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

SUMMARY RECORD OF THE THIRTY FIFTH (35TH) MEETING OF EXPERT APPRAISAL COMMITTEE HELD DURING 17TH TO 18THSEPTEMBER 2018 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The thirty fifthmeetingof the Expert Appraisal Committee (EAC) for Industry-I Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held during **17th to 18thSeptember 2018** in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

35.1 After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

35.2 First of all, the Committee confirmed the Minutes of the 34rdExpert Appraisal Committee (Industry-1) held during 6th – 7th August,2018.

17thSeptember 2018

35.3. Proposed Greenfield Cement Plant of capacity 3.15 MTPA Clinker & 2.0 MTPA Cement and 2×25 MW Thermal Power Plant Kalvatala Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh of M/s The Ramco Cement Ltd. [Proposal No. IA/AP/IND/63579/2017, F.No. IA-J-11011/135/2017-IA-II(I))] – Further consideration based on reply to ADS for Environmental Clearance

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/63579/2017** dated 12th July 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The Greenfield Cement Plant of M/s. The Ramco Cements Limited (Formerly Known as Madras Cements Ltd) proposed to be located in Kalvatala Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh State was received online on 31.03.2017 vide Application no. IA/AP/IND/63579/2017. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 18th meeting of EAC May, 2017 and prescribed Terms of Reference (ToR) to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project vide J-11011/135/2017-IA-II (I) dated 22.05.2017.

3.0 The project of M/s. The Ramco Cements Limited (RCL) proposed to be located in Kalvatala Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh is for setting up of a

green field cement plant for production of 3.15 MTPA (2 x 1.575 MTPA) Clinker and 2.0 MTPA Cement Plant and 50MW (2 X 25 MW) Coal Based Captive Thermal Power Plant. Clinker required for production of 2.0 Million TPA Cement will be utilized at this plant and balance clinker will be transported to RCL cement grinding units.

4.0 The total land required for the project is 186.56 Ha (169.66 Ha Private Patta Land + 16.9 Ha Govt. Land). RCL has already acquired 123 Ha [106.1 Ha Private Patta Land + 16.9 Ha Govt. Land (alienated)]. Balance area is under acquisition. 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. In pursuant to the Terms of Reference, the Layout of the cement plant is designed without disturbing the seasonal nalla passing through the proposed site. A culvert will be provided on the road over the nalla to enable the local people cross the nalla safely

5.0 A total of 28.3 Ha has been earmarked for greenbelt development which include both sides of the nalla and the northern side of the nalla as per TOR point of MoEF&CC. This area will not be used for any other activities of the project except for green belt development. This area will be developed with local broad leaved species. An area of 5.0 Ha is earmarked for diversion of existing roads along the eastern boundary of the plant site.

6.0 The topography of the area is flat and reported to lie between 15° 03' 42.86" N - 15° 04' 31.21" N Latitude and 78° 07' 59.97" E - 78° 08' 50.68" E Longitude in Survey of India topo sheet No. 57/I/4 (1:50000), at an average elevation of 260 m AMSL. The ground water table in the study area reported to range between 10-100 m below the land surface during the post-monsoon season and 15-105 m below the land surface during the pre-monsoon season.

7.0 Total water requirement of the integrated plant is estimated to be about 2000 m^3/day. Initially ground water will be used for plant construction. An application is made for 2500 m^3/day, which is in pipeline. Andhra Pradesh Government has initiated a proposal of 0.4 TMC reservoir at Mettupalli on Srisailam Right Bank Canal adjacent to OWK reservoir. The present ground water utilization is 30.97%. For the present proposal the utilization will be 2.51% and the total utilization of the study area will be 33.48%. Thus the ground water utilization computation is estimated as 33.48 % only and since it is well below the 70 % of ground water availability, hence, categorized as safe.

8.0 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. No Reserved forest is located in 10 km radius of the study area. No forests are located in 10 km radius of the study area. Based on the information obtained from the Forest Department, Black Buck which is Schedule – I specie is reported in the study area. During the ecological studies, Peafowl, Schedule – I specie is observed. To protect these schedule – I fauna, a conservation plan has been formulated with total fund of Rs 10 Lakhs.

9.0 Belum Caves is the nearest tourist place at 3.8 km in NW direction of the Plant site. The cement plant will not have any adverse effect on the caves, as they are located under the ground.

10.0 The major raw material for manufacture of Cement is Limestone and the same will be sourced from the Captive Limestone Mine. Details of the raw material requirement are given below:

S. No	Material	Quantity	Source Locality	Approx. distance from plant (km)	Mode Of Transport
1	Limestone	4.50	Captive mines	Less than 5 km	Closed Belt Conveyor/ Dumpers/ Tippers
2.	Laterite & Iron ore	0.27	Veldurthi surroundings, Bellary	300	Trucks
4	Gypsum	0.08	Visakhapatnam	500	Rail
5	Fly Ash	0.30	Rayalaseema Thermal Power Station, (RTPS) Muddanuru	150	Bunkers
6	Slag	0.50	JSW, Tornagallu	160	Rail
Coal Mix for cement plant:					
7	100 % Indian Coal	0.47	SCCL	300	Rail
	100% Imported Coal	0.38	Imported	280	
	100 % pet coke	0.30	Reliance Refinery	700	
8	Coal Mix for thermal power plant	0.42	-	-	Rail

11.0 State-of-Art technology for manufacturing of the cement will be adopted. Themain features of the process, inter alia, include raw material grinding; blending of raw material; coal mix grinding and handling; preheating of coal mix in the six stage pre-heater; pyro processing and calcination in the kiln; clinker cooler and storage; and cement grinding & packing. RCL proposes to install 50 MW coal based Thermal Power Plant. Power generation process is based on Rankine Steam cycle. The steam generated in the boiler when expanded through a turbine, turns the turbine shaft, which in tandem is coupled to an electric power generator.

12.0 Limestone will be sourced from the Captive Limestone Mine. The Limestone transportation will be done through Closed Belt Conveyor/ Dumpers/ Tippers.

13.0 Total water requirement of the integrated plant is estimated to be about 2000 m^3/day. Initially ground water will be used for plant requirement. An application is made for 2500 m^3/day, which is in pipeline. Andhra Pradesh Government has initiated a proposal of 0.4 TMC reservoir at Mettupalli on Srisailam Right Bank Canal adjacent to OWK reservoir. The water drawl permission was applied for 2500 m^3/day.

14.0 The total power requirement of the cement plant including the requirement of the colony is estimated to be about 45 MW. This requirement will be met from the proposed 50 MW Coal Based Captive Power Plant.

15.0 Baseline Environmental Studies were conducted during Post Monsoon season i.e., from October 2017 to December 2017. Ambient air quality monitoring has been carried out at 8 locations during October 2017 to December 2017 and the data submitted indicated: PM_{10}: 49.8 – 57.4 µg/m^3), $PM_{2.5}$ (21.7 – 29.5 µg/m^3), SO2 10.7 – 12.8 µg/m^3) and NOx (12.9 – 14.4 µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 11.64 µg/m^3 with respect to the PM_{10}, 1.35 µg/m^3 with respect to the $PM_{2.5}$, 2.36 µg/m^3 with respect to the $SO_2$and 14.26 µg/m^3 with respect to the NOx.

16.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.7 to 7.28, Total Hardness: 231 to 585 mg/l, Chlorides: 36 to 328 mg/l, Fluoride: 0.65 to 0.96 mg/l. Heavy metals are within the limits. Surface water sample was analyzed in one location. pH:7.72; Total Hardness 162 mg/l, Chlorides: 0.51 mg/l, Fluoride: 0.6 mg/l. Heavy metals are within the limits.

17.0 Noise levels are in the range of 50.6 – 70.8 dB (A) for daytime and 41.8 – 62.5 dB (A) for nighttime.

18.0 The proposed plant site does not involve any displacement of human settlement. No public buildings, places, monuments etc., exist within the proposed plant area or in the vicinity. The plant operations will not disturb / relocate any village or need resettlement.

19.0 No solid waste will be generated from the cement plant. The dust collected in the air pollution control equipment in the cement plant will be recycled back to the process. Solid waste generated from the power plant (flyash) (410t/day) will be used in cement plant. It has been envisaged that an area of 65.46 Ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

20.0 The Public hearing of the project was held on 31.5.2018 at proposed site under the chairmanship of Sri S. Satyanarayana I.A.S (District Collector & District Magistrate, Kurnool District) for setting up of Cement plant with production of 3.15 Million Tonnes Per Annum (MTPA) Clinker and 2.0 MTPA Cement Plant and 50MW (2 X 25 MW) Coal Based Captive Thermal Power Plant. As per the TOR of MoEF&CC, the project proponent has shared with the villagers, the plan for diversion of existing roads, and plan for laying and construction of new roads in consultation with villagers and the same is recorded in the minutes of public hearing. The issues raised during public hearing along with action plan and budget allotment are addressed in final EIA report. Summary of the Public hearing issues along with action plan and budget are given below:

Sl	Issues Raised In Public Hearing	Response Of The Project Proponent After Public Hearing	Time Bound Action Plan	Budgetary Provision
1.	Control measures	The consultant	All Pollution control	Rs. 100 crore

	proposed to control the pollution problems during blasting activity in the mine, from the thermal power plant and also from the proposed cement plant.	explained the details of pollution control measures in the cement plant and thermal power plant. The same are recorded in minutes of Public hearing on page 5 of 12.	equipment will be installed before commissioning of the plant	allocated for air pollution control equipment for plant. Total capital cost for EMP activities is Rs. 120 crore.
2.	Corporate Environmental Responsibility and Corporate social responsibility activities proposed by them in the surrounding villages.	As per the recent guidelines, Rs 15.5 crores was allotted for Corporate Environmental Responsibility. The same will be spent in areas like skill development, Primary health centres, Roads, Drinking water supply, sanitation & others. Similarly CSR activities will be drawn in consultation with the Village Committees as per the priority once the plant is commissioned.	CER will be carried out as per the enclosed Table -1. The activities considered are based on the Need based assessment study and issues raised in the public hearing conducted on 31.05.2018	Rs 15.50 Crores (as per CER MoEF&CC OM)
3.	Employment to the villagers who have given their agricultural lands, to the factory and requested a written commitment from the management in this regard.	Regarding employment, preference to those who sold lands will be given for employment based on eligibility. Those who are not employed will be provided employability opportunity.	RCL will provide skill development programme to ITI & Diploma passed out locals	Rs 120 Lakhs is allotted for skill development as part of CER budget
4.	To inform the exact location of the proposed cement plant including survey numbers and also the actual distance of the proposed cement plant to the Kalvatala	The survey numbers where the plant will be installed are provided in the Public hearing advertisement both in English and Telugu and also provided in the Draft EIA Report.	-	-

	village.	The actual distance of cement plant from Kalvatala village is 0.4 km and the same is mentioned in the Draft EIA report		
5.	Kolimigundla Mandal is drought prone area due to the low rainfall and requested the authorities not to permit the proposed cement industry for drawing of water from the bore wells as it may adversely affect the agricultural sector in the area apart from scarcity of drinking water in the Kolimigundla area.	Management will draw ground water for construction of plant. RCL will implement rainwater in the cement plant Rainwater harvesting pits will be provided in the villages.	Rain water harvesting pits will be provided during construction of plant Rain water harvesting pits @ 30 Nos. in 2 villages are proposed and the same will be provided within 3 years.	Rs 100 lakhs is provided as part of EMP budget Rs 60 Lakhs provided as part of CER budget
6	The proposed cement plant will cause raise in the temperature levels of Kolimigundla area due to CO_2 emissions from the plant and requested the management to implement the measures for controlling the CO_2 emissions and also to develop afforestation in the nearby hillocks.	33% of the plant complex area will be brought under greenbelt with wide leaf trees and fruit bearing trees. RCL also has considered Plantation in surrounding villages and along the road sides. The plantation activities proposed will act as CO_2 sink	Total 65.46 ha (35 % of total project area) will be developed as greenbelt area in 5 years, in phased manner which include 28.3 Ha of the area earmarked for greenbelt development on both sides of the nalla and the northern side of the nalla. Plantation in poramboke & govt. lands in each village and along the road sides (Rs. 2500 per pit, 1500 pits for hectare and 5 ha area) in 3 years' time.	Rs 150 Lakhs allotted as part of EMP budget Rs 187.5 Lakhs provided as part of CER budget
7	Details of disposal of fly ash generated from thermal power plant.	Fly ash generated in power plant will be totally consumed in cement plant.	-	-

	Environmental Protection Measures in the area and also development of infrastructure facilities for education, health etc., in the surrounding villages till now.	Implementation of Environmental Protection starts only when the plant installation starts after obtaining necessary statutory approvals.	All EMP measures will be installed before commissioning of the plant	Rs. 120 crore. allotted as capital cost for EMP.
	To pay additional amount for the farmers who have given their agricultural land earlier at lower price to the factory.	Developmental activities listed under CER will be initiated simultaneously with plant construction	CER activities will be implemented in three years time	Rs 15.50 Crores allotted (as per CER MoEF&CC OM)
		The farmers are still continuing farming till now and they were enjoying the same for last 13 years.	-	-
	To avoid usage of ground water to extent possible, to construct check dams & rain water harvesting structures in the area, to use advance art of technology for controlling pollution problems and to develop greenbelt in the area.	During operation of the plant, the water requirement will be met from 0.4 TMC reservoir at Mettupalli on Srisailam Right Bank Canal adjacent to OWK reservoir.		Rs 100 lakhs is provided as part of EMP budget
		The water drawl for the proposed cement plant is considered as 2600 m^3/day by the Government of Andhra Pradesh from this proposed reservoir.	Rain water harvesting pits will be provided during construction of plant	Rs 60 Lakhs provided as part of CER budget
		RCL will implement rainwater in the cement plant	Rain water harvesting pits @ 30 Nos. in 2 villages are proposed and	

		Rainwater harvesting pits will be provided in the villages	the same will be provided within 3 years	
		State of Art Technology will be adopted for the environmental measures. The consultant explained the details of pollution control measures in the cement plant and thermal power plant. The same are recorded in minutes of Public hearing on page 5 of 12.	All Pollution control equipment will be installed before commissioning of the plant	Rs. 100 crore allocated for air pollution control equipment for plant. Total capital cost for EMP activities is Rs. 120 crore Rs 150 Lakhs allotted as part of EMP budget
		33% of the plant complex area will be brought under greenbelt with wide leaf trees and fruit bearing trees.	Total 65.46 ha (35 % of total project area) will be developed as greenbelt area in 5 years, in phased manner which include 28.3 Ha of the area earmarked for greenbelt development on both sides of the nalla and the northern side of the nalla.	
		As per the recent guidelines, Rs 15.5 crores was allotted for Corporate Environmental Responsibility. The same will be spent in areas like skill development, Primary health centres, Roads, Drinking water supply, sanitation & others. Similarly CSR activities will be drawn	CER will be carried out as per the enclosed Table The activities considered are based on the Need based assessment study and issues raised in the public hearing conducted on 31.05.2018	Rs 15.50 Crores (as per CER MoEF&CC OM)

		in consultation with the Village Committees as per the priority once the plant is commissioned		
9	To start construction of the factory only after the supply of water to them by the Government from the Mettupalli reservoir, not to encourage middle man while purchasing the land from the farmers	Andhra Pradesh Government has initiated the proposal of 0.4 TMC reservoir at Mettupalli on Srisailam Right Bank Canal adjacent to OWK reservoir. The water drawl for the proposed cement plant is considered as 2600 m3/day by the Government of Andhra Pradesh from this proposed reservoir.	Ground water permission was obtained recently on 25-07-2018 for ground water drawal of 652.56 kld which will be used for construction	-
10	To provide importance to the education and health infrastructure facilities in the surrounding villages	Developmental activities listed under CER will be initiated simultaneously with plant construction The District Collector convened a meeting on 9-6-2018, which was postponed because of some other priority work by the District Collector to discuss on the matter of additional payment, if any.	CER activities will be implemented in three years' time	Rs 15.50 Crores allotted (as per CER MoEF&CC OM)
11	To take up the avenue plantation in a massive way even up to 50 % of their area and also along the roads with fruit bearing trees & medicinal plants and suggested to form a CSR Co-ordination Committee involving public representatives, villagers, District	RCL also has considered Plantation in surrounding villages and along the road sides the plantation activities proposed will act as CO_2 sink	Plantation in poramboke & govt. lands in each village and along the road sides (Rs. 2500 per pit, 1500 pits for hectare and 5 ha area) in 3 years' time Plantation in poramboke & govt. lands in each village and along the road sides (Rs. 2500 per pit, 1500 pits for hectare	Rs 187.5 Lakhs provided as part of CER budget

	administration for identifying the needs of the surrounding villagers for implementation under CSR activity	As per the recent guidelines, Rs 15.5 crores was allotted for Corporate Environmental Responsibility. The same will be spent in areas like skill development, Primary health centres, Roads, Drinking water supply, sanitation & others. Similarly CSR activities will be drawn in consultation with the Village Committees as per the priority once the plant is commissioned.	and 5 ha area) in 3 years time CER will be carried out as per the enclosed Table -1 The activities considered are based on the Need based assessment study and issues raised in the public hearing conducted on 31.05.2018	Rs 15.50 Crores (as per CER MoEF&CC OM)

21.0 M/s RCL has budgeted an amount of Rs 15.50 Crores for Corporate Environment Responsibility (CER) in accordance to the MoEF&CC's Office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018 which is given below:

S.No	DESCRIPTION	Budget in Rs. Lakhs (for 3 years)
1	Swachh Bharath	265.62
2	Education & Sports	115
3	Women Welfare	10
4	Roads and other infrastructures	280
5	Drinking water	200
6	Skill development	120
7	Health Care	52
8	Veterinary	3
9	Other	507.5

	Total	**1553.12**
Say Rs. 15.53 Crores		

DETAIL BREAKUP OF BUDGET TOWARDS CER ALONG WITH ACTIVITIES

S.No	Description of Activity	1st Year	2nd Year	3rd Year
1.Swachh Bharath				
1	Construction of 20 Nos. of toilets in 5 villages Kolimigundla village, Kalvatala village, Kanakadripalli village, Itikyala village, Nayanapalli village, etc., of the Kolimigundla Mandal each in Kolimigundla @ Rs. 1.8 lakh per toilet	60	60	60
2	Providing 75 Dust Bins & Trolleys for Kolimigundla village, Kalvatala village, Kanakadripalli village, Itikyala village, Nayanapalli village each of the Kolimigundla Mandal @ Rs. 1500 each.	5.62	0	0
3	Contribution towards various Government sponsored programmes	20	30	30
	Total (Rs in lakhs)	**85.62**	**90**	**90**
2. Education & Sports				
1	Providing infrastructure to Schools in Kolimigundla Mandal	20	40	40
2	Providing computers for ZP School, Kolimigundla	2	3	0
3	Renovation of playground for ZP School, Kolimigundla	2	3	3
4	Purchase of various sports equipment for ZP School, Kolimigundla	2	0	0
	Total (Rs in lakhs)	**26**	**46**	**43**
Women Welfare				
1	Construction of building for self-welfare schemes at Kolimigundla Mandal head quarters	4	3	3
	Total (Rs in lakhs)	**4**	**3**	**3**
4.Roads Development				
1	Renovation of village internal roads and drainage system in Kolimigundla (total - 1 km length)	0	20	20
2	Renovation of village internal roads and drainage system in Chintalayapalle village (total - 1 km length)	0	20	20
3	Renovation of village internal roads and drainage system in Kalvatala village (total - 1 km length)	0	20	20
4	Renovation of village internal roads and drainage system in Nayanapalli village (total - 1 km length)	0	20	20
5	Renovation of village internal roads and drainage system in Itikyala village (total - 1 km length)	0	20	20
6	Renovation of village internal roads and drainage system in Petnikota village (total - 1 km length)	0	20	20
7	Renovation of village internal roads and drainage system in Kanakadripalli village (total - 1 km length)	0	20	20

S.No	Description of Activity	1st Year	2nd Year	3rd Year
	Total (Rs in lakhs)	**0**	**140**	**140**
5.Drinking water				
1	Construction of elevated water tank and water pumping system at Kalvatala village	10	10	5
2	Construction of elevated water tank and water pumping system at Kolimigundla village	10	10	5
3	Construction of elevated water tank and water pumping system at Nayanapalli village	10	10	5
4	Construction of elevated water tank and water pumping system at Chintalayapalle village	10	10	5
5	De-silting & strengthening of bunds for existing water tanks in each villages	30	30	40
	Total (Rs in lakhs)	**70**	**70**	**60**
6.Skill development				
1	Providing skill development programme to ITI & Diploma passed out locals (for total number of 20 members) in other plants of RCL (till commissioning of the plant) for a span of 1 year per batch (Rs. 16,500 per person per month – Rs. 3.3 lakh per month – Rs. 40 lakhs per annum – Rs. 120 lakh for 3 years)	40	40	40
	Total (Rs in lakhs)	**40**	**40**	**40**
7.Health Care				
1	Purchase of hospital equipment at Petnikota Primary Health Centre (PHC)	0	0	4
2	Construction of Petnikota Primary Health Centre (PHC) building	15	15	10
3	Purchase of hospital equipment at Kolimigundla Primary Health Centre (PHC)	0	0	4
4	Renovation of Kolimigundla Primary Health Centre (PHC) building	1	1	2
	Total (Rs in lakhs)	**16**	**16**	**20**
8.Veterinary				
1	Purchase of hospital equipment at Kolimigundla Veterinary Health Care Centre	1	0	0
2	Renovation of Kolimigundla Veterinary Health Care Centre building	1	0.5	0.5
	Total (Rs in lakhs)	**2**	**0.5**	**0.5**
9.Others				
1	Rain water harvesting pits @ 30 Nos. in 2 villages @ Rs. 1 lakh per pit	20	20	20
2	Plantation in poramboke & govt. lands in each village and along the road sides (Rs. 2500 per pit, 1500 pits for hectare and 5 ha area)	67.5	60	60
3	Religious buildings (renovation / construction) in all 5 villages	30	30	20
4	Lining of nallah near plant	20	20	10

S.No	Description of Activity	1st Year	2nd Year	3rd Year
5	Development / construction of public buildings like Panchayat / community centre / libraries	20	20	20
6	Construction of pucca road (for villagers movement in the eastern direction of plant) including drainage system	20	20	20
7	Plantation along the abovepucca roads	4	3	3
	Total (Rs in lakhs)	**181.5**	**173**	**153**

22.0 The capitalcostoftheprojectisRs. 1500 Croresin 2 phases (Phase: I {Including Land, Colony and Railway siding} – Rs. 1000 Crores & Phase: II – Rs. 500 Crores) and Rs. 120 crores will be spent for Environmental Management Plan.Theannualrecurring costtowards Management Plan isproposedasRs. 12 Crores.Budget for Environmental Management Plan as given below:

		Capital Cost (Rs. Crores)	**Recurring Cost per annum (Rs. Crores)**
Air Pollution	Air Pollution Control Equipment for Cement Plant & Thermal Power Plant	100	10.0
	Sheds & Silos for raw material storage	13.9	0
Wastewater Management	Installation of STP & Neutralization pit for TPP	0.50	0.20
Greenbelt development	Plant and Colony	1.5	0.50
Wild life conservation plan		0.10	-
Rainwater Harvesting Structures		1.0	0.05
Environmental monitoring		2.70	0.40
Total		**119.7 Say 120**	**11.15 Say 12**

23.0 Theemploymentgeneration from theproposed project is 300 direct employment and 1000 indirect employment. In addition, there will be indirect employment to many more people, in the form of contractual jobs, business opportunities, service facilities etc. This will improve the economic conditions of local people.

24.0 Total 65.46 ha (35 % of total project area) will be developed as greenbelt area, in phased manner which include 28.3 Ha of the area earmarked for greenbelt development on both sides of the nalla and the northern side of the nalla as per TOR point of MoEF&CC. This area will not be used for any other activities of the project except for green belt development. This area will be developed with local broad- leaved species. The local species recommended by CPCB will be plantedwitha plant density of1500treesperhectare.Totalno.of98190 saplings will be planted and nurtured in 65.46 hectares in5years.

25.0 Theproponenthasmentionedthatthereisnocourtcaseorviolationunder EIANotification to theproject or related activity.

26.0 EIA Consultant: BS Envirotech, Hyderabad.

27.0 The proposal was considered in the 34th meeting of Expert Appraisal Committee held during 6th – 7th August, 2018. After detailed deliberations, the committee sought the following additional information for further consideration of the proposal:

1) The permission from the competent authority for drawl of water from the Srisailam Right Bank canal as proposed by PP.
2) The potential Impact of the project on the tourist spot of Bilam caves.
3) Detailed plan ensuring that the natural drainage pattern of the site would not be altered / blocked.
4) Plan for storm water management
5) The revised layout plan clearly showing gates and the external connectivity
6) The permission from the competent authority for the over head conveyor belt across the state highway
7) In case the permission for overhead conveyor belt delayed/denied, an alternative plan for transporting raw material
8) The design details of Air pollution control systems
9) Details of Waste heat recovery from the kiln and cooler
10) Details of alternative fuels to be used.
11) Revised CER implementation along with time bound action plan with budget

28.0 The project proponent submitted the reply to the ADS, the submission of the PP are as follows:

Point - 1: The permission from the competent authority for drawl of water from the Srisailam Right Bank canal as proposed by PP.

Submission: Andhra Pradesh Government has initiated a proposal of 0.4 TMC Reservoir at Mettupalli on Srisailam Right Bank Canal adjacent to OWK reservoir. A Preliminary Report for Mettupalli Reservoir is prepared by APIIC. APIIC has written a letter to The Chief Engineer (Water Resources) to expedite the work of Reservoir.RCL has obtained permission from ground water department for 652 kld of water which will be used for construction purpose. RCL would like to submit that the plant operations will be commenced only after obtaining permission from Mettupalli Reservoir.

Point - 2: The potential Impact of the project on the tourist spot of Bilam caves.

Submission: Establishing a cement plant in the region will not have any adverse impact, as the activity is above ground and the caves are located at 120 feet inside below the ground level. The aerial distance of caves is 3.8 km from the cement plant boundary. No blasting will be done for construction of the plant for laying the foundations. There is no possibility of the rock structure

of the caves getting affected by the construction activity and operation of the proposed Plant.On the other hand, with the advent of the Cement Plant, influx of tourists into the area increases. People from different parts of India (suppliers/vendors/customers/cement Buyers) will be visiting the cement plant for various activities. The Project Management will encourage the visitors of the plant to visit the Caves and thereby propagate the much needed tourism. The housing in the vicinity will pick up, due to the Cement Plant, and with the increase in population, the number of tourists visiting will increase.

Ramco's Contribution: As a part of CSR activity, Ramco cement will support the locals for establishing restaurants, transport vehicles, SHGs for the production of toys, jute bags, Agarbathis, soaps and other handicrafts so that uneducated locals can earn their livelihood at this tourist spot. Ramco allocated about Rs. 70 lakhs for providing the infrastructure facilities at the Belum caves, as a part of Corporate Environmental Responsibility (CER).As a whole, the impact on the Caves will be Positive.

Point - 3: Detailed plan ensuring that the natural drainage pattern of the site would not be altered / blocked.

Submission: A seasonal nalla is passing across the plant site. As per the MOEFCC specific TOR condition, the layout has been designed without disturbing the natural drainage pattern of the seasonal nalla. Also no plant activities are planned on the northern part of the seasonal nala. The nalla will be protected by developing greenbelt on both sides of the nalla and the northern side of the nalla as per TOR point of MoEF&CC. A total of 28.3 Ha has been earmarked under this zone for development of greenbelt. This area will not be used for any other activities of the project except for green belt development. This area will be developed with local broad leaved species.A culvert will be provided over the nalla to enable the local people cross the nalla safely.

Points – 4 : Plan for storm water management.

Submission: Storm water network of the plant is designed without linking with the seasonal nalla. The plant site is sloping towards the Eastern direction. A network of storm water drains will be provided to collect the rain water. The collected rainwater will be discharged in the rainwater harvesting pits proposed along the eastern boundary. The over flow of rain water will be collected in the rain water harvesting pond proposed in a tank (1Ha.). The storm passes through the Rain water harvesting pits and finally gets collected in the tank. The collected water will be used in the plant. The storm water network with the RWH pits and the collection tank.

Point - 5: The revised layout plan clearly showing gates and the external connectivity

Submission: The layout with the entrance gates and the external connectivity showing approach road from the nearby main road is submitted

Point - 6: The permission from the competent authority for the over head conveyor belt across the state highway.

Submission: The Highway widening work is being takenup by the Government of Andhra Pradesh connecting the new Capital City of Amaravathi. RCL has approached Engineer in chief, R &B State Highways, SH, PPP, CP & Managing Director, Andhra Pradesh Roads Development Corporation Vijayawada, for obtaining the necessary permission for conveyor crossing the State Highway.

Point - 7: In case the permission for overhead conveyor belt delayed/denied, an alternative plan for transporting raw material

Submission: The Highway widening work is being takenup by the Government of Andhra Pradesh connecting the new Capital City of Amaravathi. Hence, getting approval for the overhead conveyor will take time. Construction of plant will take two years time. It is expected that Government of Andhra Pradesh will complete the Highway Widening Work shortly. RCL will obtain the permission once the Highway Widening Work is completed. Till such time, limestone transport will be done by road.

Point - 8: The design details of Air pollution control systems

Submission: The design details of Air pollution control systems inter alia including i) Air Pollution Control Equipment proposed in cement plant will be designed for outlet particulate matter emission of less than 30 mg/Nm^3; ii) ESP of >99.98% efficiency will be installed to limit the particulate matter emission to less than 30 mg/Nm^3; iii) Limestone injection in the CFBC boilers for control of Sulphur dioxide emissions; and iv) Low NOx burners are proposed for maintaining the prescribed NOx emission levels.

Point - 9: Details of Waste heat recovery from the kiln and cooler

Submission: RCL Commits to install 2 x 7 MW Waste Heat Recovery based Power Plants based on hot gases of Kiln and Cooler.

DETAILS OF WASTE HEAT RECOVERY IN PREHEATER AND COOLER

Waste heat recovery boiler - Preheater side			
1	Gas volume at PH Boiler inlet	Nm^3/hr	406250
2	Gas temperature at Boiler inlet	Deg C	330
3	Gas Temperature at Boiler outlet	Deg C	120
4	Type of Boiler		Vertical
5	HP steam pressure	ata	19
6	LP Steam pressure	ata	4
7	Potential power output	MW/hr	5.8
8	Pressure drop across Boiler	mmwg	90

Waste Heat Recovery Boiler - Cooler side			
1	Gas Tapping		Tapping of gas from cooler Mid
2	Provision for auxillary firing		Yes with fine coal
3	Gas volume at PH Boiler inlet	Nm^3/hr	330000
4	Gas temperature at Boiler inlet	Deg C	450
5	Gas Temperature at Boiler outlet	Deg C	90
6	Type of Boiler		Vertical
7	HP steam pressure	ata	19
8	LP Steam pressure	ata	4
9	Potential power output	MW/hr	9.2
10	Pressure drop across Boiler	mmwg	60

Turbine details - 2 X 7.5 MW	

1	Type		Horizontal, Single cylinder, Impulse reaction type with axial flow multistage fully condensing turbine of Bottom / top exhaust
2	No of turbines	nos	2
3	Rated power of each Turbine	MW	7.5
4	HP steam pressure at inlet	ata	17.5
5	HP steam temperature at inlet	deg C	387 + / - 5
6	LP stem pressure at inlet	ata	3
7	LP steam temperature at inlet	Deg C	187
8	Turbine sizing criteria for rated power	% steam flow	100 (TMCR)
9	Exhaust condensing pressure	ata	0.18
10	Design ambient temperature	Deg C	42

Point - 10: Details of alternative fuels to be used.

Submission: RCL will make provision for firing of high calorific value Hazardous wastes. Alternate fuels like Spent Carbon, and Organic Residues depending on their availability. Liquid wastes will be injected into the hot end of the kiln; Solid wastes will be introduced into the calcining zone; and CO sensors will be installed for process control to detect incomplete combustion and allow for corrective measures.

Point - 11: Revised CER implementation along with time bound action plan with budget.

Submission: RCL has budgeted an amount of Rs **15.50 Crores** for Corporate Environment Responsibility (CER) in accordance to the **MoEFCC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018**. The Revised CER budget towards CER along with activities proposed to be covered is given

BUDGET TOWARDS CER ALONG WITH ACTIVITIES

S.No	**DESCRIPTION**	**Budget in Rs. Lakhs (for 3 years)**
1	Swachh Bharath	265.62
2	Education & Sports	115
3	Women Welfare	10
4	Roads and other infrastructures	280
5	Drinking water	200
6	Skill development	120
7	Health Care	52
8	Veterinary	3
9	Other	507.5
	Total	**1553.12**
Say Rs. 15.53 Crores		

DETAIL BREAKUP OF BUDGET TOWARDS CER ALONG WITH ACTIVITIES

S.No	Description of Activity	12 months	24 months	30 months
I	**Swachh Bharath**			
1	Construction of 20 Nos. of toilets in 5 villages Kolimigundla village, Kalvatala village, Kanakadripalli village, Itikyala village, Nayanapalli village, etc., of the Kolimigundla Mandal each in Kolimigundla @ Rs. 1.8 lakh per toilet	60	60	60
2	Providing 175 Dust Bins & Trolleys for Kolimigundla village, Kalvatala village, Kanakadripalli village, Itikyala village, Nayanapalli village each of the Kolimigundla Mandal @ Rs. 1600 each.	15.62	0	0
3	Laying of approach road for the Belum caves from state Highway, with plantation on either side.	30	25	
4	Development of waiting hall for tourists along with toilet facilities	15	-	-
	Total (Rs in lakhs)	**120.62**	**85**	**60**
II	**Education & Sports**			
1	Providing infrastructure to Schools in Kolimigundla Mandal	20	40	40
2	Providing computers for ZP School, Kolimigundla	2	3	0
3	Renovation of playground for ZP School, Kolimigundla	2	3	3
4	Purchase of various sports equipment for ZP School, Kolimigundla	2	0	0
	Total (Rs in lakhs)	**26**	**46**	**43**
III	**Women Welfare**			
1	Construction of building for self-welfare schemes at Kolimigundla Mandal head quarters	4	3	3
	Total (Rs in lakhs)	**4**	**3**	**3**
IV	**Roads Development**			
1	Renovation of village internal roads and drainage system in Kolimigundla (total - 1 km length)	0	20	20
2	Renovation of village internal roads and drainage system in Chintalayapalle village (total - 1 km length)	0	20	20
3	Renovation of village internal roads and drainage system in Kalvatala village (total - 1 km length)	0	20	20
4	Renovation of village internal roads and drainage system in Nayanapalli village (total - 1 km length)	0	20	20
5	Renovation of village internal roads and drainage system in Itikyala village (total - 1 km length)	0	20	20
6	Renovation of village internal roads and drainage system in Petnikota village (total - 1 km length)	0	20	20
7	Renovation of village internal roads and drainage system in Kanakadripalli village (total - 1 km length)	0	20	20
	Total (Rs in lakhs)	**0**	**140**	**140**

S.No	Description of Activity	12 months	24 months	30 months
V	**Drinking water**			
1	Construction of elevated water tank and water pumping system at Kalvatala village	10	10	5
2	Construction of elevated water tank and water pumping system at Kolimigundla village	10	10	5
3	Construction of elevated water tank and water pumping system at Nayanapalli village	10	10	5
4	Construction of elevated water tank and water pumping system at Chintalayapalle village	10	10	5
5	De-silting & strengthening of bunds for existing water tanks in each villages	30	30	40
	Total (Rs in lakhs)	**70**	**70**	**60**
VI	**Skill development**			
1	Providing skill development programme to ITI & Diploma passed out locals (for total number of 20 members) in other plants of RCL (till commissioning of the plant) for a span of 1 year per batch (Rs. 16,500 per person per month – Rs. 3.3 per month – Rs. 40 lakhs per annum – Rs. 120 lakh for 3 years)	40	40	40
	Total (Rs in lakhs)	**40**	**40**	**40**
VII	**Health Care**			
1	Purchase of hospital equipment at Petnikota Primary Health Centre (PHC)	0	0	4
2	Construction of Petnikota Primary Health Centre (PHC) building	15	15	10
3	Purchase of hospital equipment at Kolimigundla Primary Health Centre (PHC)	0	0	4
4	Renovation of Kolimigundla Primary Health Centre (PHC) building	1	1	2
	Total (Rs in lakhs)	**16**	**16**	**20**
VIII	**Veterinary**			
1	Purchase of hospital equipment at Kolimigundla Veterinary Health Care Centre	1	0	0
2	Renovation of Kolimigundla Veterinary Health Care Centre building	1	0.5	0.5
	Total (Rs in lakhs)	**2**	**0.5**	**0.5**
IX	**Others**			
1	Rain water harvesting pits @ 30 Nos. in 2 villages @ Rs. 1 lakh per pit	20	20	20
2	Plantation in poramboke & govt. lands in each village and along the road sides (Rs. 2500 per pit, 1500 pits for hectare and 5 ha area)	67.5	60	60
3	Religious buildings (renovation / construction) in all 5 villages	30	30	20

S.No	Description of Activity	12 months	24 months	30 months
4	Lining of nallah near plant	20	20	10
5	Development / construction of public buildings like Panchayat / community centre / libraries	20	20	20
6	Construction of pucca road (for villagers movement in the eastern direction of plant) including drainage system	20	20	20
7	Plantation along the above pucca roads	4	3	3
	Total (Rs in lakhs)	**181.5**	**173**	**153**

Recommendations of the committee:

29.0 After detailed deliberations and considering the verbal and written submissions, of the project proponent, the Committee recommended the proposal for grant of environmental clearance with the following specific and general conditions:

Specific Conditions:

i. The water requirement of the plant will be met from rain water harvesting reservoir and the stored rain water from the mine pits. No ground water would be extracted nor the permission will be taken for the same during operations of the plant.

ii. Plantation will be developed on either side of the approach road leading to Belam caves from the proposed plant.

iii. Overhead conveyor belt across the State Highway shall be constructed to transport the material from mine pit head to plant or else alternate route shall be constructed without disturbing the State Highway in the vicinity of plant due to the traffic load.

General Conditions:

I. Statutory compliance:

i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

ii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time

II. Air quality monitoring and preservation

i. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual;)

III. Water quality monitoring and preservation

i. 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.

ii. Adhere to 'Zero Liquid Discharge'

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

iv. The project proponent shall practice rainwater harvesting to maximum possible extent.

IV. Noise monitoring and prevention

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

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

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

ii. Kitchen waste shall be composted or converted to biogas for further use.(*to be decided on case to case basis depending on type and size of plant*)

VII. Public hearing and Human health issues

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

ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

VIII. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

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

shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

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

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out

vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

IX. Miscellaneous

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

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

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

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

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

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

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

i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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

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

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

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

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

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

xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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.

35.4. Brake Lining Manufacturing Plant (Two-wheeler- 6,67,000 PCS/day & commercial Vehicle - 5,400 Pcs/day ha.) at Plot No. - 5, Sector-7, IMT Manesar, Gurgaon, Haryana by M/s AA Friction Materials Private Limited [Proposal No IA/HR/IND/67766/2017; MoEF&CC File No. IA-J-11011/477/2017-IA-II(I)] – Environmental Clearance.

1.0 The proponent has made online application vide proposal no. **IA/HR/IND/67766/2017** dated 30th June 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3c) Asbestos milling and asbestos based products under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 EIA Consultant: M/s PERFACT ENVIRO SOLUTIONS PVT. LTD., New Delhi and M/s. Ecomen Laboratories Pvt Limited (NABET accredited with sectoral experience) has presented the proposal before the Committee.

Observations and recommendations of the Committee:

3.0 After detailed deliberations, the Committee observed that the EIA report submitted to the Ministry is not in line with the Appendix III of the EIA Notification 2006. Hence, the Committee decided to return the proposal in the present form.

35.5. Proposed expansion of Cement Production (capacity from 7,87,000 TPA to 9,00,000 TPA) located at located at Village(s) Mithapur&Surajkaradi, Taluka Dwarka, District Dwarka, Gujarat by **M/s. Tata Chemicals Ltd.** [Online proposal No. **IA/GJ/IND/58896/2016**; MoEFCC File No. J-11011/66/1999-IA.II(I)] **– Environmental Clearance - Further consideration based on reply to ADS**.

The proponent has made online application vide proposal no. **IA/GJ/IND/58896/2016** dated 8th June 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The proposed project for expansion of cement production capacity of M/s. Tata Chemicals Ltd. located in Villages: Mithapur and Surajkaradi, Tehsil:Dwarka, District: Devbhumi Dwarka, State Gujarat was initially received in the Ministry on 12thSept., 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 11thmeeting held on 26thSept., 2016 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 10thJanuary, 2017 vide letter no.J-11011/66/1999-IA.II(I).

3.0 The project of M/s. Tata Chemicals Ltd. located in Mithapur and Surajkaradi Villages, Dwarka Tehsil, Devbhumi Dwarka District, Gujarat State is for enhancement of production of cement from 0.787 to 0.9 million tonnes per annum (million TPA). The existing project was accorded environmental clearance vide letter no. J-11011/66/99-IA-II (I) dated 20th Nov., 2000; amended on 17th Jan., 2001. The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide Letter No. 5-13/2000(ENV)/138 dated 23rd May, 2018. There are no non-compliances reported by Regional Officer. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Unit (Existing Capacity)	Capacity of Each Unit (Proposed Additional Capacity)	Production Capacity (Total Capacity after expansion)
Clinker (TPA)	8,25,000	Nil	8,25,000

Cement (TPA)	7,87,000	1,13,000	9,00,000

4.0 The total land area for the project is 231 ha (existing complex). No forest land/agricultural land/ grazing land/ others Government Land involved. There is no additional land required for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is more or less flat and reported to lies between 22° 23' 41.8" N to 22° 25' 04.3" N Latitude and 69° 00' 16.3" E to 69° 01' 19.1" E Longitude in Survey of India topo sheet No. 41 F/3 and 41B/15 at an elevation of 5 to 20 m AMSL. The ground water table reported to ranges between 1.9m to 5.2 m below the land surface during the post-monsoon season and 3.9 to 7.2 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the stage of groundwater development is reported to be 67.11 % and thereby, these are designated as safe areas.

6.0 Marine National Park (~2.81 km in NW direction) and Gulf of Kutch Marine Sanctuary (~2.19 km in East direction) are located within 10 km radius of the plant site. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna provided through the Primary survey and Secondary data reports the presence of Schedule-I fauna in the 10 km study area (Chapter 3, Pg. No. 128 - 144 of Final EIA/EMP Report). The project proponent has mentioned that the proposed project site is outside of Eco-Sensitive Zone notified by MoEFCC. The project proponent prepared conservation plan and approved by Chief Wildlife Warden, Gujarat State.

7.0 From clinker silo, clinker is fed to cement mill, where in clinker along with fly ash and gypsum, in required proportion, is ground to form cement. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Cement is 0.9millionTPA. Existing clinker production capacities will meet the requirements. The clinker will be fed to cement mill through conveyor.

9.0 The water requirement of the project is estimated as 1942 m^3/day, out of which 822 m^3/day of raw water requirement will be obtained from Existing Sea water Desalination Units and the remaining requirement of 1120 m^3/day sea water will be met from existing sea water intake system.

10.0 The power requirement for the project is estimated as 14.28 MW which will be obtained from the Captive Co-generation Power Plant.

11.0 Baseline Environmental Studies were conducted during Post Monsoon Season from October to December, 2016. Ambient air quality monitoring has been carried out at 9 locations during 01st Oct to 31st Dec., 2016 and the data submitted indicated: PM_{10} (36.52 to 74.21 µg/m^3), $PM_{2.5}$ (8.71 to 27.13 µg/m^3), SO_2 (4.63 to 12.40 µg/m^3) and NO_2 (6.55 to 15.21µg/m^3**).** The results of the modeling study indicates that the maximum increase of GLC for the proposed

project is1.56µg/m^3 with respect to the PM, 4.19µg/$m^3$with respect to the SO2, 1.39µg/m3 with respect to the NOx.

12.0 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH (7.23 to 7.96), Total Hardness (154.32 to 294.56 mg/l), Chlorides (95.94 to 328.09 mg/l), Fluoride (0.05 to 0.19 mg/l). Heavy metals are within the limits. Surface water samples were analyzed from 2 locations. pH – (7.45to 7.82), DO (5.90 to 6.80 mg/l), BOD (3.54 to 4.52 mg/l), COD (10.32 to 14.60 mg/l).

13.0 Noise levels are in the range of 44.42 to 66.91LeqdB(A) for day time and 36.04 to 60.25 Leq dB(A) for night time.

14.0 It has been reported that there is no population exist in the core zone of the project as the proposed expansion will be done on the existing project site. No R&R is involved.

15.0 No solid waste will be generated from the cement manufacturing process. Dust collected from various air pollution control equipment will be totally recycled into the process. Existing greenbelt area is 95 ha and additional 36 ha area will be developed under green belt/ plantation around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 It has been reported that the Consolidated Consent and Authorization from Gujarat Pollution Control Board has been obtained vide Letter No. AWH- 91133 dated 12th Feb., 2018 and consent is valid up to 13th Feb., 2023.

17.0 The Public hearing of the project was held on 17th Feb., 2018 at Sabras Bhavan opposite Ashapura Mandir, Village: Mithapur, Taluka: Dwarka, District: Devbhoomi Dwarka, Gujarat under the chairmanship of Shri R.R. Raval, IAS, (Collector & District Magistrate, Devbhumi Dwarka) for Expansion in Cement Production Capacity from 0.787 million TPA to 0.9million TPA. The issues raised during public hearing are Local Employment, Environment, Health and Education. An amount of 338 Lakhs (2.5 % of total project cost i.eRs. 13,340Lakhs) has been earmarked for Enterprise Social Commitment based on public hearing issues.

18.0 The capital cost of the project is Rs. 133.40 Crores and the capital cost for environmental protection measures is proposed as Rs. 29.50 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 12.50 Crores / annum. The detailed CSR plan has been provided in the EMP in its page no. 241 to 242. The employment generation from the expansion project is 129persons.

19.0 Approx. 95 ha area has already been developed under greenbelt/plantation and additional 36 ha area will also be developed under green belt/ plantation which is about 33 % of the total project area. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 90,000 saplings will be planted and nurtured in 36hectares in 10 years.

20.0 There is no litigation pending against the proposed project or the land on which proposed project would be set up. However, the proposed project is going to use same channel for discharge of the waste water which is located on the land for which dispute is pending for its pre-existence rights, before the Hon'ble High Court of Gujarat. The Company has filed Special Civil

Application no. 26530 of 2006 before the High Court of Gujarat to recognize its pre-existing rights over the land on which waste water discharge channel is situated. The Hon'ble Court has directed to maintain status quo by way of an interim relief till the final disposal of the case. In view of the same, Company is carrying out operations smoothly and using the channel to discharge the treated waste water into the sea. No, there is no litigation pending against the proposed project or the land on which proposed project would be set up. However, a complaint has been filed before Sub Divisional Magistrate, Dwarka (SDM) by resident of village Devpara alleging pollution from the Cement Plant bearing criminal case no. 1119 of 2015. There has been no order or direction by the SDM till date. The Company has submitted its interim reply and objections to the Complaint contending inter alia that the Gujarat Pollution Control Board (GPCB) has cleared all the activities of the Company at its plant and hence the complaint filed by the Complainant is false and frivolous and devoid of any substance. Company has submitted compliance reports/ action plans to the regulatory authorities within timelines for notices/ directions issued under the Environment (Protection) Act, Air and Water Acts.

21.0 EIA Consultant: J.M. EnviroNet Private Limited, Gurgaon.

22.0 The proposal was considered in the 33rd meeting of Expert Appraisal Committee (Industry-I) held during held during 9th-11th July, 2018. After detailed deliberation, the committee sought following additional information to be submitted by the project proponent for further consideration of the proposal:

i) The project proponent has mentioned that there are two wildlife protected areas within 10 kms of the project site. However, they have clarified regarding their distance from the eco sensitive zone about one protected area only. This needs to be clarified.

ii) The project proponents have shown the distance of the project area from one of the wildlife protected area which shows that the protected area falls outside the eco sensitive zone of the concerned wildlife area. However, on scrutinizing the Eco Sensitive Zone Notification issued by the MoEF&CC, it was noted that the ESZ also extends in an area of 250 mtrs of either side of 31 rivers in that area. The project proponent has not made any clarification whether the project site falls in the eco sensitive zone with respect to the 31 rivers. This needs to be clarified.

iii) The impact of the proposed expansion and the area of the Marine National Parka and Marine Sanctuary and its ESZ should be presented.

iv) There are a number of Archeological sites in this area including Bed-Dwarka. The project proponent should make a presentation on the likely impact of project activities on the nearby sites.

v) The project proponent should submit a plan for setting up of a monitoring system in collaboration with the State Forest Department for monitoring the air and sea water quality from the point of view of conserving marine biodiversity.

vi) The project proponent shall revise action plan related to the issues raised during the public hearing.

23.0 The proponent has uploaded online at MoEFCC web-portal on 02nd August, 2018 the point wise reply of additional details sought by EAC (Industry – I). The brief of which is given below:

Sl No.	Additional Detail Sought	Reply
i.	The project proponent has mentioned that there are two wildlife protected areas within 10 kms of the project site. However, they have clarified regarding their distance from the eco-sensitive zoneabout one protected area only. This needs to be clarified.	▪ Following National Park & Sanctuary falls within 10 km radius of the plant site: o Marine National Park(~2.9 km in NW direction) o Marine Sanctuary (~ 2.4 km in East direction) ▪ Eco-sensitive Zone of both the above mentioned protected areas have been notified *vide*MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013. ▪ The distance of the plant site from the notified Eco- sensitive zone is as given below: o Marine National Park Eco-Sensitive Zone (~2.7 km in NW direction) o Marine Sanctuary Eco-Sensitive Zone (~1.4 km in East direction) ▪ A map showing location of Plant site and Marine National Park & Marine Sanctuary within 10 km radius of the plant site along with their Eco-Sensitive Zones, has been Authenticated by Chief Wildlife Warden, *vide* Letter No.WLP/32/C/144-45/2018-19 dated 19thJune, 2018.
ii.	The project proponent has shown the distance of the project area from one of the wildlife protected area which shows that the protected area falls outside the eco- sensitive zone of the concerned wildlife area. However, on scrutinizing the Eco-Sensitive Zone Notification issued by the MoEF&CC, it was noted that the ESZ also extends in an area of 250 mtrs of either side of 31 rivers in that area. The project proponent has not made any clarification whether the project site falls in the eco-sensitive zone with respect to the 31 rivers. This needs to be clarified.	▪ As per MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013; ESZ also extends in an area of 250 mtrs of either side of 31 Rivers. ▪ Out of the rivers mentioned (at Page no.41 to 43)in the MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013*;* thenearestRiverisShamlasar River (Taluka Dwarka), which isat a distance of about 9.70 km in SE direction from the plant site. ▪ Hence, the plant site falls outside the boundary of ESZ of the Shamlasar River i.e. width of 250 meter from the centre of river. ▪ All other rivers are outside the 10 km radius study area of Plant Site.
iii.	The impact of the proposed expansion on the area of the Marine National Park and Marine	The impact of the proposed expansion on Marine National Park and Marine Sanctuary and its ESZ has been assessed by following methods:

Sl No.	Additional Detail Sought	Reply
	Sanctuary and its ESZ should be presented.	▪ *The Air Quality Impact Prediction impact of the proposed expansion (cumulative for Soda Ash, Captive Cogeneration Power Plant & Cement Plant)* Resultant concentration of air quality parameters is well within the prescribed standards. ▪ *Study on Impact of Discharge of Treated Waste Water.* Following studies have been conducted to assess the impact of proposed expansion project on marine life and sea water quality. ✓ Marine Impact Assessment Study conducted by Central Salt and Marine Chemicals Research Institute, Bhavnagar run by Council of Scientific and Industrial Research (CSIR) in October, 2017. ✓ Water Quality Modeling for Treated Waste Water Discharged into Sea (Mithapur Bay) conducted by M/s. Kadam Environmental Consultants, Vadodara. ▪ *Study on Impact on Biodiversity* Impact on Biodiversity has been studied and mitigation measures has also been proposed. The same has been given in Wildlife Conservation Plan; which is duly certified by CWW, Gujarat *vide* letter no. WLP/32/C/144-45/2018-19 dated 19th June, 2018.
iv.	There are a number of Archaeological sites in this area including Bed-Dwarka. The project proponent should make a presentation on the likely impact of project activities on the nearby sites.	As per secondary data available on website of Archeological Survey of India, followingare the archaeological important sites present in the area namely: ▪ Dwarkadhish Group of Temples (~18km in SW direction) ▪ Kshatrapa inscriptions (~ 18 km in SSW direction) ▪ Rukmini Temple(~16 km in SSWdirection) ▪ Dharashnvel Temple (Magderu) (~12.5 km in SSE direction) ▪ Guhaditya Temple (~11 km in SSW direction) ▪ Junagadhi (Jain) Temple (~ 9 km in SSW direction) ▪ Kankeshwar Mahadev Temple (~8.5 km in S direction)

Sl No.	Additional Detail Sought	Reply
		The impact of project activities on the nearby sites (10 km radius study area) has been assessed through Mathematical Modeling. Resultant concentration of air quality parameters is well within the within the prescribed standards.
v.	The project proponent should submit a plan for setting up of a monitoring system in collaboration with the State Forest Department for monitoring the air and sea water quality from the point of view of conserving marine biodiversity.	TCL will support and resource for monitoring system that would be setup by the state forest department for monitoring parameters of air and sea water quality related to conserving marine biodiversity. Rs. 25 lacsarebeing proposed towards this project which will be taken up as per guidelines of state forest department.
vi.	The project proponent shall revise action plan related to the issues raised during the public hearing.	Revised action plan related to the issues raised during the public hearing has been prepared and the same has been submitted.

Observations and recommendations of the Committee:

After detailed deliberations, the Committee noted that the marine sanctuary was declared in 1982 and finally notified in 1987. The effluent discharge from the integrated chemical complex has been disposed through channels to the sea i.e., marine sanctuary since 1967. The passage of channel involves notified forest land. The project proponent obtained the recommendations of Standing Committee of National Board for Wildlife (SCNBWL) for construction of pipelines to discharge effluent beyond the sanctuary into the sea. The ROW of pipelines proposed through the forest land is pending for clearance under FCA, 1980 and the matter is under sub-judice in the Hon'ble High Court of Gujarat.

Therefore, Committee decided to consider the proposal only after the aforesaid Forest Clearance is received.

35.6. Change in Product mix with Modernization and Optimization of production Capacity under para 7(ii) of EIA Notification in Induction Furnace and Rerolling Mill located at Village: Sondra, Block- Dharsiwa; Tehsil-Raipur by M/s Maruti Ferrous Private Limited [Online proposal No. IA/CG/IND/74943/2018; MoEFCC File No. IA-J-11011/270/2018-IA-II(I)].

1.0 M/s Maruti Ferrous Private Limited submitted online application vide proposal No. IA/CG/IND/74943/2018 dated 27th August, 2018 for Change in Product mix with Modernization and Optimization of production Capacity under para 7(ii) of EIA Notification in Induction Furnace and Rerolling Mill located at Village: Sondra, Block- Dharsiwa; Tehsil-Raipur **by M/s Maruti Ferrous Private Limited.**

Observations of the Committee:

i. The existing project was accorded environmental clearance by the Ministry of Environment, Forest and Climate Change (MoEF&CC) vide letter no. J-11011/592/2007-IA (I) dated 10/01/2007 to M/s. Maruti Ferrous Pvt Ltd for expansion of Steel Ingots and Billets (36,000 TPA to 96,000 TPA) and manufacture of Re-rolled products (60,000 TPA) at Village Sondra, Tehsil Raipur, District Raipur, Chhattisgarh under the provisions of EIA Notification, 2006.
ii. As per the EC accorded, the Public hearing has not been conducted during the life of the project.
iii. As per the Ministry's O.M. No. J-11013/36/2014-IA-I dated 4/04/2016, Public consultation for metallurgical industries (ferrous and non-ferrous) is mandatory irrespective of the location in or outside a notified industrial area /estate/region.

Recommendations of the Committee:

After detailed deliberations,the Committee on due diligence opined that requirement of preparation of EIA/EMP report and public consultation is necessary. Therefore, the Committee decided not to recommend the instantproposal of M/s. Maruti Ferrous Private Limited under the provisions of para 7(ii) of EIA Notification, 2006.

35.7. Greenfield integrated cement project (clinker 4MTPA, cement 6 MTPA, CPP 60MW and WHRB 15 MW) of M/s UltraTech Cement Limited located at village Petnikote, Mandal Kolimigundia, Dist.Kurnool, Andhra Pradesh. [Proposal No. IA/AP/IND/4818/2011; MoEFCC File.No. J-11011/404/2011-IAII(I)] – Further consideration for Environmental Clearance based on reply on ADS.

1.0 **M/s UltraTech Cement Limited** made application vide online proposal no.IA/AP/IND/4818/2011 dated 20th December 2015 along with along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level. The proposal was considered by EAC (Industry-I) in its 5th EAC meeting for Environmental Clearance held on 30th - 31st March, 2016 wherein it was advised to revisit the EIA / EMP Report and submit the revised one for further consideration. The PP submitted the hard copy of Final EIA / EMP Report (updated) after incorporating details suggested by the committee for obtaining Environmental Clearance to Ministry of on 10/04/2017.

Details of the project as per the submission of Project Proponent:

2.0 The proposed Greenfield Integrated Cement Project - Clinker (4.0 MTPA), Cement (6.0 MTPA), Captive Power Plant (60 MW) and WHRB (15 MW) of M/s. Petnikota Cement Works (A Unit of UltraTech Cement Ltd.) located at Village: Petnikota, Mandal: Kolimigundla, District: Kurnool (Andhra Pradesh) was initially received in the Ministry on 22nd June, 2011 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 30th meeting held on 29thNov.,2011 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 22nd Dec., 2011 vide letter no. J-

11011/404/2011-IA.II(I) and extension of validity of the same for another one year has also been obtained from MoEFCC, New Delhi on 01st April, 2015.

3.0 The project of M/s. Petnikota CementWorks(A Unit of UltraTech Cement Ltd.) located at Village: Petnikota, Mandal: Kolimigundla, District: Kurnool (Andhra Pradesh) is for setting up of a new Greenfield Integrated Cement Project for production of Clinker (4.0 MTPA), Cement (6.0 MTPA), Captive Power Plant (60 MW) and WHRB (15 MW). The proposed capacity for the different products for new site area as below:

Name of Unit	Production Capacity
Clinker (MTPA)	4.0
Cement (MTPA)	6.0
CPP (MW)	60
WHRB (MW)	15

4.0 Total land required for the project is 431.92 ha; which is private and Govt. Land and totally under the possession of M/s. Petnikota Cement Works (A Unit of UltraTech Cement Ltd.). No forest land is involved. No River passes through the project area. It has been reported that no water bodyexist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is almost flat and reported to lies between 15° 03' 28" to 15° 05' 00"N Latitude and 78° 04' 05"to 78° 05' 31" E Longitude in Survey of India toposheet no. 57 I/4, 57J/1 and 57E/16 at an elevation of about 230 - 390 m. The ground water level reported to ranges between 7 m to 37 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the stage of groundwater development in the area is reported to 50.8% and thereby, these are designated as Safe area.

6.0 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 list of flora and fauna provided through the Primary survey and Secondary data does not reports the presence of Schedule-I fauna in the 10 km study area (Chapter 3, Pg. No. 90 - 94 of Final EIA/EMP Report).

7.0 The raw materials required for the proposed project are Limestone, Gypsum, Fly ash, Slag, Bauxite / Laterite and Iron Ore. Cement Plant is based on Dry Process Technology for Cement manufacturing with Pre- Heater and Pre- Calciner Technology. The type of cement manufactured will be OPC, PPC and PSC. The cement manufacturing process largely comprises of the steps such as transportation of limestone from Captive Limestone Mine to Cement Plant; Raw Mix preparation; Raw Mix homogenization; Coal preparation; Calcination and Clinkerization; Clinker Grinding; and Cement Packing and Dispatch. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Clinker (4.0 MTPA), Cement (6.0 MTPA), CPP (60 MW) and WHRB (15 MW). Limestone will be sourced from the Captive Limestone Mine; which will be sourced from through covered conveyer belt. Bauxite / Laterite from AP and

Karnataka, Iron Ore from AP and Karnataka andGypsum from Sterilite, Fact; which will be transported through road.

9.0 Water requirement for the project is estimated as 3500m^3/day; which will be sourced from Ground Water and Mine Sump Water (after development of pits).

10.0 Total power requirement for the project is estimated as 75 MW; which will be sourced from Proposed CPP (60MW) and WHRB (15MW), Grid (in case of Emergency).

11.0 Baseline Environmental Studies were conducted during Winter Season i.e. from Dec.,2014 to Feb., 2105. Ambient air quality monitoring was carried out at 8 locations during 01stDec.,2014to 28thFeb., 2015 and the data submitted indicated: PM_{10} (45.9 to 68.6 µg/m^3), $PM_{2.5}$ (19.3 to36.1), SO_2 (6.2 to 12.0 µg/m^3) and NO_2 (10.9 to 19.5 µg/m^3).The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 4.73 µg/m^3 with respect to the PM, 6.44µg/m^3 with respect to the SO_2, 3.58µg/m^3 with respect to the NO_x.

12.0 Ground water quality has been monitored at 8 locations in the study area and analyzed. pH: 7.05 to 7.33, Total Hardness: 221.67 to 440.82 mg/l, Fluoride: 0.49 to 1.50 mg/l. Heavy metals are within the limits. No water body exists within the 10 km radius of project area.

13.0 Noise levels are in the range of 48.5 to 52.4 Leq dB(A) for day time and 41.3 to 43.6 Leq dB(A) for night time.

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

15.0 No solid waste will be generated in the cement manufacturing process. Dust collected from various air pollution control equipments will be totally recycled back into the process. STP Sludge will be utilized as manure for greenbelt development within the plant premises. Used oil & grease and empty barrels will be generated from plant machinery / Gear boxes; which will be sold out to the CPCB authorized recycler / co-processing in kiln. It has been envisaged that an area of 142.53 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.

16.0 This is proposed Cement Plant and Consent to Establish / Operate will be obtained from Andhra PradeshPollution Control Board after getting Environmental Clearance from MoEFCC, New Delhi.

17.0 Public hearing of the project was conducted on 10th December 2015 atSy. No. 226/1, 226/2, 226/3, 226/4, 226/5, 229, 230, 233, 1224, 1236, 1237, 1238, 1240, 1241/1, 1241/2, 1241/3 and 1242/1, Petnikota (V) Kolimigundla (M), Kurnool District, Andhra Pradesh under the chairmanship of Shri C. Hari Kiran (IAS, Joint Collector &Additional District Magistrate, Kurnool) for Proposed Cement Project having production capacity of Clinker (4.0 MTPA), Cement (6.0 MTPA) and CPP (60 mw) and WHRB (15 MW) under the Andhra Pradesh Pollution Control Board. The issues raised during public hearing are employment, environment, education, health, plantation, CSR activities related etc.

18.0 An amount of Rs. 12500Lacs (5% of the Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

S. No	Activity Heads	Years / (Rs. in Lacs)										Total
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
1.	Education	178	214	273	312	323	330	277	203	188	168	2461
2.	Health and Family Care	204	212	240	245	280	299	246	248	219	213	2405
3.	Sustainable Livelihood	259	290	313	328	341	366	297	287	260	224	2963
4.	Infrastructure Development	301	309	324	338	365	376	341	310	284	262	3210
5.	Social Causes	130	144	150	163	172	181	151	138	124	109	1462
Grand Total (Year Wise)		**1072**	**1169**	**1300**	**1385**	**1479**	**1552**	**1311**	**1185**	**1075**	**975**	**12500**

19.0 The capital cost of the project is Rs. 2500 Crores and the capital cost for environmental protection measures is proposed as Rs. 150 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1500Lacs / annum. The employment generation from the proposed project is 900 persons. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S. No.	Particulars	Capital Cost	Recurring Cost / annum
1.	Air Pollution Control equipments (ESP/Bag Filters)	100	10
2.	Stacks for dispersion of air	20	1
3.	Ash handling system	15	1
4.	Water Pollution Control (ETP and STP)	3	1
5.	Sanitary works	1	0.3
6.	Solid waste management	1	0.2
7.	Greenbelt / Plantation development	1	0.5
8.	Monitoring equipment/Monitoring (Including Online Monitoring System)	9	1
Total		**150**	**15**

20.0 Greenbelt will be developed in 142.53 ha;which is about 33% of the total project area. Greenbelt will be developed along the plant boundary as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a proposed density of 2500 trees per hectare. Total no. of 3,56,325 saplings will be planted and nurtured in 142.53 hectares in 5 years.

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

22.0 Name of Consultant -J.M. EnviroNet Pvt. Ltd. S. No. in QCI List- "90" (as updated on 05th Sept., 2018).

Recommendations of the committee:

23.0 After detailed deliberations and hearing the verbal and written submissions of the project proponent, the Committee recommended the proposal for grant of environmental clearance with the following specific and general conditions:

Specific Conditions:

i. The water requirement of the plant will be met from rain water harvesting reservoir and the stored rain water from the mine pits. No ground water will be abstracted nor the permission will be taken for the same during operation of the plant.

ii. Plantation will be developed on either side of the approach road to Belum caves from the plant site.

iii. Overhead conveyor belt across the State Highway shall be constructed to transport the material from mine pit head to plant or else alternate route shall be constructed without disturbing the State Highway in the vicinity of plant due to the traffic load.

iv. An amount of INR 125 Crores will be earmarked for Corporate Environmental Responsibility will be spent in 7 years.

v. No spent catalyst/ paint sludge containing lead should not be used as an alternative fuel.

General Conditions:

i. Statutory compliance:

  i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

  ii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time

ii. Air quality monitoring and preservation

i. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual;)

iii. Water quality monitoring and preservation

i. 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.

ii. Adhere to 'Zero Liquid Discharge'

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

iv. The project proponent shall practice rainwater harvesting to maximum possible extent.

iv. Noise monitoring and prevention

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

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

v. Energy Conservation measures

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

ii. Kitchen waste shall be composted or converted to biogas for further use.(*to be decided on case to case basis depending on type and size of plant*)

vii. Public hearing and Human health issues

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

ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

viii. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

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

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

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out

vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

ix. Miscellaneous

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

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

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

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

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

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

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

iii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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

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

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

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

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

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

xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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.

35.8. Expansion of Integrated Steel Plant (16 MTPA to 18 MTPA) and captive power Plant 1490 MW Located at Vijayanagar Works Toranagallu Village Ballari District, Karnataka by M/s JSW Steel Limited [Online proposal No. IA/KA/IND/75530/2018; MoEFCC File No. J-11011/489/2009-IA.II(I)] – Terms of Reference –Reconsideration based on site visit by sub-committee of Expert Appraisal Committee.

1.0 M/s.JSW Steel Limited, Vijayanagar Works, Ballari made an application vide online proposal no. **IA/KA/IND/75530/2018**dated 22nd June 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

Details submitted by the project proponent:

2.0 M/s.JSW Steel Limited, Vijayanagar Works, Ballari proposes to expand existing manufacturing unit for Steel. It is proposed to expand the production capacity of its Integrated

Steel manufacturing Plant from 16 MTPA to 18 MTPA based on technology BF- BOF/ EAF Route.

3.0 The existing project was accorded environmental clearance vide Fl.no. J-11011/489/2009-IA.II(1) dated 1/10/2015 and subsequent amendments 9.6.2016,22.01.2018 and 29.05.2018 Consent to Operate was accorded by Karnataka State Pollution Control Board vide Combined Consent Order No. 126/PCB/MIN/CFO/2016-17/OB/318 dated 20 June 2016 validity of CTO is up to 30th June 2021.

4.0 The proposed unit will be located at Village:Toranagallu, Taluka: Sandur , District: Ballari , State: Karnataka.

5.0 The land area is an industrial land and is currently in ownership of JSW Steel. The total land area is about 3091.8 ha (7640 acres) and the proposed expansion is located over an area of about 182.1ha (450 acres) within the overall plant area, utilizing the existing infrastructure and utilities. No additional land was acquired for the proposed plant. No forest land is involved. The entire land has been acquired for the project. Of the total area 1020 ha (33%) land is being used for green belt development.

6.0 The Daroji Bear Sanctuary is located within a distance of 10Km from the site. No National Park/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.

7.0 Total project cost is approx 19621 Crore rupees. Proposed employment generation from proposed project will be 1200 direct employment and 1200-1500 indirect employment.

8.0 The targeted production capacity of the Steel Plant is18 million TPA. The ore for the plant would be procured from JSW captive mines and other sources through e-auction. (linkages). The ore transportation will be done through Rail, Road, Pipe Conveyor. The proposed capacity for different products for new site area as below:

List of facilities as existing now after amendments and those proposed in the expansion to 18 MTPA								
Sl no	**Name of the Unit**	**Facilities at various stages of expansion in MTPA**				**Total Capacity (at 16 MTPA)**	**Facilities Proposed (at 18 MTPA)**	**Total Capacity (at 18 MTPA)**
		4 - MTPA	**4-10 - MTPA**	**10-16 - MTPA**	**At 16 MTPA**			
1	Ore beneficiation Plant - product	OBP-1 1 X 4.5	OBP-2 1X 2.5 , 1X 5.0 & 1 X 7.5,	Nil	1 X 4.5 1X 2.5 1X 5.0 1 X 7.5	19.5	**OBP-1 facilities to be Relocated to OBP-2**	19.5
2	Pellet Plants	PP1- 1-5.0	PP-2- 5.0	Nil	PP 1 & 2 2 X 5 .0	10	**PP-3 6.8**	16.8

3	Sinter Plants	SP1	SP 2 -2.3 SP 3- 7.5	SP4 - 2.3 SP5 - 1.75 SP6 - 5.75	SP1-6 3X 2.3 2 X 5.75 1 X 1.75	20.15	**SP-5: 2.3 SP-6: deferred in lieu of PP-3**	14.95
4	Coke Oven – NR	CO 1 &2 2 X0.64 1.28	Nil	Dismantling of Existing NR Coke Oven	0	0	No addition	0
5	Coke Oven – Recovery type	Nil	Coke 3 - 1.5	CO 1&2 - 1.5	CO 1-5 2X1.5 1X2.0 1X3.0	8.0	No addition	8.0
6	Hot metal – Corex	Corex 1 &2 2X0.8	Nil	Nil	Corex 1-2 2 X 0.8	1.6	No addition	1.6
7	Hot metal-Blast Furnace	BF-1-2.5 BF-2-2.17	BF 3 & 4 2 X 3.0	BF-3-4.4 BF-5-3.0	BF 1 -5 1X 2.5 1X 2.17 1X4.4 2X 3.0	15.07	**BF-5 of 3.0 MTPA to be built as 4.5 MTPA**	16.57
Sl no	**Name of the Unit**	**Facilities at various stages of expansion in MTPA**				**Total Capacity (at 16 MTPA)**	**Facilities Proposed (at 18 MTPA)**	**Total Capacity (at 18 MTPA)**
		4 - MTPA	**4-10 - MTPA**	**10-16 - MTPA**	**At 16 MTPA**			
8	Pig Casting Machines (TPD)	1200	7200	3600	12000	12000	MGP-5000 tpd	17000
9	Crude steel - BOF, EAF & auxiliaries	SMS1 3.80	SMS2 6.0	SMS2 - 6.4 SMS 3 & 4-5.6 2X200 T BOF +2X1.2 EAF	SMS1-4 1X3.8 1X6.4 1X3.0 1X2.6	15.8	**SMS-3: In place of 1 EAF, 1 ZPF is considered SMS-4 will be changed from 2 x 200T to 2 x 350T & will operate at 4.8 mtpa**	18
10	Lime Kiln (TPD)	LCP-1 4x300	LCP-2 4X300	LCP-3 4 x 600	LCP 1- 4 8 X 300	7200	No addition	7200

			,4X600		8 X 600			
11	Slab Caster	3.2	6.4	SMS-3-1 X1.6 SMS-4-1X3.6	Slab Caster 1-4 14.8	14.8	SMS-4 slab caster changed from 1 x 3.6 mtpa to 2 x 2.5 mtpa	16.2
12	Billet caster	Nil	SMS-2 1.5	SMS-3 3.0	4.5	4.5		4.5
13	HSM	HSM 1 1X4.0	HSM-2 1X5.2	HSM-3 1X3.6	HSM1-3 12.8	12.8	**HSM-3 upgraded to 5.0**	14.2
14	Plate Mill	Nil	Nil	Nil	Nil	Nil	No addition	Nil
15	Pipe Mill	Nil	0.4	Nil	1X 0.4	0.4	No addition	0.4
16	Wire rod mill	Nil	WRM-1 1x0.6	WRM-2 1.2	WRM 1-2 1X0.6, 1X1.2	1.8	No addition	1.8
17	Rebar & Section mill	Nil	BRM-1 1X1.0	Nil	BRM-1 1.0	1	**New BRM-2 of 1.2 MTPA**	2.2

Sl no	**Name of the Unit**	**Facilities at various stages of expansion in MTPA**				**Total Capacity (at 16 MTPA)**	**Facilities Proposed (at 18 MTPA)**	**Total Capacity (at 18 MTPA)**
		4 -MTPA	**4-10 - MTPA**	**10-16 - MTPA**	**At 16 MTPA**			
18	Cold Rolling Mill Complex		CRM-1-1.8 CRM-2-2.3	Nil	CRM1&2 4.1	4.1	**CRM-3 of 2.3 MTPA**	6.4
19	Galvanizing Lines	Nil	Nil	CGL-1-4X0.25 CGL-2-2X0.45 -	CGL 1&2 4X0.25 2X0.45	1.9	No addition	1.9
20	Color Coating Line	Nil-	0.5	Nil	0.5	0.5	No addition	0.5
21	Power Plant and process steam boilers in MW	CPP 1X100 CPP-2 1X130 all gas	CPP 3 &4 2X300 gas+coal	CPP5-1X660 coal	CPP 1-5 1X100, 1X130, 2X300,1X660	1490	No addition	1490
22	Incinerator	Nil	2 X	250kg/h	2 X 250kg/h	1000kg/h	No	1000kg/h

	(kg/hr)		250kg/h				addition	
23	Slag Grinding and mixing unit	CP-1 1X 0.2	Nil	CP-2 1X2.0	CP-1&2 1X0.2 1X2.0	2.2	No addition	2.2
24	Oxygen Plant (Out sourced)	1x2500 TPD=2500 TPD	2x1800 TPD + 1X900 TPD	2X1800 TPD	1 X 2500 TPD 4 X1800 TPD 1 X 900 TPD	10600 TPD	**1 x 2060(TP) 2 x 2200**	14860 TPD
25	Township (nos)	2 Units	2 Units	2 units	6 units	6 units	**1 unit**	7 units

9.0 The existing power requirements of various units including utilities and auxiliary facilities for the plant at 18 MTPA is 1412 MW. The available power from captive and from JSW EL is 1735 MW. Thus there is adequate availability of power for the steel plant operation at 18 MTPA stage. DG sets adequate capacities are proposed for the plant units as well as CPP, auxiliaries to cater to the requirement of safe shut down and safety of personnel during total back-out condition when power supplies to the plant network from both the sources viz. Grid and CPP have failed.

10.0 Proposed raw material and fuel requirement for project are given in the table below. The estimated annual requirements of major raw materials at 18.0 Mtpa is presented below.

Sl. No.	Major Raw materials	Estimated Quantity, tons
1	Iron ore (Lump)	7,310,000
2	Iron ore fines (Medium grade)	24, 100,000
3	Iron ore fines(High grade)	1,500,000
4	Limestone	6,350,000
5	Dolomite	3,500,000
6	Bentonite	150,000
7	Quartzite	370,000
Sl. No	Major Fuel	Estimated Quantity, tons
1	Coking Coal	8,340,000
2	PCI coal	3,320,000
3	Steam coal	1,500,000
4	Pet Coke for Coke ovens	900,000

The requirement would be fulfilled by indigenous as well as imported sources.

11.0. Water Consumption for the proposed expansion project will be 3,01,000 m3/d and the waste water generation will be 24000m3/ day. The existing water allocation 330000m3/day is sufficient to meet the expansion up to 18 MTPA stage. No fresh allocation is called for. Domestic waste water will be treated in Sewage treatment plants and industrial waste water will be treated in BOD plant of Coke ovens and two RO plants .The permeates recovered from the RO Plants will be reused as make up water replacement while the RO rejects will be reused in

slag quenching and dust suppression in RMHS. The treated STP water will be reused for green belt development.

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

13.0 The proposal was considered in the 33rd meeting of EAC (Industry-I Sector) was held during **9th to 11th July 2018.** The project proponent desired to make a number of changes in the production system for which the environment clearance was granted in 2015. The suggested changes were too many and appeared to be quite complex. The Committee, therefore, felt that this needs to be understood through a site visit of sub-Committee. In view of this, the Committee recommends that the decision on the application would be considered after a site visit by a sub-committee of the EAC. Accordingly, site visit was conducted during 20-23rd August, 2018.

14.0 The sub-committee submitted the report. The Committee recommended for ToR.

Recommendations of the committee:

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

i. Biodiversity and Plantation

1. JSW shall carry out biodiversity study in the existing campus and a Scheme for development of a biodiversity park inside JSW campus shall be prepared and implemented.
2. Plan for compensatory afforestation in lieu of trees to be cut from the proposed area (which is part of the present site with the Project Proponent) for expansion shall be prepared and implemented. Slag disposal area has poor plantation and the same shall be improved for which details shall be incorporated in EIA report.
3. Scheme for making treated waste water suitable and available for irrigation of plantations on nearby hills by Forest Department shall be prepared and included in EIA.

ii. Water and Waste Water Management

1. PP shall study the changes in quality of underground water around slag dump, slime pond and guard ponds area and present a comparison with yesteryear's data with interpretation as how the changes have taken place and what measures JSW proposes to control further deterioration of the quality of ground water affected by plant operations.
2. No additional water requirement has been indicated in the proposal. Water balance with details of water requirement at each production /maintenance/ service stage; waste water generation; quantity of treatment and recycle shall be incorporated in EIA report.
3. A scheme for treatment of waste water from SMS by CO2 injection to reduce pH of waste water and improve its recyclability shall be incorporated.

iii. Air Pollution Control and Monitoring

1. Scheme to minimise and control Dioxins/Furan emissions from sinter plants, charging and pushing emissions from Coke Ovens and mercury emissions from power plans shall be incorporated and implemented.
2. Roads leading to slag dump area are dusty. Scheme to control fugitive dust on all roads generated by plying of dumpers/trucks shall be incorporated in EIA report.

3. Scheme to effectively utilize the data acquired through CEMS shall be developed and presented in EIA report as part of EMP for online management and control of emissions. This should include the MIS for closing the non-conformity loop.

iv. Waste Management

1. JSW shall prepare a scheme for installation of a state-of-the-art Waste Recycling Plant (WRP) to process various types of slags and wastes generated in the plant to recover and recycle metallics, fluxes, aggregates and boulders.

2. Scheme to utilise SMS Slag as soil conditioner in water shed management area to supplement micro nutrients shall be incorporated.

3. Scheme to recover and recycle unburnt carbon from BF/Corex flue dust and GCP sludge shall prepared and incorporated in EIA.

4. Scheme to use steam and CO2 to age and fix the SMS slag for use as concrete for road making based on pilot tests being carried out at present in the plant shall be prepared and included.

5. Scheme to enhance waste utilisation from present level of 79 % to 100 percent with time schedule shall be prepared and included as EMP.

v. Energy Conservation

1. Scheme to reduce flare losses to less than 1 % shall be submitted.
2. Scheme to recover waste heat from SMS 3 (160T EAF) shall be incorporated as a measure to reduce SEC.

vi. Hydrology

1. Hydrology study of the study area to map aquifers, their capacity , recharge potential and rain water harvesting scheme to replenish depleting ground water table shall be prepared and incorporated.

vii. Social Impact Assessment.

1. Social Impact Assessment shall be carried out in the study area as per IFC guidelines and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

viii. Public Hearing to be conducted by the concerned State Pollution Control Board.

ix. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

x. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

35.9. Setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant near Paradeep, Jagatsinghpur district, Odisha by M/s JSW Utkal Steel Limited [Online Proposal No. IA/OR/IND/74396/2018; MoEFCC File No. IA-J-11011/524/2017-IA-II(I)] – Terms of Reference.

M/s JSW Utkal Steel Limited made application vide online proposal no. **IA/OR/IND/74396/2018** dated 13/08/2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006 and appraised at the Central Level.

Details of the project as per the submission of Project Proponent:

2.0 M/s. JSW Utkal Steel Limited proposes to install a newcoast based Integrated Steel Plant for production of 13.2 MTPA crude steel, 900 MW power & 10 MTPA cement (grinding and mixing only). It is proposed to set up the plant based on BF/DR-BOF-Caster route technology.

3.0 Proposed project is a Greenfield project, hence no environmental clearance or Consent to Operate was accorded by MoEF&CC or State Pollution Control Board. The proposed unit will be located near Paradeep at Villages: Polanga, Govindpur, Dhinkia, Nuagaon, Bayanala Kanda &Jatadhar, Taluka: Ersama, District: Jagatsinghpur, State: Odisha

4.0 The land area required for the proposed plant is 1206 Ha. Out of 1206 Ha, 136.47 ha is non forest Government Land and 1069.53 ha is forestland. The entire land has been allocated for the project by Govt. of Odisha. Of the total area, 398 ha (33%) land will be used for green belt development. The latitude and longitude of the project site is 20°11' N to 20°13' N & 86°30' E to 86°35' E respectively.

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

6.0 Total project cost is approximately INR 65,000 Crore rupees. Proposed employment generation from proposed project will be 12000 direct employments and 45000 indirect employments.

7.0 The targeted production capacity of the Integrated Steel Plant is 13.2 MTPA crude steel, 900 MW power & 10 MTPA cement (grinding and mixing only). The ore for the plant would be procured from Joda-Barbil and Koira mines region as well as in the form of slurry from the 30 MTPA grinding and desliming unit to be set up near Joda. The ore transportation will be donethrough Rail/Road &Slurry Pipeline. The proposed capacity for the various facilities of the proposed project are as below:

Sl. No.	Unit	Facility		Production, MTPA
1	Slurry dewatering system	Thickener, Filtration (pressure filter) with water recovery system		30.0
2	Coke oven	8 x 62 ovens block, 6.25 m tall stamp charged, CDQ		6.0
3	Sinter plant	1 x 500 m sq.		5.775
4	Pellet plant	4 x 8.0 MTPA Grinding Unit – 180 TPH		32.0
5	DRI	1 x 1.2 MTPA		1.2
6	Blast furnace	3 x 5,350 cum		13.5
7	Steelmaking Shop (SMS)	SMS-1 3 x 350 t BOF 3 x 350 t LF 2 x 350 t RH	SMS-2 2 x 180 t BOF 2 x 180 t LF 1 X 180 t RH	13.49
8	Caster Shop	Slab Caster - 3 x 2 strand Billet Caster - 1 x 8 strand Billet/Bloom Caster - 1 x 6 strand		13.2

Sl. No.	Unit	Facility	Production, MTPA
9	Flat Product Mills	Plate Mill - 1 x 1.5 MTPA Hot Strip Mill - 2 x 5.5 MTPA Tinplate Coil - 2 X 0.25 MTPA Silicon Steel - 2 X 0.25 MTPA Cold Rolling Mill - 2 x 2.3 MTPA - Pickling line tandem cold mill(PLTCM)-2x2.3 MTPA - Continuous Annealing Line (CAL) - 2x1.0 MTPA - Continuous Galvanizing Line CGL - 4x0.5 MTPA - Colour coating Line CCL - 4x0.25 MTPA	9.74
10	Long Product Mill	Rebar mill - 1 x 1.2 MTPA Wire Rod Mill - 1 x 0.6 MTPA Medium Section Mill - 1.0 MTPA	2.8
11	Calcining Plant	6 x 600 TPD Lime Calcining Plant 1 x 600 TPD Dolo Calcining Plant	0.97 0.13
12	Cement Plant	Grinding, mixing of slag, clinker & fly ash	10.0
13	Captive Power Plant	By-product gas and coal based 3 x 300 MW	900 MW
14	Air Separation Plant	6 x 2,100 TPD	12,600 TPD
15	Tar processing plant	Distillation units for producing Carbon Black Oil, Anthracene Oil, Naphthalene, Wash Oil and Pitch	300,000 TPA
16	Benzol Refining Plant	Distillation units for producing BTX and other value added products	100,000 TPA

8.0 The average electricity load of 1350 MW will be generated from 3 x300 MW captive power plant, CDQ & TRT and balance procured from Grid. Company has also proposed to install adequate number of DG Sets for exigencies.

9.0 Proposed raw material requirement for project are as follows

Sl. No.	Major Raw materials	Estimated Quantity, MTPA	Source	Mode of transport
1	Coking Coal and Pet Coke	7,831,900	International market	Sea
2	Anthracite	192,000	International market	Sea
3	Iron ore (Lump)	1,187,900	Procured from the Joda-Barbil and Koira mines region, Odisha	Rail (50%)/ Road(50%)
4	Iron ore concentrate	30,000,000	Captive Iron ore grinding &desliming plant, Joda	Slurry Pipeline
5	Iron ore fines	4,695,300	Procured from the Joda-Barbil	Rail

Sl. No.	Major Raw materials	Estimated Quantity, MTPA	Source	Mode of transport
			and Koira mines region, Odisha	
6	PCI coal	2,700,000	International market	Sea
7	Limestone	4,934,500	BF grade - Purchased frommines inBagalkot area, Karnataka /Central India (Jukehi-Katni-Niwar area) SMS grade- Imported from Middle-East Countries (UAE & Oman)	Sea (55%)/Rail (35%)/Road (10%)
8	Dolomite	2,350,100	International market/Domestic	Sea(15%)/Rail(70%)/ Road(15%)
9	Steam coal	2,700,000	Procured from Mahanadi Coalfields Limited (MCL) and South Eastern Coalfields Limited (SECL)	Rail
10	Bentonite	320,000	International market	Sea
11	Quartzite	270,000	International market/Domestic	Sea(10%)/Rail(50%)/ Road(40%)
12	Clinker	5,116,000	International market/Domestic	Sea
13	Gypsum	232,000	Domestic	Rail (50%)/Road(50%)

The requirement would be fulfilled from domestic as well as international sources. Fuel consumption will be mainly steam coal for power generation and by-product gases like BF Gas, Coke Oven Gas and LD Gas for various in plant uses.

10.0 Net makeup water requirement for the proposed project will be 9200 m^3/hr (Water source Jobra barrage) and waste water generation will be 2200 m^3/hr. Domestic waste water will be treated in STP and industrial waste water generated will be treated in CETP and reused as plant makeup water

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

Recommendations of the committee:

12.0 After detailed deliberations, the Committee recommended that a sub-committee of EAC shall visit the proposed steel plant project site and, thereafter, the proposal would be considered for grant of Terms of Reference.

35.10. Installation of Iron Ore Grinding and Desliming Plant of capacity 30 Million Metric Tons Per annum (MTPA) near Joda in Keonjhar District, Odisha along with transportation of iron ore slurry through pipeline of about 312 km from Joda to Integrated Steel Plant (ISP) near Paradeep, Odisha by M/s JSW Utkal Steel Limited [Online Proposal No. IA/OR/IND/74415/2018; MoEFCC File No. IA-J-11011/271/2018-IA-II(I)] – Terms of Reference.

M/s JSW Utkal Steel Limited made application vide online proposal no. **IA/OR/IND/74415/2018** dated 13/08/2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 2(b) Mineral beneficiation under Category "A" EIA Notification; 2006 and appraised at Central Level.

Details of the project as per the submission of Project Proponent:

2.0 M/s. JSW Utkal Steel Limited (JSWUSL) proposes to install an Iron Ore Grinding & De-sliming Plant for production of 30.0 MTPA iron ore concentrate product in dry metric tons. It is proposed to set up the plant based on wet grinding & de-sliming technology. Proposed project is a Greenfield project, hence no environmental clearance or Consent to Operate was accorded by MoEFCC or State Pollution Control Board

3.0 The proposed unit will be located near Joda at Village: Govardhanpur, Taluka: Barbil, District: Keonjhar, State: Odisha.

4.0 The land area required for the proposed plant is 158.676Ha. Out of 158.676 ha, 80.29 ha is private land, 25.54 Ha is Government Non forest Land and 52.846 ha of forestland is also involved. Out of 158.676 Ha land, 74.336 Ha of land has already been transferred to JSWUSL. Of the total area 52.36 ha (33%) land will be used for green belt development. The latitude and longitude of the project site is 22°03' N to 22°04' N &85°27' E to 85°28' E respectively.

5.0 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.

6.0 Total project cost is approx. INR 4243 Crore rupees. Proposed employment generation from proposed project will be 200direct employments and 300 indirect employments.

7.0 The targeted production capacity of the Iron Ore Grinding & De-sliming Plant would be 30.0 MTPA iron ore concentrate product in dry metric tons. The ore for the plant would be procured from Joda-Barbil and Koira mines region. The iron ore slurry produced would be transported through a 312 kmSlurry Pipeline to JSWUSL's ISP near Paradeep.

The proposed capacity for the various facilities of the proposed project are as below:

No	Name of Unit	No of Units	Unit	Capacity of each Unit	Production Capacity
1	**Crushing Unit**				

No	Name of Unit	No of Units	Unit	Capacity of each Unit	Production Capacity
	Jaw Crusher	1	TPH	200	200
	Double Deck Vibrating Screen	6	TPH	900	5400
	Cone Crusher	4	TPH	150	600
2	**Primary grinding Section**				
	Storage bins	12	Tonnes	650	7800
	Belt feeders	12	TPH	650	7800
	Primary Screw Scrubbers	36	TPH	650	23400
	Vibrating Screens	6	TPH	975	5850
	Primary ball mils	6	TPH solids of Circulating Load	672	4032
	Secondary screw scrubbers	36	TPH	672	24192
3	**De-sliming Section (Module 1 & Module 2)**				
	De-sliming Hydro cyclones	60	TPH solids	130	7800
	Intermediate thickener (High rate)	3	TPH	97	291
	Attrition scrubber	18	TPH	97	1746
	Linear screen	6	TPH	97	582
	MIMS	24	TPH	97	2328
	WHIMS	3	TPH	97	291
4	**Regrinding Section**				
	Regrinding ball Mills	6	TPH solids	501	3006
	Close circuit Hydro cyclones	60	TPH	694.5	41670
	Derrick stack sizer screens	24	TPH solids	1011	24264
5	**Dewatering and slimes disposal Section**				
	Concentrate thickeners (high rate)	4	TPH solids	1249	4996
	Slime thickener (high rate) For Module 1 & 2 only	3	TPH solids	50	150
	Slime thickener (Paste) For Module 1 & 2 only				

Details of Raw Material Handling System (RMHS) is as below-

S.No	Description	UOM	Capacity
1	Material to be Handelled	**Iron Ore**	
2	Size of the Ore to be handelled**(95%(-10mm), 5%(+10mm))**	mm	-10
3	Bulk Density of Iron Ore (IMMT)	T/Cu.M	2.1
4	No of Days of Operation	Days	330
5	Total Raw Material Handling per Annuam	MTPA	33.48
6	Material Handelled by Rail (50%)	MTPA	16.32
7	Material Handelled by Road (35%)	MTPA	10.74
8	Material Handelled by Pipe Conveyor (15%)	MTPA	6.42
9	Pipe Conveying Capacity	TPH	811
10	Stock @ Yard	Days	14
11	Req. Stock Material / 14 Days	T	1315152
12	Req. Stock Yard Capacity	T	1315152
13	Height of Stock Pile	mts	10
14	Width of the stock Pile	mts	50
15	Stock Yard Pile Size & Capacity (As per DWG) (4 Bays x 50 mts Wide x 700mts Length x 10 mts Height)	T	1470000
16	No of Rakes required / day	Nos	13
17	Rake Capacity	T	3800
18	Rake Turn around time	Hrs	3.5
19	Material handelled by Rake per Day	T	49400
20	Material Handelled by Truck per day	T	32545
21	Avg. Truck /Dumper capcaity	T	20
22	No of Trucks to be Handelled per Day	Nos	1627
23	No of Twin Boom Stackers (TWS) required RMHS stock Yard	Nos	1
24	No of Single Boom Stackers (SBS) required RMHS stock Yard	Nos	2
25	Capacity of each stacker	TPH	4000
26	No of Wheel On Boom Reclaimers(WBR) required RMHS stock Yard	Nos	3
27	No Of Weigh Bridge 60T	Nos	10
28	No Of UnLoading Station BOXN Wagon / BOBSN (Side Discharge)	Nos	3
29	In Motion Weigh Bridge-Rail	Nos.	1

8.0 The electricity load of 106 MW will be procured from JSW Energy and Grid power. Company has also proposed to install adequate number of DG Sets for exigencies.

9.0 Proposed raw material requirement for project is 31.8 MTPA of iron ore.The requirement would be fulfilled from the Joda-Barbil&Koira mines region.

10.0 Net makeup water requirement for the proposed project will be 2940 m^3/hrwith peak requirement of 4000 m^3/hr. Water requirement will be met from river Baitarani. Domestic waste water will be treated in STP and reused for low end purposes and industrial waste water recovered from slime (paste thickener) & surface run off will be treated and reused as plant makeup water.

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

Recommendations of the committee:

12.0 After detailed deliberations, the Committee recommended that a sub-committee of EAC shall visit the proposed project site and, thereafter, the proposal may be considered for grant of Terms of Reference.

35.11. Expansion of Integrated Cement Project - Clinker (9.5 MTPA to 13 MTPA), Cement (12 MTPA to 16 MTPA), & WHRB (30 MW to 45 MW) near Villages Sangaria, Borakheri, Peerkhera and Rasulpura, Tehsil Nimbahera, District Chittorgarh, Rajasthan by M/s Wonder Cement Limited [Online proposal No. IA/RJ/IND/75170/2018; MoEFCC File No. J-11011/298/2012-IA-II(I)] – Terms of Reference - Further consideration based on reply to ADS for Terms of Reference.

1.0 M/s Wonder Cement Limited made application vide online proposal no.IA/RJ/IND/75170/2018 dated 26th May 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) cement plants under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

2.0 M/s. Wonder Cement Limited proposed for expansion of cement plant with enhancement of production capacity of Clinker (9.5 MTPA to 13 MTPA), Cement (12 MTPA to 16 MTPA), & WHRB (30 MW to 45 MW). It is proposed to set up the expansion plant units for cement manufacturing based on dry process technology.

3.0 The existing project was accorded environmental clearance for Integrated Cement Projectfor Line-I, Line II and Line III vide Letter No.: J-11011/506/2007-1A II(I) dated 12th June, 2008, J-11011/298/2012-IA.II(I) dated 21st February, 2014 and expansion vide even letter number dated 17th March 2016 respectively. Consent to operate has been granted by Rajasthan Pollution Control Board for existing plant Line I and plant Line II vide letter no. 2016-2017/CPM/4768 dated 31-1-2017 with validity of CTO up to 31-1-2022 and letter no. 2015-2016/CPM/3355 dated 18-9-2015 with validity of CTO up to 31-8-2018 respectively. CTE of plant Line III was granted vide letter no. 2018-2019/CPM/5157 dated 12-4-2018 with validity up to 31-12-2022.

4.0 The proposed unit will be located in the premises of existing cement plantnear Villages Sangaria, Borakheri, Peerkhera and Rasulpura,Nimbahera Tehsil, Chittorgarh District, Rajasthan.

5.0 The total area of land of existing plant is 191.064 ha; no additional land is required for the proposed expansion as the same will be done within the existing plant premises by installation of new Line-IV. Existing area is under the possession of WCL. Out of the total area of 191.064 ha, 37 % land i.e. 71 ha will be used for green belt development. Break up of plant area is given below:

Details	**Area (ha)**		**Total**
	Existing	**Proposed**	
Plant Area	60.984	8.0	68.984
CPP	13.541	Nil	13.541
WHRB	0.4008	0.2000	0.6008
Colony	17.6298	Nil	17.6298
Approach Road	7.605	Nil	7.605
TOTAL	100.1606	8.20	108.3606
Greenbelt /Plantation			71
Open area for further use			11.7034
Total			191.064

6.0 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.

7.0 Total project cost is approximately Rs. 1500 Crore. Proposed employment generation from proposed project will be 256 both direct employment and indirect employment.

8.0 The total targeted production capacity of clinker is 13 MTPA, Cement is 16 MTPA and WHRB 45 MW after expansion. The limestone for the cement plant would be procured from the adjoining captive limestone mine of Wonder Cement Ltd. The limestone transportation will be donethrough road and conveyor belt. The proposed capacity for different products for existing and new plant is as below:

S. N	**Units**	**Line I**	**Line II**	**Line III (Under construction)**	**Line IV Proposed New Line**	**Total Capacity after Expansion**
		EC Granted	**EC Granted**	**EC Granted**	**EC sought**	
1	**Clinker (MTPA)**					
i	EC Granted/ EC sought	3.0	3.0	3.5	3.5	13.0
ii	Plant installed	3.0	3.0	-	-	13.0
2	**Cement (MTPA)**					
i	EC Granted/ EC sought	4.0	4.0	4.0	4.0	16.0
ii	Plant installed	4.0	4.0	-	4.0	12.0
3	**Captive Power Plant (MW)**					
i	EC Granted/ EC sought	40.0	40.0	60.0	Nil	140

S. N	Units	Line I	Line II	Line III (Under construction)	Line IV Proposed New Line	Total Capacity after Expansion
		EC Granted	EC Granted	EC Granted	EC sought	
ii	Plant installed	40.0	-	30	-	70
4	**WHRB (MW)**					
i	EC Granted/ EC sought	9	9	12	15	45
ii	Plant installed	9	9	12	15	45
5	**D.G. Set (MW)**					
i	EC Granted/ EC sought	2	5	Nil	Nil	7
ii	Plant installed	2	Nil	-	-	2

9.0 The electricity load of expansion plant is 48 MW and will be procured from existing and proposed Captive Thermal Power Plant (40+30 =70 MW), WHRB (9+9+12+15 = 45 MW), Captive Solar Power Plant-2 MW, Captive Wind Power Plant 1.5 x 10 MW) and rest 25.6 MW from state grid of AVVNL (Ajmer Vidyut Vitran Nigam Ltd.) & D.G Set (for emergency).

10.0 Proposed raw material and fuel requirement for project are limestone, red ochre, laterite, gypsum, fly ash, coal/petcoke/lignite. The requirement would be fulfilled by captive limestone mines and from other materials from nearby areas. Fuel consumption will be mainly fuel oil, coal/petcoke/lignite.

11.0 Water Consumption for the proposed project will be 845 KLD and waste water generated will be 135 KLD. The waste water generated from the office toilet and staff colony will be treated in existing Sewage Treatment Plant (STP) of 450 m3/ day. Treated water of plant and colony will be reused/ recycled in the operation the captive thermal power plant for cooling purpose. No wastewater will be discharged outside plant premises and zero liquid discharge status will be maintained.

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

Observations of the committee:

13.0 The presentation about the ToR proposal was made by the project proponent. During the presentation, the Committee noted that the project proponent had not completely complied with the condition imposed in the environment clearance granted to them in 2008 as regards the formation of the green belt. They were still short of creation of green belt as stipulated under these conditions.PP has completed the green belt in remaining portion of the land i.e, total green belt covering 71 Ha.

Recommendations of the committee:

14.0 After detailed deliberations, the Committee recommended the project proposal for prescribing ToRs along with the following specific ToRs for undertaking detailed EIA and EMP

study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2:</u>**

i. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP report.

ii. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.

iii. Public Hearing to be conducted by the concerned State Pollution Control Board.

iv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

v. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

vi. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

35.12. Proposed expansion of Steel Plant (0.2 MTPA to 0.4 MTPA) and Captive Power Plant (80 MW to 200 MW) at Survey Nos. Part of 78, 86-88, 90-93, 95, 96, 106-113, 116-119 & 123-125, Pappankuppam Village, Gummidipoondi Taluk, Thiruvallur District by M/s Kamachi Industries Limited (Formerly known as Kamachi Sponge & Power Corporation Limited) [Online proposal No. IA/TN/IND/74872/2018; File No. J-11011/419/2008-IA-II(I)] – Prescribing Terms of Reference – Further consideration based on reply to ADS.

M/s. Kamachi Industries Limited made application vide online proposal no. IA/TN/IND/74872/2018 dated 05/05/2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

Details of the project as per the submission of Project Proponent

2.0 M/s. Kamachi Industries Limited (Formerly known as Kamachi Sponge & Power Corporation Ltd.) proposes to expand its existing manufacturing unit with steel plant (0.2 MTPA to 0.4 MTPA) and captive power plant (80 MW to 200 MW). The plant is based on sponge iron production followed by induction furnace melting, Continuous casting of billets and steel rolling mill.

3.0 The existing project was accorded environmental clearance vide lr.no. F.No. J-11011/419/2008-IA-II (I) dated 19.10.2009. Consent to Operate was accorded by Tamil Nadu Pollution Control Board vide Consent Order No. 18533 dated 11.01.2012 and validity of CTO is up to 31.03.2020.

4.0 The proposed unit will be located at Pappankuppam Village, Gummidipoondi Taluka, Thiruvallur District, Tamil Nadu State.

5.0 The land area available in the existing plant is 35.82 ha (88.5 acres) and the entire area is industrial classified land. No forest land is involved. The entire land has been already acquired for the project. Of the total area 35.82 ha, 33.89% of land is used for green belt development. The Pulicat Bird Sanctuary is located at a distance of 7.61 km from the site. The area does not report to form corridor for Schedule-I fauna.

6.0 Total project cost is approx Rs. 675 Crores. Proposed employment generation from project will be 130 direct employments and 500 indirect employment.

7.0 The targeted production capacity of the steel rods is 0.4 million TPA. There is no increase in requirement of Iron Ore as there is no increase in sponge iron plant. The proposed capacity for different products for expansion project as below:

Products	Existing (TPA)	Proposed (TPA)	After Expansion (TPA)
Sponge Iron	1,20,000	---	1,20,000
Intermediate Product – Billets	2,05,000	2,05,000	4,10,000
Rolled Products	2,00,000	2,00,000	4,00,000
Power Plant	80 MW	120 MW	200 MW

Name of Unit	Existing	Additional	After Expansion
Induction Furnace	4 x 15 Tons (Will be converted to 2X30 Tons)*	2 x 30 Tons	4 x 30 Tons
Ladle Refining Furnace	1 x 35 Tons	-	1 x 35 Tons
AOD Station	1 x 35 Tons	-	1 x 35 Tons
Rolling Mill	2,00,000 TPA	2,00,000 TPA	4,00,000 TPA
Power Plant – WHRB	10 MW	---	10 MW
Captive Power Plant	2 x 35 MW	1 x 120 MW	2 x 35 MW& 1 x 120 MW
Oxygen Plant	50 Ton	---	50 Ton

8.0 The electricity load of 78 MW will be procured from captive power plant and has also proposed to install 2 DG Sets of 720 KVA each.

9.0 Proposed raw material and fuel requirement for project are Iron Scrap, Sponge Iron, Ferro Alloys, Copper & Nickel, Aluminium and Coal. The scrap requirement would be fulfilled by indigenous sources as well as imported. Fuel consumption will be mainly for captive power plant.

Raw Material	Quantity (TPA)	
	Existing	Upon Expansion
Billet shop		

Raw Material	Quantity (TPA)	
	Existing	**Upon Expansion**
Sponge Iron	1,17,060	1,17,060
Melting Scrap	1,13,580	3,32,140
Ferro Alloys	2,400	4,800
Cu & Ni	612	1,224
Al	204	408
Rolling Mill		
Billets	2,05,000	4,10,000
Power Plant		
Coal	3,96,000	10,63,200
Dolochar	24,000	24,000
Furnace Oil	250 KL/Annum	500 KL/Annum

10.0 Water Consumption for the proposed expansion project will be 1475 KLD and wastewater generation will be 570 KLD. The water requirement will be met from ground water, rain water harvesting and recycled water. Domestic wastewater will be treated in the existing STP and industrial wastewater generated will be treated in ETP with RO Plant and reused in process, coal handling plant, dust suppression and green belt development.

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

12.0 EIA consultant – ABC Techno Labs India Private Limited, Sl. No. 4 as per recent QCI-NABET list.

13.0 The project has been appraised in the 32nd meeting of EAC held during 11-13thJune, 2018 and the Committee informed the project proponent to get the certificate from Chief Wildlife Warden regarding the location of the project site with respect to Eco sensitive zone of Pulicat Bird Sanctuary. Accordingly, Project proponent has submitted the certificate obtained from Chief Wildlife Warden vide letter dated 6/08/2018 along with map. As per the document submitted, the Pulicat Bird Sanctuary is located at a distance of 7.61 km from the project site. Further, Chief Wildlife Warden also asked the project proponent to apply online for getting wildlife clearance from National Board for Wildlife.

Observations of the Committee:

i. Pulicat Bird Sanctuary is located at a distance of 7.61 km from the project site.

ii. Chief Wildlife Warden vide letter dated 6/08/2018 asked the project proponent to apply online for getting wildlife clearance from National Board for Wildlife.

Recommendations of the Committee:

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

i. Public Hearing to be conducted by the concerned State Pollution Control Board.

ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iii. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP report.

iv. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.

v. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

vi. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

vii. The possibility to use sea water shall be explored instead of usage of ground water. The plant shall maintain ZLD.

35.13. Proposed 1.0 MTPA Hot Metal Plant at Dimbuli village, Manoharpur, District West Singhbhum, Jharkhand of M/s Vedanta Limited Value Addition Business. [Online Proposal No. IA/JH/IND/62609/2017; MoEFCC File No. IA-J-11011/54/2017-IA-II(I).-Further consideration based on reply to ADS for Terms of Reference.

1.0 **M/s Vedanta Limited Value Addition Business**made application vide online proposal no.**IA/JH/IND/62609/2017**dated 17/02/2017along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006 and appraised at Central Level.

2.0 The aforesaid proposal was considered in the 16th EAC meeting held during 6-7th March, 2017 and the proponent was informed to explore other suitable location from environmental perspective and resubmit the proposal for further consideration.

3.0 The project proponent has resubmitted the proposal on 22/06/2018 and the proposal was listed for consideration in the 34th EAC meeting held during 6-7th August, 2018. However, project proponent has not attended the meeting. Thereafter, the proposal was listed for

consideration in the 35th EAC meeting. The presentation about the revised ToR proposal was made by the project proponent.

Observations of the committee:

i. Project proponent has changed the configuration of hot metal (pig iron) plant from 1.0 MTPA to 0.5 MTPA and also proposed to install 3.0 MTPA pellet plant.
ii. Project site is surrounded by Koira river in three sides i.e, North, South and West. State Highway is passing through the mid of the site and settlements are observed adjoining the boundary.
iii. Project site is surrounded by Dimbuli PF, Ganmor PF, Ankua RF, Ambla PF, Rabangda RF, Boranga PF, Kurna PF, Kurthabera PF, Chuararapa RF and Chairamatha PF.
iv. Elephant movement reported in Saranda Forest Division which is located within the study area.

Recommendations of the committee:

After detailed deliberations, the Committee rejected the proposal of M/s. Vedanta Limited Value Addition Business because, on the face of it, the site chosen for the industrial set up is very likely to have long term adverse impact on the Koira river in the vicinity and the river ecology and will suffocate the village from all sides. Besides, the state highway would pass through the project area which is undesirable and would result into numerous complications.

35.14. Proposed development plan (MDP) comprising of augmentation of pulp mill and existing paper machines, installation of new tissue paper machines and installation of 35 MW steam turbines with 135 TPH boiler at M/s West Coast Paper Mills Ltd., Dandeli Village, Haiyal Taluk, Uttara Kannada District, Karnataka State [Online proposal No. IA/KA/IND/62475/2017; MoEFCC File No. J-11011/408/2006-IA-II(I)] – Amendment in ToR for the proposed Mill Development Plan (MDP) comprising of augmentation of existing pulp and chemical recovery unit and paper/board machine, installation of new multi-layer coated board machine and installation of 35 MW steam turbine with 135 TPH boiler.

1.0 M/s West Coast Paper Mills Limited made an application vide online proposal no. IA/KA/IND/62475/2017 for amendment in ToR for the proposed Mill Development Plan (MDP) comprising of augmentation of existing pulp and chemical recovery unit and paper/board machine, installation of new multi-layer coated board machine and installation of 35 MW steam turbine with 135 TPH boiler

2.0 M/s West Coast Paper Mills Limited obtained Terms of Reference (ToR) vide File no. J-11011/408/2016-IA-II (I), dated, 30th March 2017. Proposed Mill Development Plan (MDP) included Augmentation of Pulp Mill; Augmentation of Existing Paper Machines; Installation of two (2) New Tissue Machines; Installation of 35 MW Steam Turbines with 135 TPH Boiler.

3.0 As per earlier proposal, MDP was planned with installation of two (2) new Tissue Machines. However, with sudden surge in the imported pulp prices during the last oneyear, Tissue manufacture is not economically viable. Due to change in marketscenario and economic and environment advantages, revised projectconfiguration has been considered. Hence WCPM is

planning to revise thescope of MDP with installation of one (1) with Multi-layer Coated BoardMachine in place of two (2) Tissue Machines. In brief the revisions in the project are:

Sl.No	Description	Unit	Post Project	
			Original Proposal	**Revised Proposal**
1	Up gradation of existing paper/board machines	tpa	3,78,000	3,45,000
2	New paper/board machine		Two (2) Tissue Machines of capacity 72,000 tpa	One (1) Board Machine of capacity 1,05,000 tpa
	Total	**tpa**	**450,000**	**450,000**
3	Chemical Pulp Mill and recovery	BD tpd	785	844
4	De-Inking Plant (DIP)	Bd tpd	-	200

Note: 1. Total paper production capacity will not change; however, product mix willbe changed by installing one board machine instead of two tissue machines

2. Increase in pulp production capacity to reduce the usage of costly importedpurchased pulp

14.0 After detailed deliberations, the Committee recommended the project proposal for prescribing ToRs along with following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2:</u>**

i. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP report.

ii. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.

iii. Public Hearing to be conducted by the concerned State Pollution Control Board.

iv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

v. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

vi. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

vii. Scheme for disposal of hazardous waste generated from de-inking plant shall be incorporated.

viii. Possibility for reducing water consumption by incorporating RO and MEE shall be explored and shall be presented in the EIA Report with cost benefit analysis.

35.15. Proposed Cement project for enhancement of production capacity (2000 TPD) by M/s Trumboo Industries Pvt. Ltd. (TIPL) village-Khrew, Tehsil-Pampore, District Pulwama, State J & K. by M/s Trumboo Industries Private Limited [Online proposal No. Proposed Cement project for enhancement of production capacity (2000 TPD) [Online proposal No. IA/JK/IND/53478/2016; MoEFCC File No. J-11011/204/2016-IA-II] – amendment in ToR for Change in layout plan due to change in land area. 2. Change in project cost 3. Annual production instead of daily production.

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant

18th September 2018

35.16. Proposed installation of Two Induction Furnace (20 MT each) Reheating Furnace (30 TPH) & Rolling Mill to produce MS Billets 1,32,000 TPA and TMT Bars 2,00,000 TPA of M/s SBF ISPAT Pvt. Ltd.[Online proposal No. IA/RJ/IND/72197/2018; MoEFCC File No. IA-J-11011/29/2018-IA-II(I)]- Environmental Clearance.

M/s SBF ISPAT Private Limited made online application vide proposal no. **IA/RJ/IND/72197/2018**dated 29th August 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 5(k) Industion/ Arc Furnces under Category "B" EIA Notification, 2006. Due to non-existing of SEAC in the Rajasthan, the Ministry accepted the proposal for appraisal.

Observation of the committee:

During deliberations, the Committee was informed that the SEAC, Rajasthan was reconstituted vide notification S.O.4797(E) dated 12th September, 2018. Therefore, in view of existence of the SEIAA, Rajasthan and the request made by Project Proponent.

Recommendations of the committee:

The committees decided to defer the proposal and referred the proposal to the Ministry for further transferring it to SEIAA, Rajasthan.

35.17. Expansion of Clinker Production (3.5 MTPA to 5.1 MTPA) and Cement production(1.0MTPA To 3.0 MTPA) (by installation of Unit – III) For Clinker Production of 1.6 MTPA and Cement 2.0 MTPA and Installation of 90 Mw Coal Based Thermal Power Plant by M/S Lafarge India Ltd (Sonadih Cement Plant) located at Village Sonadih, P.O.Raseda, Dist.-Baloda Bazar-Bhatapara, Chhattisgarh. By M/s NUVOCO VISTAS CORP. LTD. SONADIH UNIT [Online

proposal No. IA/CG/IND/58554/2016; MoEFCC File No. J-11011/386/2005-IA.II(I)] –Environmental Clearance.

1.0 M/S Lafarge India Limited made online application vide proposal no. **IA/CG/IND/58554/2016**dated 28/08/2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by Project Proponent:

2.0 M/s NUVOCO VISTAS CORP. LTD (NUVOCO) (formerly Lafarge India Ltd.) is operating a Cement Plant near Sonadih Village, P.O Raseda Village, Balodabazar Tehsil, Balodabazar -Bhatapara District, Chhattisgarh was initially received online on 23.08.2016 vide Application No. IA/CG/IND/58764/2016. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 11th meeting of EAC Sep, 2016 and prescribed Terms of Reference (ToR) to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on J-11011/386/2005-IA.II (I) dated 14.03.2017.

3.0 M/s NUVOCO has approached MOEF&CC for transfer of terms of reference from LAFARGE INDIA LIMITED to NUVOCO VISTAS CORPORATION LIMITED. MOEF&CC has approved the transfer of Terms of Reference to NUVOCO VISTAS CORP. LTD vide letter no. J-11011/386/2005-IA.II (I) dated 20.10.2017. Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 28/08/2018 vide Online Application No. IA/CG/IND/58764/2016.

4.0. The project of NUVOCO VISTAS CORP. LTD (NUVOCO) (formerly Lafarge India Ltd.) is operating a Cement Plant near Sonadih Village, P.O Raseda Village, Balodabazar Tehsil, Balodabazar -Bhatapara District, Chhattisgarh. NUVOCOproposes to increase clinker production capacity of the Cement Plant from 3.5 MTPA to 5.1 MTPA by installing one more process line of 1.6 MTPA clinker production capacities. Cement production after expansion of the cement plant will be increased from 1.0 to 3.0 MTPA. To support the cement plant with uninterrupted power, it is proposed to setup 75 MW Coal based Thermal power plant within the existing cement plant complex.Existing and proposed capacity of Cement Plant:

	Present Capacity (MTPA)		Proposed Enhancement (MTPA)		Capacity after proposed expansion (MTPA)	
	Clinker	Cement	Clinker	Cement	Clinker	Cement
UNIT – I	3.5	1.0	-	-	3.5	1.0
UNIT – II						
UNIT – III (New Unit)	-	-	1.6	2.0	1.6	2.0
Total	3.5	1.0	1.6	2.0	5.1	3.0
Coal based Thermal Power Plant, MW	-		75		75	

5.0 The project is located an area of 91.886 Ha in the jurisdiction of Sonadih, Baloda Bazar Tehsil, Balodabazar-Bhatapara District (C.G.) which is owned by NUVOCO. The new unit of cement plant and new power plant will be located within the existing plant area. No forestland involved. No River passes through the project area. No perennial water bodies are present which needs modification/diversion.

6.0 The topography of the area is Flat terrain with hillock sand reported to lie between 21°43'30.00"-21°44'11.29"N latitude and 82°12'25.20"E-82°13'11.50"E Longitude in Survey of India topo sheet No. 64/K/2, at an elevation of 240m above msl. The ground water table reported to range between 3-5m below the land surface during the post-monsoon season and 5-10 m below the land surface during the pre-monsoon season. No ground water will be used for the plant.

7.0 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 nearest Reserved forest is Mohtara RF at 3.6 km in the SW direction. During the ecological studies, Peafowl, Schedule – I species is observed. To protect these schedule – I fauna, a conservation plan has been formulated with total fund of INR 10 Lakhs.

8.0 The major raw material used in the manufacture of cement is Limestone. The limestone requirement of the plant after expansion will be met captive limestone mines i.e., from the existing mine (Sonadih Limestone Mine) and new mine (ML-1) of NUVOCO. The following table shows the present and proposed raw material consumption in the cement plant: Raw Material Requirement (TPA) is as follows:

		Quantity (MTPA)			**Source**	**Mode of Transport**
		Present	**Additional**	**Total**		
		Unit I + II	Unit – III			
Limestone		5.36	2.45	7.81	Own Limestone Captive mines	Road (internal)
Coal/ Pet coke	Cement plant	0.658	0.302	0.96	SECL Coal Mines/Private party	Rail/Road
coal	CPP	-	0.63	0.63	SECL Coal	
Gypsum		0.05	0.10	0.15	Private Party	Rail
Sand		0.133	0.057	0.190	Private Party	Road
Iron ore/Flue Dust		0.028	0.012	0.040	Private Party	Road
Fly ash		0.30	0.47	0.77	Power plants of Chhattisgarh	Road (Bulker)
Alternate Raw Material/ Fuel		0.09	0.04	0.13	Private Party	Road

9.0 The plant is designed to manufacture cement by adopting the dry process technology. The process largely comprises of Crushing the limestone; Raw Mix preparation; Raw mix homogenization; Coal preparation; Calcination and Clinkerisation; Cement Grinding Packing. NUVOCO proposes to install 75 MW coal based Power Plant. Power generation process is based on Rankine Steam cycle. The steam generated in the boiler when expanded through a turbine, turns the turbine shaft, which in tandem is coupled to an electric power generator.

10.0 Coal is obtained from SECL coal mines. The coal requirement of Unit – III will be obtained from E-auction. NUVOCO has recently commissioned railway siding by laying of 26 km length. The cement/clinker produced from Sonadih Cement Plant after expansion will be transported by rail/road. For transport of other raw material, NUVOCO will ensure that all the trucks employed are "Environmentally Compliant".

11.0 The present water requirement of the plant including colony is about 3700 m^3/day. For the expansion phase, additional water consumption of 1100 m^3/day is required. The present requirement is met from Seonath River, located at a distance of about 1 km from the plant site. Additional water requirement will be met from Seonath River. NUVOCO has obtained permission to draw water 2.0 cusec i.e. 4896 m^3/day which is adequate to meet the requirement of Unit – III along with present consumption.

12.0 The present power requirement of 41 MVA is met from CSEB grid. Additional Power requirement is 25 MVA for Unit – III and the total power requirement of complex i.e. 66 MVA is met from the proposed Coal based Thermal Power Plant. NUVOCO has installed DG sets of 16 MW capacity as standby units for supply of power during contingency.

13.0 Baseline Environmental Studies were conducted during Winter season i.e. from December 2016 to February 2017,Ambient air quality monitoring has been carried out at 8 locations during December 2016 to February 2017 and the data submitted indicated: PM10 (41.8 µg/m^3 to 56.6 µg/m^3), PM2.5 (18.0to26.3 µg/m^3),SO_2 (8.0to13.9 µg/m^3) and NO_x (9.1to14.8µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 15.2 µg/m^3 with respect to the PM10, 4.8 µg/m^3 with respect to the SO_2 and 10.6µg/m^3 with respect to the NO_x.

14.0 Ground water quality has been monitored in eight locations in the study area and analysed. pH: 6.67 to 7.59, Total Hardness: 179 to 593 mg/l, Chlorides: 16 to 273 mg/l, Fluoride: 0.53 to 1.27 mg/l. Heavy metals are within the limits. Surface water sample was analyzed in eight locations. pH: 7.59 to 7.98; Total Hardness 119 to 245mg/l, Chlorides: 19 to 37 mg/l, Fluoride: 0.69 to 0.99 mg/l. Heavy metals are within the limits.

15.0 Noise levels are in the range of 68.6 to 46.4 dB(A) for daytime and 55.1 to 40.3 dB(A) for nighttime.

16.0 The total area of cement plant is owned by NUVOCO. No additional area is required for the expansion, hence the point of Rehabilitation and Resettlement does not arise. Thus no adverse impact is anticipated.

17.0 The major solid waste generated from the project along with quantity and disposal is given below.

- Solid waste generated from colony is disposed after segregating the waste into bio-degradable and non-degradable.
- Bio degradable waste - Composting
- Non-degradable waste - land filled at within plant site.

- STP sludge will be used as Manure in the Plantation work.
- NUVOCO is storing hazardous waste in an isolated storage area with covered shed is provided within plant site with all safety precautions of handling.
- Waste mix Solid & Waste Mix Liquid, TDI tar waste, Plastic waste, Tyre chips etc.., from various industries which are being used as an alternate fuel in Kiln.
- Ash generated from proposed power plant will be totally consumed in the cement plant.

18.0 The Chhattisgarh Environment conservation Board issued the Water & Air consent to operate renewal for The existing production capacity i.e. Clinker- 3.5 MTPA , Cement- 1.0 MTPA and 3 Nos DG set-16 MW, vide letter no. 1853 &1855/TS/CECB/2018 dtd 21.5.2018 ,and consent is valid up to 31st August 2021.

19.0 The Public hearing of the project was held on 04.05.2018 by Chhattisgarh Environment Conservation Board at Raseda Bhata , Raseda, Village, Balodabazar Tehsil, Balodabazar Bhatapara (C.G) District under the Additional Collector Smt. Leena Kamalesh Mandaavi , for setting up of Sonadih Cement Plant-Increase of Clinker production from 3.5 to 5.1 MTPA, Cement from 1.0 to 3.0 MTPA (by Installation of Unit – III) & Installation of 75 MW Coal Based Thermal Power Plant. The issues raised during public hearing along with action plan and budget allotment are addressed in Final EIA report. Summary of the Public hearing issues along with action plan and budget are given below:

S.No	Issues Raised In Public Hearing	Response Of The Project Proponent After Public Hearing	Time Bound Action Plan	Budgetary Provision
1.	Sound pollution of the company at night, they face trouble	The noise levels at night time are less than 65 Db (A) at the plant boundary. However, precautions like thickening of greenbelt towards village will be carried out at Plant boundary.	About 74000 trees have been planted in the factory and its boundary. More than 37 Ha was brought under greenbelt development. Density will be improved by planting @500 trees /Ha. This will be continued under EMP.	Rs 15 Lacs /annum in EMP, recurring cost.
	At the same time, the crop is also experiencing waste and health related problems.	There was no complaint about agri loss from farmers in the nearby village. However necessary steps will be taken	All Pollution control equipment will be installed before commissioning of the plant and the release is restricted to less than 30 mg/Nm3.	Rs 55.20 crores will be spent for Air pollution control equipm ent and an amount of Rs 1.94 cr. will be

		if any issues come up in future.		spent annually for the same towards EMP
2.	Employment not provided to locals	Nuvoco giving preference to local persons in the employment in existing manpower 798 local employees out of 864 employees are from local area.	In expansion phase, locals will be employed as per their qualification.	-
3.	All plantation done in plant & Mines area , no plantation is done in Villages	Nuvoco is doing Plantation outside plant also in association with Chhattisgarh Govt under Harihar Chhattisgarh campaign regularly, In the year 2017 8000 sapling planted in village Tarasiv of distt. Balodabazar on the land provided by Govt. Plantation also done at school collage campus, bank of pond, road side plantation	Plantation will done in next three years	Rs 60 Lakhs as part of CER
4.	Without the helmet, the villagers are not let the inside the gate as bank is inside the colony, due to which villagers has to face difficulty in going to bank. So Bank should be brought outside the colony.	Crash helmet is mandatory as per MV act and implemented in our premises so no relaxation is given.	-	-
5.	Since last 10 years no school has been built, CSR was not done any job neither school, nor hospital and no development work has	An amount of Rs 7crores was spent on the CSR activities in last five years. Roads were laid,	Necessary CSR activities will be done every year. About Rs 15 cr. have been spent in last 5 years in the fields of Health, education,	Rs 3.0 crores per annum towards CSR activities RS 41 lakhs towards CER in 3 years

	been done, Bus not provided to Girls to go to school, In DAV school seat should be increased, staff should be increased and provide admission to Village children	borewells were dug and pond deepeningwere done. Apart from it livelihood projects were also done for villagers. Medical services were provided.	infrastructure, plantation, training and drinking water. Bus facility for commuting students.	
6	All plantation done in plant & Mines area Plantation not done in Villages	Nuvoco is doing Plantation outside plant also in association with Chhattisgarh Govt under Harihar Chhattisgarh campaign regularly , In the year 2017 8000 sapling planted in village Tarasiv of distt. Balodabazar on the land provided by Govt.	Plantation will done in future also. In three years time, about Rs 20lacs/annum will spent towards this programme	Rs 60 lakhs years under CER scheme.
7	Light arrangement is not at Main road of village in Rasedi	It is under purview of Gram panchayat. However we will extend necessary support if required.	In 6 months time, about 60 LED lights will be provided in Rasedi village.	Rs 3.0 lakhs will be spent as part of CER
8	Tanker should provide to supply drinking water	It is already done and will be continue as per need and requirement. The borewells will be re-erected.	Drinking water facility will be provided in Rasedi and Sonadi villages, in next 3 Years towards CER	Rs 40 lakhs as part of CER
9	I am working here since 2001 and out of 700 workers 300 is local , we will support to plant if they work for Development of villages and provide electricity, water, Road and education	Nuvoco had been providing and will continue to do so for future also. All development activities are being implemented and will continue. In the fields of electricity, water,	LED lights will be installed. Roads will be converted into RCC. Providing more medical camps and providing a new Public Health Centre in next 3 years .	Rs 3 crores will be spent under CER and it will be continued under CSR later also.

		Road, health and education		
10	Student of villages going outside for studying, only Employees children are studying in company's school.	Bus facility will be provided to all	Within 6 months, the bus facility will be made available	Rs 40 lakhs will be spent for this in next three years under CER and will be continued under CSR ever.
11	Company open mine in my land without my permission	All statutory provisions is being followed by M/s Nuvoco	Nuvoco is operating plant in their own premises and the village administration may check the same also.	-
12	My gound Adivasi land of 15-16 acre is not purchase by company, Sarpanch is broker of company	Land purchased as per requirement under the lease hold area. The said land is not under the mine lease.	-	-
13	Accumulated water from mines pit should be given to Village pond which help for forming and also water table increase	This arrangement will be made by discussing with panchayat.	De-silting of Ponds and Deepening of 1 pond of each village of Raseda, Medh, Dhabadih & Bhatapara – villages	Rs 90 Lakhs under CER will be spent for the same.
14	Skill development training is less for youth, training should be provided for employment, Development has happened but management should keep in mind that the dependents of the dependent villages will get proper employment.	Skill development centre is running and youth are getting trained in Office Assistant trade	Unemployed will be trained in different trades and will be provided with employability opportunities. Organizing vocational training programs for employment generation in association with Chhattisgarh skill development Authority. Computer training, on office & Accounting – telly , Scaffolding, Knitting and tailoring, (Approximate 100 beneficiaries/year)	Rs 25 lakhs under CER
15	The Sarpanchs are having setting with the management, hence the	CSR activities is being done with consensus of all	Construction and repairing of Village road will be done	Rs. 150 Lakhs will be spent as part of CER.

	development is not happening, the company works, but the Sarpanch do not work properly. The company has just built a CC road but the Sarpanch has not done the job properly	stake holder including district administration		

20.0 Corporate Environment Responsibility (CER) budget towards capital expenditure in accordance to the MoEFCC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018 for Social Welfare Measures has been workedout as per the following table

Capital Cost Of Expansion Project (Rs Crores)	**As per MoEFCC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018**		**CER Budget (Rs Crores)**
	Capital Investment/Additional Capital Investment (Rs)	**Brownfield project - % of the additional capital investment**	
100	< 100 crores	1.0	1.00
400	>100 crores to <500 crores	0.75	3.00
500	>500 crores to <1000 crores	0.50	2.50
645	>1000 crores to 10000 crores	0.25	1.61
Total			**8.11**

Summary of budget towards Corporate Environment Responsibility (CER) alongwith the activities:

S. No	**DESCRIPTION**	**BUDGET IN RS. LAKHS FOR 3 YEARS**
1	Village Infrastructure Development	450
2	Sustainable Livelihood Training/Skill Development	100
3	Provision of Medical facilities	100
4	Provision of Additional Infrastructure for schools	40
5	Support for Anganwadis	80
6	Miscellaneous expenditure	41
	Total	**811**

DETAIL BREAKUP OF BUDGET TOWARDS CER ALONG WITH ACTIVITIES

Sl. No.	**Item**	**1st Year**	**2nd Year**	**3rd Year**	**Total**
1.	**VILLAGE INFRASTRUCTURE DEVELOPMENT**				
1	De-silting of Ponds and Deepening of 1 pond of	30	30	30	90

Sl. No.	Item	1st Year	2nd Year	3rd Year	Total
1.	**VILLAGE INFRASTRUCTURE DEVELOPMENT**				
	each village of Raseda, Medh, Dhabadih & Bhatapara – villages Approx Rs 22 Lacs per pond				
2	Construction and repairing of Village road from Raseda to Khenda & Raseda to Latuwa	50	50	50	150
3	Community Stage construction at villages Sonadih, Gudeliya, Raseda, Rasedi	10	10	10	30
4	Plantation/Avenue plantation will do under 'Harihar Chhattisgarh' on the land allotted by Distt. Administration. Local species Neem, cassasimea, Jamun, Awala, etc	20	20	20	60
5	Water Facility- Sonadih Laying of water pipe line from Mines to Sonadih village dam, digging /repairing of Bore well & suppliy of drinking water by tankers during summer season at rasedi, Raseda & Sonadih Villages	15	15	10	40
6	Construction of Pond Steps (Pachari) – will be done as per demands from affected villages @ 2 lakhs /per pachari (approximate 10 nos)	6	7	7	20
7	Providing LED light, Rasedi (approximate 60 Nos fittings @ Rs 5000 per fittings)	3	-	-	3
8	Construction of Burial ground, Sonadih village (construction of approach road, shed, drinking water facility,	10	10	7	27
9	Square beautification at Baloda bazaar in consultation with Distt. Administration & Public representative	10	10	10	30
	Total	**154**	**152**	**144**	**450**
2.	**SUSTAINABLE LIVELIHOOD TRAINING/SKILL DEVELOPMENT**				
1	Agriculture Productivity enhancement Project (SRI technique, Enhance Vegetable production with improve technique	25	25	25	75
2	Organising vocational training programs for employment generation in association with Chhattisgarh skill development Authority. Computer training, on office & Accounting – telly , Scaffolding, Knitting and tailoring, (Approximate 100 beneficiaries/year)	15	5	5	25
3	Total	40	30	30	100
3.	**PROVISION OF MEDICAL FACILITIES**				
1	Providing medical facility in the affected villages with provision of medicines and checkup,	30	35	35	100

Sl. No.	Item	1st Year	2nd Year	3rd Year	Total
1.	**VILLAGE INFRASTRUCTURE DEVELOPMENT**				
	Providing Ambulance facilities, Organising Yearly health check camps with Expert Doctors				
	Total	**30**	**35**	**35**	**100**
4.	**PROVISION OF ADDITIONAL INFRASTRUCTURE FOR SCHOOLS**				
1	Providing equipment and other infrastructure support to start 8-10 Nos of smart classes in affected village school (@5 lakh/per school	13	13	14	40
	Total	**13**	**13**	**14**	**40**
5.	**SUPPORT FOR ANGANWADIS**				
1	Project on Development of Anganwadis as model Anganwadis in nearby villages	25	25	30	80
	Total	**25**	**25**	**30**	**80**
6	**MISCELLANEOUS THINGS, NEED BASED AND POINTS RAISED IN PUBLIC HEARING.**				
1	Providing a Bus facility to college going girls students, from Rasedi, Raseda, Sonadih to Baloda Bazar	12	14	15	41
	Total	**12**	**14**	**15**	**41**

21.0 The cost of the proposed expansion is estimated to be about Rs. 1645 Crores which includes the cost of Environmental Management Plan of Rs. 90 crores. Theannualrecurring costtowards the environmentalprotectionmeasuresisproposedasRs.6.25 Crores. The details are as follows:

	Capital Cost (Rs. in Lakhs)	Recurring Cost per annum (Rs. in Lakhs)
Air pollution control equipment - Unit-III	5520	194
Air pollution control equipment - CPPs	3360	185
Sewage Treatment Plant	0	5
Rainwater harvesting	20	5
Greenbelt	0	15
Environmental Monitoring	**100**	**221**
Total	**9000**	**625**

22.0 NUVOCO proposes to recruit about 50 persons for operation of Unit – III and Coal based Thermal Power Plant.

23.0 M/s NUVOCO has developed 33% of the plant area under greenbelt which is covering about 32.5 Ha. A wide green belt has been developed towards three sides of the plant where village and colony is there. Extensive plantation has been done all along the periphery of the

plant with local plant species. All the open spaces have been utilized for plantation purposes. NUVOCO have planted more than 2000 saplings per hectare. About 6.0 lakh saplings have been planted till date. NUVOCO has developed Greenbelt with local species in an area of 37 ha. @ 2000 saplings per hectare

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

25.0 EIA Consultant: BS Envirotech, Hyderabad, NABET Accreditation No: NABET/EIA/1619/SA 064.

Recommendations of the Committee

26.0 After detailed deliberations, the committee sought the following information for further consideration of the proposal.

i) Compliance to the earlier EC is not in place as per the report submitted by the RO Nagpur on 17th July 2018.

ii) Public hearing issues related to cracks developed in the building near mine site have not been addressed. Therefore, action plan for monitoring the vibrations and its control including compensation damages shall be submitted.

iii) Scheme for utilization of waste heat from the kilns shall be furnished with energy balance flow.

iv) Proportion of local children studying in the Company school from nearby villages to be furnished. The table for CER should be revised based on the inputs received during public consultation and social impact assessment.

v) TOR condition No. 9 has not been complied fully. The policy furnished does not have date of approval by the Board and has been signed by the previous CEO.

vi) Monitored data for vibration levels due to blasting shall be submitted.

vii) Details of NOx level control as per the recent amendment of MoEF&CC has not been furnished.

viii) Risk issuesand safety measures related to thehandling of hazardous chemicals such as ammonia if any,shall be incorporated in the EIA report.

ix) Rain water harvesting scheme is very generic and details shall be made available.

35.18. Integrated Steel Plant (1.2 MTPA) with 225 MW CPP Mouza – Nandarchak (J.L. No. 124), Bargai (J.L No. 197) & Kanjarichak (J.L. No-125) at Village – Gokulpur, P.O – Shyamraipur, P.S – Kharagpur(L), Dist. Paschim Mednipur, West Bengal by M/s Orissa Metaliks Private Limited Online proposal No. IA/WB/IND/64050/2017; MoEFCC File No. J-11011/169/2017-IA.II(I)] – Environmental Clearance –Further consideration based on reply to ADS.

M/s Orissa Metaliks Private Limited made online application vide proposal no. **IA/WB/IND/64050/2017** dated 19th July 2018 along with copies of EIA/EMP report seeking

environmental clearance 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 & non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The proposed **Integrated Steel Plant (1.2 MTPA) with 225 MW Captive Power Plant** of **M/s Orissa Metaliks Private Limited**, is located at Mouza- Nandarchalk (J.L. No.-124), Bargai (J.L. NO-197) & Kanjarichak (J.L. No-125), Village Gokulpur, Post Office Shyamraipur, District Paschim Mednipur, West Bengal was initially received in the Ministry on 19th April 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 18th meeting held on 3rd-5th May, 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 22nd May 2017& 19th April 2018 vide Ref. File No J-11011/169/2017-IA.II (I).

3.0 The project of M/s Orissa Metaliks Private Limited located in Gokulpur Village , P.O. Shyamraipur, P.S. Kharagpur (L), West Medinipur District, West Bengal State is for setting up of a new Integrated Steel Plant of 1.2 million tons per annum (million TPA) with 225 MW CPP using standard and proven down grade technology for production of Hot Metal/Pig Iron, Sinter, Sponge Iron, Billets, Ferro Alloys, Fe-Cr Briquette, Coke, Lime & Dolomite, Oxygen, H.R. Coils, Plates (Checkered or Flat)/ TMT Bar, Wire Rod & Wire/ Structural long product like- Angel, Channel & Beam , Galvanized Sheet/ Plate / Coils, Flat Sheet/ Checkered Sheet, Strip & Nail, DI Pipe, Power, Iron ore Pellet, Iron Ore Concentrate, Producer Gas. The proposed capacity for different products for new site area as below:

Sl. No.	Name of the Unit	Capacity	Production	Product
1.	Blast Furnace	2 x 550 m^3	1.0 Million T.P.A	Hot Metal / Pig Iron
2.	Sinter	1 x 175 m^2	1.0 Million T.P.A	Sinter
3.	DRI	2 x 500 TPD + 2 x 350 TPD	0.5 Million T.P.A	Sponge Iron
4.	Steel Making Facilities - Induction Furnace - Electric Arc Furnace with matching LRF and oxygen optimized furnace	- 10 x 20 T IF - 2 x 50 T EAF	1.0 Million T.P.A	Billets
5.	Ferro Alloy Plant	10 x 9 MVA	0.12 Million T.P.A	Ferro Alloys
6.	Fe-Cr Briquette Manufacturing plant	1 x 40 TPH	40 ton/hr	Fe-Cr Briquette
7.	Non-recovery type Coke Oven Plant	2 x 0.25 MTPA	0.5 Million T.P.A	Coke

8.	Lime Dolomite Plant	1 x 200 TPD	200 TPD	Lime & Dolomite
9.	Oxygen Plant	1 x 200 TPD	200 TPD	Oxygen
10.	Hot Rolling Mill	0.6 Million T.P.A	0.6 Million T.P.A	H.R. Coils, Plates (Checkered or Flat)/ TMT Bar, Wire Rod & Wire/ Structural long product like- Angel, Channel & Beam
11.	Cold Rolling Plant with Pickling Line & Continuous Galvanizing	0.35 Million T.P.A	0.35 Million T.P.A	Galvanized Sheet/ Plate / Coils, Flat Sheet/ Checkered Sheet, Strip & Nail
12.	Ductile Iron Pipe Unit	0.2 Million T.P.A	0.2 Million T.P.A	DI Pipe
13.	Captive Power Plant	225 MW [WHRB Based 90 MW (54 MW from DRI Plant+ 34 MW from Coke Oven Plant + 2 MW from EAF + CFBC (Coal & Dolochar Mix based) 3 x 45 MW]	225 MW [WHRB Based 90 MW (54 MW from DRI Plant+ 34 MW from Coke Oven Plant + 2 MW from EAF + CFBC (Coal & Dolochar Mix based) 3 x 45 MW]	Power
14.	Pellet Plant	2 x 1.2 MTPA	2.4 MTPA	Iron ore Pellet
15.	I/O Beneficiation Plant	2 x 1.2 MTPA	2.4 MTPA	Iron Ore Concentrate
16.	Producer Gas Plant	20 x 7,500 $N.m^3/hr$	1,50,000 Nm^3/hr	Producer Gas

4.0 The total land required for the project is 125.45 ha which is grazing land. No forestland involved. Out of the 125.45 ha of land, 96.32 ha of land is in possession by M/s Orissa Metaliks Private Limited and for rest of the land consent has been obtained from private rayat. The river Kangsabati passes at a distance of 4.5 km from the project site. Modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is flat and reported to lie between Latitude 22°21'39.58"N to 22°22'13.00"N & Longitude 87°17'54.24"E to 87°18'28.60"E in Survey of India toposheet No. 73 N/7 at an elevation of 33.5m AMSL. The depth of water as measured in the open wells is between 11 and 12 feet below the land surface. The water occurring in deeper zones is under pressure and is reported usually to rise by 25 to 30 feet below the land surface. The total thickness of the aquifer in the study area varies from 3.1 m to 17.1 m.

6.0 No National park/Wild life sanctuary/Biosphere reserve/tiger reserve/Elephant reserve is 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 theChapter-3.0, Section-3.12 reporting presence of flora and fauna in the study area.

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

Sr. No.	Raw Materials	Source of Raw Materials	Mode of Transportation	Distance from Project Site (Km)	Estimated Quantity (in TPA)
1	Iron Ore Lump	Barbil-Joda, Orissa	Rail/ Road	201	1,55,000
2	Iron Ore Fines	Barbil-Joda, Orissa	Rail/ Road	201	37,00,000
3	Non-cooking Coal	E-Auction or Imported	Rail/ Road	--	17,21,125
4	Cooking Coal	Purchased from BCCL, Dhanbad Alternate source: Imported	Rail/ Road	177	6,70,000
5	Dolomite	From Birmitrapur, Orissa / Bilaspur, CG	Rail/ Road	264/541	1,08,375
6	Limestone	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	Rail/ Road	264/541	2,42,023
7	Manganese Ore	Captive mines in Balaghat, Orissa, M.P	Rail/ Road	719	3,12,000
8	Chromium Ore	Jajpur, Orissa	Rail/ Road	202	2,64,000
8	Quartzite	From Belpahar Orissa / / Bilaspur, Raipur CG	Rail/ Road		4,38,125
9	Inoculants	Local Market	Road	<150	192
10	Magnesium	Local Market	Road	<150	340
11	Runner Coat	Local Market	Road	<150	1022
12	Slag Coagulant	Local Market	Road	<150	277
13	Zinc	Local Market	Road	<150	378
14	Bitumen Solution	WRAS* Approved Vendor	Rail/ Road	<150	841 KL/Year
15	Epoxy Paint	WRAS* Approved Vendor	Rail/ Road	<150	200 KL/year

8.0 Solid Waste Management for 1.2 MTPA I.S.P with 225 MW CPP is as follows:

Sl. No.	**Type**	**Quantity in Tons/Year**	**Utilization**

1.	Slag from MBF	6,73,000	To be used for Cement Making.
2.	DoloChar from DRI Plant	1,75,000	To be used in proposed CFBC Boilers.
3.	Slag from SMS (IF & EAF)	1,09,083	To be used for Road construction / Land filling purpose, Paver Block Making after recovering metal from Slag Crushing unit
4.	Slag from Ferro Alloys Plant	1,50,000	➢ Slag generated during Ferro Manganese production will be used as a raw material for Silico Manganese production. ➢ Slag generated during Silico Manganese production will be used for road construction / land filling. ➢ After maximum recovery of Chrome, Ferro chrome slag after undergoing TCPL Test will be used in green concreting.
5.	Core Sand And Slag from DIP	5429	To be used for Road construction / Land filling purpose
6.	Cement Slurry	572	To be used for Brick making and also in Captive Cement Plant
7.	Bottom Ash	5,44,916	To be used for Road construction / Land filling purpose
8.	Dust from APC Devices	2,86,220	Used in Sinter Plant and also for Brick Manufacturing Zinc Dust will be sold to PCB certified Paint manufacturer.
9.	Tar Sludge from Producer gas plant	14,400	Sold to WBPCB authorized vendor
10.	Miss Roll/ End Cuts	50,000	To be used in Proposed S.M.S Plant.
11.	Fly Ash	3,01,860	To be used for Cement Making.

9.0 The targeted production capacity of the Integrated Steel Plant is 1.2 million TPA. The ore for the plant would be procured from Rungta Mines (linkages). The ore transportation will be done through rail/road.

10.0 The daily make up water requirement for the entire project as mentioned in the EC is 26,592 KLD. The raw water will be sourced mainly from the supply system of Kharagpur Municipality & Kansabati River and partially from Bore Wells. Already project proponent has obtained recommendation / Single window clearance by West Bengal Industrial Development Corporation for use of 27912 KLD water. Apart from that permission/consent for use of 12,650 KLD water from Kharagpur Municipality (12,000 KLD) & SWID (650 KLD) is obtained by Project Proponent

11.0 The power requirement of the project is estimated as 334.8 MW, out of which 225 MW will be obtained from proposed Captive Power Plant and the remaining109.8 MW power will be obtained from WBSEDCL.

12.0 Baseline Environmental Studies were conducted during summer season i.e., from Oct, 2017 to Dec, 2017. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated: PM_{10} (70.7µg/m^3 to 82.0µg/m^3), $PM_{2.5}$ (29.1µg/m^3 to 37.2µg/m^3), SO_2 (8.6µg/$m^3$to 18.1µg/m^3) and NOx (20.3µg/$m^3$to 29.3µg/m^3). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 12.52 µg/m^3(SW direction), 4.88 µg/m^3 (SW direction)and 3.37 µg/m^3(SW direction), with respect to the PM, SO_2 and NOx.

13.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.1 to7.5, Total Hardness: 180 to 212 mg/l, Chlorides: 75 to 99mg/l, Sulphate: 8to 16mg/l, Nitrate: 2.2 to 4.2 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 10 locations – 2 **Kangsabati** river water samples and 8 pond water samples. For **Kangsabati** River water, pH: 7.3 to 7.4; DO: 6.8 to 6.9 mg/l and BOD: 4 to 6 mg/l. For 8 pond water samples, pH: 6.7 to 7.4; DO: 5.7 to 6.3 mg/l and BOD: 4 to 8 mg/l.

14.0 Noise levels are in the range of 55.7 – 68.2 dBA for daytime and 49.0 – 57.7 dBA for nighttime.

15.0 It has been reported that there are 6,38,918 people in the study area. R&R Action Plan is presented in Annexure-7-III in the EIA Report. It has been envisaged that 95 families to be rehabilitated, which will be provided compensation and preference in the employment.

16.0 It has been reported that a total of 23,10,480 TPA of waste will be generated due to the project, out of which 975432 TPA will be used in cement making, 175000 TPA Dolochar will be used in proposed CFBC Boilers, 809428 TPA slag from SMS, Ferro, DIP will be used in road construction/land filling purpose/ brick making, 286220 TPA dust from APC device will be used in Sinter Plant, 50,000 TPA end cuts miss rod from rolling mill to proposed SMS and Tar Sludge and Zn dust will be sold to WBPCB authorized vendors.

17.0 The Public hearing of the project was held on 27th July 2018 at Mahasakti Mahasangha, Salkui, P.O. Malkalpur near B.D.O. office), Kharagpur-1, Distt. Paschim Mednipur, West Bengal under the chairmanship of Mr. S.K Meena, I.A.S, Additional District Magistrate (G) & DLLRO, Paschim Medinipur for the proposed 1.2 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

Sl. No.	Name	Issues raised during PH	Response by project proponent (after PH)	Time Bound Action Plan proposed WHERE IT TIME BOUND PROGRAM IN some COLUMNS	Budgetary provision

1	Sri Deepak Bagli, Village Shyamraipur	• Pollution from the proposed project has to be controlled.	M/s Orissa Metaliks Private Limited stated that after detailed engineering APC devices of adequate capacity are proposed in order to minimise the pollution.	Adequate capacity APC devices and **OCEMS** (Online Continuous Emission Monitoring System) will be installed at relevant point in parallel with implementation of the plant.	<u>Pollution Control Cost Details</u> • Capital Cost:Rs.105. 2Crores; • Recurring Cost:Rs. 11.35 Crores/ Annum.
2	Sri SomanathSharam, Village Khidipur	• Provide jobs for the locals.	OMPL in past has given priority to the local people for employment generation based on their academic qualification for their existing plants.	In the proposed project top most priority will be given to the local people based on their academic qualification. (tentatively upto 2025)	-
		• Health check-up facilities.	Free medical Camps, health check-up for surrounding villages are organised on regular basis. And same will be continued in upcoming years.	Funds have been earmarked under Corporate Environment Responsibilities to be utilized over a period of 7 years tentatively by 2025.	Rs 2300 Lakhs of the project cost is earmarked under CER head. Out of this Rs. 193 Lakhs is earmarked for health facility which will be utilized over a period of 7 years.
				Primary health check-up facility	Rs 44 Lacs
				Construction of charitable Dispensary	Rs 84 Lacs
				Ambulance to nearby panchayats	Rs 30 Lacs
				Providing equipment to the local hospitals	Rs 35 Lacs

		• Development of the local areas.	OMPL in past has developed and provided necessary help to the nearby school, NGO & village through CSR program and in future they will also con the same work.	Financial support to Local School for extension of building classroom, development of library facility	Rs 50 Lacs
				Solar/LED Street Lighting provision in some areas	Rs 72 Lacs
				Local Village pond up gradation	Rs 45 Lacs
				Drinking water infrastructure (Tube Well, ATM Water Machine)	Rs 162 Lacs
				Development of community hall	Rs 75 Lacs
				Sanitation Facility-Construction of Toilet, Dustbin	Rs 362 Lacs
				Promotion of sports	Rs 24 Lacs
				Skill development & Scholarship to unprivileged student	Rs 304 Lacs
				Infrastructure Facilities	Rs 155 Lacs
				Transportation facilities	Rs 32 Lacs
				Irrigation Infrastructure	Rs 45 Lacs
				Construction of road	Rs 648 Lacs
				Development of Park, Tree Plantation	Rs 133 Lacs
3	Sri Dijen Senapati, Village Baharapat	• Develop local roads	OMPL stated that road nearby existing plant is being repaired periodically in construction with Road Construction Department, Govt. of West Bengal and in future more	OMPL will coordinate with Road Construction department officials for repairing of roads in the nearby area. 7 Years (tentatively 2025)	Company has allocated Rs 6.48 Cores under Corporate Environment Responsibilities (CER).

			focus will be given to develop the local roads under CER Activities.		
		• Control of pollution to be generated from the project.	M/s Orissa Metaliks Private Limited stated that after detailed engineering APC devices of adequate capacity are proposed in order to minimise the pollution.	Adequate capacity APC devices and OCEMS (Online Continuous Emission Monitoring System) will be installed at relevant points in parallel with implementation of the plant.	<u>Pollution Control Cost Details</u> • Capital Cost:Rs.105. 2Crores; Recurring Cost:Rs. 11.35 Crores/ Annum.
4	Sri AchintyaGhosh, Village Barkola	• Provide jobs opportunities for the local people and land looser.	OMPL has given priority to the local people for employment generation based on their academic qualification for their existing plants. And same will be done for the proposed project	In the proposed project top most priority will be given to the local people based on their academic qualifications. (tentatively upto 2025)	-
		• Look into the safety aspects.	OMPL stated their concern about safety about the workers in the plant premises and outside the plant premises. OMPL has already taken some steps to prevent the accidents near plant premises.	• Deploying private security staff near plant gate to control traffic. • Providing guard rails to control harsh traffic on roads near plant area.	-
5	Sri Narayan Patro,	• Look into the pollution matter	OMPL has confirmed that they	Adequate capacity APC devices and	<u>Pollution Control Cost</u>

	Kharagpur	to be generated form the proposed project.	will take all major necessary actions to control the pollution from the proposed project	OCEMS (Online Continuous Emission Monitoring System) will be installed at relevant point in parallel with implementation of the plant. Proper green Belt will be developed in the plant premises with time bound manner. (tentatively upto 2025)	<u>Details</u> • Capital Cost:Rs.105. 2Crores; Recurring Cost:Rs. 11.35 Crores/ Annum.
6	Sri Bhavesh Senapati, Village Baharapat	• Provide jobs for the locals.	OMPL has given priority to the local people for employment generation based on their academic qualification for their existing plants. And same will be done for the proposed project	In the proposed project top most priority will be given to the local people based on their academic qualification. (tentatively upto 2025)	-
		• Develop drinking water facilities, health check-up facilities, education for under privilege children.	Since inception of the company in Kharagpur, OMPL has committed for development and upliftment of socio economic status of entire jangalmahal area. OMPL in past has developed and provided necessary help to the nearby school, NGO &	Financial support under CER for next seven years will be given: ▪ Local School for extension of building class room ▪ Drinking water infrastructure (Tube Well) ▪ Village pond upgradation ▪ Primary health &	Company has earmarked Rs 23.00 Crores under Enterprises Social commitment for a period of seven years.

			village through CSR program and in future also will continue the same work.	sanitation facilities, Construction of charitable dispensary, providing ambulance facility to near-by panchayats and providing equipment to the local hospitals. ▪ Promotion of Sports	
		• Development of roads.	OMPL stated that road nearby existing plant is being repaired periodically in construction with Road Construction Department, Govt. of West Bengal and in future more focus will be given to develop the local roads under CER Activities.	OMPL will coordinate with Road Construction department officials for repairing of roads in the nearby area. 7 Years (tentatively 2025)	Company has allocated Rs 6.48 Crores for road developemnt under Corporate Environment Responsibilities.
7	Sri Satadal Banerjee, Malancho Kharagpur	• Request to more efforts need to be done regarding CSR.	Since inception of the company in Kharagpur, OMPL has committed for development and upliftment of socio economic status of entire jangalmahal area. OMPL has been doing the CSR activities from long back and assure will continue it in future.	Funds have been earmarked under Corporate Environment Responsibilities to be utilized over a period of 7 years tentatively by 2025.	Company has earmarked Rs 23.00 Crores under Corporate Environment Responsibilities.

		• Pollution aspects should also be looked into.	OMPL has confirmed that they will take all major necessary actions to control the pollution from the proposed project	Adequate capacity APC devices and OCEMS (Online Continuous Emission Monitoring System) will be installed at relevant point in parallel with implementation of the plant.	Adequate funds will be deployed in CAPEX (Rs. 105.2 crores) and OPEX (11.35 Crores) for environmental protection measures and will not be diverted to other purposes.
8	Sri Uttam Ghosh, Village Barkola	• Provide job opportunities to land losers.	Management of OMPL stated thatsincere efforts would be made to address the issue.	Job will be provided to the land losers on the basis of their academic qualifications. (upto 2025 tentatively)	-
9	Sri TrilochanDutta, Village Bargai	• Provide job opportunities to the unemployed and land losers.	OMPL has given priority to the local people for employment generation based on their academic qualification for their existing plants. And same will be done for the proposed project	Job will be provided to the land losers on the basis of their academic qualifications. (upto 2025 tentatively)	-
		• Request to look into the matter of land acquisition	The local land owners sell their land for industrialization (setting up greenfield plant and also for recreational work, greenbelt	-	-

			development/creation) after various discussion and proper negotiation only.		
		• Look into the matter of pollution.	M/s Orissa Metaliks Private Limited stated that after detail engineering APC devices of adequate capacity are proposed in order to minimise the pollution.	Adequate capacity APC devices and OCEMS (Online Continuous Emission Monitoring System) will be installed at relevant point in parallel with implementation of the plant.	Adequate funds will be deployed in CAPEX (Rs. 105.2 crores) and OPEX (11.35 Crores) for environmental protection measures and will not be diverted to other purposes**.**

18.0 The company proposes to invest on the Corporate Environment Responsibility (CER) activities. For this purpose, the company proposes to 23.0 Crores. This fund shall be utilized over a period of 7 years. Company has identified certain areas, to be considered for implementing the CER activities in the context of the local scenario of the area:

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
PUBLIC HEARING RELATED ACTIVITIES								
1	Construction of 32 Toilets at16 school (@ Rs. 8.00 Lakhs per set of 2 Toilets, separately for Ladies & Gents)	48	48	32	32	32	32	32
2	Open Defecation free village by introducing community & Individual Toilets	10	10	10	10	10	10	10
3	Drinking Water Infrastructure (Tube well in nearby villages – 65 nos. @ Rs. 1.20 Lakhs); ATM Water Machine 28 nos. @ Rs 3 lakhs	24	24	24	24	24	24	18
4	Construction and repairing of metal road (27 km) in villages (@Rs. 24 Lakhs per km)	96	96	96	96	96	96	72

5	Development of Community Hall – Total 5 nos. (@ Rs. 15 Lakhs per Hall)	15	15	15	0	15	0	15
6	Local Village Pond up gradation, cleaning &maintenance - 15 ponds (@ Rs. 3 Lakhs per Pond)	9	6	6	6	6	6	6
7	Construction of charitable Dispensary (07 nos.)	12	12	12	12	12	12	12
8	Ambulance to nearby Panchayat	10	0	10	0	0	10	0
9	Providing equipment to the local hospitals	6	6	6	5	4	4	4
10	Primary health for the surrounding villages	8	8	6	6	6	5	5
11	Financial Support to the Local School for extension of building / class room/ development of library facilities	8	8	7	7	7	7	6
12	Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme	27	27	26	26	24	24	20
13	Supporting schools for establishment of mini sports complex or playgrounds in providing the facilities like badminton court, tennis court and levelling of ground.	4	3	3	4	3	4	3
14	Workshop centre with latest tailoring machines for training women (like tailoring, stitching, Pickle & Sauces making, Soft Toys & Gem Jeweller, and Beautician Courses and for making affordable price of Sanitary Pads.)	7	7	7	6	6	5	5
15	Local villagers will be given employment on the basis of their eligibility. However a training camp shall be provided when new recruitment is done to enable check and select from the local pool of applicability.	8	8	8	7	7	6	6
16	Development of parks, plantation of trees in the nearby areas.	20	20	19	19	19	18	18
NEED BASED ACTIVITIES								
17	Transportation facility for school students	5	5	4	4	4	5	5

18	Street Lighting (Solar/Led) provision at suitable public places – 180 nos. (@ Rs. 0.40 Lakhs per Solar Light)	10.4	10.4	10	10	10.4	10.4	10.4
19	Creation of irrigation infrastructure in the peripheral villages(Water Harvesting Structure, Irrigation Channel)	7	7	7	6	6	6	6
20	Drainage Development - side drains & Construction of Culvert on drainage	13	12	13	14	13	13	12
21	Boundary wall & Burial grounds in three village and renovation of roads to burial ground	9	9	8	8	7	8	8
22	Financial Support to Local Temple	2	1	1	1	1	1	1
23	Scholarship award to unprivileged Students	6	6	6	6	5	4	4
24	Provide Dustbin in Village (under Swach Bharta Scheme)	6	6	6	5	5	4	4
TOTAL : 2300Lacs.								

19.0 The capital cost of the project is Rs 1700 Crores and the capital cost for environmental protection measures is proposed as Rs 105.2 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 11.35Crores. 5500 in-direct employment & 3000 persons will get direct Employment during operational phase. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Item	**Capital Cost (in Crores)**	**Recurring Cost (in Crores)**
Cost of Air Pollution Control Devices/ System	58.0	5.1
Cost of Water conservation & Pollution Control	5.0	0.5
Cost of Solid Waste Management System	6.0	0.6
Green belt development	9.0	0.5
Noise Reduction Systems	8.0	1.0
Occupational Health Management	4.5	0.45
Risk Mitigation & Safety Plan	6.5	0.6
Online Monitoring Surveillance System	3.8	1.4
Setting Environmental Management Cell &	3.0	0.7
Setting Environmental Laboratory	1.5	0.5
GRAND TOTAL	**105.2**	**11.35**

20.0 Greenbelt will be developed in 41.4 Ha which is about 33% of the total acquired area. A 100-m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as

greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 103500 saplings will be planted and nurtured in 41.40 Hectares in 7 years.

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

22.0 Name of Environmental Consultant: Envirotech East Pvt. Ltd., Kolkata-700 075, NABET certificate no. NABET/EIA/1011/010.

23.0 The proposal was considered in the 34th meeting of EAC (Industry-I) held during 6-7th August, 2018.After detailed deliberations, the committee sought the following additional information for further consideration of the proposal.

1. Details of Source of water, wastewater treatment process, revised water balance and water management.
2. Type of iron ore and source, process of beneficiation, details of slime management.
3. Management of Tar sludge generated from producer gas plant
4. Revised corporate environment policy
5. Modification of wet quenching process to dry quenching
6. Waste heat recovery from stove gases
7. Details of sinter cooler waste heat recovery
8. Disposal of sludge generated from the cold rolling mills, pickling and galvanizing process
9. Detailed plan for completion of green belt in two years
10. Revised CER plan alongwith budgetary requirement and time schedule for completion of CER activities
11. Chrome slag management, including option for use as green concrete
12. Details of rainwater harvesting
13. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability in the proposed project.

24.0 The project proponent submitted the reply to the ADS vide letter dated 18/08/2018, the submission of the PP are as follows:

Point 1: Details of Source of water, wastewater treatment process, revised water balance and water management.

Reply: As per an initial estimate, water to the tune of 22,248 KLD (927 Cu.m/hr.) will be required for the proposed project. The raw water will be sourced mainly from the supply system of Kharagpur Municipality & Kansabati River and partially from Bore Wells. The detail of sources of water is given below,

Source of Water

Sl. No.	Permission Granted by	Permission Obtained for	Total Daily Make up Water

		drawl of water		requirement for the proposed project
1	Kharagpur Municipality	**Cu.m/hr**	**KLD**	
		900	21,600	**22,248 KLD (927 Cu.m/hr.)**
2	State Water Investigation Directorate (SWID), West Bengal from Kansai River Bed	27.08	650	
TOTAL		**927.1**	**22,250**	

The break-up of water required for the proposed plant is given below,

Water Use Statement

Sr. No.	Name of Unit	Daily Make up Water	
		Cu.m/hour	**KLD**
1	Blast Furnace	160	3840
2	Sinter plant	08	192
3	Steel Melting Shop	35	840
4	Rolling Mill	69	1656
5	Cold Rolling Mill	20	480
6	Oxygen plant	02	48
7	Lime dolomite plant	02	48
8	Ductile Iron Pipe	19	456
9	Ferroalloy plant	10	240
10	I/O Beneficiation Plant	15	360
11	Captive Power Plant	560	13440
12	Utilities &Miscellaneous Uses	07	168
13	Domestic Water	20	480
Total		**927**	**22,248**

WASTE WATER TREATMENT PROCESS

A. Domestic Wastewater Generation & Treatment
B. Industrial Wastewater Generation & Treatment

A. Domestic Wastewater Generation & Treatment

Plant will be in operation for 24 hours in 3 shifts. Total manpower involved at a time in proposed project is around 3000 numbers. Domestic wastewater to be generated from canteen, Toilet, Rest room & canteen at the tune of around 230 KLD.

Two numbers of Sewage treatment plant (STP) (2x115 KL capacity) based on SBR technology is proposed to be set-up in the proposed project.

B. INDUSTRIAL WASTEWATER GENERATION & TREATMENT

The plant will be designed as a zero discharge plant. The entire wastewater after necessary treatment will be used in Sponge Iron Unit and for dust suppression, gardening etc. inside the plant.

There will be two types of Industrial effluent:

- Type-I effluent (48 m^3/hr (1152 KLD)) i.e CT blow downs / other units for which physico-chemical treatment comprising of oil separation, settling, clarification, pH adjustment etc. would be employed.
- Type-II effluent (8 m^3/hr (192 KLD)) from Rolling Mill & Pickling & galvanizing line would have to be treated in a separate bay where acidic and alkaline waste streams would be neutralized with separation of floating and emulsified oil.

Spent acids from pickling line would be regenerated in an Acid Regeneration Plant (ARP) for in-plant recycling.

Point 2: Type of iron ore and source, process of beneficiation, details of slime management.

Reply: In order to cater beneficiated iron ore to the pellet plant, it is proposed to set up iron ore beneficiation plant of capacity 24, 00,000 TPA to beneficiate iron ore fines from iron ore mine. The type of iron ore that will be procured will be mainly hematite ore.

The proposed disposal method for tailings is as under

1. **For Brick making plants - 42% (1,78,000 TPA)**

Since these tailings are already 100-200 mesh powder containing substantial amounts of Al_2O_3& SiO_2, they are suitable for making bricks.

2. **In Sinter Plant – 49% (2,08,000 TPA)**

Chemical and mineralogical analysis of Iron Ore Tailing (IOT) has proven that it can be used as araw material mix in sinter plant.

3. **As aggregate in Concrete- 8 % (34,000 TPA)**

Chemical and mineralogical analysis of Iron Ore Tailing (IOT) has proven that it can be efficiently used in place of fine aggregate to gain good strength in concrete.

4. **For low Land Filling/ Abandoned Pits – (3,534 TPA)**

The iron ore tailing will be used for low land filling/ abandoned pitsit was originally from natural earth crust. Shallow pits where material is not available for back filling can be reclaimed provided slopes are suitably graded. The filled area then can be covered with soil mixed with organic manure and fertilizer. Planting hardy plants species like Eucalyptus, Acacia with the sole aim to green the area and create a biomass.

It is estimated that 49% of the tailings (2,08,00 TPA) will be used as raw material mix in sinter plant,42 %of the tailings (1,78,00 TPA) sold to the brick manufacturers, 8% of the tailings (34,000 TPA) as aggregate in concrete& the remaining less than 1% will be used for back-filling of the low land area/ abandoned pits.

Before using the IOT as raw material it need be dried/ partially dried (10-12 % moisture content) for that initially 6-8 months the iron ore tailing will be kept at tailing yard. Estimate of tailings yard is made calculating 1 year storagewhich can occupy an area 25000 sq. meters with 2.2 densities. The heap shall be done by creating suitable slopes. The heap will be 500 meter long X 45 meter wide X 5 m height

Point 3: Management of Tar sludge generated from producer gas plant.

Reply: M/s Orissa Metaliks Private Limited proposes to install 20 x 7,500 Nm^3/ hr(1, 50,000 Nm^3/ hr)coal Gasifier plant for producing coal gas with calorific value of 1250 Kcal/ Nm^3. The coal gas will be used as fuel to Iron ore Pelletization.

Pellet is proposed to be equipped with Multifuel fired burners and fuel is used at Rotary kiln as well Travelling grate. Heat is provided to system at several places is various zones of travelling grate. The Burners can handle the gas at 400 degree centigrade.

Gas at 450 degree centigrade will be directly used at Pellet plant so entire volatile matter is used to generate heat, however to meet the emergency and plant will be connected to ETP and allied equipment.

Producer Gas from first stage will be taken to Electric Tar separator, and ETP is insulated and equipped with heat traces too. Tar is collected at bottom and pump to the storage Bin. Water seals are equipped at all the coal gas pipe line, sealing water overflows are connected to underground concrete tank.

Underground water Tank is equipped with tar pumps, pumps are installed at -2.5 metre level , tar collected here will be pumped to tar overhead storage Bin , Bin is insulated and heat tracer are provided , having facility to load Tar Tanker directly . Storage capacities of the bins for Tar will be closed 90 Mt. Tar will be sold to the buyers and have good demand for construction of roads.

Over flow water, spillage water is connected to Underground tank, where the tar will be settled.Soft water plant is proposed to be installed of capacity 100 M^3 /hour so as PH is maintained.Plant will be designed for Zero discharge and spillage water will be used for spraying on coal and coke if necessitated.

Process water is recycled in the system and over flow of the underground tank is reused /recycled for the water seals and secondary application in gasifier plant.

Point 4: Revised corporate environment policy.

Reply: Revised Corporate Environment Policy approved by Board of Director is submitted. Hierarchical system to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions is shown in Organization Structure.

Point 5: Modification of wet quenching process to dry quenching

Reply: Red-hot coke taken out of the coke oven is normally cooled with a water spray in a quench tower, which is a process known as wet quenching (Coke Wet Quenching: CWQ). A dry quenching (Coke Dry Quenching: CDQ) equipment, on the other hand, recovers sensible waste heat from red-hot coke, which accounts for 40 to 50 % of heat loss in a coke oven, as steam, in order to recycle energy

The proposed project activity involves a process to convert part of wasted heat to electricity generation. In this proposed project activity, part of the waste-heat is planned to be used for the steam which will replace the steam generated elsewhere. In addition, the cokes treated with the CDQ will be used for the reduction of the iron ore in the blast furnace and it will improve the efficiency of iron making by decreased coke/iron ratio, which will also lead to the GHG emission reduction.

Coke coming out of coke ovens is commonly quenched with water and waste heat is emitted without any use. Coke dry quenching is a process by which coke is cooled with low temperature inert gas (Nitrogen) in a shaft like cooling unit called cooling chamber in a CDQ plant (max 150 ton-cokes/hour).

CDQ technological components CDQ is mainly composed of red coke transport system, hoisting machine, coke dry quenching boiler, gas supply device, load device, coke discharge device and gas circulating device.

CDQ technological components

Sl. No	System Name	Main Tasks
1	Red coke transport system	The red cokes from carbonization chambers are transported to the top of the CDQ boiler, matching with the input device. Put the cokes into CDQ boiler. The main equipmentinclude the electric locomotives, coke tank truck (truck and coke tank), alignment device, hoister, etc. In case of annual overhaul or incidents occurring to CDQ devices, the motor vehicle draws and operates a stand-by coke wet quenching vehicle to CDQ tower for coke wet quenching.
2	Hoisting machine	It is responsible for lifting and transporting coking tanks. It mainly consists of a lifting device, a running gear, a safety device, a cargo sling, a coking tank cover, steel structure main framework, a lifting guide rail, a machinery room and platform and a running ladder, etc. Linkage between the hoister and other equipment shall be realized by PLC.
3	CDQ and gas supply device	The gas supply device positioned at the bottom of the CDQ boiler evenly feeds the cold circulating gas into the cooling chamber, and can make the cokes in the boiler evenly fall down. It is mainly made up of a cone, a wind cap, an air channel and a peripheral vane.
4	Load Device	Responsible for loading cokes, it is provided with a dust collecting pipe and doesn't generate dust escape during coke loading.
5	Coke discharge device	It is positioned at the bottom of the CDQ boiler, consecutively discharge the cooled cokes at the bottom of the CDQ boiler in a closed manner. Without the circulating gases being released out of

Sl. No	System Name		Main Tasks
			the boiler, the cokes discharged continuously in a fixed quota are conveyed through the coke chute to the belt conveyer for output. The coke discharge device is also provided with a dust collecting pipe and doesn't generate dust escape during coke discharge.
6	Gas circulating system	Primary Dedusting machine	Being a gravity settling flute-type Dedusting device, it's used for removing coarse grain coke powders in the circulating gas, to reduce the wear on the CDQ boiler piping. Blank wall is provided in the dedusting machine. The bottom cone outlet of the primary dedusting machine is divided into funnel form, connecting two-fork flutes at the bottom to discharge the coke powders
		Secondary Dedusting machine	Arranged between the boiler and the circulating fan of gas circulating system, the secondary dust separator adopts the special dust collector suitable for the coke dry quenching process to further separate the thin coke dust from the circulating gas, ensuring the dust content of gas entering the circulating fan less than $1g/m^3$ and the dust with the diameter smaller than 0.25 mm taking up over 95% of the total. In this way, the blades of circulating fan will be less worn by the coke dust.
		Circulating ventilator	After being pressurized, the gases in closed loop shall then be conveyed uninterruptedly into the CDQ boiler for recycled use and setup of one recycling ventilator. Ventilator shall be temperature and wear resistant
		Heat-pipe exchanger	The heat is transferred from the circulating gas to the boiler feed water through their heat exchanger, which is carried out by the repeated circulation of "evaporation-transfer-condensation".
7	Elevator		For facilitating the operations of inspection and overhaul personnel, an elevator is installed outside the framework of the CDQ boiler.

Point 6: Waste heat recovery from stove gases

Reply: Waste gas generated at temperature of 200 – 300 degree centigrade is used for preheating the combustion air from atmospheric temperature to 250 degree centigrade. Recuperate is

proposed to induct at waste gas flue duct so as heat energy from Flue gas is used for preheating the combustion air to 250 degree centigrade and Blast furnace gas to 180 degree centigrade . After necessary recovery of the heat, the gas at around 150 degree centigrade is used for drying the coke.

Point 7: Details of sinter cooler waste heat recovery

Reply: The recovered waste heat from sinter cooler will be used for the generation of steam with the installation of recovery boilers. This steam will be used to generate process steam which will be used in Blast furnace& cold rolling mill.

Point 8: Disposal of sludge generated from the cold rolling mills, pickling and galvanizing process

Reply: The detail sludge waste inventory is:

SLUDGE WASTE INVENTORY			
DESCRIPTION OF WASTE	**WASTE CATEGORY**	**EXPECTED QUANTITY**	**DISPOSAL METHOD**
Sludge from Degreasing tank	**Hazardous**	20 KLA	Sent to WBPCB Authorize CHWTSDF
Sludge from Rinsing	**Hazardous**	1525 KLA	Sent to WBPCB Authorized CHWTSDF
Iron oxide Powder from ARP	**Non-Hazardous**	1750 TPA	To be used in Proposed Sinter plant
Sludge from Fluxing	**Hazardous**	20 KLA	Sent to WBPCB Authorized CHWTSDF
Zinc Ash	**Non-Hazardous**	375 TPA	Sell to WBPCB Authorized Vendors
Zinc Dross	**Non-Hazardous**	470 TPA	Sell to WBPCB Authorized Vendors
Sludge from Passivation	**Hazardous**	13 KLA	Sent to WBPCB Authorized CHWTSDF
TOTAL		**4173**	

Point 9: Detailed plan for completion of green belt in two years

Reply: The proposed plantation is at the rate of 2500 saplings per hectare. As the proposed green cover including greenbelt is 41.40 ha. The greenbelt plan for the year two years i.e. from 2019 to 2021 is given below,

Greenbelt Plan for 2019-2021

Sl. No	Year	Sapling Nos	Area to be Covered (Ha.)	Species Type	Location
1	2019-20	51750	20.7	Palash, Amaltas, Sisoo, Kadam, Peepal, Arjun, Neem, Mango, Siris, Ashoka, Saal, Akashmoni, Jackfruit, Bamboo, Radhachuda, Teak	Coal unloading, stacking and handling area, Guard Pond , Railway Siding area, Administrative & Canteen Area and Product Storage Yard, Car & Truck Parking area, Inside the plant boundary wall, slag/ coal crushing area, Near HFO tank, Water reservoir, Tailing Pond, Plant internal road.
2	20120-21	51750	20.7		
TOTAL		**1,03,500**	**41.4**		

Point 10: Revised CER plan along with budgetary requirement and time schedule for completion of CER activities

Reply: M/s Orissa Metaliks Private Limited has well established guideline for Corporate Environment Responsibility (CER) activities. The company has identified certain area for imparting the CER activities in the context of local scenario of the area and also considering the issues raised during public hearing. Three villages namely Samraipur, Bargai &Kalikapur within 10 km of area have been identified based on their Socio-economic conditions & survey conducted and accordingly emphasis will be given to certain areas that are being explored for ensuring their overall upliftment. The company proposes to invest Rs. 2300 Lakhs on the CER activities, this fund shall be utilized over a period of 7 years. The breakup of CER investment is as.

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
PUBLIC HEARING RELATED ACTIVITIES								
1	Construction of 32 Toilets at16 school (@ Rs. 8.00 Lakhs per set of 2 Toilets, separately for Ladies & Gents)	48	48	32	32	32	32	32

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2	Open Defecation free village by introducing community & Individual Toilets	10	10	10	10	10	10	10
3	Drinking Water Infrastructure (Tube well in nearby villages – 65 nos. @ Rs. 1.20 Lakhs); ATM Water Machine 28 nos. @ Rs 3 lakhs	24	24	24	24	24	24	18
4	Construction and repairing of metal road (27 km) in villages (@Rs. 24 Lakhs per km)	96	96	96	96	96	96	72
5	Development of Community Hall – Total 5 nos. (@ Rs. 15 Lakhs per Hall)	15	15	15	0	15	0	15
6	Construction of charitable Dispensary (07 nos.)	12	12	12	12	12	12	12
7	Ambulance to nearby Panchayat	10	0	10	0	0	10	0
8	Providing equipment to the local hospitals, Developing/ up gradation of primary health center	16	16	14	14	11	11	10
9	Financial Support to the Local School for extension of building / class room/ development of library facilities	8	8	7	7	7	7	6
10	Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme	27	27	26	26	24	24	20
11	Supporting schools for establishment of mini sports complex or playgrounds in providing the facilities like badminton court, tennis court and levelling of	4	3	3	4	3	4	3

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	ground.							
12	Workshop centre with latest tailoring machines for training women (like tailoring, stitching, Pickle & Sauces making, Soft Toys & Gem Jeweller, and Beautician Courses and for making affordable price of Sanitary Pads.)	7	7	7	6	6	5	5
13	Local villagers will be given employment on the basis of their eligibility. However a training camp shall be provided when new recruitment is done to enable check and select from the local pool of applicability.	8	8	8	7	7	6	6
14	Development of parks, plantation of trees in the nearby areas.	20	20	20	19	19	18	18
NEED BASED ACTIVITIES								
15	Transportation facility for school students	5	5	5	4	4	5	5
16	Street Lighting (Solar/Led) provision at suitable public places – 180 nos. (@ Rs. 0.40 Lakhs per Solar Light)	10.4	10.4	10	10	10.4	10.4	10.4
17	Creation of irrigation infrastructure in the peripheral villages(Water Harvesting Structure, Up gradation of Pond, Irrigation Channel, Supply of Crop harvesting machine, Pest Control Machine)	15	13	13	12	12	12	12
18	Infrastructure facilities development for Welfare of	10	10	9	9	9	8	8

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	the local villager							
19	Drainage Development - side drains & Construction of Culvert on drainage	13	12	13	14	13	13	12
20	Scholarship award to unprivileged Students	6	6	6	6	5	4	4
21	Provide Dustbin in Village (under Swach Bharta Scheme)	4	4	4	3	3	3	3
TOTAL								**2300 Lacs**

Point 11: Chrome slag management, including option for use as green concrete

Reply: Undertaking for use of Chrome slag as green concreteissubmitted with reply to ADS.

Point 12: Details of rainwater harvesting

Reply: OMPL project will implement rainwater harvesting in following ways:

1. Roof top rainwater harvesting at guest house area
2. Collection of storm water in the Guard Pond.

1. Roof top rainwater harvesting for artificial Ground water recharge

Around 48 m^3 of run-off water from roof top of guest house area will be utilized for artificial ground water recharge. 04 numberRain Water Harvesting pits of dimension (l × b × h) = (5 × 4 × 3) @ the cost of 1.5 lakhs are proposed for artificial ground water recharge subject to permission from competent authority.

2. Collection of storm water in the Guard Pond

Since water collected from the above source will be unfit for consumption, it can be used for storage and later used for many purposes as discussed in the above case. But the water collected from pavements can be diverted through gutters to underground masonry tanks, reinforced cement concrete tanks and surface guard pond for storage and to be used later.Around 2, 10,000 $m^3$of run-off water will be harvested. A network of drainage system having size 0.5m Depth × 0.5 m width will be provided to collect runoff water and diverted to surface 02 nos. Guard Pond of Dimension 100M x 100M x 5M.

The harvesting plan for 2, 10,000 m^3 runoff water is,

- 1,10,000 m^3 may be harvested on surface runoff water pond, out of which Net water available during dry period at Guard Pond- 90,000 m^3 because of trans evaporation loss and
- 1, 00,000 m^3 underground tank and stored suitably.

Point 13: Scheme for skill development as per the programmes of Skill Development Council ofIndia to improve the employability in the proposed project.

Reply: M/s Orissa Metaliks Private Limited in past has given priority to the local people for employment based on their academic qualification for their existing plants. The fund allocated under CER for Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme, Workshop centre & Scholarship to unprivileged student is Rs. 304 lacs which will be spend in 7 years plans. The detail fund utilization breakup is:

Sl. No.	PROPOSED CER ACTIVITIES	INVESTMENT (IN LACS)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme	27	27	26	26	24	24	20
2	Supporting schools for establishment of mini sports complex or playgrounds in providing the facilities like badminton court, tennis court and levelling of ground.	4	3	3	4	3	4	3
3	Workshop centre with latest tailoring machines for training women (like tailoring, stitching, Pickle & Sauces making, Soft Toys & Gem Jeweller, and Beautician Courses and for making affordable price of Sanitary Pads.)	7	7	7	6	6	5	5
4	Local villagers will be given employment on the basis of their eligibility. However a training camp shall be provided when new recruitment is done to enable check and select from the local pool of applicability.	8	8	8	7	7	6	6
TOTAL : 304 Lacs								

Apart from that Apprenticeship will be provided to the local people on basis of their academic qualification as per provisions of Apprentices Act 1961 and Rules thereof to give on job training and develop their skill. The project will create employment in skilled, unskilled and semi-skilled categories during construction, commissioning & operational phase. Top most priority will be given to the local people based on their academic qualification and company requirement. 50 % of the manpower requirement will be fulfilled by local people.

Recommendations of the committee:

25.0 After detailed deliberations, the Committee recommended the project for the grant of environmental clearance with the following specific conditions and general conditions:

Specific Conditions:

i) No groundwater shall be used during operation of the plant.

ii) The entire quantity of the iron ore slime shall be utilized and no dumping shall be allowed inside and outside of the plant premises for the purpose of disposal.
iii) Overflow water from tar storage tank of producer gas plant shall be treated and recycled.
iv) The PP shall explore the market for utilization of the sludge generated from acid recovery plant.
v) Waste heat recovery system shall be implemented for the sinter cooler.
vi) Greenbelt development shall be completed in two years.
vii) A programme for the skill development shall be initiated to improve the employability of the local youth in the proposed project.
viii) CER activities shall be implemented in project mode within 2 years.

General Conditions:

I. Statutory compliance:

i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

ii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time

II. Air quality monitoring and preservation

i. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual;)

III. Water quality monitoring and preservation

i. 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.

ii. Adhere to 'Zero Liquid Discharge'

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

iv. The project proponent shall practice rainwater harvesting to maximum possible extent.

IV. Noise monitoring and prevention

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

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

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

ii. Kitchen waste shall be composted or converted to biogas for further use.(*to be decided on case to case basis depending on type and size of plant*)

VII. Public hearing and Human health issues

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

ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

VIII. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

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

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

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out

vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

IX. Miscellaneous

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

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

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

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

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

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

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

v. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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

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

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

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

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

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

xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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.

35.19. Proposed expansion of Writing & Printing Paper Plant (200 to 400 TPD) and Co-generation power plant (12 MW to 30 MW) at Village Rampura, Tehsil Sadar (Shahjahanpur), District Shahjahanpur (Uttar Pradesh) by **M/s K.R. Pulp & Paper Limited** (Unit II) [Online Proposal No. IA/UP/IND/77059/2018; MoEFCC File No. J-11011/1132/2007.-IA.II(I)] – **Terms of Reference**

1.0 **M/s K.R. Pulp & Paper Limited** made application vide online proposal no. IA/UP/IND/77059/2018 dated 1st September 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 5(i) Paper and Pulp under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

2.0 M/s. K R Pulp and Papers Limited (Unit-II) proposed for expansion of Writing& Printing Paper plant (200 TPD to 400 TPD paper) and co-generation power plant (12 MW to 30 MW) at Village Rampura, Tehsil Sadar (Shahjahanpur), District Shahjahanpur (Uttar Pradesh).

3.0 The existing project was accorded environmental clearance vide letter no. J-11011/1132/2007-IA-II (I) dated 12th February, 2009. Consent to Operate was accorded by Uttar Pradesh State pollution Control Board for Water vide letter. no. F69988/C-7/733/Water Pollution/Bareilly/2015 dated 3.12.2015 and for Air vide letter. No. F69989/C-7/767/Air Pollution/Bareilly/2015 dated 3.12.2015; validity of CTO is up to 31.12.2018.

4.0 The proposed expansion unit is located at Village: Rampura, Tehsil: Sadar (Shahjahanpur), District: Shahjahanpur, State: Uttar Pradesh.

5.0 The total plant area for existing unit is 24 Ha and proposed expansion will be done within existing plant premises and no additional land is acquired for the same. The existing land is already an industrial land. No forest land is involved. Of the total area 7.9 ha (33%) land has already been used for green belt development.

6.0 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.

7.0 Total project cost is approx 460.25 Crore rupees for expansion. After expansion, total employment generation will be 366 persons (Existing manpower- 375 and additional manpower - 166persons) direct employment and 550- 750personindirect employment.

8.0 The existing capacity of the unit is 200 TPD writing and printing paper and 12 MW co-generation power and after expansion targeted production capacity of the writing & printing paper will be 400 TPD and 30 MW co-generation power. The main raw material bagasse, wheat straw and mixed hard wood for the plant would be procured from sugar mill, farmers and ply wood industry. The raw material transportation will be done through trucks. The proposed capacity for different units is as below:

Name of Unit	**Capacity of each unit**		**Total capacity after expansion**
	Existing capacity	**Additional capacity**	
Writing and printing paper production	200 TPD	200 TPD	400 TPD
Co-generation power plant	12 MW	18 MW	30 MW
Chemical Recovery Unit (Based on Black Liquor solids)	Non-Conventional Recovery *	700 TPD (Conventional Recovery Plant with Lime Kiln)	700 TPD (Conventional Recovery Plant with Lime Kiln)
**Note: Non-conventional recovery plant will be kept as stand by after proposed expansion at least for one year after running the conventional recovery.*			

9.0 After expansion, total power requirement will be21 MW which will be sourced from 30 MW co-generation power plant.

10.0 Proposed raw material and fuel requirement for expansion project are Bagasse , wheat straw and mixed hard woodas main raw material, chemicals (Caustic soda, Sodium Chlorate, Hydrogen Peroxide, Oxygen, AKD)and Rice Husk /Coal with Pith & Sludge as fuel. The requirement would be fulfilled by Nearby Sugar Mill, farmers and Ply Wood Industry for main raw material and nearby markets for chemicals. Oxygen will be produced in house. Fuel requirement would be fulfilled by nearby open markets. Fuel consumption will be mainly Rice Husk, Coal with Pith & Sludge for co-generation power plant and pet coke with furnace oil for lime kiln.

11.0 Existing fresh water requirement is 9940 KLD and after expansion, additional fresh water requirement will be 6620 KLD. Thus the total fresh water requirement after expansion will be 16560 KLD. The waste water generated after expansion will be 13000 KLD which will be treated in the ETP. During summer season, out of total treated waste water, 3600 KLD will be reused by sprinkling on bagasse stacks, greenbelt development, dust suppression and the remaining 9400 KLD will be discharged in the nearby drain. During the remaining part of the year treated water generated (13000 KLD) will be discharged in the nearby drain.

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

13.0 During the discussions, the committee advised for the combined ToRs for the unit –I and unit –II. The PP requested the committee to consider the units as separate units, as at present under respective heads of the profit centres.

14.0 After detailed deliberations, the Committee considered the request made by project proponent and recommended the project proposal for prescribing ToRs along with following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2:</u>**

i. No treated and untreated effluents shall be discharged directly or indirectly to Ganga and its tributaries as per the Notification issued vide S.O.3187 dated 7th October 2016 by Ministry of Water Resources, River Development, and Ganga Rejuvenation.

ii. Public Hearing to be conducted by the concerned State Pollution Control Board.

iii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iv. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

v. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

35.20. Proposed 1200 MT/day (396000 MT/annum) Cement Plant to be located at village Bhatayan, Khrew, Tehsil Pampore, District Pulwama, Jammu and Kashmir by **M/s Kasmir Cements** [Online Proposal No. IA/JK/IND/76457/2018; MoEFCC File No. IA-J-11011/269/2018-IA-II(I)] –**Terms of Reference.**

M/s Kasmir Cements made application vide online proposal no. IA/JK/IND/76457/2018 dated 28th August 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "B" of EIA Notification; 2006. Due to the applicability of general condition, proximity of National Park, the proposal is considered as Category A and is appraised at Central Level.

2.0 **M/s Kasmir Cements** proposes to to set up a cement plant for the production of portland cement with annual installed capacity of 396000 MT/annum or 1200 MT/day at village Bhatayan, Khrew, Tehsil Pampore, District Pulwama, Jammu and Kashmir.

3.0 The promoters of the project are already having 77 Kanals (3.89 Hectares) of land at village Bhatayan, Khrew, Tehsil Pampore, District Pulwama, Jammu and Kashmir.

4.0 The Amchang Wildlife sanctuary is located within the 10 km from the boundary of the Dachigam National Park.

5.0 Total project cost is approx. 146.98 Crore rupees. Proposed employment generation from proposed project will be 200 persons.

6.0 The targeted production capacity of the Clinker and cement 1200 TPD (0.396MTPA).

7.0 The industry would require around 9.0 MW of electricity for the cement plant and whole of the power requirements would be met through state electricity supply. The industry will install D G sets of 2 x 2500 KVA capacity as backup power supply

8.0 The cement plant will use limestone and coal as basic raw material. Annual raw material requirement is Lime stone : 485100 TPA; Clay: 100980 TPA; Coal/Petcoke: 80850 TPA and Iron/dust: 6,600 TPA.

9.0 The industry would require around 40 m3/day of fresh water for industrial and domestic use. Total fresh water requirement for dust suppression would be a maximum of 30 m3/day. To support drinking, cooking, sanitary, etc. requirements of the workers, industry will need a maximum of 10 m3/day.

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

11.0 Name of Consultant is Envision Enviro Technologies Pvt. Ltd., Surat. Listed on serial no in QCI list at 60.

12.0 After detailed deliberations, the Committee recommended the project proposal for prescribing ToRs along with following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2:</u>**

i) The PP shall obtain the recommendation of National Board for Wildlife as it is situated within 10km distance of the Dachigoan National Park.

ii) Public Hearing to be conducted by the concerned State Pollution Control Board.

iii) The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iv) The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

35.21. Expansion of existing manufacturing unit for Sponge Iron Plant and Captive Power Plant and proposed for Steel Melting Shop, Rolling Mill, Cold Rolling Mill and Galvanizing Plant located at Kudathini Village, Bellary Taluk, Bellary District, Karnataka State M/s Agarwal Sponge & Energy Private Limited [Online Proposal

No. IA/KA/IND/76353/2018; MoEFCC File J-11011/908/2007-IA-II(I)] - Terms of Reference.

M/s Agarwal Sponge & Energy Private Limited made application vide online proposal no. IA/KA/IND/76353/2018 dated 25th August, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

Thecommittee observed that proposal is incomplete with respect to the process details, layout, facilities to be provided to the environment management etc. Therefore, after detailed deliberations, the committee came to the conclusion that the proposal, in its present form, could not be recommended for prescribing ToRs.

35.22 Modernization and Expansion Plan (MEP) of Existing Paper/Board Manufacturing Plant at JKPL Unit: CPM, Fort Songadh, Dist Tapi, Gujarat by M/s JK Paper Limited [Online proposal No. IA/GJ/IND/76268/2018; MoEFCC File No. J-11011/416/2008-IA-II(I)] – Terms of reference

1.0 M/s JK Paper Limited made application vide online proposal no. **IA/GJ/IND/76268/2018** dated 24th August, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 5(i) Paper and Pulp under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

Details submitted by the project proponent:

2.0 M/s. JKPL, Unit CPM proposes a Modernization and Expansion Plan (MEP) of existing manufacturing unit to increase the Paper/Board production capacity from 1,60,800 TPA to 3,60,800 TPA by installing a new board manufacturing unit of capacity 2,00,000 TPA. The existing pulp mill of capacity 60,000 BD TPA will be replaced with ECF based Chemical Wood Pulp (CWP) mill of capacity 1,60,000 BD TPA.

3.0 The existing facility was accorded environmental clearance vide letter. no. J-11011/416/2008-IA.II(I) dated 17th October, 2008. Consent to Operate was accorded by Gujarat State Pollution Control Board vide letter no. AWH-63794 dated 21.08.2014, valid up to 10.04.2019. The facility has obtained certified compliance report for Environmental Clearance 2008 from MoEF & CC Regional Office, Bhopal vide letter No. 5-266/2008(ENV)/316 dated 07/08/2018.

4.0 The proposed unit will be located within the existing plant which is located at Village Gunsada, Bhimpura, Singalkhanch, Fort Songadh Taluk, Tapi District in the State of Gujarat

5.0 Since the available free space in the mill will be used for project facilities, no additional land is required. The mill has already acquired total land area of 363 acres (Plant area 212 acres

and Colony area 151 acres). For MEP project, around 65 acres will be utilised from existing plant area.

6.0 National Park/Wildlife sanctuary/Biosphere Reserve/Tiger reserve/Elephant reserve etc. are not located in the 10 km radius of the study area from the existing facility. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approximately 1500 Crore rupees. Proposed employment generation from proposed project will provide direct employment for about 300 persons and indirect employment for about 500 persons.

8.0 The targeted production capacity of the mill is 3,60,800 TPA. Existing coal/lignite linkage is available with Western Coalfield and Rajpardhi mines. The additional coal/lignite linkages shall be obtained locally/open market. The existing and post MEP capacities are presented below:

S.No	Description	Unit	Existing	Post MEP	Incremental	Proposal
1	Paper/Board Machines section					
1.1	PM#1&2 (PWP)	TPA	60,000	60,000	-	Existing will continue
1.2	PM#3 (Board)	TPA	1,00,800	1,00,800	-	Existing will continue
1.3	PM#4(New Board)	TPA	-	2,00,000	2,00,000	New Unit
1.4	Total Paper / Board Production	TPA	1,60,800	3,60,800	2,00,000	-
		TPD	480	1,080	600	-
1.5	Deinking Plant	BD TPD	-	150	150	New DIP will be installed
1.6	Secondary Fiber Treatment (SFT) Plant	BD TPD	200	600	400	Existing facility will be used with New 400 tpd SFT plant
2	Pulp Mill					
2.1	Bleached Chemical Wood Pulp mill	BD TPA	60,000	1,60,000	1,00,000	Relocating and Reinstallation from JKPL unit, Rayagada, Orissa, with Up gradation. The existing pulp mill of capacity 60,000 BD TPA will be kept as standby without increasing the intended overall
		BD TPD	175	460	285	

S.No	Description	Unit	Existing	Post MEP	Incremental	Proposal
						production capacity.
2.2	BCTMP mill	AD TPA	-	1,00,000	1,00,000	New Unit
		AD TPD	-	300	300	
2.3	ClO_2 plant	TPD	2	15	15	Existing Nonintegrated ClO_2 plant will be retired and New integrated ClO2 plant will be installed.
2.4	Oxygen Generation Plant	Nm^3/ Hr	200	500	500	Installation of new O_2 generation plant of capacity 500 Nm^3/hr. The existing O_2 generation plant will be kept as standby.
2.5	Pulp Wet lapping machine	TPD	-	150	150	New wet lap machine
3	Recovery plant					
3.1	Evaporator	TPH of water evapo ration	70	300	230	Existing Evaporator will be used for BCTMP waste liquor evaporation along with Reinstalled evaporator with upgradation
3.2	Recovery boiler	TPD of black liquor solids	335	950	950	Existing recovery boiler will be kept as standby and a new Recovery boiler will be installed
3.3	Lime kiln	TPD of lime	90	230	140	Existing will be used along with re-installed lime kiln from JKPM or JKPM lime kiln will be re-installed with upgradation.

S.No	Description	Unit	Existing	Post MEP	Incremental	Proposal
3.4	Recausticising plant	White liquor Cum /Day	1,000	3,000	2000	Existing plant will be upgraded with additional equipment.
4	Power Plant					
4.1	Power Boilers	TPH of steam	170	360	190	CFB#1-20 (To be Retired) CFB#2 - 30 (To be Retired) CFB#3-50 (Operating), CFB#4 - 70 (Operating) New CFB#5 - 150 TPH (Operating) will be installed New CFB#6 - 90 TPH (Standby) will be installed.
4.2	Turbo Generators	MW	30.25	72.00	41.75	TG#1 - 3.125 (To be Retired),TG#2 - 3.125 (To be Retired) TG#3 - 12 (Operating), TG#4 - 12 (Operating) New TG#5 - 30 MW and New TG#6 18 MW will be installed.
5	Others					
5.1	PG Plant	Nm^3/ Hr	3000	10000	7000	New 7000 Nm^3/h will be installed.
5.2	Precipitated Calcium Carbonate (PCC) Plant ($CaCO_3$)	TPM	1200	1200	-	Existing capacity is adequate. No change.
5.3	Silicate Nano Fibers ($CaSiO_3$)	TPM	1500	1500	-	Existing capacity is adequate. No change.
5.4	GCC plant	TPD	-	100	100	New 100 tpd GCC

S.No	Description	Unit	Existing	Post MEP	Incremental	Proposal
						plant will be installed.
6	Water and Wastewater					
6.1	Water Intake and Treatment Plant	M³/Day	35,000	45,000	10000	Intake pump station and WTP will be upgraded.
6.2	Waste Water Treatment	M³/Day	30,000	45,000	15000	The existing ETP will be upgraded to meet the additional hydraulic volumes during the post project scenario.

9.0 The electrical energy demand of 60 MW during the post MEP will be met by increasing the capacity of Captive Power Plant from 30.25 MW to 72 MW. No additional DG sets are proposed to be installed. The raw material and fuel required for the proposed MEP are presented below:

S. No	**Raw material**	**Unit**	**Existing**	**Post MEP**	**Incremental**	**Source**
1	Wood/Bamboo	AD TPA	163,000	515,000	352,000	Local
	Wood – Plantations	AD TPA	130,000	450,000	320,000	Local
	Wood – Market	AD TPA	-	50,000	50,000	Local
	Bamboo - Forest area	AD TPA	33,000	15,000	(18,000)	Local
2	Waste Paper	AD TPA	-	82,000	82,000	Local
3	Hard Wood Pulp (HWP)	AD TPA	26,000	-	(26,000)	Captive after MEP
4	Soft Wood Pulp (SWP)	AD TPA	1,900	9,900	8,000	Import
5	Bleached Chemi Thermo Mechanical Pulp (BCTMP)	AD TPA	58,700	-	(58,700)	Captive after MEP

Fuel Requirement

S.No	Fuel	Unit	Existing	Post MEP	Incremental	Source

S.No	Fuel	Unit	Existing	Post MEP	Incremental	Source
1	Indian local (Linkage and Open Market)	TPA	70,000	200,000	130,000	Existing coal linkage of 73,804 tpa with Western Coalfield is available. Additional coal linkage shall be obtained locally/open market.
2	Imported coal	TPA	100,000	200,000	100,000	Coal is imported from Indonesia through open market.
3	Lignite	TPA	70,000	100,000	30,000	Additional lignite linkage shall be obtained locally from Rajpardhi mines as per the existing procurement.
4	Fuel oil for lime kiln and recovery boiler	KL	170	3,200	3,030	Local Market
5	Pet coke for lime kiln	TPA	-	9,600	9,600	Local Market

10.0 Fresh Water Consumption for the proposed MEP will be increased from existing consumption of 20,500 m3/day to 37,000 m3/day. The specific water consumption will be reduced from 40 m3/T of product to 32 m3/T of product during post MEP. Mill has permission to draw 5 MGD (22,700 m3/day) of water from Ukai Left Bank Main Canal. Necessary in principle permission from the concerned authority has been obtained for the drawl of additional fresh water. The wastewater generation during post MEP will increase from existing generation quantity of about 17,500 m3/day to 30,000 m3/day. The existing ETP of capacity 30,000 m3/day will be upgraded with required new pollution abatement equipment and processes to meet the additional hydraulic volumes during the post MEP. About 2000 m3/day of treated wastewater from ETP will be recycled back to process and the remaining quantity will be utilized for land irrigation. Dedicated STP is proposed to be installed to treat the domestic sewage generated from the colony and plant.

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

12.0 Name of the Consultant: Cholamanadalam MS Risk Services Limited, Chennai, SI. No in QCI List: 26

Recommendations of the committee:

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

i) Water withdrawal permission
ii) Treated effluent disposal system for irrigation and agro forestry purpose shall be elaborated.
iii) A scheme for Green belt completion in two years development shall be furnished
iv) The trend of change of soil quality and productivity shall be furnished along with a comparative study on soil quality and productivity shall be conducted with respective to the near by lands/ soils.
v) Public Hearing to be conducted by the concerned State Pollution Control Board.
vi) The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
vii) The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.
viii) Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

35.23 Expansion of existing plant of **M/s Chhabra Ispat Pvt. Ltd.** from 62,400 TPA Billet production to 207,900 TPA Rolled production by Modification of Existing 2x8 Tons Induction Furnaces with 2x10 Tons, Installation of 2x15 Ton Induction Furnaces, Installation of 630 TPD Rolling Mill with Producer Gas Plant and Cold Drawing Complex located at Village: Nakrajoria, P.S.: Salanpur, District: Burdwan (W), West Bengal [Online proposal No. IA/WB/IND/77591/2018; MoEFCC File No. J-11011/376/2010-IA.II(I)] – **Terms of Reference**.

M/s Chhabra Ispat Pvt. Limited made application vide online proposal no.**IA/WB/IND/77591/2018**dated 6/09/2018along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "B" EIA Notification, 2006. However, due to the applicability of general condition i.e., project site is located within 5.0km from the inter-state boundary (boundary of Jharkhand and West Bengal), the proposal is appraised at Central Level.

Details of the project as per the submission of Project Proponent:
2.0 M/s Chhabra Ispat Pvt. Ltd. proposes for expansion of existing manufacturing unit for Billet Production. It is proposed to expand the existing plant for 62,400 TPA Billet production to 207,900 TPA Rolled production by modification of existing 2x8 Tons Induction Furnaces with 2x10 Tons, installation of 2x15 Ton Induction Furnaces with 1x15 Ton LRF, 1x30 TPH Reheating Furnace with Producer Gas Plant of Capacity 2,850 Nm3/hr, 630 TPD Rolling Mill and 100 TPD Cold Drawing Complex based on IF-CCM-RM technology with Cold drawing of wire rods.

3.0 The existing project was accorded environmental clearances vide letter no.J-11011/785/2007-IA.II (I) dated 25.08.2005 and vide letter no. J-11011/376/2010-IA II (I), dated 05.03.2012. Consent to Operate was accorded by West Bengal State Pollution Control Board vide letter no. C081357, dated 20.08.15. Validity of CTO is up to 31.08.2018.

4.0 The proposed unit will be located at Khasra No. 925,964, 965, 966,967, 968, 969, 971,972, 973, 974,978, 980, 981, 982, 983, Village: Nakrajoria, Taluka, P.S.- Salanpur, District: Burdwan, State: West Bengal.

5.0 The land area acquired for the proposed plant is 4.34 Ha. Project does not envisage additional land for the expansion project. The entire project will be installed in vacant land of the existing plant. No forestland involved. Of the total area, 1.44 ha (33%) land will be used for green belt development.

6.0 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.

7.0 Total project cost is approx 57.67 Crore rupees. Employment generation from proposed project will be 100 direct employments and 50 indirect employments.

8.0 The targeted production capacity of the Rolled Products is 207,900 TPA. No Ore will be required for the production, however raw materials would be procured from the open markets. Raw material transportation will be done by road. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Units	Production capacity (TPA)
Steel Melting Shop		
Induction Furnace	2x10 Ton (Modification of existing IF) 2x15 Ton (New)	192,500
Continuous Casting Machine (CCM)	2 Strand, 4/7 m radius Billet Caster	188,650
Ladle Refining Furnace	1x15 Ton	
Producer Gas plant	1	2,850 Nm^3/hr
Reheating Furnace	1x30 TPH	---
Rolling Mill	630 TPD	207,900
Cold Drawing M/c	100 TPD	33,000 (within 207,900 TPA Rolled production)

9.0 The status of units installed and production under the earlier EC granted are given as below:

Product	Units/capacities as per EC granted				Total installed units/capacity (TPA) as on date	
	As per the EC granted on 25/08/2008		As per EC granted on 5/03/2012			
	Units/	Status	Units/	Status	Units/	Status

	Capacity (TPA)		**Capacity (TPA)**		**Capacity (TPA)**	
MS Billet	62,400 (2x8 Ton Induction Furnace with billet caster)	Installed	35,780 (1x15 Ton)	Not installed and shall be dropped.	(2x8 Ton Induction Furnace with billet caster)	62,400 TPA
Fe- Si	--	--	2x9 MVA 11,585			
Si- Mn	--	--	23450			
Fe- Mn	--	--	35175			

10. The electricity load of 25.5 MW (total) will be procured from Damodar Valley Corporation (DVC). Company has also proposed to install 1x250 KVA DG set.

11.0 Proposed raw material and fuel requirement for project are

S.No.	**Raw Material**	**Quantity (TPA)**	**Source**
Steel Melting Shop-Induction Furnace			
1	Sponge iron	1,54,000	Shyam Sel & Power Ltd., Jamuria, Burdwan, WB. Bravo Sponge & Iron (P) Ltd., Purulia, WB
2	Scrap	28,297	Sarva Mangalam Gajanan Steel, Asansol, WB SRMB Srijan (P) Ltd., Durgapur, WB
3	Pig iron	28,297	KIC Metaliks Ltd., Durgapur, WB Atibir Industries Co. Ltd., Giridih, Jharkhand
4	Ferro Alloys (FeMn, FeSi, Al)	1,156	Ispat Damodar Pvt.Ltd., Purulia, WB
Total		**2,11,750**	
Steel Melting Shop-Billet Caster			
1	Liquid Steel	1,92,500	In-house
Rolling Mill			
1	Billet (In-house)	188,650	In-house
2	Billet (Procured)	29,645	Maithan Steel & power Ltd., Salanpur, Burdwan
Total		**2,18,295**	
Cold Drawing Machines			
1	Wire Rod	33,000	In-house
Producer Gas plant			
1	Coal	8,400	Chitra colliery (BCCL), Jharkhand ECL, Raniganj

Fuel consumption of LDO is 100 liters / hr. (Emergency Power only)

12.0 Water Consumption for the proposed project will be 243 KLD (total after expansion) and no waste water will be generated. Domestic waste water will be treated in Septic Tank followed by Soak Pit and Industrial waste water generated will be treated in Neutralization Pit and Effluent Treatment Plant and reused.

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

14.0 Name of Environment Consultant – M/s Vardan Environet.S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018. Certificate No. NABET/EIA/1619/RA 0037.

Recommendations of the Committee:

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

1. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP
2. Scheme for water withdrawal from Sivanath River shall be furnished in the EIA/EMP.
3. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.
4. Public Hearing to be conducted by the concerned State Pollution Control Board.
5. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
6. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018.
7. Certificate compliance of earlier EC from the Regional officer of the MoEFCC shall be submitted along with EIA/EMP.
8. A scheme for minimization of water consumption in the process.
9. A scheme for ground water monitoring shall be furnished.

35.24 Expansion of MS Ingots manufacturing from 21,600 TPA to 36,000 TPA and installation of Submerged Arc Furnace to manufacture 15,000 TPA of Silico manganese at Kandra Industrial Area, Dist. Dhanbad, Jharkhand by **M/s Jai PrabhujiIron& Steel Ltd** (Proposal No. **IA/JH/IND/3121/2011**; MoEF&CC File No. **IA-J-11011/180/2010-IA II(I)**] - **Amendment in Environmental Clearance Further consideration based on reply to ADS**.

1.0 M/s Jai Prabhuji Iron& Steel Limited made online application vide proposal no. IA/JH/IND/3121/2011 dated 24/02/2018 sought amendment in the existing Environmental Clearance No. J-11011/180/2010-IA II(I), dated 13.07.2011.

Details submitted by the project proponent:

2.0 The project is located atKandra Industrial Area,Govindpur, District Dhanbad (Jharkhand)for production of 36,000 TPA MS Ingot and 15,000 TPA Silico Manganese as per the Environment Clearance granted by MoEFCC, GOI vide letter No. J-11011/180/2010-IA.II(I) on dated 13.07.2011.

3.0 Products and other details as per the existing EC are as follows:

S. No.	Products	Units	Quantity (TPA)
1.	MS Ignot	Induction Furnace 1x3 T and 2x6 T	36,000
2.	Silica Manganese	2x5 MVA SAF	15,000
Other Details			
3.	Area required		5.38 Acres
4.	Water Requirement		51 KLD
5.	Power Requirement		20 MW

4.0 The topography of the area is flat and location co-ordinate23^{o} 50'55.49"N Latitude and 86o 28'43"ELongitude in Survey of India topo sheet No. 73 I/5.

5.0 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 ScheduleI fauna.

6.0 It was informed that at present the demand of short length MS Ingot has become obsolete and the product with longer length, i.e. MS Billet is sustainable.Therefore,requested following amendment in the existing Environmental Clearance:

i. MS Billet (in place of MS Ingot) – 36000 TPA
ii. Silicomanganese (15,000 TPA) may be omitted from the EC as we have not installed the 2x5 MVA Submerged Arc Furnaces and shall not installed in future also.

7.0 It was informed that there is no change in the process for production of liquid steel and only Ingot route is being replaced with Continuous Casting route which is more environment friendly.The capital cost of the project is Rs. 4.95 crores for the existing facilities and additional Rs4.10 Crores for change to CCM, i.e. total cost of the project will be Rs. 9.05 Croresand the capital cost for environmental protection measures is Rs25.00 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 2.80 Lakhs per year.

8.0 The water requirement of the project is estimated as33m^3 /dayafter the proposed change.

9.0 The power requirement after the proposed change shall be 16.5 MVA and shall be sourced from JharkhandState Electricity Board (JSEB).

10.0 Total manpower after the proposed change shall be 100 to operate and maintain the plant facilities including its technical/ administration needs.

11.0 No change in raw materials requirement due to the proposed change.

12.0 Approx. 1.16 Acres (33% of the total area) shall be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project activities.

13.0 The proponent has mentioned that there is no court case / litigation against the plant

14.0 M/s VardanEnvironet, who has revalidated the EIA Report, is listed at Serial no. 148 as per NABET list of accredited consultant organizations (Rev. 62 dated 05.02.2018).

15.0 The aforesaid proposal was considered in the 29th EAC meeting held during 12-14th March, 2018 wherein EAC sought detailed information with respect to increase or otherwise in the pollution load and the compliance status of the existing Environmental Clearance conditions was not readily available. The PP informed the committee that he would submit the requisite information to the Ministry for further consideration and action by the Ministry.

16.0 Regional Office – Ranchi vide letter no. 103-335/11/EPE/2420 dated 24/07/2018 submitted the compliance status to the EC conditions dated 13/07/2011.

17.0 The project proponent along with the EIA consultant M/s Vardan Environet made a presentation before the Committee.

Observations of the Committee:

i. Proposal of M/s Jai Prabhuji Iron& Steel Limited is regarding amendment in the Environmental Clearance dated 13.07.2011 for production of billets of 36, 000 TPA capacity in place of MS ingots by installing continuous casting machines.
ii. Due to the installation of Continuous Casting Machine (CCM), the pollution load will decrease and the production capacity will not increase.
iii. Silicomanganese (15,000 TPA) to be deleted from the EC dated 13/07/2011 as project proponent is not intending to install the 2x5 MVA Submerged Arc Furnaces.
iv. As per the inspection report of RO Ranchi, following are the non-compliances reported:
    - Continuous stack monitoring facility has not been provided as stipulated in the EC condition.
    - Condition pertaining to the actual water consumption of water, rain water harvesting design, slag utilization, green belt development, adherence to the JSPCB conditions, expenditure towards environment management, uploading of monitored environmental data on the company website and submission of six monthly report are only partly complied.
    - PP has already initiated the construction activities of CCM. Also installed one crusher which was not running during the inspection.

v. In this context, PP informed that the construction activities of CCM and crusher were undertaken as per para 7(ii) b of EIA Notification, 2006 i.e., "*any change in configuration of the plant from the environmental clearance conditions with no change in*

production and pollution load are exempted from the requirement of obtaining environmental clearance. The project proponent shall inform the Ministry of Environment, Forest and Climate Change / State Level Environment Impact Assessment Authority and the concerned State Pollution Control Board"

vi. PP informed the EAC that vide letter dated 14/06/2017 they have informed the aforesaid installation of CCM to the Ministry.

Recommendations of the Committee:

18.0 As presented by the Project Proponent, the production is not changing and the pollution load is also not increasing. Therefore, the committee recommended that the the proposal may be considered under para 7(ii) b of EIA Notification(2006) which states that ***"the project proponent shall inform the Ministry of Environment, Forest and Climate Change".*** Therefore, the Project Proponent is exempted from EC amendment.

35.25 Expansion of cement plant with clinker 1.485 MTPA to 3.485 MTPA and Cement 1.65 MTPA to 5.00 MTPA by installation of new unit –II for additional clinker production of 2.0 MTPA and Cement of 3.35 MTPA of **M/s The India Cements Ltd** located at Village Chilamkur, Yerrakuntla Mandal, District YSR Kadapa, Andhra Pradesh – Amendment in ToR for clinker 1.485 MTPA to 5.15 MTPA and Cement 1.65 MTPA to 7.00 MTPA and installation of 50 MW CPP [Online proposal No. IA/AP/IND/59343/2016; MoEFCC File No. J-11011/126/2011-IA-II(I)].

1.0 M/s The India Cements Limited made an application vide online proposal No. IA/AP/IND/59343/2016 dated 2nd August 2018 for Amendment in ToR for clinker 1.485 MTPA to 5.15 MTPA and Cement 1.65 MTPA to 7.00 MTPA and installation of 50 MW CPP in the ToR granted on 18th January 2017.

2.0 The India Cements has obtained ToR for expansion of cement plant with clinker 1.485 MTPA to 3.485 MTPA and Cement 1.65 MTPA to 5.00 MTPA by installation of new unit –II for additional clinker production of 2.0 MTPA and Cement of 3.35 MTPA located at Village Chilamkur, Yerrakuntla Mandal, District YSR Kadapa, Andhra Pradesh vide MoEFCC Letter No. J-11011/126/2011-IA-II(I) dated 18th January, 2017.

3.0 There is scope for enhancement of the production in the existing units through up gradation of existingLine– I andIn view of the market scenario, the company proposed for further increase in the production in Line-II. The amendment requested as follows:

Cement Plant	TOR issued (Capacity after expansion)		TOR Amendment Requested (Capacity after expansion)	
	Clinker	Cement	Clinker	Cement
	(MTPA)		(MTPA)	
Unit –I	1.485	1.65	1.65 (up gradation of Unit-I)	2.00
Unit –II	2.00	3.35	3.50 (new Unit-II)	5.00

Total	3.485	5.00	5.15	7.00
Coal based Captive Power Plant	Nil		50 MW Installation of new coal based captive power plant)	

4.0 After detailed deliberations the committee recommended for amendment in the ToR as proposed with following additional ToRs:

i) The scheme for power generation from unit I and II shall be detailed.

ii) Permission for water drawl from penna river shall be submitted.

iii) Permission for crossover of high way, roads for the belt conveyor shall be submitted.

iv) Schemer for NOx control as per the norms shall be submitted.

35.26 Proposed Clinker Grinding Unit (2.0 MTPA) with 2 x 6 MW D.G. Set installation at Villages - Meltattapparai & North (Vadakku) Silukanpatti, Taluka & District - Tuticorin in Tamil Nadu by **M/s. UltraTech Cement Limited** [Online proposal No. IA/TN/IND/22062/1910; MoEFCC File No. J-11011/286/2011-IA.II(I)] – **extension of Validity of EC.**

M/s. UltraTech Cement Limited made an application vide online proposal no. IA/TN/IND/22062/1910 dated 03/08/2018 seeking extension of validity of environmental clearance granted for Setting up of Clinker Grinding Unit (2.0 MTPA) with 2 x 6 MW D.G. Set installation at Villages - Meltattapparai & North (Vadakku) Silukanpatti, Taluka & District - Tuticorin in Tamil Nadu vide File No. J-11011/286/2011-IA-II (I) dated 05/08/2011.

Details of the project as per the submission of Project Proponent:

2.0 M/s. UltraTech Cement Limited has Proposed Clinker Grinding Unit (2.0 MTPA) with 2 x 6 MW D.G. Set installation at Villages - Meltattapparai& North (Vadakku) Silukanpatti, Taluka & District - Tuticorin in Tamil Nadu. The Environmental Clearance for the project was issued by MoEFCC, New Delhi vide letter no. J-11011/286/2011-IA II (I) dated 5th August, 2011.

3.0 The proposed project has not yet been established as per the schedule.

4.0 Details of progress made so far -

- Acquisition of the total land area required for the proposed project i.e. 91.10 ha
- Topography survey has been completed
- In-principal approval for Railway Siding has been obtained
- Other technical studies such as Geotechnical studies, survey for electric power line and detailed project engineering are in advance stage.

5.0 Reason for Delay:

- Land Acquisition
- Severe recession in the market

6.0 M/s. UltraTech Cement Limited is now proposing for extension of validity of EC letter for a period of three years.

Observations of the committee:

7.0 The Committee noted that the project proponent could not implement the project due to land acquisition and recession in the market condition.

Recommendations of the Committee:

8.0 After detailed deliberations, the Committee recommended for extension of validity of Environmental Clearance for a period of three years i.e., from 05/08/2018 to 4/08/2021 subject to environmental safeguards.

35.27 Integrated Steel Plant (1.00 MTPA) [Ductile Iron Pipes, Seamless Tubes, ERW Tubes) along with Captive Power Plant (2 x 250 MW) at Village Jamuria, P.O. Bahadurpur, District Burdwan, West Bengal by M/s Shyam Sel and Power Ltd [Online proposal No. IA/WB/IND/6700/2008; MoEFCC File No. J-11011/887/2007.-IA.II(I)] – Amendment in EC

M/s. Shyam Sel and Power Limited made an application vide online proposal no. IA/WB/IND/6700/2008 dated 24/08/2018 sought amendment in the (i) environmental clearance accorded by Ministry vide letter no. J-11011/887/2007.-IA.II(I) dated 18/03/2009 & 19/06/2018; and (ii) environmental clearance accorded by SEIAA – West Bengal vide letter no. EN/702/T-II-I/141/2007 dated 26/03/2008.

Details of the project as per the submission of Project Proponent:

2.0 M/s. Shyam Sel and Power Limited has sought for amendment in the (i) environmental clearance accorded by Ministry vide letter no. J-11011/887/2007.-IA.II(I) dated 18/03/2009 & 19/06/2018; and (ii) environmental clearance accorded by SEIAA – West Bengal vide letter no. EN/702/T-II-I/141/2007 dated 26/03/2008 for change in configuration in Steel Melting Shop and increase in production capacity of Ferro Alloy plant.

3.0 The representatives of M/s. Shyam Sel and Power Limited and their EIA consultant M/s. Envirotech East Pvt. Ltd., Kolkata-700 075, NABET certificate no. NABET/EIA/1011/010 made a presentation before the Committee.

Observations of the Committee

i. EAC noted that proposal of M/s Shyam Sel and Power Ltd is for coupling the products and unit configurations mentioned in the MoEF&CC environmental clearance dated 18/03/2009 and SEIAA – West Bengal environmental clearance dated26/03/2008. Further, EAC also noted that project proponent sought amendment in these ECs for change in configuration in Steel Melting Shop and increase in production capacity of Ferro Alloy plant (19%).

ii. As per the presentation made by M/s Shyam Sel and Power Ltd, the EAC noted that they have partly implemented change in configuration of the induction furnace without the prior approval of the Competent Authority concerned.

iii. EAC also noted that the change in configuration of the induction furnace as sought by the PP in their amendment proposal would significantly increase the pollution load with regard to dust pollution, energy consumption and solid waste generation, water consumption and land requirement. In addition to this, increase in production capacity of Ferro Alloy plant may deteriorate the environmental quality further.

Recommendations of the Committee

i. The aforesaid proposal of M/s Shyam SEL Ltd does not qualify for amendment in environmental clearance and project proponent should seek fresh ToR.

ii. The MoEFCC may request its Regional Office at Bhubaneswar to assess the status of implementation of the environmental clearance dated 18/03/2009 and 26/03/2008 inter-alia including change in configuration of the units implemented/under implementation by the project proponent along with the compliance status of stipulated EC conditions.

35.28 Cement Plant (Clinker 200 TPD and Cement Grinding 600 TPD) at Vill: Sarutari, Mouza:Sonapur, Dist: Kamrup (Metro), Assam [Online proposal No. IA/AS/IND/75912/2018; MoEFCC File No. IA-J-11011/245/2018-IA-II(I)] – Terms of Reference based on Reply to ADS

M/s Singo Industries Limitedmade application vide online proposal no.**IA/AS/IND/75912/2018**dated 23rdJuly 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b)Cement Plants under Category "A" EIA Notification; 2006.The proposal of expansion is submitted and appraised at Central Level.

2.0 M/s. Singo Industries Limited proposes to install a new manufacturing unitfor Clinker and Cement. It is proposed to set up the new plant for Clinker: 200 TPD based on Vertical Shaft Klin (VSK) technology & Cement Grinding: 600 TPD.

3.0 The proposed project is Green field project will be located atDag No. 10 of K.P. Patta 1,Village: Sarutari, Mouza: Sonapur, District: Kamrup (Metro), State: Assam.

4.0 The land area acquired for the proposed plant is 1.287142 Ha.Entire land is private land. No forestland involved. The entire land has been acquired for the project. Out of the total area 0.4250 Ha (33%) land will be used for green belt development.

5.0 The Amchang Wildlife sanctuary is located at a distance of 4.4 KM from the site. ESZ of the Amchang Wildlife sanctuary was defines wide MoEF notification no. S.O. 1817(E) dated 07/05/2017. The boundary of ESZ of Amchang Wildlife sanctuary is located at a distance of 4.2 Km approximately from the proposed project site. The project area does not report to form corridor for Schedule-I fauna.

6.0 Total project cost is approx. 16.32 Crore rupees. Proposed employment generation from proposed project will be 30 direct employment and 70 indirect employment.

7.0 The targeted production capacity of the Clinker 200 TPD (0.073 MMTPA) & Cement 600 TPD (0.219 MMTPA). The proposed capacity for different products for new site area as below:

Name of unit	**No. of units**	**Capacity of each Unit**	**ProductionCapacity**
Clinker(VSK Based)	2 nos.	100 TPD	200 TPD
Cement Grinding	2 nos.	15 TPH	600 TPD

8.0 The electricity load of 66MW will be procured from Assam Power Distribution Company Ltd (APDCL). Company has also proposed to install 1000 kVA DG Set.

9.0 Proposed raw material i.e. Lime stone (305 MT/Day), Clay (10 MT/Day), Coke Breeze (45 MT/Day), Iron Ore/Other Minerals(5 MT/Day), Fly Ash/Slag (210 MT/Day), Gypsum (30 MT/Day), Clinker (370 MT/Day). Fuel requirement for the project are Coke breeze (45 MT/Day) for Clinker production and Diesel (75 Lit/hr) for D.G set. The requirement would be fulfilled by local market as well as from nearest states i.e. Meghalaya, Bihar and West Bengal.

10.0 Water Consumption for the proposed project will be 88 KLD and waste water generation from Industrial activities will be Nil.Domestic waste water i.e. 7 KLD will be disposed though Septic Tank/Soak Pit System. No industrial waste water will be generated from the proposed project.

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

12.0 Name of Consultant is Envision Enviro Technologies Pvt. Ltd., Surat. Listed on serial no in QCI list at 60.

13.0 The proposal was considered in the 34th EAC meeting held during 6th -7th August 2018. After detailed deliberations, the committee noted that the proposed site is at the foot of the hills and surrounded by water bodies. The site is low laying area. The committee also noted that the road connecting the national highway to the proposed project site passess through a congested human settlements with industrial units. One existing cement plant is also located near by. It was felt that the road is already being very congested with vehicular traffic. The proposed project will further increase the traffic load. Therefore, the committee recommended that the PP should submit the following information for further consideration.

1) Alternate site analysis

2) Detailed traffic analysis giving the existing traffic load and likely incremental traffic load on the road connecting the project to the national highway and also traffic load on the national high way.

14.0 The project proponent submitted the details sought by the committee vide letter dated 05.09.2018.

15.0 After detailed deliberations, the Committee recommended the site -1 for proposed project and recommended the project proposal for prescribing ToRs along with following specific ToRs for undertaking detailedEIA and EMP study in addition to the generic ToR enclosed **at Annexure I read with additional ToRs at Annexure-2:**

i) The project proponent shall obtain the recommendation of Standing Committee of National Board for Wild Life.
ii) Public Hearing to be conducted by the concerned State Pollution Control Board.
iii) The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
iv) The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

ANNEXURE –I

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 (Quantative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. Site Details

   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

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

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

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport

of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

8. Occupational health

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

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

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

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

9. Corporate Environment Policy

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

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

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

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

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Corporate Environment Responsibility (CER)

i. To address the Public Hearing issues, an amount as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018 amounting to Rs. .....crores, shall be earmarked by the project proponent, towards Corporate Environment Responsibility (CER). Distinct CER projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These CER projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat & District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above CER budget

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. A tabular chart with index for point wise compliance of above ToRs.

14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCBshall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.

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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

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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 basebleaching 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.

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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.

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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.

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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.

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INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE

1. Details of proposed layout clearly demarcating various units within the plant.
2. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
3. Details on design and manufacturing process for all the units.
4. 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.
5. Details on requirement of raw materials, its source and storage at the plant.
6. 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).
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content (TCLP), composition and end use of chrome slag. Details on the recovery of the Ferro chrome from the slag and its proper disposal.

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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 gaseousemission, 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. Capitalcost 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