Kms. ~ 500 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
3	Quartz		972	Chhattisgarh /	~ 300	By Road (Covered

S.No.	Raw Material	Quantity (TPA)	Sources	Distance (w.r.t Plant)	Mode of Transport
			Andhra Pradesh	Kms.	Trucks)
4	Electrode Paste	648	Jharkhand	~ 300 Kms.	By Road (Covered Trucks)
5	Bag filter dust	5184	Own generation	---	---
For Silico Manganese unit (for 32,400 TPA)					
1	Manganese Ore	52812	Balaghat (M.P.) Imported from South Africa	~ 500 Kms. ~ 480 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
2	FeMn Slag	20574	Own generation	---	By Covered Conveyers
3	LAM Coke	12474	Imported	---	Through sea route & Road (through covered trucks)
4	Quartz	6480	Chhattisgarh / Andhra Pradesh	~ 300 Kms.	By Road (Covered Trucks)
5	Electrode Paste	630	Jharkhand	~ 300 Kms.	By Road (Covered Trucks)
6	Bag filter dust	4860	Own generation	---	---

26.4.10 The targeted production capacity of the plant after expansion project is TMT Bars & Structural Steel – 0.496 million TPA. Imported Coal would be supplied by M/s. Kamal Trading, Raipur. Major raw materials will be transported through railway rakes up to the nearest railway station (Tilda RS – 5.0 Kms.) and then to the plant site through road by covered trucks.

26.4.11 Impact on Vehicular Traffic Load due to proposed expansion

Traffic load during the operation of the existing plant (Baseline) : 2278.5 PCU/day

Additional Traffic load during operation of the expansion project : 1394.0 PCU/day

Total Traffic load during operation of existing and proposed expansion load:3672.5 PCU/day

Traffic Capacity as per the IRC 73: 1980 for Highways : 5000 PCU/day

Hence the existing road is capable of taking the additional traffic load due to the proposed expansion.

26.4.12 Water required in the existing plant is 160 KLD and is being sourced from Ground Water sources. Water requirement for the proposed expansion will be 1560 KLD. The total water requirement after the proposed expansion will be 1720 KLD. Water required for the present expansion proposal will be sourced from Lakhna Anicut of Kharun River. State Investment

Promotion Board (SIPB), Govt. of Chhattisgarh has recommended for allocation of 0.75 MCM per annum (2272 KLD) of water from Lakhna Anicut of Kharun River vide letter no. 292/SIPB/2019/341 dated 16th July 2020.

26.4.13 Total power required for the existing unit & for the proposed expansion units will be 76.8 MW which will be sourced partly from the captive 36 MW (WHRB power & FBC power plant) and 40.8 MW will be sourced from State Grid.

26.4.14 Baseline Environmental Studies

Period	1st March 2018 to 31st May 2018
AAQ parameters at 8 locations	$PM_{2.5}$ = 19.7 to 36.2 μg/m^3 PM_{10} = 34.8 to 62.7 μg/m^3 SO_2 = 7.1 to 11.8 μg/m^3 NOx = 7.5 to 19.9 μg/m^3 CO = 368 to 995 μg/m^3
AAQ modelling	PM_{10} = 2.24 μg/m^3 SO_2 = 15.2 μg/m^3 NOx = 12.94 μg/m^3 CO = 3.8 μg/m^3
Ground water quality at 8 locations	pH: 7.3 to 7.9, Total Hardness: 211 to 279 mg/l, Chlorides: 169 to 277 mg/l, Fluoride: 0.45 to 0.77 mg/l. Heavy metals are within the limits.
Surface water quality at 6 location	pH: 7.2 to 7.8, DO: 4.3 to 7.1mg/l, BOD: 2.2 to 2.9 mg/l & COD:7.0 to 9.6 mg/l.
Noise levels	46.86 dBA to 68.71 dBA during the study period.

26.4.15 It has been reported that there is no R & R involved, as the expansion will be taken up partially in the existing plant premises and partially in the land adjacent to the existing plant (no habitation exists in the additional land).

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

S.No.	**Waste**	**Quantity (TPD)**		**Method of disposal**
		Existing	**Proposed Expansion**	
1.	Ash from DRI	53	126	Is being given to M/s. Century Cement (Baikunth) & to other nearby Brick Manufacturers in the existing plant and same practice will be continued after the proposed expansion also.
2.	Dolochar	60	140	Is being given to nearby FBC units in the existing plant. Now it will be utilized in proposed FBC Power Plant.
3.	Wet scrapper sludge	15	35	Is being used in road / civil construction & being given to nearby Brick Manufacturers and same practice will be continued after the proposed expansion also.
4.	Kiln Accretion	3	7	Is being used in road / civil

S.No.	Waste	Quantity (TPD)		Method of disposal
		Existing	Proposed Expansion	
	Slag			construction & being given to nearby Brick Manufacturers and same practice will be continued after the proposed expansion also.
5.	SMS Slag	---	165	Slag from SMS is being crushed and iron is being recovered & then remaining non -magnetic material being inert by nature is used as sub base material in road construction/brick manufacturing
6.	Mill scales from Rolling Mill	---	16	Mill scales from Rolling Mill will be reused in proposed to manufacture Ferro Alloys.
7.	End cuttings from Rolling Mill	---	50	End cuttings from Rolling Mill is being reused in the SMS
8.	Ash (with Indian Coal + dolochar)	---	200	Will be given to M/s. Century Cement (Baikunth) & to other nearby Brick Manufacturers
		(OR)		
	Ash (with imported Coal + dolochar)	---	149	Will be given to M/s. Century Cement (Baikunth) & to other nearby Brick Manufacturers
9.	Fe-Si Slag	---	13.5	Will be given to Cast Iron foundries i.e. M/s. Rotocast Industries Ltd.
		(OR)		
	Si-Mn Slag	---	124	Will be utilized in road construction
		(OR)		
	Fe-Mn Slag	---	69	Will be used in manufacture of Silico Manganese as it contains high MnO_2
10	Tar	---	6	Tar generated will be given to CECB authorized agencies and accordingly HWA will be obtained from CECB.
11	Ash (cinder)	---	20	Will be given to brick manufacturing units

Note: Briquetting plant will be provided for effective dust management in Ferro Alloys plant.

26.4.17 Total wastewater generation after expansion will be 158 KLD (existing – 8 KLD & Exp – 150 KLD). Zero liquid discharge is implemented in existing plant and will be continued after expansion also. Phenolic effluents from PGP will be utilised in ABC chamber of DRI kilns. Effluent from Rolling mill will be treated in ETP for removal of oil & settling solids.

26.4.18 The following are the air emission control systems proposed in expansion and the proposed outlet emissions;

S.No.	Source	Control Equipment	Maximum Emission at the outlet

1	DRI kilns with WHRBs	Electro Static Precipitators (ESP) – 2 nos.	PM - 30 mg/Nm^3
2	Induction Furnaces with CCM (2 x 15 T)	Fume Extraction system with bag filters – 2 nos.	PM - 30 mg/Nm^3
3	Induction Furnaces with CCM (8 x 15 T)	Fume Extraction system with bag filters – 8 nos.	PM - 30 mg/Nm^3
4	Rolling Mill	Chimney of Adequate Height	----
5	Ferro Alloy (SEAF)	4th hole Fume Extraction system with bag filters – 2 nos.	PM - 30 mg/Nm^3
6	CFBC Boiler	Electro Static Precipitator – 1 no.	PM - 30 mg/Nm^3 SOx - 100 mg/Nm^3 NOx - 100 mg/Nm^3

26.4.19 The Public hearing for the proposed expansion project was held on 19th August 2020 at 12:00 Noon at Gothan at Sarora Gram Panchayat, Near Mahila Bhavan, Sarora Village, Tilda Tehsil, Raipur District, Chhattisgarh under the chairmanship of **Additional District Collector & Upper Collector (ADM cadre)**. The notice of Public Hearing was advertised in "The Times of India" and "Patrika" on 18.07.2020. The issues raised during Public Hearing are Employment generation, Pollution problem, Repair & Maintenance of road in villages etc. As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dt. 30th September 2020, following is budgetary allocation for commitment made by Project Proponent to address the concern raised during public hearing, issues raised from Social Impact Assessment (SIA), which is part of Environment Management Plan (EMP)

Budgetary allocation for Social Development activities : Rs.2.7 C.rores

S.No.	Major Activity Heads	Years (Rs. In Crores)			Total Expenditure (Rs. In Crores)
		1st	2nd	3rd	
A	**Based on Social Impact Assessment (SIA)**				
1	Community & Infrastructure Development Programmes (Construction of Public Toilets 5 nos. (3 nos. in Sarora Village and 2 nos. in Parsada Village) @ 4 lakhs, renovation of school building (Sarora – Rs. 10 Lakhs), providing Street Lights in Sarora Village (Rs. 1 Lakhs) & Parsada Village (Rs. 1 Lakhs), sanitation facilities (Sarora village – Rs. 8 Lakhs), drainage facilities in Sarora village - Rs. 20 Lakhs)	0.2	0.2	0.2	0.6
2	Education (Providing furniture, computers, library, sports equipment etc. for schools in Sarora Village)	0.1	0.1	0.1	0.3
3	Medical & health related activities (Ambulance facilities – Rs. 20 Lakhs, Primary Health Center in Sarora & Parsada Village – Rs.20 Lakhs each)	0.2	0.2	0.2	0.6
B	**Based on Public Consultation / Hearing**				
1	Laying patches of road connecting Sarora Village & Plant site	---	0.3	---	0.3
2	Skill & Entrepreneur Development Program in	0.3	0.3	0.3	0.9

S.No.	Major Activity Heads	Years (Rs. In Crores)			Total Expenditure (Rs. In Crores)
		1st	2nd	3rd	
	accordance with guidelines issued by National Skill Development Council, Govt. of India. • Unemployed youth in the Sarora & Parsada villages will be provided with Industrial training to absorb in our unit and other industrial units in the area. (Rs. 40 Lakhs) • Necessary assistance will be provided to unemployed youth in the Sarora & Parsada villages to have self-employment (Rs. 30 Lakhs) • Assistance will be provided to Women Self Help groups in the Sarora & Parsada village (Rs. 20 Lakhs)				
	Total	**0.8**	**1.1**	**0.8**	**2.70**

26.4.20 The capital cost of the expansion project is Rs.325 Crores and the capital cost for environmental protection measures is proposed as Rs.32.7 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.196 lakhs/annum. The employment generation is 150 people during operation of the proposed expansion and 300 people during construction of the proposed units.

26.4.21 The details of capital cost for environmental protection measures and annual recurring cost towards:

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lakhs)
1	**Air Emission Management**		
	ESPs	9.00	60.0
	Dust Extraction systems with Bag filters	6.00	25.0
	Chimneys	5.50	3.0
	CAAQMS	1.20	4.0
	CEMS	1.75	2.0
	Water Sprinklers	0.20	2.0
	Environment Monitoring	---	14.5
	Total (A)	**23.65**	**110.5**
2	**Wastewater Management**		
	ETP & STP	1.40	13.0
	Garland drains	0.10	2.0
	Total (B)	**1.30**	**15.0**
3	Solid waste Management		
	Ash handling system & others	3.00	40.0
	Construction of Pucca Platform for storage	0.50	2.0
	Hazardous & Municipal solid waste storage	0.20	1.5
	Total (C)	**3.70**	**43.5**
4	Greenbelt development, Land scaping Noise	0.35	12.0

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lakhs)
	Management		
5	Occupational Health & Safety (including Dispensary with Ambulance facility)	1.00	15.0
6	Budget for Social Development activities (Socio economic activities)	2.70	---
	TOTAL	**32.70**	**196**

26.4.22 It has been reported that an area of 2.47 ha. (6.35 Acres) of greenbelt is already developed in the existing plant and 4.3 ha. (10.65 Acres) of additional greenbelt will be development in the proposed expansion proposal.to attenuate the noise levels and trap the dust generated due to the project development activities. Plantation will be @1000 nos. per acre. Additional plantation as part of expansion will be 10650 which will be planted in the 1st year monsoon immediately after commencement of operation of expansion. Total 17,000 nos. of plants (including existing) will be in the plant by the end.

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

26.4.24 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No. 129, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Certified compliance report from Regional Office

26.4.25 The Status of Compliance of earlier EC has been obtained from Integrated Regional Office, MoEF&CC, Raipur vide File No.5-292/2009(ENV)/7299 dt. 7th October 2020 and where in non-compliances have been reported. Subsequently, PP has submitted Action Taken Report to the Integrated Regional Office, MoEF&CC, Raipur on 30th November 2020, which have been examined and Closure report was issued by Integrated Regional Office, MOEF&CC on 6th November 2020.

Written submissions during the course of meeting

26.4.26 PP has submitted written clarifications on the following points during the course of meeting:

c. EMP details based on PH giving physical targets and time line.
d. Confirmation that no ground water shall be abstracted after expansion.
e. Slag after metal recovery shall be used for brick making.
f. Adequacy of PCDs.
g. Heat Rate shall be less than 2600 Kcal/kwh.
h. Waste water management in rainy season.

Observations of the Committee

26.4.27 The Committee observed the following:

i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards.

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

iii. The compliance status to the existing EC conditions found to be satisfactory as reported by the RO.

iv. The written submissions submitted by the project proponent during the course of meeting found to be satisfactory and addressing the concerns of the Committee.

Recommendations of the Committee

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

A. Specific conditions

i. Stack emissions (PM) from all kilns shall not exceed 30 mg/Nm^3.
ii. Action plan to address the issues raised during public hearing shall be implemented and compliance status shall be furnished to the RO on six monthly basis.
iii. There will be no ground water extraction after expansion of the project.
iv. Slag after metal recovery shall be used for brick making.
v. Effluent from coal gasifier shall be treated in DRI.
vi. 85-90% hot charging shall be practiced.
vii. Paved roads shall be constructed and industrial vacuum cleaner for road sweeping shall be provided.
viii. Performance monitoring of Pollution Control Devices (PCDs)shall be done half yearly and compliance status shall be furnished to RO.
ix. PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system
x. PTFE bags shall be used in filter bag house and designed for 150% of normal design air flow.
xi. At no time, vehicles/ trucks pertaining to the project shall be parked outside of the premises of project.

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

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

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

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

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

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

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

viii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

III. Water quality monitoring and preservation

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

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

iii. Adhere to 'Zero Liquid Discharge'.

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

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

ii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

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

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Corporate Environment Responsibility

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

v. 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.

vi. 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.

26.5 Greenfield Alumina Refinery (300000 TPA Alumina) & 3 x 10 MW Captive Cogeneration Power Plant by **M/s. Maa Kudargarhi Alumina Refinery Private Limited** located at Village Chiranga, Tehsil: Batauli **District: Ambikapur, Chhattisgarh** [Online Proposal No. IA/CG/IND/185716/2020; File No. J- 11011/201/2020-IA.II(I)] **– Prescribing of Terms of Reference – regarding**.

26.5.1 **M/s. Maa Kudargarhi Alumina Refinery Private Limited** has made application vide online proposal no. IA/CG/IND/185716/2020 dated 30/11/2020 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

26.5.2 M/s Maa Kudargarhi Alumina Refinery Pvt Ltd (MKARPL) proposes to install a new Alumina Refinery and captive cogeneration power plant. It is proposed to set up the plant for manufacturing 300000 TPA Alumina based on Conventional Technology (Bayers Process). 3 x 10 MW Captive Power Plant based on CFBC Technology shall be set up to make power and steam.

26.5.3 The proposed unit will be located at village Chiranga, tehsil Batauli, District Surguja (Chhattisgarh).

26.5.4 The land area identified for the proposed project is 111.8 ha, out of which 19.628 ha is agriculture land (single crop) and balance 92.172 ha is government land (pahadchattan). Industries Dept has recommended district collector to transfer 91.942 ha government land to MKAPL. No house or other structures are present on the identified land. No forest land is involved. 41.78 ha land has been considered as greenbelt, which is 37.4% of the total area.

26.5.5 The proposed production capacity for different products for new site is given below:

Name of Unit	No. of Units	Capacity of Each Units	Production Capacity
Alumina Refinery	1	300000 TPA	Alumina - 300000 TPA
Cogeneration Power Plant	3	10 MW	30 MW Electricity 210 TPH Steam

26.5.6 The targeted production capacity of the plant is 300000 TPA alumina. Bauxite ore for the plant would be procured from mines located in Mainpat, Surguja district (500000 TPA bauxite mines operated and marketed by group companies of MKARPL and other merchant mines). Coal will be procured from Surajpur-Bishrampur area of SECL mines by e-auction. The ore transportation will be done through road.

26.5.7 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.

26.5.8 Total project cost is approx. Rs. 1147 Crore. Employment generation from proposed project will be 275 direct employment and 500 indirect employment.

26.5.9 Proposed raw material and fuel requirement for project are bauxite ore, coal, caustic soda, lime, filter cloth, sulphuric acid and flocculants. The requirement of bauxite would be fulfilled by purchase from group companies and other merchant mine owners. Coal will be procured through e-auction. Other materials will be sourced from traders and locally available sources. Fuel consumption will be LSHS and HSD-

S.No.	Name	Quantity, TPA	Source	Transportation
1	Bauxite	840000	From group companies of MKARPL located in Mainpat region of Sarguja district and other Merchant mining companies located in Mainpat region, about 20-25 km away	All raw materials will be transported by road. Nearest railway siding is located at Surajpur, about
2	Caustic soda	27000	Through whole sellers / directly from plant at Garwa Road,	

S.No.	Name	Quantity, TPA	Source	Transportation
			Jharkhand	50 km from project site on Ambikapur-Anuppur section. It will be used to transport alumina. Total material movement is 14,60,000 TPA = 135 trucks /day of 30 tons capacity
3	Filter Cloth	12000	From Traders	
4	Flocculants	150	From Traders	
5	Lime	12000	From Katni and Bilaspur	
6	Coal	240000	From nearby SECL coal mines by e-auction (Bishrampur-Manendragarh-Surajpur area, 25-50 km away)	
7	H_2SO_4	850	Through whole sellers / directly from plant	
8	Alumina	300000 TPA	Sold to smelters located at Korba, Hirakud, Lanjigarh, Renukoot and other small smelters	
9	Red Mud	350000 TPA	Assuming 25% utilization in cement making - 87500 TPA (in first 5 years)	
10	Flyash + Gypsum	100000 TPA	100% utilization as per MOEFCC norms	

26.5.10 Water consumption for the proposed project will be 174 Kl/hour (1.524 MCM) and wastewater generation will be NIL (entire wastewater will be recycled). Domestic wastewater will be treated in STP and reused and industrial wastewater will be treated and reused.

26.5.11 The electricity load of 18 MW will be procured from the Captive Power Plant. Company has also proposed to install 2 x 1500 KW DG Set.

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

26.5.13 Name of the EIA consultant: Ind Tech House Consult, Delhi [S.No. 3, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Observations of the Committee

26.5.14 The Committee noted the following:

i. Land 113.386 ha (92.172 ha & Govt land; 19.628 ha Private agriculture land)
ii. Water @ 174 m^3/hr shall be extracted from Ghunghutta River.
iii. Red mud and Flyash pond areas are 18 ha and 2.13 ha for fly ash/bottom ash.
iv. Red mud shall be disposed at 75% Solids consistency and fly ash shall be handled dry.
v. 37.37% area shall be developed into green belt. In addition, avenue plantation outside the factory on 4.6 KM road shall be developed and maintained. Nearly 46 % area would be under green cover.
vi. ZLD has been committed.
vii. Manja village is situated 800 m North and Kalipur 1.7 km away from the proposed plant.
viii. There is a commitment on use of Red Mud in cement making, back filling of mines and tiles making.

ix. Access to the plant site is 4.6 km away from nearest Highway.
x. Three sites have been studied and Chiranga site has been found most suitable due to adequate land, low population and availability of water. Project affected people are only 45 Nos.
xi. Distance of site from HFL of Gunguta nala -Flood Hazard Mapping has been done by expert Hydrologist and the Map is submitted. The minimum altitude at site is 630 m & the HFL is 610 m. Also, it is evident that the HFL is more than 500 m away from the boundary of project site. Flood Plane map and LU/LC maps have also been furnished during the course of meeting.
xii. There is a natural drain passing through the site which will not be disturbed.

Recommendations of the Committee

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

i. PM emissions shall be less than 30 mg/Nm^3.
ii. Scheme to utilize red mud and to recover precious metals shall be furnished.
iii. Plant shall operate on ZLD.
iv. A note on minimizing heat pollution on the shop floor shall be furnished.
v. Access to plant site shall be indicated.
vi. Plot plan shall be revised in view to maintaining natural contours of the drain passing through the property.
vii. All plant roads shall be pucca and cleaned regularly using industrial vacuum cleaners. Dust collected from roads and shop floors shall be recycled.
viii. Explore use of lime grits generated in the slaking plant.
ix. Green belt shall be developed around RMP and Flyash Pond. 20-25 m green belt shall be maintained towards Liagu and Manja villages. 38% green belt has been committed by PP.
x. Ground water shall not be abstracted.
xi. Red Mud shall be utilized in road making Cement making, tiles and back filling of mined out pits.
xii. Ash utilization plan as per the provisions of fly ash notification shall be submitted.
xiii. Truck parking area of 0.6 ha is too small it may be increased.
xiv. Storm water drain shall be independent of plant drains. Natural drain passing through the site shall not be disturbed and landscaped suitably. No flow shall be abstracted in any manner.
xv. In no circumstances, plant premises will be within HFL area of the Gunguta nala and 500 m distance will be maintained from project boundary as proposed by the project proponent.

26.6 Proposed 6 x 9 MVA Submerged Electric Arc Furnace (Production: Ferro Manganese – 1,50,000 TPA or Silico Manganese – 1,20,000 TPA or Ferro Silica – 85,000 TPA or Pig Iron – 1,50,000 TPA) by **M/s. Berry Alloys Limited** located at Sy No. J L No.24, Ghutgoria Tehsil-Barjora, **District Bankura, State West B**engal. [Online Proposal No. IA/WB/IND/185928/2020; File No. J-11011/310/2020-IA.II(I)] **– Prescribing of Terms of Reference – regarding**.

26.6.1 M/s. Berry Alloys Limited has made application vide online proposal no. IA/WB/IND/185928/2020 dated 01/12/2020 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

26.6.2 M/s. Berry Alloys Limited is proposing to install additional 6 x 9 MVA submerged Electric Arc Furnace at Sy No. J L No.24, Ghutgoria Tehsil-Barjora, District Bankura, State West Bengal. The company already acquired 6.9 ha of land.

26.6.3 PP has reported that no forest land is involved and the site is more than 500 meters from the National/State highway. Site is about 160 meters from the human settlement. The site is away from the flood zone and adequate infrastructure is available for transportation of Raw naterial and finished good.

26.6.4 The targeted production capacity of the plant (6 x 9 MVA Submerged Electric Arc Furnace) is as follows:

Name of Unit	**No. of Units**	**Capacity of Each Unit**	**Production Capacity**
Submerged Electric Arc Furnace	6 Nos.	9 MVA	Ferro Manganese – 1,50,000 TPA or Silico Manganese – 1,20,000 TPA or Ferro Silica – 85,000 TPA or Pig Iron -1,50,000 TPA

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

26.6.6 Total project cost is approx. Rs. 120 Crore. To mitigate the negative impact of the project adequate mitigation measures will be taken. About Rs. 25.0 crores will be the EMP cost. The plant activity shall get direct employment for about 250 persons and more than 500 people indirect employment to nearby villagers.

26.6.7 Proposed raw material per ton of product is as follows:

S. No.	**Raw Materials**	**Quantity (M.T)**	**Source**
Raw Material for per ton Ferro Manganese			
1	Manganese ore (with Average Mn 44%)	2.1 – 2.4	Open Market
2	Coke (With Average Fixed Carbon 80%)	0.3	Open Market
3	Coal (With Average Fixed Carbon 80%)	0.3	Open Market
4	Dolomite	0.2	Open Market
Raw Material for per ton Silico Manganese			
1	Manganese ore (with Average Mn 44%)	0.6	Open Market
2	Manganese ore (with Average Mn 38%)	0.6	Open Market
3	Manganese ore (with Average Mn 30%)	0.6	Open Market

S. No.	Raw Materials	Quantity (M.T)	Source
4	Ferro Manganese Slag	0.6	Open Market
5	Coke (With Average Fixed Carbon 80%)	0.4	Open Market
6	Coal (With Average Fixed Carbon 80%)	0.4	Open Market
7	Quartz	0.25	Open Market
8	Dolomite	0.3	Open Market
Raw Material for per ton Pig Iron			
1	Iron Ore	1.2	Open Market
2	Mill Scale	0.6	Open Market
3	Coke	0.4	Open Market

The raw material will be sourced from local market and will be transported through road. Finished project will also be transported through road.

26.6.8 More than 33% (2.6 ha) of total land availability are reserved for greenbelt development plan. Plant species will be planted after consultation of local forest department.

26.6.9 PP has reported that the manufacturing process does not require water in process. The water requirement in the project will be for cooling purpose (100 KLD), domestic consumption and green belt development (20 KLD) totaling to 120 KLD. Water will be sourced from Ground water. Zero discharge norms will be followed.

26.6.10 50 MVA Power will be required for Proposed Plant. Power will be sourced from DVC.

26.6.11 Slag will be sold to construction industry and brick manufacturing plant. The details of solid waste are given in below table:

Particular	Quantity (TPD)
Slag from SEAF	150
Bag filter dust	1.25

No liquid effluent will be generated at the plant site. The domestic wastewater (8.0 KLD) generated will be treated in STP and treated water will be reuse for green belt development.

26.6.12 There will be no displacement of houses. Hence rehabilitation and resettlement is not envisaged.

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

26.6.14 Name of the EIA consultant: Ampl Environ Private Limited [S.No. 124, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Observations of the Committee

26.6.15 The Committee noted the following:

i. The proposal is to install 6x9 MVA SAF to manufacture SiMn; FeSi; FeMn and Pig Iron.
ii. Total land area is 6.9 ha. 2.6 ha is earmarked for green belt. PP has committed to provide 37.67% green belt.
iii. 120 KLD GW shall be abstracted. PP has applied for permission for GW abstraction.
iv. State Highway is 3 Km and nearest Rly Stn is 8.6 Km in SE direction from the plant.

v. There is a village 160 m away in North of plant site.

Recommendations of the Committee

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

i. Permission to abstract GW shall be obtained. Within three years of the grant of EC, the project proponent would shift to surface water only.
ii. 4th hole extraction system shall be included in SAF.
iii. 100 % slag generated from 6x9MVA SAF shall be utilized.
iv. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly to control fugitive emission. Dust collected shall be recycled.
v. Rain Water Harvesting shall be done extensively and RW shall be recharged.
vi. 25 m green belt shall be provided towards the village in North of the plant.
vii. Fe-Cr shall not be produced in the plant w/o obtaining EC from MoEF&CC.
viii. Health monitoring of Ghutgoria village shall be done regularly by PP and health cards shall be issued to all villagers.

17th December, 2020

26.7 Integrated Cement Plant (Cement 4.0 Million TPA; Clinker 2.0 Million TPA), Captive Power Plant 25 MW, WHRS 20 MW along with DG Sets of 2000 KVA (1000/500/250/125 KVA) by **M/s. Shree Cement Limited** located at Village Gothra, Tehsil Nawalgarh, **District Jhunjhunu, Rajasthan**. [Online Proposal No. IA/RJ/IND/109426/2019; File No. J-11011/1173/2007-IA.II(I)] – **Environment Clearance – regarding.**

26.7.1 **M/s. Shree Cement Limited** has made an online application vide proposal no. IA/RJ/IND/109426/2019 dated 27/11/2020 along with Form 1 &2, and feasibility report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement plants under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

26.7.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
28/06/2019	9th meeting held on 30th–31st of July, 2019	Terms of Reference	23/09/2019

26.7.3 The project of M/s. Shree Cement Limited located at Gothra Village, Nawalgarh Tehsil, Jhunjhunu District, Rajasthan State is for setting up of a new Integrated Cement Plant for production of Cement 4.0 Million TPA, Clinker 2.0 Million TPA, Captive Power Plant 25 MW, WHRS 20 MW along with DG Sets of 2000 KVA (1000/500/250/125 KVA).

26.7.4 Environment Clearance has been granted for Integrated Cement Plant (Clinker: 2.0 MTPA, Cement: 3.0 MTPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 MTPA was obtained from MoEF&CC, New Delhi vide Letter No. J-11011/1173/2007-IA II (I) on 15/07/2009; validity extended vide letter dated 29/09/2016 which got expired on 14/07/2019 and the same EC is valid for Captive Limestone Mines up to 14/07/2039. Due to expiry of earlier granted EC for Integrated Cement Plant, a fresh application for EC of Integrated Cement Plant on same project site with revised capacities has been applied.

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

Units	**Proposed Capacity**
Clinker	2.0 MTPA*
Cement**	4.0 MTPA
CPP	25 MW
WHRS	20 MW
DG Set	2000 KVA (1000/500/250/125 KVA)

**Balance clinker (0.32 Million TPA) will be sourced from sister units located at Beawar-Ajmer and Ras-Pali through road & rail.*

***OPC, PPC, PSC, RHPC, SRC & Composite Cement*

26.7.6 The total land required for the project is 145.71 ha, out of which, 142.16 ha (i.e. 97.6%) is single crop agricultural land, allotted by RIICO for Industrial use to setup Cement Plant; and is under possession of the Company and remaining 3.55 ha (i.e. 2.4%) is Govt. Land; acquisition for allotment is under process. More than 97% of the land is under the possession of the company. No forest land is involved. No River passes through the project area. 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.

26.7.7 The topography of the area is flat with low lying mound of stabilized sand and reported to lies between 27°47' 16.74" N to 27°48' 3.88" N Latitude and 75°19' 37.02" E to 75°20' 31.88" E Longitude in Survey of India Toposheet No.: G43D1, G43D2, G 43D5 & G43D6 at an elevation of 415 to 422 mRL. The ground water table reported to ranges between 69 to 71 m below the land surface during the post-monsoon season and 70 to 72 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 1300 m from centre of mine pit. Further, the stage of groundwater development is reported to be 92 % and 149% in core and buffer zone, respectively and thereby these are designated as critically exploited areas.

26.7.8 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. Two schedule - I species i.e. Indian Peafowl *(Pavo cristatus)* & Desert Cat *(Felis libyca)* recorded in the study area during field survey; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. The total budget allocated for implementation of Peafowl and Desert Cat Conservation is Rs. 16.60 Crores. Wildlife Conservation Plan for above mentioned Schedule - I species has been prepared and approved by DCF, Jhunjhunu and PCCF, Jaipur vide letter dated 26/11/2020.

26.7.9 Major raw material required for Clinker & Cement production is Limestone, Laterite/ Iron ore/ Mill scale/ Lead Zinc Slag, Fly ash, Gypsum (Mineral / Chemical / Synthetic / Imported) & Clinker. Details regarding quantity of raw materials required, their source along with distance and mode of transportation are given as below:

S. No.	Raw Material	Proportion % by weight	Quantity (MTPA)	Source	Distance (km)	Mode of Transportation
Raw Material Requirement for Clinkerization Plant						
1	Limestone	-	3.2	Captive limestone mine	-	Covered Conveyor belt
2	Laterite/ Iron ore/ Mill scale/ Lead Zinc Slag	-	0.06	Laterite from Bhilwara, Lead zinc slag, Iron ore and red ochre from Chittorgarh (Raj.) and mill scale from Mandi Gobindgarh, Punjab	280 - 400	By Road
Raw Material Requirement - OPC/RHPC/SRC Cement						
1	Clinker	93	2.0	Proposed clinker unit	-	Conveyor Belt
2	Gypsum (Mineral / Chemical / Synthetic / Imported)	7	0.15	Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan	169-300 900	By Road & Rail
Raw Material Requirement - PPC						
1	Clinker	58	2.32	Proposed clinker unit (2.0 Million TPA) and balance from sister units at	Within Plant/ 213 - 300	Conveyor Belt/ By Road & Rail

S. No.	Raw Material	Proportion % by weight	Quantity (MTPA)	Source	Distance (km)	Mode of Transportation
				Beawar-Ajmer and Ras-Pali		
2	Fly Ash	35	1.40	Panipat Thermal Power Station / Suratgarh Super Thermal Power Station (RVUNL), Suratgarh & CPP	232 / 300	By Road
3	Gypsum (Mineral / Chemical / Synthetic / Imported	7	0.28	Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan	169-300 900	By Road & Rail
Raw Material Requirement - PSC						
1	Clinker	38	1.52	Within Plant Production	-	Conveyor Belt
2	Slag	55	2.2	Tata Steel Ltd., Jamshedpur; Rourkela Steel Plant, Rourkela; Bhilai Steel Plant, Bhilai	1400-1600 km	By Road & Rail
3	Gypsum (Mineral / Chemical / Synthetic / Imported	7	0.28	Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of	169 -300	By Road & Rail

S. No.	Raw Material	Proportion % by weight	Quantity (MTPA)	Source	Distance (km)	Mode of Transportation
				SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan	900	
Raw Material Requirement - Composite Cement						
1	Clinker	38	1.52	Within Plant Production	-	Conveyor Belt
2	Fly Ash	35	1.40	Panipat Thermal Power Station / Suratgarh Super Thermal Power Station (RVUNL), Suratgarh & CPP	232 / 300	By Road
3	Slag	20	0.8	Tata Steel Ltd., Jamshedpur; Rourkela Steel Plant, Rourkela; Bhilai Steel Plant, Bhilai	1400-1600 km	By Road & Rail
4	Gypsum (Mineral / Chemical / Synthetic / Imported	7	0.28	Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan	169 -300 900	By Road & Rail

26.7.10 The targeted production capacity of the Cement is 4.0 Million TPA & Clinker is 2.0 Million TPA. The limestone for the plant would be procured from Captive limestone mine; Laterite from Bhilwara, Lead zinc slag, Iron ore and red ochre from Chittorgarh (Raj.); mill scale from Mandi Gobindgarh, Punjab; Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan. The limestone transportation will be done through Covered Conveyor belt.

26.7.11 The water requirement of the project is estimated as 1200 KLD which will be sourced from Ground Water and STP Treated Water of Nagar Palika, Nawalgarh. Out of the total water requirement, 750 KLD will be used in proposed Integrated Cement Plant (including CPP & WHRS) and remaining 450 KLD in Mine, Crusher and Colony for which EC would be taken as per MoEF&CC O.M. dated 24/12/2010. Permission for withdrawal of 1200 KLD groundwater has been obtained from CGWA *vide* letter No. 21-4 (258)/WR/CGWA/2008-567 dated 05th August, 2008 with a validity of two years. Renewal of NOC has been obtained from CGWA *vide* letter No.21-4(258)/WR/CGWA/2008-472 dated 28th April, 2011. Further, extension of NOC has been recommended by Regional Director, CGWB, Jaipur to CGWA, New Delhi *vide* letter No. TS/21B (535)/CGWA/2012-4364 dated 08th May, 2018 and letter No. TS/21B (535)/CGWA/2012-1882 dated 14th August, 2019. STP treated water of Nagar Palika, Nawalgarh will be used, for which an agreement has been made on 21st July, 2020 between Shree Cement Ltd. and Nagar Palika, Nawalgarh for supply of 3 MLD treated sewage water to meet the requirement of non-potable industrial applications.

26.7.12 The power requirement for Project is estimated as 35.6 MW; and the same will be sourced from Proposed CPP & WHRS. The required power will be sourced from Grid until the installation of the proposed CPP & WHRS.

26.7.13 Baseline Environmental Studies

Period	March to May, 2019
AAQ parameters at eight locations	$PM_{2.5}$ = 22.6 to 47.5 μg/m^3 PM_{10} = 42.6 to 78.8 μg/m^3 SO_2 = 5.2 to 12.4 μg/m^3 NOx = 7.4 to 22.6 μg/m^3
AAQ modelling	PM_{10} = 2.32 μg/m^3 SO_2 = 2.76 μg/m^3 NOx = 5.51 μg/m^3
Ground water quality at eight locations	pH: 7.61 to 7.92. Total Hardness: 143.10 to 217.30 mg/l, Chlorides: 55.44 to 202.49 mg/l, Fluoride: 0.34 to 1.31 mg/l. Heavy metals are within the limits.
Surface water quality	It is reported that surface water sample could not be collected as the surface water body is seasonal and was found dry during the monitoring period.
Noise levels	50.4 to 53.9 Leq dB (A) for day time and 40.4 to 43.8 Leq dB (A) for night time.

26.7.14 It has been reported that there is no habitation in the core zone of the project. No/ R&R is involved.

26.7.15 It has been reported that a total of 60 KL/annum of used oil will be generated due to the project activity, which will be sold to CPCB/ SPCB authorized recycler. It has been envisaged

that an area of 48.0 ha will be developed as greenbelt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

26.7.16 The details of Solid and Hazardous Waste Generation and their mitigation is as follows:

Plant Unit	Section	Type of Waste	Waste	Treatment / Disposal
Cement Plant	APCE	SW	Dust	Dust collected from various APCEs will be totally recycled into the process.
CPP	-	SW	Fly ash	Used in manufacturing of PPC grade cement
STP	-	SW	STP Sludge	Used as manure for greenbelt development / plantation
Plant Maintenance	Different sections	HW	Used Oil (Cat 5.1)	Will be sold to CPCB registered recycler
MSW	Plant and Colony	Dry	Bottles, paper, cans, textile, etc.	Will be sold to registered recycler.
		Wet	Kitchen and canteen/ Green waste	Bio-degradable waste will be will be converted into organic manure by installation of Organic Waste Composting (OWC) machine (Capacity: 200 kg/day) and manure will be used for greenbelt development / plantation.

26.7.17 The Public hearing of the project was held on 20th Feb., 2020 at Tehsil Office, Nawalgarh, Dist.: Jhunjhunu (Rajasthan) under the chairmanship of Shri Rajendra Prasad Agarwal (ADM). The issues raised during public hearing are Employment, Environment, CSR related, Greenbelt Development/ Plantation and Land related. An amount of 1630 Lakhs (~ 1.0 % of Project cost) has been earmarked to address the issues raised during public consultation. The action plan is given as below:

Sector	Activity	1st Year	2nd Year	3rd Year	Total Amount
Agriculture and Animal Husbandry	Upgrading facilities in veterinary hospitals at villages Gothra, Deogaon, Chaurhani, Basawa & Jhajhar	10	10	10	30
	Awareness and aid for organic farming in the nearby villages	10	20	20	50
	Plantation in nearby villages along the roads, Govt. offices and available free space in nearby villages	10	15	20	45
	Sub Total	30	45	50	125

Sector	Activity	1st Year	2nd Year	3rd Year	Total Amount
Infrastructure Development	Strengthening road network at nearby village Gothra, Project site, Chaurhani, Parasrampura & Dholakhera, Jhajhar & Nawalgarh connecting with SH-8 & SH-37	300	340	360	1000
	Construction of Community center at villages Gothra, Deogaon, Chaurhani, Basawa & Jhajhar	20	30	30	80
	Infrastructure development at Goshala in villages Gothra, Deogaon, Chaurhani, Basawa & Jhajhar	20	30	30	80
	Rain water recharge structures at villages villages Gothra, Deogaon, Chaurhani, Basawa & Jhajhar	10	15	20	45
	Sub Total	350	415	440	1205
Grand Total					1630

26.7.18 The capital cost of the project is Rs. 1660 Crores and the capital cost for environmental protection measures is proposed as Rs. 5000 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 100 Lakhs. The employment generation from the proposed project is 1100 persons.

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

S. No.	Particular	Capital Cost (Rs. In Crores)	Recurring Cost (Rs. In Crores)
1.	Pollution control during construction stage (dust suppression, wastewater treatment and disposal, roads, monitoring, muck disposal)	1	-
2.	Air pollution control system	45	0.6
3.	Water Treatment Plant & Sewage Treatment Plant	0.5	0.06
4.	Environmental monitoring instruments and laboratory	3	0.3
5.	Greenbelt development	0.2	0.02
6.	Safety and risk management	0.3	0.02
	Total	**50**	**1.00**

26.7.20 Greenbelt will be developed in 48.0 ha which is about 33% of the total acquired area. A 30 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1,20,000 saplings will be planted and nurtured in 48 hectares in three years.

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

26.7.22 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd [S.No. 39, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Written submissions during the course of meeting

26.7.23 PP has submitted written clarifications on the following points during the course of meeting:

a. Social & Infrastructure Development Plan (considering the issues raised during PH)
b. Installation of Organic Waste Convertor in one village as Pilot Project**.**
c. Utilization of non-biodegradable waste (e.g., Plastic) in cement kiln as RDF (Refuse-derived fuel)

Observations of the Committee

26.7.24 The Committee noted the following:

i. The Committee noted that the 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.
ii. The Committee has also deliberated on the public hearing issues as well as action plan to address the issues raised public hearing submitted during the course of meeting by the project proponent and found it satisfactory.
iii. The written submissions submitted by the project proponent during the course of meeting found to be satisfactory and addressing the concerns of the Committee.

Recommendations of the Committee

26.7.25 In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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. Alternate fuel shall be used. The company will make arrangement for utilization of non-biodegradable waste (including Plastic) as RDF for co-processing in cement kiln in consultation and approval from local Gram Panchayat.

ii. Organic Waste Convertor will be installed in Gothra Village as Pilot Project in consultation and approval from local Gram Panchayat.

iii. The project proponent shall obtain the necessary permission from the competent authority concerned for drawl of groundwater before commencement of work.

iv. Dioxin/furan to be monitored by NABL accredited laboratory half yearly basis and report shall be furnished to the RO.

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

vi. Green belt shall be developed in an area of 59 ha of the total plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

vii. Action plan to address the issues raised during public hearing shall be implemented and compliance status shall be furnished to the RO on six monthly basis.

viii. Public Health Centres shall be established in villages, Daroli, Dabok, Modi, Khemli, Nandbel and Dhunimata in consultation with local administration.

ix. PTFE bags shall be used in filter bag house and designed for 150% of normal design air flow.

x. PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system.

xi. 200 % rain water recharging shall be carried out as committed by the PP.

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

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. The project proponent shall provide leakage detection and mechanized 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.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement)and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(in case of Co-processing Cement)as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall 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.

iii. Adhere to 'Zero Liquid Discharge'.

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

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

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

vii. 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.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.

ii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.

iv. Provide the project proponent for LED lights in their offices and residential areas.

v. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

vi. 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.

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

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

26.8 Expansion of Cement Plant with increase of Clinker production from 1.485 to 3.65 MTPA and Cement from 1.65 to 5.5 MTPA by installation of new unit-II & Installation of 50 MW Coal Based CPP by **M/s. The India Cements Limited** located at Village Chilamkur, Yerrakuntla Mandal, **District YSR Kadapa, Andhra Pradesh**. [Online Proposal No. IA/AP/IND/184133/2012; File No. J-11011/126/2011-IA.II(I)] – **Environment Clearance – regarding.**

26.8.1 **M/s. The India Cements Limited** has made an online application vide proposal no. IA/AP/IND/184133/2012 dated 08/12/2020 along with Form 2, pre-feasibility report along with EIA/EMP report and sought for Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement plants under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

26.8.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
30/09/2016	12th meeting held on 27th–28th of October, 2016	Terms of Reference	18/01/2017
02/08/2018	35th meeting held on 17th–18th of September, 2016	Amendment in ToR	01/02/2019
25/05/2019	7th & 8th EAC meetings held during 29-31st May 2019 and 26th June 2019	Corrigendum to Amendment in ToR and extension of validity of ToR	26/02/2020

26.8.3 The project of M/s. The India Cements Limited (ICL) located in Chilamkur Village, Yerraguntla Mandal, YSR Kadapa District, Andhra Pradesh is for increase of clinker production from 1.485 MTPA to 3.65 MTPA by upgradation of Unit – I & Installation of a new Unit - II, Increase of Cement production capacity from 1.65 to 5.50 MTPA and install a 50 MW Coal based Captive Power Plant.

26.8.4 The existing project was accorded environmental clearance vide lr.no. J-11011/126/2011-IA-II (1) dated 07.12.2012. It has been reported that Consent Order for operation of the plant issued by APPCB vide letter no. APPCB/KNL/TPT/72/HO/CFO/2015- 404 dated 17 Nov 2017 and valid up to 31 Dec 2022.

26.8.5 The proposed production capacity of various units of plant before and after expansion is given below.

Cement Plant	**Present Consented Capacity as per MoEF&CC (EC Obtained)**			**Capacity after proposed enhancement (EC Requested)**		
	Clinker (MTPA)	**Cement (MTPA)**	**Captive Power Plant (MW)**	**Clinker (MTPA)**	**Cement (MTPA)**	**Coal based Captive Power Plant (MW)**
Unit –I	1.485	1.65		1.65	2.00	
Unit –II (new line)	-	-	-	2.0	3.50	**50**
Total	**1.485**	**1.65**		3.65	5.50	

26.8.6 ICL Cement Plant has a land of 234.76 ha. No additional area will be required for expansion. No R&R is involved. No Forest area is involved. 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.

26.8.7 The topography of the area is flat and lies between 14°39'6.02" - 14°40'20.00"N latitude and 78°27'7.41" - 78°28'8.21"E longitude with an average altitude of 196 m above MSL. The area falls in Survey of India Toposheet no. 57/J/6.

26.8.8 There is no National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in 10 km radius of the study area. The area also does not report to form corridor for Schedule-I fauna. The plant area is devoid of forest land. The Nearest Reserved Forest is Kosinepalle RF at 2.9 km in NW direction. The list of Schedule I Species, according to Wildlife (Protection) Act, 1972, recorded from the buffer zone is given below.

1. Antilope cervicapra -Blackbuck
2. Gazella bennettii - Chinkara
3. Melursus ursinus- Sloth bear
4. Pavo cristatus- Peafowl.
5. Mains crassicaudata – Indian pangolin.

In order to protect and improve the fauna, the Common conservation plan has been prepared for cement plant and mine and was approved by Forest Department, Govt. of Andhra Pradesh with a budget of Rs. 245 Lakhs vide Rc.no. 5295/2020/WL-2, Dated 13/10/2020.

26.8.9 The raw material for manufacture of Cement is Limestone and is sourced from the Captive Limestone Mine and others details is given below:

		Before Expansion	**After Expansion**	**Source**	**Mode of Transport**
Limestone		2.00	5.5	Captive Mine	Road
Gypsum		0.08	0.27	Byproduct from the chemical plant	Road
Laterite/Iron ore		0.04	0.11	Mines/Supplier	Road
Fly ash		0.50	1.58	CPP/RTPP/other sources	Road/Rail
Coal/ Pet coke	Cement Plant	0.21	0.50	Indian/Imported	Road/Rail
Coal	Power Plant	0	0.397	Indian/Imported	Road/Rail

26.8.10 The targeted production capacity of the Cement Plant is 3.65 MTPA Clinker and 5.5 MTPA Cement.

26.8.11 ICL had necessary permission from government of AP for drawl of Water from Penna River is about 4546.10 m^3/day. The said quantity is sufficient to meet the present capacity and expanded capacity of the plant.

26.8.12 The peak power consumption of the Cement plant at present is 22.5 MW. This requirement is met from Grid. Power consumption after expansion of cement plant will be about 50 MW and the same will be sourced from proposed Captive Power plant.

26.8.13 Baseline Environmental Studies

Period	March to May, 2019
AAQ parameters at ten locations	$PM_{2.5}$ = 17.4 – 31.4 µg/m^3 PM_{10} = 44.6 – 64.2 µg/m^3 SO_2 = 7.9 – 15.9 µg/m^3 NOx = 9.3 – 17.5 µg/m^3
AAQ modelling	PM_{10} = 11.24 µg/m^3 $PM_{2.5}$ = 5.39 µg/m^3

	SO_2 = 3.38 µg/m^3 NOx = 15.27 µg/m^3
Ground water quality at eight locations	pH: 7.62 to 7.90, Total Hardness: 268 to 593 mg/l, Chlorides: 45 to 516 mg/l, Fluoride: 0.78 to 1.37 mg/l. Heavy metals are within the limits.
Surface water quality at three locations	pH: 7.88 to 8.29; and BOD: 4.0 to 5.0 mg/l. COD from 18 to 24 mg/l.
Noise levels	51.8 – 71.2 dB (A) during daytime and in the range of 42.6 – 65.3 dB dB (A) during night time.

26.8.14 No additional area is required for the expansion, so there is no Rehabilitation and Resettlement.

26.8.15 The dust collected in the air pollution control equipment in the cement plant is recycled back to the process. Hence no solid waste which requires disposal is generated from the plant. Refractory bricks are one of the solid waste generated from the kiln section. Due to wear, ICL will replace the refractory bricks once in a year. These bricks due to high recycling value are being disposed to outside agencies. No further solid waste is generated from the plant. From Captive Power Plant (50 MW), Ash generation from the power plant is estimated to be about 0.159 MTPA which will be used for cement production in the cement plant. The fly ash from economizers, air pre-heaters will be collected in dry form by means of pneumatic conveying system. Fly ash will be stored in the dry ash silos within the power plant premises and transported to cement plant for use in the manufacture of cement. The fly ash generated (0.105 MTPA) at captive power plant will be collected in the Bag filter hoppers and will be conveyed to the fine ash silos situated near the chimney after which it is then conveyed to the cement mills by trucks. The Bottom ash generated (0.045 MTPA) at captive power plant boiler will be collected in hoppers and will be conveyed to the coarse ash silos situated near the boiler and then the coarse ash will be conveyed to the cement plant by mode of tippers/tankers. The ash generated from proposed power plant will be totally consumed in the cement plant. Additionally, ICL will procure ash from nearby power plants based on PPC production requirement. ICL is storing the hazardous waste in a designated area. This area is isolated from the other utility areas. The waste oil generation from the plant is about 12.31 T/annum and lead acid batteries waste generation is 1.71 T/annum. Additionally, from Unit – II and CPP, the waste lube oil quantity generation is estimated to be about 15.50 T/annum and other waste of 2.0 T/annum. An area of 106.41 Ha. (i.e., 45% which is more than 33%) has been developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

26.8.16 Public Hearing for the project was held on 28.10.2020 by State Pollution Control Board at 10:30AM at Sri Sri Venkateswara Swamy Temple Chilamkur Village, Yerraguntla Mandal, YSR Kadapa District under the chairmanship of Sri A. Malola, District Revenue Officer (DRO), YSR Kadapa District. Summary of the Public hearing issues along with action plan and budget are given below. An amount of 23 Lakhs has been earmarked to address the issues raised during public consultation.

26.8.17 The Capital cost of the proposed expansion is about Rs. 900 Crores, of which Environmental Management Plan (EMP) capital cost is about Rs. 75.96 Crores including Public hearing commitments and recurring cost of about Rs. 680 Lakhs (Rs. 6.8 crores) per annum is earmarked. The total manpower at the existing plant is 400. Additional manpower required for proposed expansion direct and indirect is 900 persons.

26.8.18 The details of cost for environmental protection measures are as follows:

Description		Capital Cost	Recurring Cost per annum
Upgradation of Air Pollution equipment – Unit-I		0	200
Air pollution control equipment - Unit-II		5000	300
Air pollution control equipment - CPPs		2000	100
Effluent Treatment Plant - CPP		35	5
Rainwater harvesting – 4 pits		0	2
Greenbelt		0	15
Sewage Treatment Plant		0	8
Environmental Monitoring		293	30
Conservation Plan (Approved)		245	-
*Public hearing commitments	Mineral water Plant – 2021-22	8	-
	Skill Development -2021-22	10	-
	Medical camps – 2021-22	5	5
	CSR activities (covering Education including Skill development, Health and other needs of Villagers	0	15
Total		**7596**	**680**

*Note * Included as part of EMP budget as per MOEFCC Office Memorandum F.NO 22-65/2017-IA.III dated 30th September, 2020*

26.8.19 The present ICL cement plant is located in an area of 234.76 ha. ICL has developed greenbelt in an area of 106.41 ha (45 %) which is more than 33%. A wide green belt has been developed all along the periphery of the plant with local plant species. All the open spaces have been utilized for plantation purposes. ICL have planted more than 1500 saplings per hectare. ICL has carried out plantation/greenbelt in total area of 262.42 acres in cement plant and 146.78 acres at mining lease area. Total no. of 123550 saplings are planted in Plant & Plant Outside.

26.8.20 The proponent has mentioned that there is no court case or violation under EIA Notification to the project and its site. However, a court case has been filed by AP Pollution Control Board on the mining project, due to its location within 10km of the Rajiv Gandhi National Park, and not availing the National Board for Wildlife Clearance earlier when the Eco Sensitive Zone was not defined.

26.8.21 Name of the EIA consultant: M/s. B.S. Envi – Tech Pvt. Ltd [S.No. 137, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Certified compliance report from Regional Office

26.8.22 The Status of compliance of earlier EC was obtained from Regional Office, Chennai vide Lr. No. E.P./12.1/612/AP/415 Dated 08.05.2020. There are no non-compliances reported by Regional Officer.

Observations of the Committee

26.8.23 The Committee noted the following:

i. Dioxin and Furans Monitoring Schedule has not been furnished in the EIA Report.
ii. EMPs for social and infrastructure development (CER) not presented in EIA report. These need to be drawn from PH proceeds and SIA study.
iii. Public hearing was conducted in Oct 2020. Summary details of PH are not available in EIA report. MOM is attached as Annexure 7A. Many of the written representations are not legible and also not translated in English as per the generic ToR no. ix.
iv. Summary of Wildlife Conservation Plan is not available in EIA Report.
v. EMP Chapter 10 is generic and does not provide details of EMPs, their Specifications for implementation in post project monitoring scenario.
vi. Executive summary does not have any reference to Public hearing held on 28/10/2020.
vii. TOR Point #9 not addressed adequately.
viii. Plantation density for green belt is only 1200 trees per ha in place of 2500 trees per ha.

Recommendations of the Committee

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

26.9 Setting up of 6 MTPA Integrated Steel Plant and 500 MW of Captive Power Plant by **M/s. Uttam Galva Ferrous Limited** located at Kuduthini and nearby Villages, Taluka & **District Bellary, Karnataka.** [Online Proposal No. IA/KA/IND/180641/2014; File No. J-11011/80/2014-IA-II(I)] – **Environment Clearance – regarding.**

26.9.1 The salient features of the proposal cited above is given as below.

Details submitted by the project proponent

26.9.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
10/01/2014	19th meeting held on 28th–30th of May, 2014	Terms of Reference	17/07/2014

26.9.3 The project of M/s Uttam Galva Ferous Limited located in Kuduthini, Veniveerapura, Yerangaligi and Kolagallu Villages, Bellary Tehsil & District in the State of Karnataka is for setting up of a new Integrated steel plant for production of 6 million Tons per annum (MTPA) along with 500 MW of CPP. The proposed project is green field project.

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

Sl. No.	Name of unit	No. of units	Capacity of each Unit	Production Capacity
1	Coke oven and By-product plant	2 Nos.	2x 67 ovens 7m Tall	2.74 MTPA
2	Beneficiation plant	1 No.	2 MTPA	2 MTPA
3	Pellet plant	1 No.	2 MTPA	2 MTPA

Sl. No.	Name of unit	No. of units	Capacity of each Unit	Production Capacity
4	Sinter plant	2 Nos.	1 X 460 m^2	8.532 MTPA
5	Blast Furnace	2 Nos.	1 X 4200 m^3	6.464 MTPA
6	Basic Oxygen Furnace (BOF)	2 Nos.	3.00 MTPA	6.000 MTPA
7	Continuous Casting Machine (CCM)	2 Nos.	2.940 MTPA	5.880 MTPA
8	Rolling Mill (RM)	2 Nos.	2.809 MTPA	5.618 MTPA
9	Captive Power Plant	2 Nos.	1 x 250 MW	500 MW
10	Additional Power (CDQ/TRT/WHB/GBPP)	2 Nos.	80.5 MW	161 MW
11	Oxygen Plant	2 Nos.	2 X 1000 TPD	4000 TPD
12	Lime Plant	2 Nos.	2 X 450 TPD	1800 TPD
13	Dolo Plant	2 Nos.	1 X 250 TPD	500 TPD

26.9.5 The total land required for the project is 2014 ha (4978 acres), out of which 200 ha falls under agricultural land, grazing land covers 123 ha and 1691 ha represents other category. No forest land is involved. The entire land has been acquired for the project by Karnataka Industrial Area Development Board (KIADB) and under the procession of UGFL. No river passes through the project area. However, there are three first order nalas have been passing through the site and there have been kept undisturbed with a buffer zone of 25m either side of the nalla. An irrigation canal (Tungabhadra High Level Canal) runs adjacent to plant boundary in the north. These water bodies have been kept undisturbed in order to protect the existing natural drainage pattern.

26.9.6 The topography of the area is mostly flat and slopping towards north and lies between 15°11'04.61" N to 15°13'24.88"N Latitude and 76°49'29.6"E to 76°46'18.3" E Longitude in Survey of India toposheet No D43E11, D43E12, D43E15 & D43E16 at an elevation of about 460 m to 475m above MSL. During post-monsoon season the ground water table reported in the range of 1.22 – 17.61 m BGL (average 3.47m) and it is reported 1.72 – 19.48 m BGL (average 4.77m) during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the exploratory bore wells drilled in the district ranges from 96 to 200m bgl. The yield ranges from <1.0 to 8.2 lps. The specific capacity ranges from 2.0 to 250 m^3/d/m/dd. The recuperation is reported in the range of 1.2 to 30.61m. The radius of influence of pumped out water is limited to 20 meters. As per CGWB report over exploitation, critical blocks & blocks notified are not reported in this district.

26.9.7 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. The authenticated list of flora and fauna provided through the forest department reporting no Schedule-I fauna in the study area.

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

Raw material	Phase I	Phase II	Total	Source	Mode of Transportation
Lump ore for SMS	70,000		70,000	Iron ore mines in Karnataka and Goa	The transportation of raw materials and product will be carried out by road and rail as per the prevailing rules for transportation of raw materials.
Ore fines					
For sinter plant	39,85,000	39,85,000	79,70,000	Indigenous	
For beneficiation	6630000	Nil	66,30,000	Indigenous	
Prime coking coal	14,20,000	14,20,000	28,40,000	Coking coal will be imported from Australia/USA	
Semi coking coal	6,08,000	6,08,500	12,16,500	Non coking coal will be imported from Australia, Indonesia, Canada, China and Venezuela	
Coal for PCI	5,81,000	5,81,000	11,62,000	Australia/ Indonesia	
Coal for CPP (Full power generation)	26,20,000	13,50,000	39,70,000	Indigenous/ Indonesia	
Anthracite for SP	80,000	36,500	1,16,500	Will be imported from Vietnam and/or South Africa	
Lime stone	Bhagalkoat			High grade low silica limestone will be imported from Japan, Thailand, Vietnam, middle east etc.	
For SP	3,56,000	3,55,000	7,11,500	Indigenous	
For SMS	5,77,000	5,77,000	11,54,000	Indigenous/ imported	
For pellet plant	85,500	Nil	85,500		
Dolomite				Indigenous source Bhutan is considered as	

Raw material	Phase I	Phase II	Total	Source	Mode of Transportation
				supplementary source.	
For SP	3,96,000	3,96,000	7,92,000	Indigenous	
For SMS	1,64,000	1,64,000	3,28,000	Indigenous	
Quartzite for BF	17,000	17,000	34,000	Indigenous	
Sand for SP	70,000	70,000	1,40,500	Indigenous	
Bentonite for PP	35000	Nil	35,500	Indigenous	
Lump ore for SMS	70,000		70,000	Iron ore mines in Karnataka and Goa	

26.9.9 The targeted production capacity of the 6 million TPA. The ore for the plant would be mostly procured from iron ore from Bellary/Hospet/Sandur/Chitradurga sector and coal & coke from Australia, USA, Canada, China, Indonesia, Venezuela etc. The ore transportation will be done mostly by rail and Coal/ coke will be imported and transported to the plant through sea/railway.

26.9.10 The water requirement of the project is estimated to be about 145080 m^3/day out of which 9 m^3/day of fresh water requirement will be obtained from the rain water harvesting and the remaining requirement of 145071 m^3/day will be met from the surface water from river Tungabhadra. Government of Karnataka (GoK) has granted permission to draw 4 TMC (12930 m^3/hr) of surface water from downstream of river Tungabhadra, vide their letter no. 2013-14/751 dated 23/12/2013.

26.9.11 The power requirement of the project is estimated as 650 MW. The captive power plant generation is about 500 MW and TRT, CDQ, GBPP will generate about 161 MW. In case of power evacuation/drawing will be from KPTCL substation 400kV/220kV grid near Kudatini which is about 5 km from the project site.

26.9.12 Baseline Environmental Studies

Period	December 2014 to February 2015
AAQ parameters at eight locations	$PM_{2.5}$ = 16.59 to 42.84 μg/m^3 PM_{10} = 33.12 to 73.81 μg/m^3 SO_2 = 1.68 to 11.49 μg/m^3 NOx = 3.29 to 26.12 μg/m^3
AAQ modelling	PM_{10} = 5.80 μg/m^3 SO_2 = 12.70 μg/m^3 NOx = 12.36 μg/m^3
Ground water quality at eight locations	pH: 7.45 to 7.98, Total Hardness: 282 to 682 mg/l, Chlorides: 57 to 233. mg/l, Fluoride: 0.48 to 0.91 mg/l. Heavy metals are within the limits.
Surface water quality at eight locations	pH: 7.13 to 8.12; DO: 5.3 to 6.7 mg/l and BOD: 2.0 to 2.8 mg/l.
Noise levels	52.3 to 57.8 dBA for daytime and 51.3 to 55.4 dBA for night time.

26.9.13 It has been reported that there is no settlement in the core zone of the project. No/ R&R is involved. The land was acquired be Karnataka Industrial Area Development Board (KIADB) and handed over to UGFL.

26.9.14 It has been reported that a total 5,299,452 TPA of solid waste (Slime from iron ore Beneficiation plant, Dust from waste gas & DE systems, BF slag, BF sludge & flue dust, BOF slag, BOF sludge, Limestone & burnt lime fines, Mill scale, Fly ash, Bottom ash, Refractory debris) will be generated due to the project, out of which 4,417,160 TPA will be used as slag sold to cement plants, sinter feed, construction material, for road making and land fill, cement/brick making and 882,292 TPA will be dumped in the earmarked dump yard. An area of approx. 664 ha has been envisaged to 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.

26.9.15 The Public hearing of the project was held on 4th August 2016 for setting up of 6 MTPA Integrated steel at Kudutini was conducted by the Additional Deputy Commissioner, Bellary in presence of Environmental officer KSPCB. The issues raised during public hearing are mainly concerned with disparity in compensation packages for acquiring land, cumulative effects of pollution due to various industries in the area. An amount of Rs.180 Crore has been earmarked to address the concerns raised during public hearing.

26.9.16 The capital cost of the project is Rs. 36,000 Crores and the capital cost for environmental protection measures is proposed as Rs 1800 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 27 Crores. The employment generation from the proposed project is about 6427.

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

Item	**Capital cost (Rs. In Crores)**	**Recurring cost per annum (Rs. In Crores)**
Environmental pollution control		
Air pollution control including CDQ for coke oven	558	8.37
De-dusting system	216	3.24
Dust separation system	216	3.24
Secondary de-dusting system	252	3.78
Water pollution control (ETP & STP)	270	4.05
Solid waste management includes tailing disposal, ash pond etc.	216	3.24
Noise pollution	9	0.135
Occupational health	36	0.54
Environmental and pollution monitoring		
Environmental survey and sampling	18	0.27
Green belt development	9	0.135
Total	**1800**	**27**

26.9.18 Greenbelt will be developed in 664 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. Since it is a green field project saplings are yet to be started. About 16.6 lakhs saplings will be planned in an area of 664 ha.

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

26.9.20 Name of the EIA consultant: M/s. MECON Limited [S.No. 47, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

26.9.21 **Brief Chronology of the proposal**

ToR issued	:	17th July, 2014
Baseline date	:	December, 2014 to February, 2015
Public Hearing	:	04th August, 2016
EC Application date	:	20th June, 2017
EAC Meeting dates to	:	6-7 March & 3-5 May, 2017 (PP did not attend admittedly due financial crisis)
EAC Meeting	:	10-12 December, 2018 (EAC rejected the proposal) 25-27 November, 2020 (PP did not attend the meeting)

26.9.22 EAC in its meeting dated 10-12 December, 2018 opined that the validity of ToR and baseline data has been expired and advised the PP to obtain fresh 'ToR' as per the provisions laid down in the EIA Notification, 2006. Subsequently, the PP submitted several representations to the Ministry requesting to revisit the matter. In this regard, personal hearing in the Ministry on 15/04/2020 wherein Ministry has issued a letter to the PP that to submit the EIA report based on the secondary data collected through authentic resources.

26.9.23 In pursuance to the MoEF&CC letter, M/s. Uttam Galva Ferrous Limited has made an online application vide proposal no. IA/KA/IND/180641/2014 dated 27/10/2020 along with Form 1 &2, and feasibility report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 2(b) Mineral beneficiation, 3(a) Metallurgical industries (ferrous & non-ferrous) and 4(b) Coke oven plants under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

26.9.24 The proposal was earlier considered during the 25th meeting of the Re-constituted EAC (Industry-I) held during 25-27th November, 2020 wherein the project proponent did not attend the meeting. In view of the same, the Committee decided to consider the proposal in the presence of PP. Further, the project proponent vide his email dated 19/11/2020 requested to consider the proposal in the next meeting.

26.9.25 The proposal was placed before the EAC for consideration.

Observations of the Committee

26.9.26 The Committee noted the following:

i. EIA report is based on one season data collected from Dec 2014 to Feb 2015.
ii. AAQ data has been validated with secondary data collected from monitoring stations of ACC and JSW. Data are not validated. In fact, only one location is the same as that of 2014 -15 Monitoring.
iii. List of Raw Material also needs correction.

iv. PH proceedings are not available in the EIA Report. List of EMPs as per OM of 30th Sept 2020 has not been furnished.
v. The issues raised during the public consultation has not been addressed in the EIA report.
vi. Environment policy, SOP for noncompliance reporting to the board not furnished.
vii. Adequate RWH and recharge has not been proposed.
viii. Only 5 % of the capital outlay has been proposed as the cost of Pollution Control Devices which is grossly inadequate for an ISP of this size.
ix. Project proponent has taken considerable period of time for submitting their proposal and it appears from chronology that PP is not serious about the project at all.

Recommendations of the Committee

26.9.27 In view of the above, the Committee, after deliberations, recommended to return the proposal in present form as the AAQ data as desired by MOEFCC have not been validated. EAC advised the PP to collect one-month data from same locations as that of 2014-15 monitoring. PP requested to allow resubmitting the revised proposal by end Feb 2021 and EAC acceded to the request.

26.10 Proposed 2 x 6 MVA Submerged Electric Arc Furnaces (SEAF) unit for manufacturing of SiMn – 21,600 TPA or FeMn – 31,680 TPA or FeSi – 10,800 & FeCr – 21,600 TPA and Manganese Ore Sinter Plant (24,000 TPA) by **M/s. Victoria Ferro Alloys Private Limited** located at Plot No. 256/B & 257/B, APIIC Growth Centre, Bobbili Village & Mandal, **Vizianagram District, Andhra Pradesh** [Online Proposal No. IA/AP/IND/139184/2020, File No. J-11011/43/2020-IA.II(I)] – **Environment Clearance – regarding.**

26.10.1 **M/s. Victoria Ferro Alloys Private Limited** has made an online application vide proposal no. IA/AP/IND/139184/2020 dated 09/12/2020 along with Form 1 &2, and feasibility report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & nonferrous) under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

26.10.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
27/01/2020	16th meeting held on 24th–25th of February, 2020	Terms of Reference	08/05/2020

26.10.3 The proposed project is Greenfield project. M/s. Victoria Ferro Alloys Pvt. Ltd. proposed to establish of 2 x 6 MVA Submerged Electric Arc Furnaces (SEAF) unit for manufacturing of SiMn – 21,600 TPA or FeMn – 31,680 TPA or FeSi – 10,800 or FeCr – 21,600 TPA and Manganese Ore Sinter Plant -24,000 TPA at Plot No. 256/B & 257/B, APIIC Growth Centre, Bobbili, Bobbili Village & Mandal, Vizianagaram District, Andhra Pradesh.

26.10.4 Chronology of project:

- MoEF&CC has accorded Environment Clearance for the Ferro Alloys Unit & Manganese Ore Sinter Plant on 24/07/2012.
- Management could not implement the project due to certain unavoidable circumstances within EC validity.
- Request letter for validity extension of EC was applied on 20th November 2019. However, MoEF&CC rejected the proposal, as application was made after more than 90 days from the date of expiry i.e. 23rd July 2019
- Now fresh proposal has been submitted to MoEF&CC for grant of EC as per the provisions of EIA notification dated 14-09-2006 and its amendments thereof.
- Present Fresh proposal will be taken up in the same premises for which EC was granted i.e. 4.0 acres at Plot No. 256/B & 257/B, APIIC Growth Centre, Bobbili, Bobbili Village & Mandal, Vizianagaram District, Andhra Pradesh

26.10.5 The following are the proposed plant configuration and production capacity.

S. No.	Plant Configuration	Production Capacity
1.	Submerged Electric Arc Furnace [2 x 6 MVA]	Silico Manganese (SiMn) – 21,600 TPA
		Or
		Ferro Manganese (FeMn) – 31,680 TPA
		Or
		Ferro Silicon (FeSi) – 10,800 TPA
		Or
		Ferro Chrome (FeCr) – 21,600 TPA
2.	Manganese Ore Sinter Plant	24,000 TPA
Note: Jigging plant and Briquetting plant are proposed, for effective dust management		

26.10.6 The Bobbili Industrial Growth Centre has been developed by Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC Ltd.) to facilitate Industrial Growth. The Growth Centre occupies in an area of 1149.81 acres of land. 4.0 acres of land is purchased from Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC Ltd.) bearing Plot No. 256/B & 257/B and same is in possession of management. Of the total area, 4.0 acres, 33 % land is earmarked for greenbelt. No Forest land is involved. Entire land is in possession of management. No River / stream passes through the plant area. It has been reported that no natural water body / stream exists in the plant area and any modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

26.10.7 The site lies between 18°32'55.39"N to 18°33'2.41"N Latitude and 83°19'51.71"E to 83°19'55.72"E longitude in Survey of India Topo sheet no. 65 N/2 at an elevation of 130 AMSL. The ground water table reported to range between 0.3 to 5.8 mbgl below the land surface during the post-monsoon season and 1.23 to 15.78 mbgl during the pre-monsoon season.

26.10.8 There are no National Parks/ Wild life sanctuaries / Biosphere reserves / Tiger Reserves/ Elephant Corridors / migratory routes for Birds with in 10 Km. radius of the plant. Bobbili Protected Forest (2.7 Kms.) & Vempudam Reserve Forest (8.7 Kms.) exist within 10 Km. radius of the plant site. No forest land is involved in the proposed Plant site. There are no Schedule- I fauna exists in the study area.

26.10.9 Detailed process provided in the EIA report and list of raw material for the proposed project is given below:

S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
Ferro Silicon (10800 TPA)					
1	Quartz	16200	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
2	LAM coke	12600	Andhra Pradesh Imported from Australia, China	~ 100 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)
3	MS Scrap	2820	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
4	Electrode paste	240	Chhattisgarh / West Bengal	350 - 600 Kms.	By Road (Covered trucks)
Ferro Manganese					
1	Manganese Ore	45600	Orissa Mining Corporation (OMC), MOIL Nagpur Imported from South Africa	~ 500 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
2	LAM coke	13200	Andhra Pradesh Imported from Australia, China	~ 100 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)
3	Dolomite	5400	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
4	MS Scrap	4800	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
5	Electrode Paste	420	Chhattisgarh / West Bengal	350 - 600 Kms.	By Road (Covered trucks)
Silico Manganese					
1	Manganese Ore	32400	Orissa Mining Corporation (OMC),	~ 500 Kms.	By Road (Covered Trucks)

S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
			MOIL Nagpur Imported from South Africa	~ 130 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
2	LAM coke	1600	Andhra Pradesh Imported from Australia, China	~ 100 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)
3	FeMn Slag	10800	In house generation	---	By Conveyers
4	Dolomite	4920	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
5	Electrode Paste	420	Chhattisgarh / West Bengal	350 - 600 Kms.	By Road (Covered trucks)
6	Quartz	5160	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
Ferro Chrome					
1	Chrome ore	37800	Sukinda (Odisha) Import (Indonesia)	~ 300 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered Trucks) From Port by Road (Covered Trucks)
2	LAM coke	13200	Andhra Pradesh Imported from Australia, China	~ 100 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)
3	Quartz	5400	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
4	MS Scrap	1800	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
5	Magnetite / Bauxite	3600	Andhra Pradesh	~100 Kms.	By Road (Covered trucks)
6	Electrode Paste	360	Chhattisgarh / West Bengal	350 - 600 Kms.	By Road (Covered trucks)
Manganese ore Sinter Plant					
1	Dust from Ferro alloy	12000	In plant generation	---	By Conveyers

S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
	plant				
2	Manganese ore	12480	Orissa Mining Corporation (OMC), MOIL Nagpur Imported from South Africa	~ 500 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
3	Coke	1800	Andhra Pradesh Imported from Australia, China	~ 100 Kms. ~ 130 Kms. (from Vizag Port)	By Road (Covered trucks) From Vizag Port by Road (Covered Trucks)

26.10.10 The targeted production capacity of proposed project is Silico Manganese (21,600 TPA) / Ferro Manganese (31,680 TPA) / Ferro Silicon (10,800 TPA) / Ferro Chrome (21,600 TPA) and Manganese ore sinter plant (24,000 TPA). The Mn ore for the plant would be procured from MOIL, MP or Orissa Mining Corporation. The ore transportation will be done through by road (through covered trucks).

26.10.11 **Impact on Vehicular Traffic Load due to proposed project**

Traffic load before operation of proposed project (Baseline) : 6837.5 PCU/day

Additional Traffic load during operation of the proposed project : 100.0 PCU/day

Total Traffic load during operation of proposed project : 6937.5 PCU/day

Traffic Capacity as per the IRC 73: 1980 for Highways : 10000 PCU/day

Hence the existing road is capable of taking the additional traffic load due to the proposed project.

26.10.12 Water required for the proposed project will be 19 KLD and same will be supplied by APIIC Ltd. Letter is issued by APIIC Ltd. for supply of water vide letter no. APIIC-IALA/GC BBL/Water Connection/2019-20 dt. 24th June 2019.

26.10.13 Power required for the proposed project will be 14.5 MW. Power required for the proposed project will be supplied by APIIC Ltd.

26.10.14 Baseline Environmental Studies

Period	20th December 2019 to 20th March 2020
AAQ parameters at eight locations	$PM_{2.5}$ = 19.7 to 37.4 µg/m^3 PM_{10} = 32.8 to 62.3 µg/m^3 SO_2 = 8.6 to 16.2 µg/m^3 NOx = 9.6 to 24.5 µg/m^3
AAQ modelling	PM_{10} = 0.67 µg/m^3

	NOx= 5.19 µg/m^3 CO = 0.19 µg/m^3
Ground water quality at eight locations	pH: 7.2 to 7.7, Total Hardness: 195 to 352 mg/l, Chlorides: 118 to 218 mg/l, Fluoride: 0.26 to 0.41 mg/l. Heavy metals are within the limits.
Surface water quality at six locations	pH: 7.2 to 7.8, DO: 3.8 to 4.2 mg/l, BOD: 2.1 to 2.9 mg/l & COD:8.4 to 13 mg/l.
Noise levels	47.6 dBA to 59.4 dBA during the study period.

26.10.15 It has been reported that there is no R & R involved, as proposed project site in notified Industrial Growth Centre, Bobbili, which is developed by Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC Ltd.) to facilitate Industrial Growth.

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

S.No.	Waste / By product	Quantity (TPD)	Method of Disposal
1	Slag from Ferro Manganese	61.2	Will be reused in manufacture of SiMn as it contains high SiO_2 and Silicon.
2	Slag from Ferro Silicon	2.0	Will be given to Cast iron foundries
3	Slag from Silico Manganese	62.4	Will be given to Road contractors (i.e. M/s. Vasi Infra LLP) for utilization in Road Construction / brick manufacturers
4	Slag from Ferro Chrome	56.4	Will be processed in Jigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analysed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be given to Road contractors (i.e. M/s. Vasi Infra LLP) for utilization in Road Construction / brick manufacturers. If Chrome content exceeds the permissible limits, it will be sent to nearest TSDF.
5	Dust from Bag filters	0.05	It will be briquetted and reused in the sinter plant

26.10.17 In the proposed project, wastewater generated from the proposed unit will be recycled as closed-circuit cooling system will be provided. Oil & grease traps will be provided, to treat if water is getting mixed with oil, grease and cleaning agents. Sanitary waste water generation due to proposed project will be 4.0 KLD and will be treated in STP and after treatment will be used for greenbelt. No effluent will be let out of the plant premises. Zero discharge will be implemented in the proposed project.

26.10.18 The following are the air emission control systems proposed in the present proposal:

S.No.	Stack attached to	Control Equipment	Stack Height (m)	Particulate emission at the outlet of Stack
1	Submerged Electric Arc Furnace (2 x 6 MVA)	4th Hole extraction & cleaning system with Bag filters	30 (1 no.)	< 30 mg/Nm3
2	Manganese Ore Sinter Plant	Dust Extraction system with Bag filters	30 (1 no.)	< 30 mg/Nm3

26.10.19 The Public hearing for the proposed project was held on 22ndOctober 2020 at 11:00 AM at Project site, Plot No. 256/B & 257/B, APIIC Growth Centre, Bobbili, Bobbili Village & Mandal, Vizianagaram District, Andhra Pradesh under the chairmanship of **Joint Collector & Additional District Magistrate (ADM cadre)**. The issues raised during Public Hearing are Pollution, Greenbelt development, Drinking Water supply, Health Check-up, Rain Harvesting Structures, etc. As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dt. 30th September 2020, following is budgetary allocation for commitment made by Project Proponent to address the concern raised during public hearing, issues raised from Social Impact Assessment (SIA), which is part of Environment Management Plan (EMP). Budget allocation for Social & Infrastructure development is Rs. 17 Lakhs.

S.No.	Major Activity Heads	Total Expenditure (Rs. In Lakhs)
A	*Based on Need Based & SIA Study*	
1	Community & Infrastructure Development Programmes Providing LED Street lighting with solar panels in suitable places in surrounding 2 nos. of villages)	12.0
	SUBTOTAL (A)	12.0
B	*Based on Public Consultation / Hearing*	
1	Construction of Toilets in the village (2@ Rs 1.5 lakhs / toilet)	3.0
2	Avenue plantation in the village	1.0
3	Rain Water Harvesting Structures	1.0
	SUBTOTAL (B)	5.0
	TOTAL (A + B)	**17.0**

26.10.20 The capital cost of the proposed project is Rs.8.33 Crores and the capital cost for environmental protection measures is proposed as Rs. 2.17 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.31.6 lakhs/annum. The employment generation is 50 people during operation of the proposed project and 100 people during construction of the proposed units.

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

S.No.	Item	Capital Cost (Rs.in Lakhs)	Recurring Cost / Annum (Rs.in Lakhs)
1	Air Emission Management		
	• 4th hole Extraction systems with Bag filters	65.0	10.0
	• Chimney	25.0	---
	• Water Sprinklers	5.0	0.1
2	Wastewater Management • STP	5.0	1.0
3	Solid waste Management		
	• Slag Disposal	10.0	---
	• Fe-Cr recovery & its disposal	10.0	5.0
	• Municipal solid waste storage & disposal	---	2.0
	• Briquetting Plant	20.0	---
4	Greenbelt development, RWH etc.	5.0	2.5
5	Environmental Monitoring		6.0
	• AAQMS	40.0	
	• CEMS	5.0	
6	Occupational Health & Safety	10.0	5.0
7	Budget for Social & Infrastructure Development activities (Socio economic activities)	17.0	---
TOTAL		**217.0**	**31.6**

26.10.22 It has been reported that an area of 0.53 ha. (1.32 acres) is earmarked for greenbelt to attenuate the noise levels and trap the dust generated due to the project development activities. Plantation will be@1000 nos. per acre. Total 1350 nos. of plants will be in the plant premises.

26.10.23 The proponent has mentioned that there are no court cases or violation under EIA Notification to the project or related activity.

26.10.24 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd [S.No. 129, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Observations of the Committee

26.10.25 The Committee noted the following:

i. 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.
ii. Base line data collected by the consultant is extremely poor and does not reflect the ground realities. For instance, TDS in water sample is reported as 1 mg/lit.
iii. The issues raised during public consultation such as Pollution, Greenbelt development, Drinking Water supply, Health Check-up, Rain Harvesting Structures, etc has not been adequately addressed in the EIA report. Action plan to address the concerns raised

during public hearing as per MoEF&CC O.M. dated 30/09/2020 has not been included in the EIA report.

Recommendations of the Committee

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

26.11 Expansion of existing Pellet Plant (1.2 MTPA to 6.0 MTPA) keeping Iron Ore Beneficiation plant 1.5 MTPA, Producer Gas plant (75000 Nm3/hr to 200000 Nm3/hr) with addition of new Wet Grinding unit (4.5 MTPA), Sponge Iron plant (1.8 MTPA), Ferro Alloys Plant (0.036 MTPA) with Chrome briquette & Zigging plant , Steel Melting Shop (1.4 MTPA) with slag crushing unit, Rolling mill with pickling and Galvanising line (3.5 MTPA), Wire Rod & Wire Drawing mill (1.0 MTPA) 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 based on the site visit report of the Sub-committee of EAC – regarding**

26.11.1 The aforesaid proposal was earlier considered in 21st meeting of the Re-constituted EAC (Industry-1) held during 30th July – 1st August, 2020 wherein 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.

26.11.2 In pursuance to the aforementioned recommendations, site visit to M/s. Rashmi Udyog Private Limited (RUPL) & M/s. Rashmi Cement Limited (RCL) which are located adjacent to each other was undertaken on 20/10/2020 by the Sub-Committee and submitted its report to the Ministry on 17/11/2020. The site visit report placed before the EAC in its 25th meeting held on 26/11/2020. The observations and recommendations of the Committee is reproduced as below:

26.11.3 The chronology of event of the proposal cited above is given as below:

Proposal No.	IA/WB/IND/151940/2020
Date of 1st consideration by EAC	30th July – 1st August, 2020
Date of site visit	20/10/2020
Date of 2nd consideration by EAC	26-27th November, 2020 – PP did not attend the meeting.
Date of 3rd consideration by EAC	16-17th December, 2020 – PP did not attend the meeting.

Observations of the Committee

26.11.4 The Committee noted the following:

i. The committee accepted the recommendations of site visit report of the sub-committee.
ii. The committee decided to consider the proposal in the presence of PP.

Recommendations of the Committee

26.11.5 After deliberations, the Committee recommended the following:

A. Proposal may be listed for consideration in the next EAC meeting for taking appropriate view on the instant proposal as requested by the proponent vide email dated 24/11/2020.

Meanwhile, MoEF&CC may seek written response of project proponent on the recommendations of sub-committee with respect to M/s. Rashmi Udyog Private Limited.

B. The recommendations of sub-committee with respect to M/s. Rashmi Cement Limited may be forwarded to IA-Monitoring Cell for taking appropriate action as it pertains to the post project monitoring i.e., non-compliance of prescribed EC conditions.

26.11.6 In pursuance to the aforementioned EAC recommendations, an email was sent to the PP on 9/12/2020 to furnish their written submissions and the proposal was placed before the EAC for consideration.

26.11.7 The project proponent vide email dated 12/12/2020 expressed their inability to participate in the meeting and sought for more time for submission of point wise compliance to the findings of the sub-committee.

26.11.8 In this regard, the Member Secretary apprised the EAC that as per MoEF&CC Office Memorandum No. 22-35/2020-IA.III dated 18/11/2020 pertaining to "Streamlining the process of grant of Environment Clearance process", "*All projects, placed in the agenda, should be considered by the EAC notwithstanding the non-attendance of the Project Proponent or his consultant in the EAC meeting to make a presentation. A clarification may however be sought from the consultant regarding reason for not attending the meeting".*

26.11.9 The Committee felt that it would be better if the site inspection report is discussed in the presence of the PP and the consultant. Therefore, after deliberation, the Committee recommended to return the proposal in its present form in order to facilitate the PP to respond to various issues raised in the report of the sub-committee.

26.12 Proposed expansion of existing Sponge Iron Plant by installation of 1 x 350 TPD DRI kilns along with expansion of CPP (WHRB) from 4 MW to 12 MW by **M/s Agrawal Structure Mills Pvt Ltd** located at Silpahari, Sirgitti Industrial Area, **Bilaspur (C.G.)** [Online proposal No. IA/CG/IND/138674/2020; MoEF&CC File No. J- 11011/44/2020-IA.II(I)] – **Prescribing of Terms of Reference (ToR) – regarding**.

26.12.1 M/s. Agrawal Structure Mills Pvt Ltd has made application vide online proposal no. IA/CG/IND/138674/2020 dated 24/01/2020 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.

26.12.2 The proposal was earlier considered in the 16th meeting of the Re-constituted EAC (Industry-I) held during 24-25th February, 2020 and 17th & 18th meeting held during 9th April,2020 and 29-30th April, 2020 respectively wherein the PP either could not attend the meeting. In view of this, the proposal was delisted. The PP has requested for relisting and consideration of the same. Accordingly, the proposal was relisted and placed before the EAC for consideration.

Details submitted by the project proponent

26.12.3 M/s Agrawal Structure Mills Pvt Ltd proposes expansion of existing manufacturing unit for Sponge Iron plant, Captive Power plant & WHRB. It is proposed to set up the plant for expansion of sponge iron plant based on coal DRI Kilns technology.

26.12.4 The existing project was established before EIA notification 2006 & accorded CTE for establishment of Sponge Iron plant by CECB, CG vide letter no 96/TS/CECB/2002 dated 08-01-2002 & 6123/TS/CECB/2005 dated 28/12/2005. Consent to Operate has been issued by CECB, CG vide letter 150/TS/CECB/2020 dated 30/03/2020 which is valid up to 29/03/2025.

26.12.5 The proposed expansion unit will be located at Village - Silpahari, Sirgitti Industrial Area, District -Bilaspur (C.G.), State- Chhattisgarh.

26.12.6 The land area acquired for the plant is 54 Acre. No forest land involved. The entire land has been acquired for the project. Of the total area 18.67Acre (34.58%) land will be used for green belt development.

26.12.7 The proposed capacity after expansion for different products are as below:

Sr. No.	Units	Existing Capacity (TPA)	Proposed Capacity (TPA)	Total capacity After Expansion (TPA)
1.	DRI Kiln (Sponge Iron)	2 x 100TPD	1 x 350 TPD	2 x 100TPD 1 x 350TPD Or 1,65,000 TPA
2.	Captive Power Plant	WHRB (4 MW)	WHRB – 8 MW	12 W

26.12.8 The targeted production capacity of the Sponge Iron is 2 x 100 TPD to 2 x 100 TPD and 1 x 350 TPD (1,65,000 TPA), WHRB 4 MW to 12 MW. Iron ore for the plant would be procured from Joda-Barbil. The transportation will be done through Rail/road.

26.12.9 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.

26.12.10 Total project cost is approx Rs. 156.60 Crore (Existing-56.60 Crore; Proposed-100Crore). Proposed employment generation from project will be 92 direct employment and 100-150 indirect employment.

26.12.11 Proposed raw material and fuel requirement for project are Iron ore, Coal & Dolomite/ Quartzite/ Mn/Lime. The requirement would be fulfilled by domestic sources:

S. No.	Raw Material	Existing TPA	Proposed TPA	Total TPA	Source	Mode of transport
		Consumption				
1	Iron ore	60000	108000	168000	Joda-Barbil	By rail and road (through covered trucks)
2	Coal	54180	71820	126000	Indian MCL Mines	By rail and road (through covered trucks)
3	Dolomite/ Quartzite/ Mn/Lime for DRI	4235	5615	9850 TPA	Odisha & CG	By road (through covered trucks)

26.12.12 Water Consumption for the project after proposed expansion will be 2170KLD (fresh water 1905 KLD, Recycle 265 KLD) and waste water generation will be 313 KLD (industrial 305 KLD and domestic waste water 8 KLD). Domestic waste water will be treated in the STP and industrial waste water generated will be treated in ETP and reused in the cooling tower and for green belt development and dust depression.

26.12.13 The electricity load of 3 MW will be procured/met from existing & proposed CPP. No DG set to be proposed.

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

26.12.15 Name of the EIA consultant: M/s Overseas Min-Tech Consultants, Jaipur, QCI Accredited [S.No. 98, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Observations of the Committee

26.12.16 The Committee noted the following:

i. This is an expansion project to manufacture DRI from 2x100 TPD to add 1x 350 TPD kiln along with WHRB.
ii. 54 Acre land is in the possession of PP.
iii. CFBC boiler not proposed. PP proposes to sell dolochar to power plants.
iv. 1905 KLD water shall be drawn from Ground.

Recommendations of the Committee

26.12.17 After deliberations, the Committee recommended for prescribing following specific ToRs to the Project Proponent 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. Engineering drawing for Plant layout shall be furnished.
ii. Explore surface availability in place of ground water.
iii. Explore the feasibility of setting up of CFBC Boiler for utilizing the dolochar as per the guidelines issued by the CPCB.
iv. PM emission levels from the stacks shall be less than 30 mg/Nm^3.

v. Sewage Treatment Plan for treatment of domestic wastewater shall be provided.

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

26.13.1 The salient features of the proposal cited above submitted by the project proponent is given as below:

Details submitted by the project proponent

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

S. No.	EC Letter No.	Dated	Capacities mentioned in EC
1.	F.No J-11011/889/2007-IA II (I)	25/08/2008	Clinker – 2.0 MTPA, PSC – 1.1 MTPA, OPC – 1.1 MTPA, CPP – 36 MW
2.	F.No J-11011/159/2010-IA-II (I)	13/05/2011	Cement Grinding - 4.8 MTPA
3.	F.No J-11011/889/2007-IA II (I)	09/03/2016	Clinker – 2.5 MTPA, Cement / GGBS – 4.8 MTPA, CPP – 36 MW

Implementation status of existing ECs as on Nov 2020

Projects	Sanctioned capacity as per existing ECs	Capacity under operation as per CTO	Proposed part transfer
Clinker Production (MTPA)	2.50	2.50	Transfer 1 x 18 MW Captive Power Plant to JSW Energy Limited
Cement Production (MTPA)	4.80 (1.1 OPC + 3.7 PSC/GGBS)	4.80 (1.1 OPC + 3.7 PSC/GGBS)	
Captive Power Plant (MW)	36 (18 x 2)	18	

Reason for transfer:

26.13.3 Now, JSW Cement Limited intends to transfer 1 x 18 MW Captive Power Plant to JSW Energy Limited, who have expertise and technical capabilities in the construction, operation

and maintenance of Power Plants. The status of the power plant will remain as a captive power plant.

26.13.4 **Land requirement:** 1x18 MW Captive Power Plant is being set up in 10 ha of land available within JSW Cement plant complex.

26.13.5 **Project Cost:** Total Project Cost for 1x18 MW CPP is **INR 97 Crore**. A budget of **INR 8.25 Crore** as capital expenditure has been envisaged for Environment protection. Expenditure towards ESC and CSR shall be the responsibility of JSW Cement Limited.

26.13.6 **Production capacity:** Total 18 MW (**1x18 MW)** Captive Power Plant.

Products: Electricity.

26.13.7 **Raw Materials:** Coal and Water

26.13.8 **Water Requirement:** Total water requirement for the proposed project is 300 m3/day which will be supplied by M/s JSW Cement Limited from its existing bore wells with due permission from the competent authority.

26.13.9 **Pollution Control Measures:**

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

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

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

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

26.13.10 **Configuration Changes after EC transfer:**

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

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

 # Note: Out of 2x18 MW, only 1x18 MW CPP was implemented within the validity period.

Production capacity of JSW Energy Ltd. after EC transfer:

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

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

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

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

S.No	Resource	Requirement before EC transfer (MTPA)	Requirement after EC transfer (MTPA)	Remarks

1	Power	40 MW sourced from State Grid	40 MW (from State Grid & Power Plant of JSW Energy Ltd.)	Partial Change in source
2	Water	4500 m^3/day (3000 m^3/day from ground water + 1500 m^3/day from harvested rainwater stored in mine pits)	4200 m^3/day (2700 m^3/day from ground water + 1500 m^3/day from harvested rainwater stored in mine pits)	Decrease in 300 m^3/day water which is required by JSW Energy Ltd.

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

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

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

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

26.13.11 **Status of Implementation:**

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

26.13.12 **Change in configuration after EC amendment:**

Now M/s JSW Cement Limited has proposed partial transfer of CPP – 18 MW EC to M/s JSW Energy Limited for which EC amendment application has been filed.
After EC amendment, M/s JSW Cement Limited EC will be having Clinker – 2.5 MTPA, Cement/GGBS – 4.8 MTPA, CPP 18 MW and M/s JSW Energy Limited will have CPP – 18 MW.

26.13.13 **Litigation:**

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

26.13.14 M/s. JSW Cement Limited has made an online application vide proposal no. IA/AP/IND/168526/2020 dated 17/08/2020 along with Form 4 and sought for amendment

in the Environment Clearance accorded by the Ministry vide letter no. J-11011/889/2007-IAII(I)dated 09/03/2016 regarding the partial transfer of 18 MW CPP in the name of M/s. JSW Energy Limited.

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

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

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

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

26.13.16 Accordingly, the proposal was referred back to EAC in **24th meeting of the Re-constituted EAC (Industry-I) held during 27-29th October, 2020**. The observations and recommendations made in the meeting are as follows:

Observations of the Committee

The Committee noted the following:

i. The Committee took cognizance of the observation of the Ministry referred at para above.

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

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

Recommendations of the Committee

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

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

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

and submitted. These documents should be submitted to MoEF&CC for putting before the EAC for due diligence and final recommendation.

26.13.17 The project proponent vide its letter Ref. No. JSWCL/Mumbai/Project/MoEF&CC/ Nandyal/ 2020-21 dated 26/11/2020 has submitted its reply to the ADS raised above and has submitted the following documents:

- Revised plot plan showing physical demarcation of M/s JSW Cement Limited & M/s JSW Energy Limited.
- Mutually agreed and signed undertaking for compliance of EC conditions by M/s JSW Cement Ltd & M/s JSW Energy Ltd.
- NOC from Boards of M/s JSW Cement Ltd and M/s JSW Energy Ltd regarding EC transfer
- Matrix indicating the responsibility for compliance of EC conditions by M/s JSW Cement Ltd & M/s JSW Energy Ltd after EC amendment/transfer
- Split facilities of M/s JSW Cement Ltd & M/s JSW Energy Ltd after EC amendment/transfer

Split of the facilities in between JSW Cement (Parent company) & JSW Energy Ltd. (New Company), upon Transfer of 1 x 18 MW Captive Power Plant (CPP) of the Environment Clearance Letter No. F. No. J-11011/889/2007-IA II (I) dated 9th March, 2016 for enhancement of Clinker production capacity (2 - 2.5 MTPA) and change in product mix from 4.8 MTPA (1.1 MTPA of OPC and 3.7 MTPA of PSC) to 4.8 MTPA of OPC/PSC/GGBS of M/s JSW Cement Ltd, at village Bilakalagudur, Mandal Gadivemula, Distt. Kurnool, Andhra Pradesh is as follows:

S. No.	Description	Parent Company (JSW Cement Ltd.)		New Company (JSW Energy Ltd.)	
1.	**Title of the project**	Enhancement of Clinker production capacity (2 - 2.5 MTPA) and change in product mix from 4.8 MTPA (1.1 MTPA of OPC and 3.7 MTPA of PSC) to 4.8 MTPA of OPC/PSC/GGBS of M/s JSW Cement Ltd, at village Bilakalagudur, Mandal Gadivemula, Distt. Kurnool, Andhra Pradesh		Transfer of 1 x 18 MW Captive Power Plant from the EC accorded to JSW Cement Ltd. vide Environment Clearance No. F. No. J-11011/889/2007-IA II (I) dated 9th March, 2016 and its amendment dated 6th June 2017.	
2.	**Location**	JSW Cement Ltd, village Bilakalagudur, Mandal Gadivemula, Distt. Kurnool (A.P.)		JSW Energy Ltd, village Bilakalagudur, Mandal Gadivemula, Distt. Kurnool (A.P.)	
3.	**Coordinates**	**Latitude (N)**	**Longitude (E)**	**Latitude (N)**	**Longitude (E)**
		$15^0$41’37.26’’	$78^0$27’11.86’’	15°41’30.96”	78° 27’ 29.93”
		$15^0$41’29.78’’	$78^0$28’2.74’’	15°41’ 30.03	78° 27’29.70”
		$15^0$41’9.09’’	$78^0$28’4.99’’	15°41’21.28”	78° 27’34.55”
		$15^0$40’48.33’’	$78^0$28’2.60’’	15°41’21.38”	78° 27’ 33.48”
		$15^0$40’36.23’’	$78^0$27’45.06’’		
		$15^0$40’45.17’’	$78^0$27’17.28’’		
		$15^0$40’59.21’’	$78^0$27’21.18’’		

S. No.	Description	Parent Company (JSW Cement Ltd.)	New Company (JSW Energy Ltd.)
		$15^0$41'18.78'' $78^0$27'11.77'' $15^0$41'25.74'' $78^0$27'11.69'' $15^0$41'33.99'' $78^0$27'12.35''	
4.	**Capacities of different facilities after partial transfer of EC**	Clinker: 2.5 Million TPA Cement: 4.8 Million TPA (1.1 OPC+ 3.7 PSC/GGBS)	Electric Power : 18 MW
5.	**Raw material requirement of different facilities after partial transfer of EC (Million TPA)**	Limestone: 3.75 MTPA Aluminous Laterite: 0.019 MTPA Flue Dust: 0.077 MTPA BF Slag: 3.70 MTPA Gypsum: 0.125 MTPA Coal: 0.375 MTPA Pet Coke: 0.24 MTPA	Coal: 0.09 MTPA Limestone: 0.009 MTPA
6.	**Major Products**	Clinker, OPC, PSC and GGBS	Electric Power
7.	**Water consumption**	4200 M^3/day	300 M^3/day
8.	**Power Consumption**	40 MW	-
9.	**Land**	253 Ha	10 Ha
10.	**Process Description**	1. Crushing & homogenizatgion: Limestone is sourced from Captive mine and crushed in an impact crusher. Crushed limestone is stacked into a stockpile from where it is conveyed to hoppers through stacker and reclaimer. Required additives are also stacked and conveyed to respective hoppers	1. Fuel: Crushed Coal is used for firing in the boiler
		2. Grinding: Pre-defined quantities of limestone and additives is fed into Raw Mill for fine grinding,	2. Furnace: The fuel is burned in a giant furnace to release heat energy.
		3. Storage: The finely ground raw meal which is a mixture of limestone and additives is stored in Raw Meal silo. Similarly, Coal / pet coke alone or in combination is also finely ground and stored in bins.	3. Boiler: In the boiler, heat from the furnace flows around pipes full of cold water. The heat boils the water and turns it into steam.
		4. Pyro-processing: Raw meal (kiln feed) is fed to preheater through bucket elevator. The kiln feed is calcined in the preheater and enters the kiln where it is converted into	4. Turbine: The steam flows at high-pressure around a wheel that's a bit like a windmill made of tightly packed metal blades. The blades start turning as the steam flows

S. No.	Description	Parent Company (JSW Cement Ltd.)	New Company (JSW Energy Ltd.)
		clinker at about 1400 – 1450 ºC. Fuel is fired into the kiln through main burner and also through calciner burner to maintain burning zone temp. at about 1400 – 1450 ºC.	past. The turbine is designed to convert the steam's energy into kinetic energy. For the turbine to work efficiently, heat must enter it at a very high temperature and pressure and leave at as low a temperature and pressure as possible.
		5. Clinker Cooling: Hot clinker discharges into Clinker Cooler where it is cooled down to around 150 ºC and hot gases from cooler are used in slag mill for slag drying. Clinker after cooling is conveyed through pan conveyor and finally stored in a silo.	5. Condensation: The exhaust steam from turbine is cooled in a heat exchanger called Air cooled condenser. Forced air through fans directed towards heat exchanger to cool the incoming steam from turbine. As the Temperature of steam drops, the steam gets condensed and collected in a tank. Same condensed water pumped back to boiler through feed water system.
		6. Slag Grinding: Granulated Blast Furnace Slag received from JSW Steel, is heated with hot air and the dry slag is finely ground as GGBS in slag mill and pumped into silos for manufacturing slag cement (PSC)	6. Generator: The turbine is linked by an axle to a generator, so the generator spins around with the turbine blades. As it spins, the generator uses the kinetic energy from the turbine to make electricity.
		7. Cement Grinding: Clinker and Gypsum are finely ground together in cement mill and the product (OPC) is stored in silos. OPC and GGBS are blended in definite proportion in a paddle mixer to produce PSC.	7. Transmission through Electric cables: The electricity travels out of the generator to 11 KV breaker of MRS2.
		8. Packing & Despatch: Cement is packed into bags and despatched to market. Bulk cement and GGBS are also despatched	8. The electricity generated in the plant at 11KV level and transmitted through cable at the same 11 KV level as it leaves the plant and connect to 11 KV breaker at MRS 2.
11.	**Major Pollutants**	**Air:** a) Ambient Air: PM10, PM2.5, SO_2, NOx, CO b) Stack emission: PM (in all stacks) and SO_2 & NOx in kiln stack	**Air:** a) Ambient Air: PM10, PM2.5, SO_2, NOx, CO b) Stack emission: PM (in all stacks) and SO_2 & NOx in CPP stack

S. No.	Description	Parent Company (JSW Cement Ltd.)	New Company (JSW Energy Ltd.)
		c) Fugitive emission	c) Fugitive emission
		Water; pH, Suspended Solids, BOD, Oil & Grease	**Water;** pH, Suspended Solids, BOD, Oil & Grease
		Noise: from moving machineries	**Noise:** from moving machineries
12.	**Pollution Mitigation measures**	**Air:** Dust Suppression Systems, Bag filters & Bag House	**Air:** Dust Suppression Systems, Bag filters & ESP
		Water: Sewage Treatment Plant	**Water:** Sewage Treatment Plant & Effluent Treatment Plant
		Noise: Silencers, Noise attenuating pads, enclosures, lubrication of moving parts	**Noise:** Silencers, Noise attenuating pads, enclosures, lubrication of moving parts

Split of EC conditions:

Sl. No.	SPECIFIC CONDITIONS	EC conditions applicable to JSW Cement Ltd. post transfer of EC	EC conditions applicable to JSW Energy Ltd. post transfer of EC
i.	The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to ministry and its regional office.	The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to ministry and its regional office.	The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to ministry and its regional office.
ii.	The standards issued by the Ministry vide G.S.R **NO:612(E) dated 25th August 2014** regarding cement plants with respect to particulate matter, SO_2 and NOx shall be followed	The standards issued by the Ministry vide **G.S.R NO:612(E) dated 25th August 2014** regarding cement plants with respect to particulate matter, SO_2 and NOx shall be followed	The standards issued by the Ministry vide **S.O NO:3305(E) dated 07th December 2015** regarding thermal power plants with respect to particulate matter, SO_2 and NOx shall be followed
iii.	Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet the prescribed standards by installing adequate air pollution control viz **Electrostatic precipitators to clinker cooler,** bag house to raw mill/ kiln and bag filters to coal mill and cement mill. Low	Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet the prescribed standards by installing adequate air pollution control viz **Electrostatic precipitators to clinker cooler,** bag house to raw mill/ kiln and bag	Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet the prescribed standards by installing adequate air pollution control viz **Electrostatic precipitators to CPP** and bag filters to coal mill. Regular

	NOx burner shall be provided to control NOx emissions. Regular calibration of the instruments be ensured.	filters to coal mill and cement mill. Low NOx burner shall be provided to control NOx emissions. Regular calibration of the instruments be ensured.	calibration of the instruments be ensured.
iv.	Efforts shall be made to achieve power consumption of 70 units /tonne of Portland Pozzolona cement (PPC) and 95 units /tonne of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.	Efforts shall be made to achieve power consumption of 70 units /tonne of Portland Pozzolona cement (PPC) and 95 units /tonne of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.	**Efforts shall be made to achieve boiler heat rate of 2820 Kcal/kwh for power plant.**
v.	The National Ambient Air Quality Standards issued by Ministry vide G.S.R No:826 (E) dated 16th November, 2009 shall be followed.	The National Ambient Air Quality Standards issued by Ministry vide G.S.R No:826 (E) dated 16th November, 2009 shall be followed.	The National Ambient Air Quality Standards issued by Ministry vide G.S.R No:826 (E) dated 16th November, 2009 shall be followed.
vi.	AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emission levels well below prescribed standards.	AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emission levels well below prescribed standards.	AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emission levels well below prescribed standards.
vii.	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines /Code of Practice issued by the CPCB in this regard shall be followed.	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines /Code of Practice issued by the CPCB in this regard shall be followed.	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines /Code of Practice issued by the CPCB in this regard shall be followed.
viii.	Arsenic and Mercury shall be monitored in emissions, ambient air and water.	Arsenic and Mercury shall be monitored in emissions, ambient air and water.	Arsenic and Mercury shall be monitored in emissions, ambient air and water.
ix.	The coal yard shall be lined and covered	The coal yard shall be lined and covered	The coal yard shall be lined and covered

x.	Efforts shall be made to reduce impact of transport of the **raw materials and end products** on the surrounding environment including agriculture land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.	Efforts shall be made to reduce impact of transport of the **raw materials and end products** on the surrounding environment including agriculture land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.	Efforts shall be made to reduce impact of transport of the **raw materials** on the surrounding environment including agriculture land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
xi.	Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated water shall be recycled and reused in the process and / or for dust suppression and greenbelt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.	Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated water shall be recycled and reused in the process and / or for dust suppression and greenbelt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.	Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated water shall be recycled and reused in the process and / or for dust suppression and greenbelt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.
xii.	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from the other sources.	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from the other sources.	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement .Only balance water requirement shall be met from the other sources.

xiii.	Regular monitoring of influent and effluent surface, sub surface and ground water shall be ensured and treated waste water shall be meet the norms prescribed the norms by the State Pollution Control Board or described under the environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the ministry 's regional office and SPCB and CPCB.	Regular monitoring of influent and effluent surface, sub surface and ground water shall be ensured and treated waste water shall be meet the norms prescribed the norms by the State Pollution Control Board or described under the environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the ministry 's regional office and SPCB and CPCB.	Regular monitoring of influent and effluent surface, sub surface and ground water shall be ensured and treated waste water shall be meet the norms prescribed the norms by the State Pollution Control Board or described under the environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the ministry 's regional office and SPCB and CPCB.
xiv.	**All the bag filters dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process used for cement manufacturing.** Spent oil and batteries shall be sold to authorized recyclers/reprocesses only.	**All the bag filters dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process used for cement manufacturing.** Spent oil and batteries shall be sold to authorized recyclers/reprocesses only.	**All the bag filters dust, coal dust from pollution control devices shall be recycled and reused.** Spent oil and batteries shall be sold to authorized recyclers/reprocesses only.
xv.	The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.	The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.	**Not applicable for Power Plants**
xvi.	The proponent shall examine and prepare a plan for utilization of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc. as alternate fuels based on availability and composition. For, this the proponent shall identify suitable industries with such waste and enter into an MOU for long term utilization of such wastes as per the Environmental (Protection) Rules, 1986 and with necessary approvals.	The proponent shall examine and prepare a plan for utilization of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc. as alternate fuels based on availability and composition. For, this the proponent shall identify suitable industries with such waste and enter into an MOU for long term utilization of such wastes as per the Environmental (Protection) Rules, 1986 and with necessary	**Not applicable for Power Plants**

		approvals.	
xvii.	Efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous waste Regulations and prior approval of the **MPPCB.**	Efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous waste Regulations and prior approval of the **APPCB.**	**Not applicable for Power Plants**
xviii.	Green belt over 33% of the total project area shall be developed within the plant premises with at least 10 meter wide greenbelt on all sides along the periphery of the project area and along road sides etc. by planting native and board leaved species in consultation with local DFO, local community and as per the CPCB Guidelines	Green belt over 33% of the total project area shall be developed within the plant premises with at least 10 meter wide greenbelt on all sides along the periphery of the project area and along road sides etc. by planting native and board leaved species in consultation with local DFO, local community and as per the CPCB Guidelines	Green belt over 33% of the total project area shall be developed within the plant premises with at least 10 meter wide greenbelt on all sides along the periphery of the project area and along road sides etc. by planting native and board leaved species in consultation with local DFO, local community and as per the CPCB Guidelines
xix.	The Project Proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	The Project Proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	The Project Proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
xx.	The Project Proponent shall provide for LED Lights in their offices and residential areas.	The Project Proponent shall provide for LED Lights in their offices and residential areas.	The Project Proponent shall provide LED Lights in their offices and residential areas.
xxi.	All the recommendations made in the charter on corporate Responsibility for Environmental Protection (CREP) for the **cement plants** shall be completed.	All the recommendations made in the charter on corporate Responsibility for Environmental Protection (CREP) for the **cement plants** shall be completed.	All the recommendations made in the charter on corporate Responsibility for Environmental Protection (CREP) for the **power plants** shall be completed.

xxii.	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with the financial and physical breakup/details shall be prepared and submitted to the ministry Regional office. Implementation of such programme shall be ensured accordingly in a time bound manner.	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with the financial and physical breakup/details shall be prepared and submitted to the ministry Regional office. Implementation of such programme shall be ensured accordingly in a time bound manner.	**Not applicable for JSW Energy Ltd.** It is the responsibility of JSW Cement Ltd. to earmark at least 2.5% of the total cost of the project towards the Enterprise Social Commitment (ESC) based on local needs and action plan with the financial and physical breakup/details shall be prepared and submitted to the ministry Regional office. Implementation of such programme shall be ensured accordingly in a time bound manner.
xxiii	The proponent shall prepare a detailed CSR plan for every year for the next five years for the existing –cum-expansion project, which includes village wise, sector wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc.), activities in consultation with the local communities and administration. The CSR plan will include the amount of 2% retain annual profits as provided for in clause 135 of the companies Act, 2013 which provides for 2% of the average net profit of pervious 3 years towards CSR activities for the life of the project. A separate Budget head shall be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the compliance Report to Ro. The details of CSR plan shall also be uploaded on the company website and shall also be provided in the annual Report of the company.	The proponent shall prepare a detailed CSR plan for every year for the next five years for the existing –cum-expansion project, which includes village wise, sector wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc.), activities in consultation with the local communities and administration. The CSR plan will include the amount of 2% retain annual profits as provided for in clause 135 of the companies Act, 2013 which provides for 2% of the average net profit of pervious 3 years towards CSR activities for the life of the project. A separate Budget head shall be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the compliance Report to Ro. The details of CSR plan shall also be uploaded on the company website and	The proponent shall prepare a detailed CSR plan for every year for the next five years for the existing –cum-expansion project, which includes village wise, sector wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc.), activities in consultation with the local communities and administration. The CSR plan will include the amount of 2% retain annual profits as provided for in clause 135 of the companies Act, 2013 which provides for 2% of the average net profit of pervious 3 years towards CSR activities for the life of the project. A separate Budget head shall be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the compliance Report to Ro. The details of CSR plan shall also be uploaded on the company website and

		shall also be provided in the annual Report of the company.	shall also be provided in the annual Report of the company.
xxiv.	A Risk Assessment study and Disaster Preparedness and Management plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the ministry regional office, SPCB and CPCB within 3 months of issue of environmental clearance letter.	A Risk Assessment study and Disaster Preparedness and Management plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the ministry regional office, SPCB and CPCB within 3 months of issue of environmental clearance letter.	A Risk Assessment study and Disaster Preparedness and Management plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the ministry regional office, SPCB and CPCB within 3 months of issue of environmental clearance letter.
xxv.	To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.	To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.	To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
xxvi.	Provision shall be made for the housing of construction of labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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.	Provision shall be made for the housing of construction of labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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.	Provision shall be made for the housing of construction of labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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.
B	**GENERAL CONDITIONS**		
i.	The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh Pollution Control Board and the State Government.	The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh Pollution Control Board and the State Government.	The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh Pollution Control Board and the State Government.
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC)

iii.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Chennai and the SPCB/CPCB once in six months.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Chennai and the SPCB/CPCB once in six months.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Chennai and the SPCB/CPCB once in six months.
iv.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 May, 1993 and 31st December,1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 May, 1993 and 31st December,1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 May, 1993 and 31st December,1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
v.	The overall noise levels in and around the plant area shall be kept well within the plant standards 85 dB(A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (night time).	The overall noise levels in and around the plant area shall be kept well within the plant standards 85 dB(A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (night time).	The overall noise levels in and around the plant area shall be kept well within the plant standards 85 dB(A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (night time).
vi.	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

vii.	The company shall develop Rainwater harvesting structures to harvest the rain water for utilisation in the lean season besides recharging the ground water table.	The company shall develop Rainwater harvesting structures to harvest the rain water for utilisation in the lean season besides recharging the ground water table.	The company shall develop Rainwater harvesting structures to harvest the rain water for utilisation in the lean season besides recharging the ground water table.
viii.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio economic development activities in the surrounding villages like community development programmes, educations programmes, drinking water supply and health care etc.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio economic development activities in the surrounding villages like community development programmes, educations programmes, drinking water supply and health care etc.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio economic development activities in the surrounding villages like community development programmes, educations programmes, drinking water supply and health care etc.
ix.	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Chennai. The funds so provided shall not be diverted for any other purpose.	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Chennai. The funds so provided shall not be diverted for any other purpose.	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Chennai. The funds so provided shall not be diverted for any other purpose.

x.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing of the proposal. The clearance letter shall be put on the web site of the company by the proponent.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing of the proposal. The clearance letter shall be put on the web site of the company by the proponent.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing of the proposal. The clearance letter shall be put on the web site of the company by the proponent.
xi.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MOEFCC at Chennai. The respective zonal office of CPCB and SPCB. The criteria pollutant levels namely, PM 10 ,SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MOEFCC at Chennai. The respective zonal office of CPCB and SPCB. The criteria pollutant levels namely, PM 10 ,SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MOEFCC at Chennai. The respective zonal office of CPCB and SPCB. The criteria pollutant levels namely, PM 10 ,SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
xii.	The project proponent shall also submit six monthly report on the status of the compliance of the stipulated environmental conditions including results of the monitored data (both in hard copies as well as by e-mail) to the regional office of MOEFCC, the respective zonal office of CPCB and the SPCB. The Regional office of this Ministry at Chennai/CPCB/SPCB shall monitor the stipulated conditions.	The project proponent shall also submit six monthly report on the status of the compliance of the stipulated environmental conditions including results of the monitored data (both in hard copies as well as by e-mail) to the regional office of MOEFCC, the respective zonal office of CPCB and the SPCB. The Regional office of this Ministry at Chennai/CPCB/SPCB shall monitor the stipulated	The project proponent shall also submit six monthly report on the status of the compliance of the stipulated environmental conditions including results of the monitored data (both in hard copies as well as by e-mail) to the regional office of MOEFCC, the respective zonal office of CPCB and the SPCB. The Regional office of this Ministry at Chennai/CPCB/SPCB shall monitor the stipulated

		conditions.	conditions.
xiii.	The Environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned state pollution control board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Chennai by e-mail.	The Environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned state pollution control board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Chennai by e-mail.	The Environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned state pollution control board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Chennai by e-mail.
xiv.	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEFCC) at **http;/envfor.nic.in.** This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to regional office at Chennai.	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEFCC) at **http;/parivesh.nic.in**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to regional office at Chennai.	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEFCC) at **http;/parivesh.nic.in.** This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to regional office at Chennai.
xv.	The project authorities 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 and the date of commencing the land development work.	The project authorities 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 and the date of commencing the land development work.	The project authorities 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 and the date of commencing the land development work.

14	The ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	The ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	The ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.
15	The ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	The ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	The ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.
16	The above conditions shall be enforced, interalia, under the provisions of the Water (Prevention and Control of pollution) Act, 1974, The Air (Prevention & Control of pollution) Act 1981 and The Environmental Protection Act, 1986, Hazardous Waste (management, handling and transboundary) Rules, 2008 and Public (Insurance) Liability Act, 1991 along with their amendments and Rules	The above conditions shall be enforced, interalia, under the provisions of the Water (Prevention and Control of pollution) Act, 1974, The Air (Prevention & Control of pollution) Act 1981 and The Environmental Protection Act, 1986, Hazardous Waste (management, handling and transboundary) Rules, 2008 and Public (Insurance) Liability Act, 1991 along with their amendments and Rules	The above conditions shall be enforced, interalia, under the provisions of the Water (Prevention and Control of pollution) Act, 1974, The Air (Prevention & Control of pollution) Act 1981 and The Environmental Protection Act, 1986, Hazardous Waste (management, handling and transboundary) Rules, 2008 and Public (Insurance) Liability Act, 1991 along with their amendments and Rules

26.13.18 Based on the submission of the ADS reply by PP, the proposal was placed before the EAC for consideration.

Observations of the Committee

26.13.19 The Committee satisfied with the additional information submitted by the project proponent.

Recommendations of the Committee

26.13.20 After deliberations, the Committee recommended for the partial transfer of EC dated 9/03/2016 i.e., 1x18 MW CPP in the name of M/s. JSW Energy Limited subject to the mutually agreed responsibility matrix as mentioned above.

26.14 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.**

26.14.1 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.

26.14.2 The proposal cited above was considered by the EAC in its meeting held on 30th July – 1st August, 2020 and the EAC proceedings are reproduced as below:

Details submitted by the project proponent

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.

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".

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".*

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.*

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

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

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:

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.

26.14.3 Based on the EAC recommendations, the proposal was processed. The Competent Authority has directed to refer back the proposal to the EAC to revisit their recommendations based on the guidelines issued by CPCB for dolochar usage.

26.14.4 The Committee noted that following are the guidelines prescribed by CPCB for dolochar usage:

i. Char should be mixed with coal or coal washery rejects and used as fuel for generation of power. **It is techno-economical viable option for plants having capacity 200 TPD and above.**

ii. Also the smaller capacity individual sponge iron plants (capacity up to 100 TPD) and operating in cluster can collectively install common unit for power generation.

iii. The sponge iron plants are free to explore other options /possibilities to use char for generation of power. Char can be sold to local entrepreneurs for making coal briquettes. It can be mixed with coal fines, converted to briquettes and used in brick kilns.

iv. The industry can explore other reuse/ recycling techniques for char.

v. Under no Circumstances Char should be disposed off in agricultural fields/other areas.

vi. Logbook for daily record of char production and usage must be maintained by the industry and the record shall be made available to officials of CPCB/SPCB/PCC during inspection

Further,

- Solid Waste Management Program should be prepared with thrust on reuse and recycling.
- Solid waste storage and disposal site should be earmarked within the plant premises.
- The storage site of solid waste should be scientifically designed keeping in view that the storage of solid waste should not have any adverse impact on the air quality or water regime, in any way.
- Solid waste generated should be stored separately and should not be allowed to be mixed and adversely affect the air quality by becoming air borne by wind or water regime during rainy season by flowing along with the storm water
- SPCB shall ensure that the Char are properly accounted for and any permission for movement of char for generation point to permitted use point is properly and regularly monitored. GPS based monitoring for movement of solid waste shall be in place.

In addition to the above, the aforesaid notification also states that "**For plants having capacity of 200 TPD or more, power generation using char as part of fuel in boiler is a techno-economic viable option, therefore, new plants may install power generation unit at the time of installation of the industry".**

Observations of the Committee

26.14.5 The Committee noted the following:

i. In the instant proposal under consideration, EAC has given recommendations in line with the existing guidelines of CPCB as the PP intends to set up 1050 TPD sponge iron kiln.
ii. The guidelines issued by the Ministry are being followed by the EAC in letter & spirit in order to conserve the environment.
iii. If the competent authority desires that if the existing guidelines is not in line with the requirements, concerned division may be directed to do needful.

Recommendations of the Committee

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

i. Amendment in Specific Condition (iv) of EC dated 24/02/2020 as "*PP is permitted to sell dolochar to anyone who would use it for power generation purpose. Vehicular pollution due to transportation of dolochar shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the dolochar. Under no Circumstances dolochar should be disposed of in agricultural fields/other areas. Logbook for daily record of char production and usage must be*

maintained by the industry and the record shall be made available to officials of CPCB/SPCB during inspection".

ii. The matter may be referred to the Ministry/CPCB for review of the relevant guidelines/ notification to take care of the changing energy scenario.

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ANNEXURE –1

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

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

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

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

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

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

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

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

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

8. **Occupational health**

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

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

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

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

9. **Corporate Environment Policy**

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

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

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

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

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

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

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information

as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall 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 summarized 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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