

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

SUMMARY RECORD OF THE TWENTY- SEVENTH (27TH) MEETING OF EXPERT APPRAISAL COMMITTEE HELD DURING 3RD TO 5TH JANUARY 2018 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The Twenty-seventh meeting of 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 **3rd to 5th January 2018** in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

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

27.2 Confirmation of the minutes of the 26th Meeting

The minutes of the 26th meeting, as circulated were confirmed.

DATE: 3rd January 2018

27.3 Expansion of Ore Beneficiation Plant from 0.6 MTPA to 1.5 MTPA within the exiting premises by M/s Thakur Industries located at Village Hirebagnal, Talul & District Koppal, Karnataka [Online Proposal No. IA/KA/IND/70331/2016; MoEFCC File No. J11011/208/2016-IA.II(I)] –Environmental Clearance.

1.0 M/s Thakur Industries has made online application vide proposal no. **IA/KA/IND/70331/2016** dated **12th December 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 2(b) Mineral beneficiation under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposed expansion of Ore Beneficiation Plant of M/s. Thakur Industries located in Village Hirebaganl, Tehsil Koppal District Koppal State Karnataka was initially received in the Ministry on 19th September 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (1)] during its 9th meeting held on 27th – 29th July 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 19th September 2016 vide Lr. No. F. No. J-11011/208/2016-IA.II (I).

3.0 The project of M/s. Thakur Industries located in Hirebaganal Village, Koppal Tehsil, Koppal District, Karnataka State is for enhancement of production of Ore Beneficiation Plant capacity from 0.6 MTPA to 1.5 MTPA. The existing project was accorded environmental clearance vide lr. no. F. No. J-11015/257/2010-IA.II (M). dated 19th April 2012. The Status of compliance of earlier EC was obtained from Regional Office, Bangalore vide Lr. No. F. No. EP/12.1/3/2010-11/Karnataka. 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 units	Capacity of each Unit	Production Capacity
Ore Beneficiation Plant	1	1.5 MTPA (throughput)	1.5 MTPA (throughput)

4.0 The total land required for the project is **7.08** ha. The entire land has been acquired for the project. It has been reported that no water body/water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is flat and reported to lies between 15° 19' 0.64" N Latitude and 76° 14' 9.68" E Longitude in Survey of India topo sheet No. 57A/3, at an elevation of 520 m AMSL. The ground water table reported to ranges between 25 m below the land surface during the post-monsoon season and 20 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will zero. Further, the stage of groundwater development is reported to be 0 % and 0 % in core and buffer zone respectively and thereby these are designated as safe.

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. The authenticated list of flora and fauna provided through the Bio-diversity reporting presence of no /schedule - I fauna in the study area (Annexure XI of EIA).

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 – Given in Chapter 2 of EIA.

8.0 The targeted production capacity of the Beneficiation Plant is 1.5 million TPA. The ore for the plant would be procured from (linkages Through E-auction). The ore transportation will be done through Road.

9.0 The water requirement of the project is estimated as 3150 m³/day, out of which 900 m³/day of fresh water requirement will be obtained from the Borewell and the remaining requirement of 3000 m³/day will be met from the recycling from the process. The permission for drawl of water is under process.

10.0 The power requirement of the project is estimated as 900 KVA, out of which 900 KVA will be obtained from the GESCOM.

11.0 Baseline Environmental Studies were conducted during post-monsoon 2016 season i.e. from September 2016 to November 2016. Ambient air quality monitoring has been carried out at 8 locations during September 2016 to November 2016 and the data submitted indicated: PM₁₀ (55.5 µg/m³ to 63.4 µg/m³), PM_{2.5} (18.3 to 21.6 µg/m³), SO₂ (22.8 to 25.4 µg/m³) and NO_x (23.2 to 24.2 µg/m³). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 42.0 µg/m³ with respect to the PM₁₀, 24.8 µg/m³ with respect to the SO₂, 24.7 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored in 3 (Three) locations in the study area and analysed. pH: 7.2 to 7.5, Total Hardness: 235 to 268 mg/l, Chlorides: 48 to 69 mg/l, Fluoride: 0.3 to 0.75 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 2 (Two) locations. pH: 7.8 to 8.2.

13.0 Noise levels are in the range of 43.5 to 79.4 dBA.

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

15.0 It has been reported that a total of tons/m³ of waste will be generated due to the project, out of which NIL will be used in None and 0.8 MTPA will be dumped in the earmarked dump yard. It has been envisaged that an area of 33 % 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.

16.0 It has been reported that the Consent to Establish/Consent to Operate from the Karnataka State Pollution Control Board / Pollution Control Committee obtained vide Lr. No 03/KSPCB/RO/KPL/SR/2014-15 dated 21st June 2014 and consent is valid up to 30th June 2019.

17.0 The Public hearing of the project was held on 18th August 2017. At Project Site under the chairmanship of Deputy Commissioner (designation) for production of 1.5 million TPA of Ore/ setting up of Beneficiation plant. The issues raised during public hearing are employment opportunities, plantation, pollution control, etc.

18.0 An amount of 30.00 Lakhs (2% of Project cost) has been earmarked for Enterprise Social Commitment.

19.0 The capital cost of the project is Rs. 220 Lakhs and the capital cost for environmental protection measures is proposed as Rs 75.48 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 9.50 Lakhs. The employment generation from the proposed project / expansion is 50. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sr. No.	Activity	Capital cost (Lakh Rs.)	Recurring cost per annum (Lakh Rs.)
1	Air Pollution Control Measures such as covering of belt conveyors, providing mist spray system at feed points, wind barricades etc.	65.50	15.00
2	Plantation and After Care Measures	4.48	2.10
3	Socio-Economic Welfare Measures as a corporate social responsibility (CSR)		
	a. Provision of ambulance facility	20.00	4.00
	b. Construction of compound wall at nearby school.	10.00	
4	Water Pollution Control Measures	5.50	3.50
5	Occupational Health & Safety (provision of first aid room and shelter)	4.00	3.50
6	Environmental Monitoring	Nil	9.50

7	Preventive and corrective maintenance of plant and machinery to reduce noise pollution and consumption of non-renewable resources (2.5% of the plant & machinery cost).	-	35.00
Total		109.48	72.60

20.0 Greenbelt will be developed in 4.74 Ha, which is about 33% of the total acquired area. 3 tier greenbelt around plant boundary will be developed 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 5000 saplings will be planted and nurtured in 2.50 hectares in 3.0 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 The Project proponent along with EIA Consultant M/s. Metamorphosis Project Consultants Private Limited (NABET/EIA/1518/RA 014 valid up to 30th November 2018) has made detailed presentation on the proposal.

23.0 The committee observed that the permission for withdrawal of ground water from the competent authority was not provided in the EIA/EMP Report, Issues raised by the public during the public hearing and commitment of the project proponent made on the issues were not clear; No details provided on the Enterprise Social Commitment (ESC); Corporate Environmental Policy as per the ToR Point 9 was not provided; Organizational setup for the environmental management was not provided in the EMP; Air quality modelling was carried taking into consideration of the boiler, where there is no proposal of the boiler in the instant proposal, noise monitoring was not carried as per the guidelines; BOD, COD and DO was not analysed in the surface water samples; solid waste management is not clear in the EMP Report; No interpretation of the baseline data including ecology & Biodiversity and socio-economic environment was provided in the EIA; etc

24.0 After detailed deliberations, the committee asked to submit revised EIA/EMP by complying all the terms stipulated to the project, *inter alia*, incorporating:

- i. Revised time bound action plan along with fund provision on the issues raised during the PH social need assessment;
- ii. Details of Enterprise Social Commitment (ESC) based on public hearing issues / need based assessment as capital expenditure in project mode and shall be completed in concurrence with the implementation of the expansion;
- iii. Groundwater development in the study area and category of the area based on the GEC guidelines;
- iv. Ground water permission letter translated in English;
- v. Revised air quality modelling studies by considering fugitive emissions from the proposed plant;
- vi. Revised noise monitoring as per the requirement of monitoring protocol;

- vii. Detailed action plan for 100% utilization of solid waste management;
- viii. Corporate Environmental Policy approved by its Board of Directors incorporating standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / condition and system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company;
- ix. Interpretation of all the baseline data including Ecology & Biodiversity and socio-economic environment;
- x. BOD, COD and DO for surface water;
- xi. Revised Risk Assessment specific to proposed project;
- xii. Impact prediction on the land, soil, biodiversity;
- xiii. Revised green belt development plan with local broad-leaved tree species;
- xiv. Justification for selection of AAQ monitoring locations.

27.4 Enhancement in production capacity of Integrated Cement Project - Clinker (2.0 to 4.5 MTPA), Cement (2.5 to 5.2 MTPA), CPP (40 MW), WHRS (10 to 12 MW) and D.G. Set (2 x 6 MW) at Villages - Tonki, Temarni, Sondul and Golpura, Tehsil - Manawar, District - Dhar (Madhya Pradesh) by **M/s. UltraTech Cement Ltd.** [Online Proposal No. IA/MP/IND/50963/2016; MoEFCC File No. J-11011/86/2012-IA-II(I)] - Environmental Clearance.

1.0 **M/s. UltraTech Cement Limited** has made online application vide proposal no. **IA/MP/IND/50963/2016** dated **13th December 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposal was initially received in the Ministry on 03rd March 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (EAC, Industry - I) during its 5th meeting held on 31st March 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 24th May, 2016 vide letter no. J-11011/86/2012-IA-II (I) and its amendment regarding change in clinker production capacity and WHRB on dated 19th October 2016.

3.0 The project of M/s. UltraTech Cement Ltd. located at Villages: Tonki, Temarni, Sondul & Golpura, Tehsil: Manawar, District: Dhar (Madhya Pradesh) is for enhancement of production of Clinker (2.0 to 6.0 MTPA), Cement (2.5 to 5.2 MTPA), CPP (40 MW), WHRS (10 to 16 MW) and D.G. Set (2 x 6 MW). The existing project was accorded Environmental Clearance vide letter no. J-11011/86/2012-IA.II(I) dated 10th February 2016. The status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter no. 5-14/2016 (Env)/1355, dated 12th December 2017. There are no non-compliances reported by Regional

Officer. The existing, proposed enhancement and the total production capacities for Cement Project after the proposed enhancement are as below:

Name of Unit	Granted Capacity	Proposed Enhancement Capacity	Total Capacity After Enhancement
Clinker (MTPA)	2.0	4.0	6.0 (1 x 3.3 + 1 x 2.7)
Cement (MTPA)	2.5	2.7	5.2
Captive Power Plant (MW)	40	Nil	40
WHRS (MW)	10	6	16
D.G. Set (KVA)	2 x 6	Nil	2 x 6

4.0 Total land required for the project is 231.28 ha which includes plant area - 176.43, Colony area - 35.521 ha and conveyor corridor from Captive Sitapuri Mine - 19.32 ha. No forest land involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification / diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is flat and reported to lies between 22° 15' 40.72" N to 22° 16' 23.78" N Latitude and 75° 07' 1.49" E to 75° 08' 56.14" E Longitude in Survey of India toposheet No. 46N/3 and 46N/4 at an elevation of around 220 m. The ground water table in the area reported to ranges between 4.1 m to 14.4 m below the land surface during the post-monsoon season and 4.3 to 12.5 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 136% and thereby, these are designated as over-exploited areas.

6.0 No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. are reported in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna provided through the baseline survey and reporting no presence of Schedule - I fauna in the study area.

7.0 The raw material used for the manufacturing of Cement will be Limestone, Clay, Additives (Bauxite/Laterite/Iron Ore), Gypsum and Fly ash. The proposed Cement Plant will be based on Dry Process Technology for Cement manufacturing with Pre-Heater and Pre-Calcliner Technology. The type of cement that will be manufactured is OPC, PPC, PSC and Composite Cement. The cement manufacturing process, *inter alia*, include Limestone Handling and Storage; Raw Mix Preparation & Homogenization; Coal Handling & Storage; Clinkerization & Cement Production; Cement Grinding & Storage; and Cement Packaging & Dispatch. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Clinker (2.0 to 6.0 MTPA), Cement (2.5 to 5.2 MTPA), CPP (40 MW), WHRS (10 to 16 MW) and D.G. Set (2 x 6 MW). Limestone required for the project will be sourced from the Captive Limestone Mines and transported through covered conveyer belt.

9.0 The fresh water requirement of the project is estimated as 3520 m³/day (after enhancement), out of which, 3020 m³/day will be sourced from Narmada River and remaining, 500 m³/day will be sourced from Ground Water. LOI for water withdrawal from Narmada River has been obtained for Industrial purpose from Water Resources Department, Madhya

Pradesh vide letter of Empowered Committee-10/Ra.St-318/164 dated 01st February 2014 and Permission for withdrawal of ground water for drinking purpose has been obtained from Sub-Divisional Magistrate (SDM), Manawar, Ghandwani, Dharampuri area, District - Dhar (MP) vide letter No. Assistant Engineer/Public Health Engineering/Subsection Manawar dated 28th October 2015.

10.0 The power requirement for the project is estimated as 75 MW which will be sourced from CPP, WHRB and 132 KV Grid Power from Madhya Pradesh State Electricity Board (MPSEB) and D.G. Set (for back-up).

11.0 Baseline Environmental Studies were conducted during Summer Season i.e. from March to May 2016. Ambient air quality monitoring has been carried out at 8 locations during 01st March 2016 to 31st May, 2016 and the data submitted indicated: PM₁₀ (61.8 to 87.1 µg/m³), PM_{2.5} (28.2 to 44.2 µg/m³), SO₂ (6.2 to 13.0 µg/m³) and NO₂ (10.2 to 23.5 µg/m³). The results of the modelling study indicated that the maximum increase of GLC for the proposed project is 1.98 µg/m³ with respect to the PM, 2.03 µg/m³ with respect to the SO₂, 3.50 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored at 8 locations in the study area and analyzed. pH: 7.02 to 7.34, Total Hardness: 110.16 to 238.40 mg/l, Chlorides: 37.45 to 55.19 mg/l, Fluoride: 0.20 to 0.75 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 1 location (i.e. Man River). pH: 7.15, DO: 5.6 mg/l, BOD: 5.15 mg/l, COD: 18.0 mg/l.

13.0 Noise levels in the study area are in the range of 46.2 to 58.6 Leq dB(A) for day time and 40.6 to 46.9 Leq dB(A) for night time.

14.0 It has been reported that there is no population in the core zone of the project; as the proposed enhancement will be done on the existing project site. 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 equipment will be totally recycled back into the process. Fly ash generated from CPP will be utilized in manufacturing of PPC grade cement. STP Sludge will be utilized as manure for greenbelt development within the plant premises. Used oil will be generated from plant machinery / Gear boxes and D.G set as hazardous waste which will be sold to the CPCB authorized recycler. It has been envisaged that an area of 76.32 ha (Plant - 58.22 + Colony - 11.72 + Conveyer Corridor - 6.38) 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 It has been reported that the Consent to Establish from the Madhya Pradesh Pollution Control Board has been obtained for the existing granted capacity of the project vide letter no. CTE/45944, dated 18th July 2016 and consent is valid up to 31st July, 2021.

17.0 The Public hearing of the project was held on 29th May, 2017 at near premises of UltraTech Cement Ltd. at Village - Tonki, Tehsil - Manawar, District - Dhar (Madhya Pradesh) under the chairmanship of Mr. D.K. Nagendra (Additional District Collector, Zila Dhar) for Enhancement in production capacity of Integrated Cement Project - Clicker (2.0 to 6.0 MTPA), Cement (2.5 to 5.2 MTPA), CCP (40 MW), WHRB (10 to 16 MW) and D.G. Set (2 x 6MW). The issues raised during public hearing area employment, environment, land & water related,

CSR & Social development etc. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

S. No.	Issue	Response by project proponent (after PH)	Time Bound Action Plan proposed & Budgetary provision
1	Employment	Preference will be given to local youth as per the qualification and vocational training programmes will be organized under CSR activities.	Rs. 2.10 Crores have been allocated for organizing vocational training programmes for employment generation.
2	Environment	Measure will be taken to control heat pollution. ESP will be installed at clinker cooler and CPP and bag filters will be provided at difference places. By use of latest waste heat recovery system, heat will be utilized properly. Outside environment will not be affected and increase in temperature will not happen. Latest technology equipment will be provided to control air pollution and water sprinkling will be ensured. No significant increase in air pollution will be there due to proposed enhancement. As per new norms prescribed by Government of India, necessary arrangements have been made to keep the emissions within standards.	Rs. 70 Crores have been earmarked to be spent for air pollution control measures with a recurring cost of Rs. 2 Crores per annum.
		The company will develop 33% of the total plant area under greenbelt.	Green belt/plantation will be done on 76.32 ha of the total project area for which Rs. 10 Crores have been allocated with a recurring cost of Rs. 50 lakhs per annum.
3	Water related	Water tank for drinking water has been installed by the company in village Tonki. Development of water facilities is being done in village Tonki, Temarni, Sondul and Golpura and efforts will be made to increase the same. Ground water from wells of the area is used for drinking purpose only for which permission has been obtained. Water supply arrangement is being done for affected villages. Work for increase in the depth of pond is in progress by the company. As per the permission received from Water Conservation Department, efforts will be	Rs. 1.27 Crores have been allocated for development of drinking water facility i.e., hand pump, bore well etc.

S. No.	Issue	Response by project proponent (after PH)	Time Bound Action Plan proposed & Budgetary provision
		made for increasing the Ground Water level.	
4	CSR & Social Development	Around 1 Crore rupees has been spent during last three years under the CSR activities in different areas. Under CSR, various social activities will be undertaken such as hospital, School and community hall construction. Also, assistance will be provided for infrastructure development, education, health care, sustainable livelihood etc.	Rs. 90 Crores have been allocated for expenditure on ESC activities for next 10 years. Areas such as education, health care, sustainable livelihood, infrastructure development will be covered.
		Different activities are ongoing under CSR activities in which vocational training programme for employment generation are also undertaken.	Rs. 2.10 Crores have been allocated for organizing vocational training programmes for employment generation.
5	Land Related	Land has been acquired as per industrial area rule of Madhya Pradesh Govt. All the norms are being followed and appropriate compensation paid to land losers.	-

18.0 An amount of Rs. 90 Crores (2.5% of the project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues in phased manner. The details of ESC proposed are as follows:

S. No.	ESC activities	Years								Total Amount
		Phase - I							Phase - II	
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th		
1.	Entry Point Activities	0.5	0	0	0	0	0	0	0	0.5
2.	Education Programmes	0.32	0.36	0.41	0.46	0.43	0.37	0.31	3.34	6
3.	Health & Family Welfare Programmes	0.19	0.23	0.25	0.32	0.36	0.31	0.27	3.57	5.5
4.	Infrastructure Development	23	5.5	4.2	2.5	2.3	2.1	1.9	10.5	52
5.	Sustainable Livelihood Programme	0.19	2.31	2.84	3.3	4.112	1.55	0.71	9.488	24.5
6.	Social Issues Interventions	0.1	0.1	0.1	0.12	0.198	0.17	0.11	0.602	1.5
GRAND TOTAL (@2.5% of Total Project Cost)		24.3	8.5	7.8	6.7	7.4	4.5	3.3	27.5	90
		62.5							27.5	90

19.0 The capital cost of the project is Rs. 3600 Crores (Phase - I: Rs. 2500 Crores & Phase - II: Rs. 1100 Crores) and the capital cost for environmental protection measures is proposed as Rs. 135 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.5 Crores/annum. The employment generation after the proposed enhancement project is 2800 persons. The details of capital cost for environmental protection

measures and annual recurring cost towards the environmental protection measures is as follows:

Particular	Capital Cost (Crores)	Recurring Cost / annum (Crores)
Air Pollution Control	70	2.0
Water Pollution Control and Rain Water Harvesting Measures	20	1.5
Environment Monitoring and management	35	1.5
Green Belt Development	10	0.5
Total	135	5.5

20.0 Greenbelt will be developed in 76.32 ha (Plant - 58.22 + Colony - 11.72 + Conveyer Corridor - 6.38) which is about 33% of the total project area (231.28 ha). Greenbelt will be developed along the plant boundary as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 1500 trees per hectare. Total no. of 105480 saplings will be planted and nurtured in 76.32 ha hectares in 10 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 The project proponent along with EIA Consultant M/s JM EnviroNet Private Limited (listed at serial no. "89" of the List of Accredited EIA Consultant Organization displayed on MoEFCC website updated as on 05th September, 2017) made detailed presentation on the above said proposal.

23.0 The committee noted that Enterprise Social Commitment was proposed for a period of 15 years. The committee advised to implement the activities proposed for Enterprise Social Commitment in concurrence with the implementation of the project. Based on the recommendations, the Project Proponent has submitted revised Enterprise Social Commitment which is reproduced as below:

A. Summary of Proposed Expenditure on ESC activities

(Rs. in Crores)

S. No.	ESC activities	Years							Total Amount
		Phase - I					Phase - II		
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	
1	Education Programmes	1.19	0.82	0.81	0.82	0.78	0.8	0.78	6
2	Health & Family Welfare Programmes	1.15	1.01	1	0.76	0.7	0.73	0.45	5.8
3	Infrastructure Development	3.94	5.78	6.47	7.66	13.52	12.53	9.4	59.3
4	Sustainable Livelihood Programme	2.62	2.92	3.65	3.77	3.5	0	0	16.46
5	Social Issues Interventions	0.44	0.41	0.7	0.38	0.29	0.12	0.1	2.44
GRAND TOTAL		9.34	10.94	12.63	13.39	18.79	14.18	10.73	90

B. Detailed Action Plan for ESC Activities

(Rs. in Crores)

Sector	Activity	Years							Total Amount
		Phase - I					Phase - II		
		1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	6 th Year	7 th Year	
Educational Programmes	Village Knowledge center	0.1	0.12	0.12	0.12	0.12	0.12	0.11	0.81
	Assistance in School/ AWC Infrastructure	0.02	0.03	0.03	0.05	0.05	0.05	0.05	0.28
	Transportation facility for junior college students	0.15	0.2	0.25	0.25	0.25	0.35	0.35	1.8
	Science Lab Equipments to schools	0.25	0.3	0.25	0.25	0.21	0.15	0.15	1.56
	Providing Computers, Fan, Tube lights to Educational Centers	0.05	0.05	0.05	0.06	0.06	0.04	0.04	0.35
	Providing sports kit and organizing sports meet in nearby villages	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.15
	Providing Wooden Bench to nearby schools	0.1	0.07	0.07	0.05	0.05	0.05	0.04	0.43
	Balwadi Centres	0.5	0.02	0.02	0.02	0.02	0.02	0.02	0.62
	Sub Total (In Crores)	1.19	0.82	0.81	0.82	0.78	0.8	0.78	6
Health and Family Welfare Programme	Mobile Dispensary	0.35	0.05	0.05	0.05	0.05	0.05	0.05	0.65
	Ambulance	0.25	0.21	0.18	0.12	0.09	0.07	0.05	0.97
	Community & individual toilets	0.55	0.75	0.77	0.59	0.56	0.61	0.35	4.18
	Sub Total (Rs. in Crores)	1.15	1.01	1	0.76	0.7	0.73	0.45	5.8
Infrastructure Development	Development of C:C Road	1.4	1.7	2.1	4.6	4	5.2	5.5	24.5
	Renovation of Temple	0	0.15	0.15	0.2	0	0	0	0.5
	Construction of Community centre	0	0.5	0.5	0.3	0	0	0	1.3
	Construction of School building with Hostel facilities	0	0	0	0.45	1.55	2.5	0.3	4.8
	Construction of Biogas (2 - 3 Cum)	0	0	0.08	0.08	0.08	0.1	0.1	0.44
	Development of the Drinking Water Facility i.e. Hand Pump/Bore Well/Water Tank/ Pipe line / Supply of Water Tankers & Fodder	0.32	0.5	0.43	0.53	0.47	0	0	2.25
	Soak Pit Construction / Drainage System	0.15	0.1	0.1	0.05	0.05	0	0	0.45
	Repair the School / AWC Building	0.07	0.05	0.05	0.04	0.04	0	0	0.25

Sector	Activity	Years							Total Amount
		Phase - I					Phase - II		
		1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	6 th Year	7 th Year	
	Installation of Non-Conventional energy system viz. Solar Light	0	0	0	0	7.2	4.6	3.5	15.3
	Construction of Public Pyau	0.15	0.11	0.11	0.1	0.1	0.1	0	0.67
	Construction of Hospital	1.8	2.6	2.9	0	0	0	0	7.3
	Construction of Public Sanitation Complex in the nearby villages	0	0.07	0.05	0.05	0.03	0.03	0	0.23
	Installation of Gate of Hanuman Mandir	0.05	0	0	0	0	0	0	0.05
	Construction of Funeral Shed in the nearby villages	0	0	0	1.26	0	0	0	1.26
	Sub Total (Rs. in Crores)	3.94	5.78	6.47	7.66	13.52	12.53	9.4	59.3
	Organization of Vocational Training Programmes for Employment Generation								
	Sewing & Tailoring Center	0.04	0.04	0.05	0.06	0.04	0	0	0.23
	Beauty Parlor	0.03	0.03	0.03	0.05	0.03	0	0	0.17
	Computer Literacy Centre	0.1	0.1	0.22	0.25	0.05	0	0	0.72
	Skills updation on welder/ Fitter/ wiremen etc	0.08	0.07	0.07	0.05	0.05	0	0	0.32
	APNI SHAKTI PROJECT (Formation of Self Help Groups & capacity building of rural women and men for programmes like - training on knitting, Masala making, computer course, mobile repairing, TV repairing & other beneficiary training)	0.08	0.1	0.1	0.15	0.07	0	0	0.5
	Exposure visit/ Training program on Electrical / Wireman /Plumber	0.05	0.05	0.03	0.02	0.02	0	0	0.17
	Sub Total - A (In Crores)	0.38	0.39	0.5	0.58	0.26	0	0	2.11
	Water Harvesting								
	De-silting & Renovation of Farm Pond/Anicut	0.3	0.5	0.7	0.7	0.5	0	0	2.7
	Construction of Rain Water Harvesting Structures / Roof top water harvesting / Pond deepening etc.	1.59	1.74	1.95	2.14	2.5	0	0	9.92
	Farm Bunding with masonry waste weir /	0.35	0.29	0.5	0.35	0.24	0	0	1.73

Sector	Activity	Years							Total Amount
		Phase - I					Phase - II		
		1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	6 th Year	7 th Year	
	Catchment Area Treatments								
	Sub Total - B (In Crores)	2.24	2.53	3.15	3.19	3.24	0	0	14.35
Social Issues Intervention	Pasture Land Development / Orchard Development / Roadside Plantation / Develop green belt	0.2	0.15	0.35	0.2	0.12	0.12	0.1	1.24
	Plantation at bypass road	0.1	0.1	0.1	0.05	0.05	0	0	0.4
	Street light in panchayat area, dust bin and fire brigade	0.13	0.15	0.23	0.13	0.12	0	0	0.76
	Repairing of road from Manawar to Tonki	0.01	0.01	0.02	0	0	0	0	0.04
	Sub Total (In Crores)	0.44	0.41	0.7	0.38	0.29	0.12	0.1	2.44
GRAND TOTAL (In Crores)		9.34	10.94	12.63	13.39	18.79	14.18	10.73	90

C. The revised Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

S. No.	Issue	Point raised	Response by project proponent (after PH)	Target date of completion	Budget proposed
1.	Employment	<ul style="list-style-type: none"> ▪ Priority should be given to the villagers for employment. ▪ Development of village will take place due to this Cement Plant. Local people got employment. Employment camp for youth should be organized so that they can also contribute in the development. 	<ul style="list-style-type: none"> ✓ Preference will be given to local youth as per the qualification. ✓ Vocational training programmes, as given below, will be organized under ESC activities. <ul style="list-style-type: none"> ○ Sewing & Tailoring Center ○ Beauty Parlor ○ Computer Literacy Centre ○ Skills updation on welder/ Fitter/ wiremen etc. ○ APNI SHAKTI PROJECT (Formation of Self Help Groups & capacity building of rural women and men for programmes like - training on knitting, Masala 	<ul style="list-style-type: none"> After commissioning of the project (tentatively by 2019) 7 years (starting from 2017) 	<ul style="list-style-type: none"> - Rs. 60 Lacs have been allocated for organizing vocational training programmes for employment generation.

S. No.	Issue	Point raised	Response by project proponent (after PH)	Target date of completion	Budget proposed
			<p>making, computer course, mobile repairing, TV repairing & other beneficiary training)</p> <ul style="list-style-type: none"> ○ Exposure visit/ Training program on Electrical / Wireman /Plumber. 		
		<ul style="list-style-type: none"> ▪ During establishment of plant, outside workers are given employment opportunity neglecting the local workers. Tribal culture is affected due to this. 	<ul style="list-style-type: none"> ✓ Plant establishment is in initial stage. From safety point of view, construction work is given on contract to agencies deploying experienced workers. With the efforts of the company, locals are employed for work through contractors. Due to incomplete construction of the plant recruitment are not started. Local villagers will be given priority in employment after completion of the plant. 	<p>After commissioning of the project (tentatively by 2019)</p>	-
2.	Environment	<ul style="list-style-type: none"> ▪ Measures to be taken for control of heat and dust pollution. Temperature of the nearby area may be affected due to plant activities and may have adverse effects on agriculture. 	<ul style="list-style-type: none"> ▪ Measure will be taken to control heat pollution. ESP will be installed at clinker cooler and CPP and bag filters will be provided at difference places. By use of latest waste heat recovery system, heat will be utilized properly. Outside environment will not be affected and increase in temperature will not happen. 	<p>Installation of APCE will be done before starting operation of the project (tentatively by 2019)</p>	<p>Rs. 70 Crores have been earmarked to be spent for air pollution control measures with a recurring cost of Rs. 2 Crores per annum.</p>

S. No.	Issue	Point raised	Response by project proponent (after PH)	Target date of completion	Budget proposed
		<ul style="list-style-type: none"> ▪ What will be the increase in the pollution due to increase in capacity from 2 MTPA to 6 MTPA, that should be clear. 	<ul style="list-style-type: none"> ▪ Latest technology equipment will be provided to control air pollution and water sprinkling will be ensured. No significant increase in air pollution will be there due to proposed enhancement. As per new norms prescribed by Government of India, necessary arrangements have been made to keep the emissions within standards. 		
		<ul style="list-style-type: none"> ▪ Attention should be paid towards clean environment; plantation should be done all along the fencing done at bypass road. 	<ul style="list-style-type: none"> ▪ The conditions stipulated in the permission of Government will be followed. Company will develop 33% of total plant area (i.e. 76.32 ha) under greenbelt/plantation. 	2 years (tentatively by 2019)	Rs. 5 Crores have been allocated with a recurring cost of Rs. 20 lakhs per annum.
			<ul style="list-style-type: none"> ▪ Approx. 8,000 plants will be planted all along the fencing done at bypass road. 	5 years (tentatively by 2022)	Rs. 4.0 Lacs will be spent on plantation at bypass road.
		<ul style="list-style-type: none"> ▪ Water pollution management should be done. Polluted water should not be mixed/discharged in river. 	<ul style="list-style-type: none"> ▪ No waste water will be generated during the plant operations. 	Installation of STP & ETP will be done before starting operation of the project (tentatively by 2019)	Rs. 20 Crores have been earmarked for water pollution management with recurring cost of Rs. 1.5 Crores / annum.
3.	Water related	<ul style="list-style-type: none"> ▪ Company is not supplying the water. 	<ul style="list-style-type: none"> ▪ Water tank for drinking water has been installed by the company in village Tonki. 	Completed	-
		<ul style="list-style-type: none"> ▪ Arrangement for water should be made for the villagers. ▪ RO filter may be provided by the company. 	<ul style="list-style-type: none"> ▪ Water supply arrangement is being done for affected villages. 	2 years (tentatively by 2019)	Rs. 1.27 Crores have been allocated for development of drinking water facility i.e., hand pump, bore well etc.
		<ul style="list-style-type: none"> ▪ Water usage should be done through construction of own reservoir. Ground water level will go down if ground water is exploited. There 	<ul style="list-style-type: none"> ▪ Work for increase in the depth of pond is in progress by the company. As per the permission received from Water Conservation 	5 years (tentatively by 2022)	Rs. 5 Crores have been allocated for water harvesting by various means.

S. No.	Issue	Point raised	Response by project proponent (after PH)	Target date of completion	Budget proposed
		will be difficultly in irrigation, if water is taken from river Maan.	Department, efforts will be made for increasing the Ground Water level by recharging the ground water through rain water harvesting (within & outside the plant area).		
4.	ESC & Social Development	<ul style="list-style-type: none"> ▪ Installation of Gate of Hanuman Mandir was not proper. The information regarding expenditure of the crores of rupees in CSR is not correct. 	<ul style="list-style-type: none"> ✓ All issues related to Hanuman Mandir gate will be resolved. 	6 months (June, 2018)	Rs. 1.0 Lac has been allocated for resolving the issue of gate.
		<ul style="list-style-type: none"> ▪ The arrangement should be made for training of females for tailoring, making Agarbati and for beauty parlour. 	<ul style="list-style-type: none"> ✓ The females of the area were given training earlier by the company and the same will be taken up as per the necessity. 	7 years (starting from 2017)	Already covered under vocational training programme in point no. 1.
		<ul style="list-style-type: none"> ▪ Arrangement should be made for school, college and hospital. 	<ul style="list-style-type: none"> ✓ Assistance will be provided to school, college and hospital being operated by the company presently. 	7 years (tentatively by 2024)	Rs. 1.40 Crores have been allocated for construction of hospital. Rs. 2.22 Crores will be spent for construction of school building with hostel facilities.
		<ul style="list-style-type: none"> ▪ Appropriate arrangement should be done for health and education. 	<ul style="list-style-type: none"> ✓ Arrangement has been made for education and health under ESC activities. 	7 years (tentatively by 2024)	Rs. 2.3 Crores will be spent for educational activities & Rs. 0.4 Crores for health & family welfare programme.
		<ul style="list-style-type: none"> ▪ Community hall should be constructed. 	<ul style="list-style-type: none"> ✓ Development work will be done in consultation with Gram Panchayat under ESC activities. 	3 years (tentatively by 2020)	Rs. 30 Lacs have been earmarked for construction of community centre for social activities.
		<ul style="list-style-type: none"> ▪ Arrangement of Water and road should be done at Vayadipura village. 	<ul style="list-style-type: none"> ✓ Arrangement will be done under social development work under ESC activities. 	7 years (tentatively by 2024)	Rs. 30 Lacs will be spent for development of CC road.
		<ul style="list-style-type: none"> ▪ Repairing of road from Manawar to Tonki should be done. 	<ul style="list-style-type: none"> ✓ The same will be done under ESC activities. 	3 years (tentatively by 2020)	Rs. 3 Lacs will be spent for road repairing.

S. No.	Issue	Point raised	Response by project proponent (after PH)	Target date of completion	Budget proposed
		<ul style="list-style-type: none"> ▪ Street light in panchayat area, dust bin and fire brigade should be provided. 	<ul style="list-style-type: none"> ✓ Same will be done under ESC activities. 	5 years (tentatively by 2022)	Rs. 60 Lacs will be allocated for street lighting, dust bins & fire brigade.
5.	Land Related	<ul style="list-style-type: none"> ▪ The company ensured to acquire 50 feet land for the development of the conveyer belt but more land has been acquired. Shops should be provided to the villagers. ▪ Land is not available for social works. 	<ul style="list-style-type: none"> ✓ Appropriate compensation has been paid for the land of conveyer's belt and land losers. Maximum possible efforts will be made to provide the shops for land looser as per their request. ✓ Issues regarding the land for social activities is related to government department. As far as possible efforts will be made by the company in this regard. 	-	-
				3 years (tentatively by 2020)	Rs. 30 Lacs have been earmarked for construction of community centre for social activities.

24.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application:

A. Specific conditions:

1. No ground water shall be used for the proposed project since the area designated as over-exploited areas.
2. An amount of Rs 90 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
3. Green belt shall be developed in 76.32 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The plantation shall be completed within 2 years from the date of issue of EC.
4. The Capital cost Rs. 135.00 Crores and annual recurring cost Rs. 5.5 Crores towards the environmental protection measures shall be provided separately. The funds so provided shall not be diverted for any other purpose.
5. Kitchen waste shall be composted or converted to biogas for further use.
6. Natural drainage present within the project site shall not be disturbed and no effluent shall be discharged into the natural drain.

7. The company shall adopt the system of reporting of non-compliances / infringements to the Board of Directors once in six months and at the time of any incidence.
8. The company shall prepared a plan of constructing check dams in the surrounding natural drains with the permission from the concerned authorities for rainwater harvesting under ESC.
9. The company shall provide separate area for parking of the trucks including the provision of basic amenities.

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and
 - b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
 - a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;

- c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;
 - g) use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - h) Provide wind shelter fence and chemical spraying on the raw material stock piles;
 - i) provide Low NO_x burners to control NO_x emissions. Regular calibration of the instruments must be ensured. If needed, NO_x will be controlled by using SCR/NSCR technologies; and
 - j) have separate truck parking area and monitor vehicular emissions at regular interval.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);
- a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the cement plants; and
 - c) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- a) provide Waste heat recovery system for kiln and cooler;
 - b) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;
 - c) 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;

- d) provide the project proponent for LED lights in their offices and residential areas;
 - e) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
 - f) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.
 8. Used refractories shall be recycled as far as possible.
 9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
 14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 17. 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).
 18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
 19. The storage of NH₃ and other hazardous chemicals at the site shall be as per the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.

20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
25. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (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;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.5 Production of Mild Steel Wire Rod of capacity 70000 TPA by setting up of wire rod rolling mill within the existing production of the plant of Rerolled products (70,000 TPA) and Steel Ingots and Billets (70,000 TPA) at village Sondra, Tehsil & District Raipur, Chhatisgarh by M/s Nandan Steel & Power Ltd [Online Proposal No. IA/CG/IND/71354/2017; MoEFCC File No. J-11011/1328/2007-IA.II(I)] - Modernization of existing project and Change in product mix under clause 7(ii) of EIA Notification, 2006.

1.0 M/s Nandan Steel & Power Limited made online application vide proposal no. **IA/CG/IND/71354/2017** dated 1st December 2017 seeking environmental clearance for modernization of existing project and change in product mix under the provisions of Clause 7(ii) of the EIA Notification, 2006. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 M/s Nandan Steel & Power Limited is operating the Induction Furnace to produce 70000 TPA MS Ingot/Billet and billet reheating furnace based Rolling Mill to produce structural steel with prior environmental clearance vide F.No. J-11011/328/2007-IA.II(I) dated 31st July 2007 and obtained consent under Air and Water Act from Chhattisgarh Conservation Board which is valid up to 31st march 2019.

3.0 Now it is proposed to add hot charging process based wire rod mill to the existing unit to produce wire rods from available hot billets for value addition within the overall capacity of 70000 TPA. The proposed production after modernization / change in product mix is given below:

Existing Products	Existing capacity	Proposed products	Proposed capacity	Remarks
Rerolled product through Billet Reheating Furnace	70000 TPA	Rerolled product through Billet Reheating Furnace and / or Wire Rod through Hot Charging of Billets	70000 TPA	No change in the overall production capacity

4.0 It was reported that modernization with adoption of clean technology Hot Charging Wire Rod making downstream integration at existing Induction Furnaces to convert Hot Billet directly in the shape of Wire Rod; without addition of any furnace, without addition of raw material, without any fuel.

5.0 The proposed hot charging process based wire rod mill will be installed within the existing land area of 12 Acres (4.68 Hect) by construction of around 1900 Square meter additional shed.

6.0 It was reported that the air pollution, solid waste generation will slightly reduced compare to the existing operations whereas water requirement and noise level slightly increases. However, the current environment management practice will be further improved by additional water sprinkling, internal roads, installation of high efficiency recuperators, installation of coal gasifier TAR generated in unit will be collected and sold to TAR distillation units, Coal ash generated from coal gassifier will be used for brick making and given for road construction and land backfill, installation of oil trap / ETP, improvement in greenbelt, etc.

7.0 Certificate compliance of earlier environmental clearance was obtained from the Regional office of MoEFCC, Nagpur vide lr.no. 5-10/2008(ENV)/2961, dated 29th November,

2017. There is no non-compliance reported by regional office, however, certain observation regarding water sprinkling, oil/grease based effluents, plantation along the boundary, housekeeping, etc.

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

9.0 The project proponent has made detailed presentation on the proposed modernization / change in the product mix.

10.0 After detailed deliberation, the committee recommended for grant of environmental clearance for the proposed modernization / change in the product mix subject to following specific conditions in addition to the conditions stipulate in the earlier EC:

- i. The plantation shall be raised in 33% of the total project area covering the plantation along the boundary with native and broad-leaved tree species;
- ii. The Effluent Plant shall be installed within 3 months from the date of issues of EC and shall report to the Ministry as well as its regional office.
- iii. Installation of additional water sprinklers shall be completed within 3 months from the date of issues of EC and shall report to the Ministry as well as its regional office.

27.6 0.524 MTPA Integrated Steel Plant with 84 MW Power Plant and 4 x 18 MVA Ferro Alloy Plant by M/s Spintech Tubes Private Limited located at Dhasal, PO-Bahadurpur, Dist: - Paschim Burdwan, West Bengal [Online Proposal No. IA/WB/IND/71020/2017; MoEFCC File No. IA-J-11011/568/2017-IA-II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/71020/2017** dated **18th November 2017** 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 the proposal is appraised at Central level.

2.0 M/s Spintech Tubes Private Limited proposed to install a new manufacturing unit for 0.524 MTPA integrated Steel, 84 MW captive Power Plant& 4x18 MVA Ferro alloy Plant. It is proposed to set up the plant for production of TMT rods, coils, SS rods, plates & DI pipes based on DRI-MBF-EAF & IF technology. The plant configuration is as follows:

Sl. No	Plant Facilities	Configuration	Production Capacity (in TPA)	End Use
1	DRI Kilns	2 x 600 TPD	3,84,000	Sponge Iron – IF & EAF
2	Induction Furnace with LF & CCM	6 x20 T, 10 H	3,84,000	HM- DI Pipes & TMT
3	EAF with LRF	1 x 20 T, 22 H	1,40,000	Hot Metal- RM
4	MBF	1 x 350 m ³ , 2.4 t/m ³ /d	2,94,000	
5	Pellet Plant	2 x 0.6 MTPA	9,60,000	DRI

6	Sinter Plant	1 x 45 m ² , 1.24 t/m ² /h	4,28,000	MBF
7	Submerged Arc Furnace	Furnace 4 x 18 T (FeMn,Si-Mn,Fe-Cr, Fe-Si)	Max-1,65,000 (Fe-Mn) Min-52,000 (Si-Mn). All or any one depending on Market Demand	
8	Di Pipes	1,28,000 spun pipes	1,28,000 - spun pipes	Sale
9	Rolling mill	2 x 600 TPD	5,24,000	2,56,000- TMT rods 1,40,000- SS rods
10	C C M	-	-	Billet for RM
11	Oxygen Plant	120 TPD	-	-
12	Power Plant	84 MW [24MW(WHRB) 60MW(CFBC)]	24 MW power	Internal Consumption

3.0 The proposed unit will be located at: Dhasal, Bahadurpur, Block-Jamuria, Dist-Burdwan (Paschim), West Bengal. The proposed project site is bounded between latitudes 23° 40' 39.87" N to 23° 41' 08.06" N and longitudes 87° 07' 44.72" E to 87° 08' 21.06" E with an average level of 101 m AMSL.

4.0 The land area acquired for the proposed plant is 80.92 Ha which is Baid and Kanali. No Forestland /Government Land is involved. More than 50% land has been already acquired for the project. Of the total land of 80.92 Ha about 27 Ha (33%) land will be used for green belt development.

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

6.0 The total project cost is approximately 920 Crore rupees. Proposed employment generation from proposed project will be 600 direct employment and 1400 indirect employment.

7.0 The targeted production capacity of the proposed project is 0.256 MTPA TMT rods & Coils, 0.128 MTPA Ductile Iron Pipes and 0.140 MTPA SS rods & Plates. Iron Ore for the project will be procured from Barbil mines of Odisha through e-auction and coal from ECL/imported. Through rail / road. The details of raw material inventory as follows:

Sl. No	Material	Quantity in TPA	Source	Mode of transport
1	Ultra fines iron ore for Beneficiation	14,50,000	Odisha	Rail/Road
2	Fine Iron Ore for Sinter	4,00,000	Local	Road
3	DRI grade Coal	4,60,000	Local/own	Road
4	Coke	1,40,000	Local	Road
5	Mn Ore	3,75,000	Local/import	Rail/Road/ship
6	Coal	3,80,00	Import/MCL	Ship/Road

7	Lime	70,000	Sundargarh Odisha	Road
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8.0 The electricity load is about 132 MW and captive generation will be 84 MW, hence about 48 MW will be purchased from India Power Corporation Ltd. Agreement for supply of power is in progress for 50 MVA.

9.0 Proposed raw material and fuel requirement for the project are Iron Ore Fines 1.85 MTPA, Coal 0.4 MTPA. The requirement would be fulfilled by indigenous as well as imported source. Fuel consumption will be mainly in DRI Kilns and power Plant.

10.0 Water consumption for the proposed project will be 6000 m³/day and waste water generation will be 2,352 m³/day. Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused in the process.

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 The project proponent has made detailed presentation along with EIA consultant M/s Global Tech Enviro Expert Private Limited, Bhubaneswar.

13.0 After detailed deliberations, the committee observed that the instant proposal is greenfield project and no alternative site analysis or suitability of the proposed site from environmental perspective was not provided by the project proponent.

14.0 Therefore, the committee sought alternative site analysis or suitability of the proposed site from environmental perspective, *inter alia*, including increase in pollution load and traffic in the transportation routes for further consideration of the proposal.

27.7 0.35 MTPA Integrated Steel Plant with 50 MW Power Plant by M/s Supershakti Power & Infrastructures Ltd At: Jamuria Industrial Estate, Mandalpur, P.O-Ikra, Dist-Paschim Burdwan, West Bengal [Online Proposal No. IA/WB/IND/71214/2017; MoEFCC File No. IA-J-11011/529/2017-IA-II(I)] – Terms of Reference.

The project proponent did not attend the meeting and made request for withdraw of the proposal

27.8 Enhancement of Production capacity of existing Pellet Plant from 0.6 Million TPA to 0.8 Page 5of 12 Million TPA along with Upgradation of Existing 0.7 Million TPA Iron Ore Grinding Unit to 1.0 Million TPA Iron Ore Grinding & Beneficiation Plant and 1.2 Million TPA Integrated Steel Plant & 260 MW (110 MW WHRB + 150 M1W Thermal) Power Plant by M/s Sarda Energy and Minerals Limited located at Phase 1 of Siltara Industrial Growth Center, Village –Mandhar, Tehsil–Dharsiwa, Chhattisgarh [Online Proposal No. IA/CG/IND/71247/2014; MoEFCC File No. J-11011/45/2012-IA.II(I)] – Terms of Reference for Expansion Proposal.

1.0 The proponent has made online application vide proposal no. **IA/CG/IND/71247/2014** dated 27th November 2017 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 the proposal is appraised at Central level.

2.0 M/s. Sarda Energy & Minerals Limited proposed enhancement of Production capacity of existing Pellet Plant from 0.6 Million TPA to 0.8 Million TPA along with up gradation of Existing 0.7 Million TPA Iron Ore Grinding Unit to 1.0 Million TPA Iron Ore Grinding & Beneficiation Plant and 1.2 Million TPA Integrated Steel Plant with 260 MW (110 MW WHRB + 150 MW Thermal) Power Plant. The proposed capacity for different products are as below:

Sl. no.	Project Details	Capacity (TPA)		
		Existing	Proposed	Total (After proposed expansion)
1	Pellet Plant in Operation	6,00,000	2,00,000 (Capacity Enhancement)	8,00,000
2	Grinding and Beneficiation (Proposed)	7,00,000 (only by Iron Ore Grinding Unit)	10,00,000 (Iron ore Grinding and Beneficiation)	10,00,000
3	Coal Gasifiers Plant	--	54092 Nm ³ /Hr	
4	Coke Oven	--	5,40,000	
5	Sinter Plant	--	6,50,000	
6	Blast Furnace	--	12,00,000	
7	Electric Arc Furnace	--	12,00,000	
8	CCM -Cast Billets	--	11,65,000	
9	Rolling Mill (TMT, Wire Rod, Section & other long products)	--	10,00,000	
10	Sponge Iron Plant	--	6,00,000	
11	WHRB Power plant (Waste Heat from coke oven & BF gases)	--	70 MW	
12	WHRB Power Plant (Waste Heat from Sponge Iron Kilns)	--	40 MW	
13	Thermal Power Plant	--	150 MW	
14	Oxygen Plant	--	300 TPD	
15	Ductile pipe with Induction furnace	--	4,00,000 TPA	

3.0 The existing Pellet Plant was accorded environmental clearance vide F. No. J-11011/45/2012-IA.II(I) dated 28th October 2016. Ministry of Environment, Forest & Climate Change accorded Environmental Clearance for 1.1 MTPA Integrated Steel Plant along with WHRB Power Plant (2 x 30 MW) at Siltara Industrial Growth Centre, Phase-I, Mandhar, Raipur, Chhattisgarh vide F. No. J-11011/999/2007-IA.II(I) dated 23rd December 2008.

Consent to Operate for Pellet Plant was accorded by Chhattisgarh Environment Conservation Board vide 4616/TS/CECB/2009 (Water) & 4618/TS/CECB/2009 (Air) dated 15.09.2009 and Renewal of CTO granted vide 6522/TS/CECB/2017 (Water) & 6524/TS/CECB/2017 (Air) dated 15.03.2017 -validity of CTO is up to 30.09.2019.

4.0 The proposed unit will be located at Phase 1 of Siltara Industrial Growth Center, Village – Mandhar, Tehsil Dharsiwa, District Raipur and State Chhattisgarh. The project site is bounded between latitudes of N 21° 20'09.74" – N21° 20'42.57" and longitudes of E 81° 41'10.57" – E 81° 42'02.48" covered in Survey of India Topo Sheet No. 64 G/11 with an altitude of 282 m above MSL.

5.0 The land area acquired for the proposed plant is 204.452 Ha which is an Industrial Land. No Forestland is involved. The entire land has been acquired for the project. Of the total area 67.469ha land will be used for green belt development.

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

7.0 Total project cost is approximately Rs. 4674.74 Crore (Existing I/O Pellet with Coal Gasifier and Iron Ore Grinding Unit: Rs. 203.56 Cr, Up gradation of Iron Ore Grinding to Iron Ore Grinding & Beneficiation: Rs. 82.02 Cr, Proposed Establishment of 1.2 MTPA ISP with 260 MW CPP: Rs. 4,389.16 Cr). Proposed employment generation from the project will be 1914 direct employment and over 2000 of indirect employment.

8.0 Proposed raw material and fuel requirement for project are Iron Ore, Iron Ore Fines, Iron Ore Pellets, DRI, Steel Scrap, and Coal. The requirement of coal would be fulfilled by E-Auction/Market/SECL Mines. Fuel consumption will be mainly Coal/Producer gas. The ore for the plant would be procured from Captive Mines, NMDC and Open Market. The ore transportation will be done through Rail/Road.

9.0 The electricity load of 212.57 MW will be sourced from CSPDCL & in-house CPP.

10.0 Water Consumption for the proposed project will be 47635 KLD and waste water generation will be 2188 KLD. Domestic waste water will be treated in Packaged Type STP and industrial waste water generated will be treated ETP and Neutralization Tank and reused in process.

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 The project proponent has made detailed presentation along with EIA Consultant M/s Pollution & Ecology Control Services, Nagpur (NABET No.: 111).

13.0 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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP
- v. Explore to adopt modern technology and high capacity equipment to reduce the pollution load and improve the energy efficiency.
- vi. The company shall plan for Zero Liquid Discharge
- vii. Action plan for 100% utilization of the solid waste shall be provided
- viii. Action plan for rainwater harvesting shall be submitted
- ix. The revised layout plan including greenbelt in an area of 81 Ha shall be submitted in the EIA/EMP Report.

27.9 Proposed 125000 TPA Writing & Printing Paper Plant along with 110000 TPA Agro residues & wood pulp production and 25 MW Co-generation Power Plant at villages Dhaulran & Bassi Gujran, Tehsil Chamkaur Sahib, District Rupnagar (Ropar), Punjab by M/s Ruchira Papers Limited [Online Proposal No. IA/PB/IND/71465/2017; MoEFCC File No. IA-J-11011/566/2017-IA-II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/PB/IND/71465/2017** dated **6th December 2017** 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) Pulp and pulp industry under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 **M/s. Ruchira Papers Limited** proposed to install a new unit for manufacturing of writing and printing paper from agro residues and wood based pulp and co-generation power plant. It is proposed to set up the plant for 125000 TPA writing & printing paper along with 110000 TPA agro & wood based pulp production and 25 MW co-generation power plant, based on latest and proven technology.

3.0 The proposed unit will be located at Villages: Dhaulran & Bassi Gujran, Tehsil: Chamkaur Sahib, District: Rupnagar (Ropar), State: Punjab.

4.0 The total land area required for the proposed plant is 77.30 Ha out of which 45.73 ha is private land & 31.57 ha is government panchayat land. No forestland is involved. Out of 45.73 ha private land, 42 ha has already been acquired by the company and the company has already

applied for lease of 31.57 ha government panchayat land. Of the total area, 26.71 ha i.e. more than 33% land will be used for greenbelt development.

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

6.0 Total project cost is approx. 999.75 Crore rupees. Proposed employment generation from proposed project will be 1498 direct employment and 2000 indirect employment.

7.0 The targeted production capacity of the unit is 125000 TPA writing & printing paper along with 110000 TPA Agro residues & wood pulp production and 25 MW co-generation power plant. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Units	Capacity of each Unit	Production Capacity
Agro Pulp	1	80000 TPA	110000 TPA
Wood pulp	1	30000 TPA	
Writing & Printing Paper	1	125000 TPA	125000 TPA
Co-generation Power plant	1	18 MW	25 MW
Power generation from recovery boiler	1	7 MW	

8.0 The electricity load of 24.78 MW will be procured from 25 MW Co-generation Power plant, recovery boiler & State Electricity Board.

9.0 Proposed raw material and fuel requirement for the project are agro - residues (wild growth/crop waste), woody raw materials, purchased pulp, fillers, cooking chemicals (caustic & white liquor), ClO₂, Oxygen, hydrogen peroxide etc. The fuel consumption will be mainly rice husk, coal or pet coke etc.

10.0 Water Consumption for the proposed project will be 14550 KLPD and waste water generation will be 12700 KLPD. Domestic waste water will be treated via soak pit system and industrial waste water generated will be treated in ETP and recycled in the plant processes and the remaining will be used for ferti-irrigation and plantation in company's land as well as will be provided to nearby farmers as per demand.

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 The project proponent has made detailed presentation along with EIA Consultant M/s JM EnviroNet Private Limited.

13.0 The committee observed that the instant proposal is greenfield project and the project proponent has not submitted any site analysis or justification of the proposed site from the environmental perspective. Based on the deliberations, the PP submitted brief note on the suitability of the site soon after the meeting.

14.0 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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Action plan for lime sludge disposal shall be submitted as a part of EIA/EMP
- v. Assessment of adequacy of the ETP shall be submitted in the EIA/EMP
- vi. Monitoring scheme for AOX shall be provided in the EIA/EMP
- vii. No pet coke as a fuel shall be used for power generation. The alternative fuel for the CPP shall be indicated.
- viii. Detailed solid waste management including quantification, utilization and disposal shall be provided in the EIA/EMP Report.
- ix. Report on existing and proposed traffic density along with impact shall be submitted in the EIA/EMP.
- x. The status of land acquisition along with substantiating evidence shall be submitted in the EIA Report.

27.10 Expansion of Steel Melting Shop (IF with LF & CCM: from 135000 TPA to 375000; Rolling Mill: from 90000 TPA to 297000; Coal Drawing Workshop: 33000TPA located at Nakrajoria, PS-Salanpur Dist:-Burdwan(W), West Bengal by M/s Maithan Steel & Power Limited [Online Proposal No. IA/WB/IND/71495/2017; MoEFCC File No. J11011/679/2008-IA.II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/71495/2017** dated **8th December 2017** 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 the proposal is appraised at Central level.

2.0 M/s Maithan Steel & Power Ltd proposes to install expansion of existing manufacturing unit for 0.135 MTPA TMT Rods & coils. It is proposed to set up the plant for 0.24 MTPA steel product based on IF technology. The proposed capacity for different production units is as follows:

Units	Facilities as per EC	Facilities commissioned	Production in TPA	Facilities proposed	Final Configuration	Final capacity	Product	End use

IF with LF & CCM	2X 15 T and 2X25 T	3X15T	135000	5X15	8X15	375000	Billet	RM and Cold drawing workshop
EAF with LF, VD & CCM	1X20 T & 1&40 T	-	-	-	-	-	-	Proposed to be dropped
Rolling mill with produced gas plant	2X 300 TPD	1X300 TPD	90000	600 TPD	900 TPD	297000	TMT rods & Coils	Sale
Cold drawing Workshop	-	-	-	100 TPD	100 TPD	33,000	Cold draw products	sale

3.0 The existing project was accorded environmental clearance vide Ir.no F.No. J-11011/679/2008-IA.II(I) dtd, 27th August, 2010. Consent to operate was accorded by WB State Pollution Control Board vide Ir.no CO 74300, dated 17.06.2016 and CTO is valid up to 31.03.2018.

4.0 The proposed unit will be located at: Nakrajoria, Salanpur, Dist-Burdwan(W), West Bengal. The project area is bounded between latitudes of 23° 46' 25.73" N to 23° 46' 43.75" N and longitudes of 86° 51' 53.25" E to 86° 52' 7.26" E with an altitude of with 255 m AMSL.

5.0 The land area acquired for the existing plant is 10.28 Ha which are Industrial land. No Forestland/ Government land involved. Expansion will be accommodated in the vacant space of existing land. Of the total land about 3.4 Ha (33%) land will be used for green belt development.

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

7.0 The total project cost is approximately 136.50 Crore rupees. Proposed employment generation from proposed project will be 300 direct employment and 600 indirect employment.

8.0 The targeted production capacity of the proposed project is 0.24 MTPA long products and cold drawn wires. No ore will be required. Sponge Iron & Pig Iron will be purchased locally and transported through road. The details of raw material inventory as follows:

Sl. No	Material	Quantity in TPA	Source	Mode of transport
1	Sponge Iron	3,70,000	Local market & sister concern	Road
2	Pig Iron	45,000	Local	Road
3	Scrap	20,000	Local/own	Road

8.0 The electricity load is about 35 MW which will be drawn from Santaldih/DVC.

9.0 Water consumption for the proposed project will be 1250 m³/day. Domestic waste water will be treated in STP and industrial waste water generated will be settled and reused in the process.

10.0 The estimated generation of major solid wastes after expansion is tabulated below:

Sl. No	Solid wastes	Expected generation in TPA	Management Scheme
1	IF slag	45,500	River sand substitute, land fill
2	IF dust	5,000	To be used in construction and filling low lying areas
3	Mill scale, Iron recovered from slag	Variable	To be recycled to IF as charge for melting

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 The project proponent made detailed presentation along with EIA consultant M/s Global Tech Enviro Expert Private Limited, Bhubaneswar.

13.0 The committee observed that the project proponent has made application earlier for seeking amendment in environmental clearance under the provisions of EIA Notification, 2006 for installation of Induction Furnace in place of Electric Arc Furnace (for installation of 4 x 15 T IF in place of 1 x 20 T & 1 X 40T EAF and reduction in production capacity from 0.465 MTPA to 0.330 MTPA). The proposal was considered in the 23rd meeting of Expert Appraisal Committee [EAC (Industry-I)] held during 9th – 10th October 2017. After detailed deliberations, the committee observed that the validity of the existing environmental clearance has already been expired and hence the proposed amendment as sought by the project proponent cannot be considered. Accordingly, the committee recommended that the project proponent shall submit fresh application seeking fresh ToRs.

14.0 Accordingly the project proponent has made fresh application for seeking ToRs.

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. 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 regarding the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP

27.11 Expansion in production capacity (47850 to 1,13,850 TPA) of existing cement manufacturing plant (Only Grinding unit) by addition of ball Mill having capacity 200 TPD at Village Pathrala, Rural Focal Point, Tehsil & District Bathinda, Punjab by M/s New Century Cement Company [Online Proposal No. IA/PB/IND/65681/2017; MoEFCC File No. J-11011/622/2010- IA-II(I)]– Further consideration based on reply to ADS.

1.0 The proponent has made online application vide proposal no. **IA/PB/IND/65681/2017** dated **25th June 2017** along with the application in prescribed format (Form-I), copy of prefeasibility 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” of the Schedule of EIA Notification, 2006 as the project attracts the general condition due to location of the project within 5 Km radius of interstate boundary of Haryana State. Therefore, the proposal is appraised at the Central Level.

2.0 M/s New Century Cement Company is a cement manufacturing unit (grinding unit), situated at Village Pathrala, Rural Focal Point, Tehsil & District- Bathinda, Punjab State operating since October 2000. The project was granted Environmental Clearance from the Ministry vide letter no. J-11011/622/2010-IA-II(I) dated 6th March 2012 for the installed capacity of 47,850 TPA. Consent to Operate was accorded by State Pollution Control Board vide letter no. 3425 & 3423 dated 30th August 2012.

3.0 Now, it is proposed to increase the installed capacity from 47850 to 1, 13,850 TPA by addition of ball Mill having capacity 200 TPD. The details of the existing plant, proposed expansion and final capacity are given below:

Description	Existing Capacity	Proposed Expansion	Final Capacity (After expansion)
Portland Pozzolana Cement	4780 TPA	66000 TPA	113850 TPA

4.0 The project site is bounded between Latitudes from 29°59'18.82" to 29°59'17.23"N and Longitude from 74°46'21.93" to 74°46'26.02"E. The total land of 1.25 acres/5058m² /0.5058Hectare is available for the existing project and its expansion. No additional land is required to acquire for expansion.

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

6.0 The capital cost of the project after expansion is about Rs. 160 Lakh including capital cost of existing plant Rs. 70 Lakh. Fund provision of pollution control measures is 23 Lakh including Rs. 8 Lakh for existing plant. Proposed employment generation from proposed project will be 4 to 5 person as direct employment and total Number of manpower after expansion will be 25 persons.

7.0 Raw material requirement of the existing and proposed expansion along with source as follows:

Raw Material	Quantity (in TPA)			Source of Raw Material
	Existing	Proposed	Total	
Clinker	31102	42950	74052	Cement Plants in Punjab & Rajasthan
Gypsum	1440	1980	3420	Gypsum from Rajasthan

Fly Ash	15316	21120	36436	Thermal Power plants Lehra Mohabbat, Punjab.
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8.0 The existing power requirement of the unit is 500 KW. The proposed power requirement of the unit will be 250KW. After expansion power demand will be 750 KW and will met from PSPCL. D.G. set of 62 KVA will be installed for office use only.

9.0 The existing water consumption is 5KLD. Water Consumption after expansion will be 6 KLD which will be met through an existing tube well. Septic tank already been provided for treatment of domestic effluent. Treated effluent will be used on land for plantation in premises and Zero Liquid Discharge will be adhered.

10.0 There will not be any solid waste generation in the industrial process.

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 The proposal was considered in the 20th meeting of Expert Appraisal Committee [EAC(Industry-I)] held during 10th to 12th July 2017. The committee observed that detail of existing plant; land use breakup; details of land area identified for separate parking; details of ground water permission; water balance; layout showing the detail of green belt is not provided.

13.0 After detailed deliberations, the Committee had desired information for further consideration of the proposal.

- i. Lay out plan showing the land identified for parking, green belt covering 33% of the total area using appropriate colour code shall be submitted.
- ii. Detailed Land use breakup for different activities including industrial area, roads, green belt, parking, etc. shall be submitted.
- iii. Copy of permission for withdrawal of ground water for existing plant shall be submitted.
- iv. Technical specifications and efficiency of bag filter provided in the existing plant shall be submitted
- v. The detailed water balance diagram shall be submitted

14.0 The project proponent submitted reply to the additional details sought on 21st November 2017.

15.0 The project proponent has made presentation on the additional details sought. The committee was not satisfied with the reply given by the project proponent and advised to submit revised reply by incorporating the greenbelt all along the boundary of the plant site and parking site, detailed specification of the proposed and existing bag filters.

16.0 The project proponent submitted the revised reply to additional details sought on 4th January 2018 and the committee was satisfied with the reply. 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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
 - iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP
 - v. The green belt plan shall be in an area of 33% of the total area inter alia covering all along the boundary of the plant site and parking area.
 - vi. Filter bag house shall be designed for 150% of the air flow rate. The filter bag shall be PTFE dipped PPS type.
- 27.12 Expansion of Steel Manufacturing Unit (Steel Billets: 72000TPA to 1, 06,000 TPA; Rounds, TMT Bars, MS Bars, Flats: 72000TPA to 1, 06,000TPA) by M/s Bhawani Casting (P) Limited at Ambey Majra- Mullanpur Road, Village- Mullanpur Kalan, Tehasil: Sirhind, District: Fatehgarh Sahib, Punjab [Online Proposal No. IA/PB/IND/70388/2017; MoEFCC File No. J-11011/398/2011-IA.II(I)] – Terms of Reference.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The consultant M/s Chandigarh Pollution Testing Laboratory informed that the project proponent is not interested in the project.

27.13 Proposed expansion of cement plant capacity (4.0 MTPA to 8.6 MTPA) and clinker plant capacity (3.5 MTPA to 7.5 MTPA) at Sanghipuram, village Motiber, Taluka Abdasa, Dist Kutch, Gujarat by M/s Sanghi Industries Ltd., [Proposal No. IA/GJ/IND/64880/2007, F.No. J-11011/337/2006- IA-II(I)] – Environmental Clearance.

1.0 M/s M/s Sanghi Industries Limited has made online application vide proposal no. IA/GJ/IND/64880/2007 dated 11th December 2017 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposal was initially received in the Ministry on 23 May 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 19th meeting held on 8th - 9th June 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 **15/06/2017** vide Lr. No. **J-11011/337/2006-I(A)-II**.

3.0 The project of M/s Sanghi Industries Limited (SIL) located in Survey No: 96, 97, 99, 100, 123, 124 of Motiber Village and Survey No: 64, 65 of Hothiyay Village, Taluka – Abdasa, District Kutch, State Gujarat is for setting up of enhancement of production of Clinker Plant Capacity from 3.50 to 7.50 million TPA and Cement Plant Capacity from 4.00 to 8.60 million TPA. The existing project was accorded extension of validity in environmental clearance vide Lr.no. J-11011/337/2006-I(A)-II dated 10th September 2015. The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide Lr. No. 5-10/2007(Env)/1342 dated 01/12/2017. Regional officer reported partial compliance regarding water sprinkling, development of greenbelt, provision of paved roads. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Unit	Capacity of Each unit	Production Capacity
Cement Plant	1	8.60 Million TPA	8.60 Million TPA
Clinker Unit	1	7.50 Million TPA	7.50 Million TPA
WHRB	1	15 MW	15 MW

4.0 The total land required for the project is **100.56** ha (Government waste land). No forestland involved. The entire land has been acquired for the project. The no river passes through the project area. It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is Flat and reported to lies between 23°29'33.52"N to 23°29'45.24" N Latitude and 68°35'4.04"E to 68°35'4.33" E Longitude in Survey of India topo-sheet No. F42C06, F42C07, F42C10, F42C11 at an elevation of 42 m AMSL. The ground water table reported to ranges between 30 to 70 m below the land surface during the post-monsoon season and pre-monsoon season (as per CGWB Gujarat). Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be negligible as no ground water will be utilized. Further, the stage of groundwater development is reported that these are designated as safe area.

6.0 The Wildlife Sanctuary (Narayan Sarovar Wildlife Sanctuary) is located at a distance of 2.75 Km in the from the site in the north-west direction and the project is located outside the Eco-sensitive zone. 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. The authenticated list of flora and fauna provided through the primary data & secondary reporting presence of schedule-I fauna in the study area (Annexure-12 &15 of EIA).

7.0 The raw material used for the manufacturing of Cement will be Lime Stone, Laterite, Pozzolana Clay/Silica sand, Gypsum and Fly Ash will be utilized for final output of Cement (OPC, PPC & PSC). Coal/Lignite/Pet coke will be used as fuel. The cement manufacturing process, *inter alia*, include Limestone Pre-Blending Stockpile; Fuel Crushing, Storage and Transport; Vertical Roller Mill for Coal and Raw Meal Grinding; Preheater, Pre-calciner, Kiln and Cooler; De-dusting of Kiln; Cement Grinding System; Mill De-dusting; Cement Packing and Dispatch. Only used oil (135.0 TPA) will be generated from the process which will be utilize as a fuel in kiln.

8.0 The targeted production capacity of the Clinker (3.50 to 7.50 Million TPA) and Cement (4.00 to 8.60 Million TPA). The ore for the plant would be procured from captive mines. The coal will be sourced from open market. The ore transportation will be done through road and conveyor belt.

9.0 The water requirement of the project is estimated as 1500 m³/day (for expansion only), out of which 1430 m³/day of fresh water requirement will be obtained from the existing desalination plant/water reservoir (RWH pit) and the remaining requirement of 70 m³/day will be met from the treated water. The permission for drawl of groundwater is not required.

10.0 The power requirement of the expansion project is estimated as 56.MW, out of which 18 MW will be met from existing captive power plant, 23 MW from Grid power or existing DG power plant and 15 MW from WHRS.

11.0 Baseline Environmental Studies were conducted during pre-monsoon season *i.e.* from 1st March 2017 to 31st May 2017. Ambient air quality monitoring has been carried out at 8 locations during 1st March 2017 to 31st May 2017 and the data submitted indicated PM₁₀ (65.90 µg/m³ to 98.20 µg/m³), PM_{2.5} (30.20 µg/m³ to 56.3 µg/m³), SO₂ (15.7 µg/m³ to 25.5 µg/m³) and NO_x (18.60 µg/m³ to 28.70 µg/m³). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 3.05 µg/m³ with respect to the PM₁₀, 4.00 µg/m³ with respect to the SO₂ 1.45 µg/m³ with respect to the NO_x.

12.0 No ground water available in the study area. Surface water samples were analyzed from 5 locations as per availability. The pH: 7.14 to 7.34 DO: 4.4 to 4.8 mg/L and BOD: 4.0 to 8.0 mg/L. COD from 12.0 to 22.0 mg/L.

13.0 Noise levels are in the range of 48.40 dB(A) to 86.30 dB(A) for daytime and 42.10 to 73.70 dB(A) for nighttime.

14.0 It has been reported that there are no people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated, which will be provided compensation and preference in the employment.

15.0 It has been reported that no waste will be generated except used oil 135.00 TPA in expansion which will be re-used in kiln as alternative fuel. It has been envisaged that an area of 12.0 ha (in expansion) [existing 28.00 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.

16.0 It has been reported that the Consent to Establish/Consent to Operate from the Gujarat Pollution Control Board obtained vide Lr. No PC/CC-KUTCH-454(2) GPCB ID 18025/153357 dated 16/07/2013 and consent is valid up to 18/03/2018.

17.0 The Environmental clearance was obtained for expansion of cement plant from 2.6 MTPA to 8.6 MTPA and after completion of the public hearing vide F.No. J-11011/337/2006-IA.II(I), dated 5th April, 2007 and extended the validity vide even letter number dated 10th September 2015 for a period up to 4th April, 2017. However, the phase-I expansion from 2.6 MTPA to 4.0 MTPA was completed and about 60% of the work completed for Phase-II expansion from 4.0 MTPA to 8.6 MTPA within the period of the validity. Since, the proposal is for completion of the balance activities, the public hearing of the project was exempted as per ToR given by MoEF&CC dated 15/06/2017.

18.0 An amount of 2625.00 Lakhs (2.5% of Project cost) has been earmarked for Enterprise Social Commitment. The details of ESC proposed are as follows:

ESC Activities				
	Year-1	Year-2	Year-3	Total
Community Health Improvement	1.33	1.90	2.02	5.25
Community Education Facilities	1.33	1.11	1.31	3.75
Community Welfare Activities	1.20	1.20	1.35	3.75
Infrastructural Developmental	1.24	1.38	1.38	4.00
Community Water Conservation	1.06	1.24	1.43	3.73
Afforestation Programs	0.74	0.74	0.79	2.27
Community Capacity Building	1.04	1.13	1.33	3.50
Grand Total	7.94	8.70	9.61	26.25

19.0 The capital cost of the project is Rs. 1049.95 Crores and the capital cost for environmental protection measures is proposed as Rs. 5250.00 Lakhs for expansion. The annual recurring cost towards the environmental protection measures is proposed as Rs. 514.38 Lakhs. The employment generation from the expansion is 1397. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sl	Description	Capital Cost (Rs. Lakhs)	Recurring Cost per annum, (Rs. Lakhs)
1.	Pollution Control (Air, Water, Soil, Noise etc.)	5000.00	405.41
2.	Occupational Health and Safety	50.00	35.37
3.	Solid/Hazardous Waste disposal and Management	100.00	15.25
4.	Green Belt Development & Maintenance	30.00	50.00
5.	Online Monitoring System	70.00	8.35
	Total	5250.00	514.38

20.0 Greenbelt will be developed in 40.0 Ha [28.0 Ha (Already Developed) + 12.0 Ha. (will be developed)] which is more than 33% of the total acquired area. A 10-m wide Greenbelt, consisting of a least 3 tiers around plant boundary will be developed as Greenbelt and green cover as per CPCB/MOEF&CC, New Delhi Guidelines. Local and native species will be planted with a density of 1500 trees per hectare. Total No. of 18,000 saplings will be planted and nurtured in 12.0 Ha in one year.

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 The project proponent along with EIA Consultant M/s Eco Chem Sales and Services JV with Sri Sai Mansa Nature Tech Private Limited has made detailed presentation on the above project.

23.0 The project proponent has informed that the balance activities will be implemented within 3 years from the date of issues of EC

24.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject to the following Specific and General conditions in addition to any other conditions stipulated by the Ministry from time to time:

A. Specific conditions:

1. The balance activities for implementation of 8.6 MTPA capacity shall be completed within 3 years as proposed by PP.
2. The project proponent shall implement the recommendations of the wildlife conservation plan in consultation with state forest department.
3. Slip Power Recovery System (SPRS) shall be implemented in major process fans which will reduced power consumption.
4. All the non-compliances reported by the regional office shall be closed and certificate in this regard shall be submitted from the regional office within 3 months from the date of issue of EC.
5. No ground water shall be tapped for the project and township.
6. The project proponent shall monitor PCCF / PCCD once in six months and submit report as a part of compliance report.
7. An amount of Rs. 26.25 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
8. Green belt shall be developed in 40 Ha with native tree species in accordance with CPCB guidelines within one year. The greenbelt shall *inter alia* cover the entire periphery of the plant.
9. The Capital cost of Rs. 5250.00 Lakhs and annual recurring cost of Rs. 514.38 Lakhs towards the environmental protection measures shall be provided for separately. The funds so provided shall not be diverted for any other purpose.
10. Kitchen waste shall be composted or converted to biogas for further use.

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - e. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
 - f. monitor fugitive emissions in the plant premises;
 - g. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and

- h. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - c) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and
 - d) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
 3. The project proponent shall (Air Pollution Control):
 - k) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - l) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - m) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - n) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - o) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - p) recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;
 - q) use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - r) Provide wind shelter fence and chemical spraying on the raw material stock piles;
 - s) provide Low NO_x burners to control NO_x emissions. Regular calibration of the instruments must be ensured. If needed, NO_x will be controlled by using SCR/NSCR technologies; and
 - t) have separate truck parking area and monitor vehicular emissions at regular interval.
 4. The project proponent shall (Water Pollution Control):
 - d) adhere to 'zero liquid discharge';
 - e) provide Sewage Treatment Plant for domestic wastewater; and

- f) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);
- d) practice rainwater harvesting to maximum possible extent;
 - e) provide water meters at the inlet to all unit processes in the cement plants; and
 - f) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- g) provide Waste heat recovery system for kiln and cooler;
 - h) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;
 - 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;
 - j) provide the project proponent for LED lights in their offices and residential areas;
 - k) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
 - l) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.
8. Used refractories shall be recycled as far as possible.
9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.

13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
17. 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).
18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
19. The storage of NH₃ and other hazardous chemicals at the site shall be as per the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.
20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
25. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter

are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.

- d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
- e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.14 Expansion of Steel Plant (Sponge Iron: 231000 TPA to 330000 TPA; Sinter plant 1008000 TPA; Pig Iron through BF: 756000; Billets through IF/AF: 1250000; Rolled products: 1200000 TPA; Power Plant: 30 MW WHRB, 30 MW utilizing Blast furnace gases & 160 MW to 490 MW CFBC; Ferro manganese: 12000 TPA; Silico manganese: 24000 TPA; Oxygen plant 400 TPD) located at Sirupuzhalpet & New Gummidipoondi Village, Gummidipoondi Taluk, Tiruvollur District, Tamil Nadu by M/s Suryadev Alloys & Power Private limited [Online proposal No. IA/TN/IND/27457/2015; MoEFCC File No. J-11011/595/2011-IA-II(I) – Environmental Clearance.

1.0 M/s Suryadev Alloys & Power Private Limited made online application vide proposal no. **IA/TN/IND/27457/2015** dated **2nd December, 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” EIA Notification, 2006 and is appraised at Central level.

2.0 The proposed expansion of Steel Plant of **M/s. Suryadev Alloys & Power Private Limited** located at Sirupuzhalpet & New Gummidipoondi Villages, Gummidipoondi Taluk, Tiruvollur (D), Tamil Nadu was initially received in the Ministry on 24th March 2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in 37th EAC (Industry-1) meeting held on 30th April – 1st May 2015 for prescribing ToR to the expansion project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 24th June 2015 vide Lr. No. J-11011/595/2011- IA.II(I).

3.0 The project of **M/s. Suryadev Alloys & Power Pvt. Ltd.** located at Sirupuzhalpet & New Gummidipoondi Villages, Gummidipoondi Taluk, Tiruvollur (D), Tamil Nadu state is operating steel plant with units of Sponge iron – 2,31,000 TPA with 4 x 175 TPD Kilns, Billets

through IF and Arc Furnace of 12,50,000 TPA, Rolled products of 12,00,000 TPA, Ferro manganese of 12,000 TPA, Silico manganese of 24,000 TPA & CFBC Power Plant of 160 MW. The existing project was accorded environmental clearance vide order No. J-/11011 / 11 / 2010 – IA.II(I) dated 20th May 2011. The Status of compliance of earlier EC was obtained from Regional Office, Chennai vide F.No. EP /12.1/2011-12/6/ TN /1339 dated 24th August 2017. Regional officer, Chennai reported non-compliances regarding green belt and working of Suction hood of existing Induction Furnace. It has been reported that the a Letter has been submitted for compliance of the above observations to the Regional office, Chennai vide letter dated 20-12-2017.

4.0 Now, it is proposed for expansion of Steel Plant comprising of establishment of New Sponge iron plant of 3,30,000 TPA with 2 x 500 TPD kilns (4 x 175 TPD DRI kilns have not been implemented & was dropped for Technological reasons); Request for production of Billets through EAF /IF /BOF converter route for a capacity units 9,30,000 TPA (IF route - 3,20,000 TPA already implemented), establishment of Sinter plant of 10,08,000 TPA, Pig Iron through BF of 7,56,000 TPA, Power Plant of 30 MW through WHRB, 30 MW utilizing Blast furnace gases & establishment of 330 MW PCF based Power Plant & establishment of Oxygen plant 400 TPD. The following are the existing EC permitted units & Proposed units:

S. No	Products / Units	EC obtained in 2011	Units Implemented	Present proposal	Total production capacities after expansion
1	Sponge Iron through DRI Kilns	2,31,000 TPA (4 x 175 TPD) [Unit not implemented and is proposed to be dropped]	---	3,30,000 TPA (2 x 500 TPD) (New installation of 2 x 500 TPD]	3,30,000 TPA
2	Sinter through Sinter plant	---	---	10,08,000 TPA (1 x 110 m ²)	10,08,000 TPA
3	Pig Iron through Blast Furnace	---	---	7,56,000 TPA (1 x 1050 m ³)	7,56,000 TPA
4	Billets through Induction Furnace and Arc Furnace	12,50,000 TPA	3,00,000 TPA	Billets through IF/ Converter (BOF) / Arc Furnace	12,50,000 TPA
5	Rolled Products (Wire Rods & Bars)	12,00,000 TPA	1,40,000 TPA	---	12,00,000 TPA
6	Power Plant (WHRB)	1 x 15 MW (Dropped)	---	2 x 15 MW	30 MW
7	Power Plant (By utilising Blast furnace gases)	---	---	1 x 30 MW	30 MW
8	Power Plant	2 x 80 MW (CFBC based)	2 x 80 MW (CFBC based)	1x 330 MW (PCF based)	490 MW

9	Ferro Manganese	12000 TPA	---	----	12,000 TPA
10	Silico Manganese	24000 TPA	---	----	24,000 TPA
11	Oxygen plant	---	---	1 x 400 TPD	400 TPD

4.0 The total land required for the existing and expansion project is 66.4 Ha. / 164.01 acres [i.e. 119.01 acres (Existing) + 45 acres (Proposed)]. The existing land is industrial & the proposed additional land is Private land. Proposed expansion of steel plant will be taken up, partly in the existing plant and the remaining in the additional land adjacent to the existing plant. Entire land is in possession of management. No forest land involved. No River / stream passes through the plant area. It has been reported that no water body exist in the plant area. No modification / diversion in the existing natural drainage pattern at any stage has been proposed.

5.0 The topography of the area is flat and reported to lies between 13°22'55.66" to 13°23'29.30" North Latitude and 80°6'05.30" to 80°6'35.90" East longitude in Survey of India Topo sheet no. 66 C/3 at an elevation of 22 AMSL. The ground water table reported to ranges between 0.79 to 5.3 m bgl below the land surface during the post-monsoon season and 2.38 to 7.36 m bgl below the land surface during the pre-monsoon season.

6.0 No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. are in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna provided reporting presence of no Schedule-1 fauna in the study area (ANNEXURE – 12 of EIA).

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

Raw Material		Quantity (TPA)	Sources	Mode of Transport
<i>For manufacturing of Sponge Iron</i>				
Iron Ore (for 2 x 500 TPD DRI Kilns)		5,28,000	Imported / Karnataka / Odisha	Through sea route / rail route / by road
Coal (2 x 500 TPD DRI Kilns)	Indian	4,29,000	SECL / MCL	By rail & road (through covered trucks)
	Imported	2,54,000	Indonesia / South Africa	Through sea route / rail route / by road
Dolomite		16,600	Local area	By road (through covered trucks)
<i>For manufacturing of Sinter</i>				
Iron ore fines		1008000	Imported / Karnataka / Odisha	By rail & road (through covered trucks)
Limestone fines		10080	CG / MP	By rail & road (through covered trucks)
Flux		20160	Bhilai (CG)	By rail & road

			(through covered trucks)	
Coke breeze	90720	SECL Korba	By rail & road (through covered trucks)	
BF fines	100800	In house gen.	through covered conveyors	
Flue dust	27216	In house gen.	through covered conveyors	
Return fines	403200	In house gen.	through covered conveyors	
For manufacturing of Pig Iron				
Iron ore lump	454500	Imported / Karnataka / Odisha	By rail & road (through covered trucks)	
BF coke	453600	In house gen.	through covered conveyors	
Quartzite	18900	CG / MP region	By rail & road (through covered trucks)	
Sinter	756000	In house gen.	through covered conveyors	
Manganese ore	11340	MOIL, Maharashtra	By rail & road (through covered trucks)	
For Generation of Power through Pulverized Coal Fired boiler [1330 TPH / 330 MW]				
Coal	Indian	17,74,600	SECL / MCL	By rail & road (through covered trucks)
	Imported	10,87,000	Indonesia / South Africa	Through sea route / rail route / by road
For Oxygen plant				
Air	400 MT/day	----	----	

8.0 The targeted production capacity of the plant after expansion project is Sponge Iron of 0.33 million TPA, Sinter plant of 1.08 million TPA, Pig Iron through Blast Furnace of 0.756 million TPA & Power Generation of 390 MW. Iron ore, Iron ore fines & imported Coal for the plant would be supplied by M/s. Global Metcorp Ltd., U.K. Iron Ore, Iron Ore fines & Imported Coal transportation will be done through Ship from Ennore Port / Krishnapatnam port and from there to Elavur Railway Station by Rail. The coal unloaded at Elavur Railway Station will be transported to the project site by road through covered trucks, which is at 10 Km. from the plant.

9.0 Water requirement for proposed expansion project will be 2090 KLD. Total water requirement after proposed expansion project will be 2857 KLD, which will be sourced from Ground Water sources. The permission for drawl of groundwater is **obtained** from Gummidipoondi Gram Panchayat & Sirupuzhalpet Gram Panchayat vide letter no. **12-02-2016**

& 05-08-2016 respectively, as per G.O.Ms. No. 26, Rural Development and Panchayat Raj (SGS – 3), 18th February 2015, Tamil Nadu Government Gazette, Govt. of Tamil Nadu.

10.0 Total power required after proposed expansion project will be 400 MW which will be met from the existing & expansion captive power plants of 550 MW. The surplus power of 150 MW will be sold to the Third Party.

11.0 Baseline Environmental Studies were conducted during winter season i.e. from 1st December 2013 to 28th February 2014 and subsequently during 7th May 2015 to 6th June 2015 (one month) also as per ToR letter issued by MoEF. Ambient air quality monitoring has been carried out at 9 locations during 1st December 2013 to 28th February 2014 (3 months) and the data submitted indicated PM_{2.5} (22.8 to 45.7 mg/m³), PM₁₀ (38.2 to 76.3 µg/m³), SO₂ (9.8 to 23.9 mg/m³), NO_x (10.6 to 31.7 mg/m³) & CO (550 to 1130 mg/m³) during 7th May 2015 to 6th June 2015 (One Month) PM_{2.5} (25.5 to 46.9 mg/m³), PM₁₀ (39.6 to 78.2 µg/m³), SO₂ (10.8 to 25.6 mg/m³), NO_x (12.5 to 32.8 mg/m³) & CO (630 to 1250 mg/m³). The results of the modelling study indicates that the maximum increase of GLC for the proposed expansion project is 6.9 µg/m³ with respect to the PM₁₀, 14.9 µg/m³ with respect to the SO₂, 24.9 µg/m³ with respect to the NO_x & 12.8 µg/m³ with respect to the CO.

12.0 Ground water quality has been monitored in 8 locations in the study area and analysed during February 2014. The data submitted indicated pH: 6.9 to 8.1, Total Hardness: 125 to 199 mg/l, Chlorides: 115 to 221 mg/l, Fluoride: 0.15 to 0.80 mg/l. Heavy metals are within the limits. The data of the monitoring carried during May 2015 indicated pH: 6.8 to 8.2, Total Hardness: 127 to 208 mg/l, Chlorides: 119 to 219 mg/l, Fluoride: 0.13 to 0.75 mg/l. Heavy metals are within the limits.

13.0 Surface water samples were collected from 2 locations in the study area and analysed during February 2014. The monitoring data indicated that pH: 7.5 to 7.6; DO: 5.8 to 5.9 mg/l and BOD: BDL. Surface water samples were collected again during May 2015 and data indicated that pH: 7.4 to 7.5; DO: 5.2 to 5.3 mg/l and BOD: BDL.

14.0 Noise levels are in the range of 44.8 dB(A) to 74.7 dB(A) during 1st December 2013 to 28th February 2014 and 44.9 dB(A) to 74.2 dB(A) during 7th May 2015 to 6th June 2015.

15.0 It has been reported that there are no people are residing and no habitations are present in the additional land which is acquired for the expansion project. No R&R is involved.

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

S. No	Waste	Quantity (TPD)	Method of disposal
1	Ash from DRI	585	Will be given to Cement plant
2	DoloChar	330	Will be used in FBC boiler as fuel
3	MBF, FES, ESP & Bag filter dust (inclusive of existing)	20	ESP, Bag filter dust will be used in sinter plant.
4	Kiln Accretion Slag	1.1	Will be used in road construction
5	Granulated slag	150	Will be given to cement manufacturer
6	GCP Sludge	0.2	Will be used in sinter plant

7	Ash from Power Plant (with Indian coal)	2662	Will be given to Cement Plants
8	Ash from Power Plant (with Imported coal)	362	Will be given to Cement Plants

17.0 It has been reported that MoUs have been entered with M/s. Ultra Tech Cements Limited & M/s. for utilize the Fly ash generated in their Cement manufacturing units located at Arakkonam & Raddiyapalem, Tamil Nadu. & M/s. The Ramco Cements Limited manufacturing Asbestos Sheets & Accessories at their unit located at Kattuputhur Village, Kanchipuram District, Tamil Nadu.

18.0 It has been reported that an area of 21.9 Hectares (54 Acres) as green belt which is inclusive of existing greenbelt of 15.9 Ha. has been developed out of total plant area 66.4 Ha. (164.01 Acres) to attenuate the noise levels and trap the dust generated due to the project development activities.

19.0 It has been reported that the Consent To Operate from the Tamil Nadu State Pollution Control Board has been obtained vide order no. **170828722565** dated **25-05- 2015** and consent is valid up to **31st March, 2018 for Steel Plant & order no. 170818722955** dated **05/09/2017** and consent is valid up to **31st March, 2018 for Power Plant.**

20.0 The Public hearing of the project was held on 10-08-2017 in the existing plant premises under the chairmanship of District Collector, Tiruvallur District for proposed expansion project. The issues raised during public hearing are related to Air pollution; Water pollution; employment; and development of surrounding villages. The Statement of main issued raised by the public and response of the project proponent with action plan is as follows:

S.No.	Question / Issue / Suggestion	Response by Project Proponent	Time Bound Action Plant proposed	Budgetary provision
1.	Information about this public hearing was not received	Public Hearing notification was given by TNPCB was published in “Dinamani” (Tamil) and “New Indian Express” (English) on 02/07/2016.	---	---
2.	Air Pollution	<ul style="list-style-type: none"> Existing plant is having valid Consent to Operate from TNPCB. Latest Stack Monitoring report issued by TNPCB vide dated 6-11-2017 also confirms the compliance of the industry on environment protection measures. In the existing plant following environment protection measures have been provided and duly complying with norms 	Implemented parallel with implementation of the plant	Rs. 40 Crores is earmarked for Environmental protection measures for expansion project And Rs. 2.5 Crores/annum is earmarked for recurring cost

S.No.	Question / Issue / Suggestion	Response by Project Proponent	Time Bound Action Plan proposed	Budgetary provision
		<p>stipulated by MOEF&CC / TNPCB.</p> <ul style="list-style-type: none"> • ESP has been provided to CFBC based Power Plant to bring down the particulate emission to less than 50 mg/Nm³. • Fume Extraction & Cleaning system with bagfilters and wet scrubber has been provided to SMS and Reheating Furnace to bring down the particulate matter emission to less than 50 mg/Nm³. • All conveyor are covered with GI sheets to control the dust emission. Interlocking system provided to ESP. and whenever ESP fails , there will be no production in the unit till ESP is rectified. Net resultant GLCs are within the NAAQS. • Ash disposal is in accordance with the MOEF&CC notification & its subsequent amendments thereof. <p>The Certified Compliance report issued by RO, MoEF&CC also confirms about the industry compliance on environmental protection measures. Health camps have been conducted and no serious health ailments were found.</p> <p>Similar environment protection measures will be continued even after expansion project also with particulate emission less than 30 mg/Nm³. Hence no impact on farming activity in the area and on health of the</p>		

S.No.	Question / Issue / Suggestion	Response by Project Proponent	Time Bound Action Plant proposed	Budgetary provision
		people due to the existing plant and proposed expansion.		
3.	Water related issues	<p>Water required for the existing plant is being sourced from ground and for the proposed expansion will be sourced from Ground. Ground water drawl permission has been obtained from Gummidipoondi Gram Panchayat & Sirupuzhalpet Gram Panchayat vide letter no. 12-02-2016 & 05-08-2016 respectively, as per G.O.Ms. No. 26, Rural Development and Panchayat Raj (SGS – 3), 18th February 2015, Tamil Nadu Government Gazette, Govt. of Tamil Nadu. Infact water requirement in existing plant has been reduced significantly than what has been permitted in EC.</p> <p>Rain water harvesting measures have been taken up.</p>	---	---
4.	Employment related issues	<ul style="list-style-type: none"> • As per Company records and records being submitted to Labour Department, Total employees are 380. Out of total 380 employees, 42 % (i.e.160 no.s) of people are given employment from local areas. • Further Direct employment for 300 people will be generated in the proposed expansion project. • Locals are always given top priority in employment. In the expansion also top most priority will be given to the local people only. 	---	---
5.	Socio Economic & Development	Activities like Medical camps, Health check-ups, RWH in	Rs. 52 Crores budget is	ESC will comprise of

S.No.	Question / Issue / Suggestion	Response by Project Proponent	Time Bound Action Plan proposed	Budgetary provision
	activities in the surrounding areas	villages, Road maintenance, Skill development activities etc. will be carried out	earmarked for ESC.	providing training to unemployed youth over a period of 10 years
6.	Land related issues	<ul style="list-style-type: none"> • Total land envisaged for the entire project is 164.01 acres / 66.4 Ha. (i.e. Existing 119.01 acres / 48.16 Ha. + 45 acres / 18.2 Ha.). Entire land is in possession of management. Total land is private land. There are no water bodies, grazing land & settlement in the land envisaged for the proposed expansion project. • No land encroachment of land has been done. • Entire land is purchased from people with Mutual Agreement. 	---	---

21.0 An amount of Rs.52.5 Crores (2.5 % of expansion Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

S. No.	Major Activity Heads	Years (Rs. In Crores)						Total Expenditure (Rs. In Crores)
		1 st	2 nd	3 rd	4 th	5 th	6 th to 10 th	
1	Community & Infrastructure Development Programmes (construction toilets in villages which are not covered under swachh Bharat, laying of village road, construction of over-head tank.)	1.00	1.00	1.00	1.00	1.00	6.00 (Rs.1.20 Cr each year)	11.00
2	Women Empowerment and Development Programme Stitching & tailoring services	0.70	0.70	0.70	0.80	0.80	5.20 (Rs1.04 Cr per year)	8.90
3	Skill & Entrepreneur Development (modernising ITI, vocation training institute with latest Tools &	1.50	1.50	1.50	0.75	0.75	8.00 (Rs 1.6 Cr Per year)	14.00

	technology, software and support services such as training to the trainers, encourage start-ups, SHG and micro enterprises)							
4	Education and Scholarship Programmes (construction of class rooms in schools, providing computers in class rooms, development of library facility))	0.70	0.70	0.70	0.70	0.70	3.50 (Rs. 0.70 Cr per year)	7.00
5	Health & Family Welfare Programmes (Eye camps, Dental camps)	0.80	0.80	1.00	1.00	1.00	6.00 (Rs 1.20 Cr per year)	10.60
6	RWH in near by villages	0.10	0.10	0.10	0.10	0.10	0.50 (Rs 0.1 Cr per year)	1.00
Grand Total - @ 2.5% of Total Project Cost								52.50

22.0 The capital cost of the project is **Rs.2100 Crores** and the capital cost for environmental protection measures is proposed as **Rs. 40 Crores**. The annual recurring cost towards the environmental protection measures is proposed as **Rs. 2.5 Crores/annum**. The employment generation from the proposed expansion project is 300.

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

S.No	Item	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
1	Air Emission Management <ul style="list-style-type: none"> • ESPs • Venturi Scrubber • Dust Extraction systems with Bag filters • Chimneys • Water Sprinklers • Environment Monitoring 	20.0	1.00
2	Wastewater Management <ul style="list-style-type: none"> • ETP 	7.0	0.50
3	Solid waste Management <ul style="list-style-type: none"> • Ash handling system • Construction of Pucca Platform for storage • Hazardous & Municipal solid waste storage 	10.5	0.55

4	Greenbelt development, Land scaping Noise Management	1.5	0.25
5	Occupational Health & Safety	1.0	0.20
TOTAL		40.0	2.50

23.0 Greenbelt has been developed in **21.9 Ha (54 acres)** which is about 33% of the total acquired area. Minimum of 10 m wide greenbelt will be developed all around the plant. There are 27,500 plants in the existing plant and Now as a part of expansion an additional greenbelt of 6000 plants in **6.0 Hectares** will be developed in the additional land acquired for expansion project.

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 The committee observed that the project proponent has taken remedial measures on the non-compliances reported by regional officer, Chennai. The asked to submit the revised Enterprise Social Commitment based on public hearing issues in the capital in nature and implemented in concurrence with the project implementation. The project proponent submitted vide his letter dated 4th January 2018 and the revised Enterprise Social Commitment programme submitted by PP is reproduced below:

S.No.	Major Activity Heads	Years (Rs. In Crores)							Total Expenditure (Rs. In Crores)
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	
1	Community & Infrastructure Development Programmes (construction toilets in villages which are not covered under swachh Bharat, laying of village road, construction of over-head tank.)	1.50	1.50	1.50	1.50	1.50	1.50	2.00	11.00
2	A Community Centre will be established in the Sirupuzhalpet village which will consist of the following: i. Full fledged medical centre with basic equipments ii. Vocational Training Institute with latest tools, machinery & softwares etc. for making them Industry ready. iii. Workshop centre with latest tailoring machines for training women (like tailoring, stitching etc.) iv. Computer / IT Training Centre for improving computer knowledge and making Industry ready.	4.5	4.5	4.5	4.5	4.5	4.5	6.00	33.00
3	Education and Scholarship Programmes (construction of class rooms in schools, providing computers in class	1.0	1.0	1.0	1.0	1.0	1.0	1.0	7.00

	rooms, development of library facility)								
4	RWH in nearby villages (i.e. Sirupuzhalpet & Gummidiipoondi) New	---	---	0.75	---	0.75	---	---	1.50
Grand Total - @ 2.5% of Total Project Cost									52.50

26.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application:

Specific conditions:

1. An amount of Rs 52.50 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt shall be developed in **21.90** Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The 15-m wide greenbelt shall *inter alia* cover the entire periphery of the plant.
3. The Capital cost of Rs. 40.00 Crores and annual recurring cost of Rs. 2.50 Crores towards the environmental protection measures shall be provided for separately. The funds so provided shall not be diverted for any other purpose.
4. Kitchen waste shall be composted or converted to biogas for further use.

General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R 414 (E) dated 30th May 2008; S.O. 3305 (E) dated 7th December 2015 for thermal power plant as amended from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):

- a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R 414 (E) dated 30th May 2008; S.O. 3305 (E) dated 7th December 2015 for thermal power plant as amended from time to time;
 - b) monitor regularly ground water through sufficient numbers of piezometers in the plant and adjacent areas; and
 - c) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the steel plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration;
 - g) use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin; and
 - h) provide wind shelter fence and chemical spraying on the raw material stock piles.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation):
- a) practice rainwater harvesting to maximum possible extent; and

- b) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
 - a) provide waste heat recovery system on the DRI Kilns;
 - b) use dolochar generated for power generation;
 - c) 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; and
 - d) provide the project proponent for LED lights in their offices and residential areas;
 7. Used refractories shall be recycled as far as possible.
 8. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
 9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the steel plants shall be implemented.
 14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

17. 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).
18. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
19. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
20. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
21. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
22. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office.
23. The project proponent shall (Post-EC monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (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;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work

27.15 Expansion cum change in product mix from Clinker: 540000 TPA, Portland Slag Cement: 937500 TPA, Portland Pozzolana Cement: 180000 TPA to Clinker Grinding Unit of capacity 4.0 Million TPA cement along with proposed Power Plant:20 MW and captive Page 6 of 12 railway siding near village Hansda, PO Burudih, Dist. Saraikela-Kharsawan, Jharkhand by M/s Shree Cement Limited, [Online Proposal No. IA/JH/IND/71306/2017; MoEFCC File No. J-11011/692/2008-IA.II(I)] – Expansion cum Product Mix under the provision of Section 7(ii) of EIA Notification 2006

1.0 M/s Shree Cement Limited made online application vide proposal no. IA/JH/IND/71306/2017 dated 29th November 2017 seeking environmental clearance for change in product mix under the provisions of Clause 7(ii) of the EIA Notification, 2006. 3(b) Cement Plants under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 Environment Clearance for the proposed Integrated Cement Plant, Capacity Clinker: 540000 TPA, Portland Slag Cement: 937500 TPA, Portland Pozzolana Cement: 180000 TPA and Power Plant: 20 MW along with captive railway siding near village Hansda, PO Burudih, Dist. Saraikela-Kharsawan, Jharkhand was transferred from M/s Jupiter Cement Industries (unit of SKJ Coke Industries Ltd.) to M/s Shree Cement Ltd vide letter no. J-11011/692/2008-IA.II(I) dated 31/07/2017. Further validity of EC was extended up to 29/10/2020 vide letter dated 18/10/2017.

3.0 It was reported that no physical installation has been carried by the company and not intended to install the clinker manufacturing unit.

4.0 Now, the company is planning to install Clinker Grinding Unit in the name of Shree Jharkhand Cement Plant (A unit of Shree Cement Ltd) with capacity 4.0 Million TPA Cement (Phase-1: 2.5 Million TPA Cement and Phase-2: 1.5 Million TPA Cement) along with Captive Power Plant of 20 MW and captive railway siding in place of Integrated Cement Plant with Clinker capacity of 540000 TPA, Portland Slag Cement: 937500 TPA, Portland Pozzolana Cement: 180000 TPA and Power Plant:20 MW. The change in the product mix is as follows:

S.No	Description	Existing EC Capacity	Proposed Capacity
1	Clinker (Million TPA)	0.54	Nil
2	Cement (Million TPA)	1.11	4.0 (2.5 + 1.5)
3	CPP (MW)	20	20
4	DG Sets	3 MW	1250 KVA

5.0 It was reported that no additional Land is required; water requirement will be reduced from 546 to 490 KLD; pollution load will be reduced for PM from 12.93 to 12.71 kg/hr, SO₂ from 31.89 to 14.42 kg/hr; and NO_x from 58.31 to 14.42 kg/hr.

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

7.0 The project proponent has made detailed presentation on the proposed modernization / change in the product mix.

8.0 The committee observed that the instant proposal is for modification of the products by dropping the clinker unit and enhancement in grinding unit from 1.1 MTPA to 4 MTPA.

9.0 After detailed deliberation, the committee recommended for grant of environmental clearance under the provisions of clause 7(ii) of EIA Notification, 2006 for modification of the products by dropping the clinker unit and enhancement in grinding unit from 1.1 MTPA to 4 MTPA subject to following specific and general conditions applicable for standalone grinding uniting in supersession of earlier EC conditions:

A. Specific conditions:

1. The validity of the EC will be up to 29th August 2020.
2. An amount equal to 5% of total cost proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
3. Green belt shall be developed equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
4. The Capital cost Rs. 8.72 Crores and annual recurring cost Rs. 1.93 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
5. The company shall adopt the system of reporting of non-compliances / infringements to the Board of Directors once in six months and at the time of any incidence.
6. The emission for the bag house shall be maintained less than 20 mg/N-m³

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - i. install 24x7 continuous emission monitoring system at power plant stack to monitor stack emission with respect to parameters prescribed in S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
 - j. monitor fugitive emissions in the plant premises;
 - k. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - l. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - e) install effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in S.O. 3305 (E) dated 7th December

2015 for thermal power plants as amended from time to time as amended from time to time; and

f) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

3. The project proponent shall (Air Pollution Control):

u) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;

v) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 20 mg/Nm³;

w) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;

x) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;

y) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;

z) use leak proof trucks/dumpers for carrying raw materials & cement and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;

aa) Provide wind shelter fence and chemical spraying on the raw material stock piles;

bb) provide Low NO_x burners to control NO_x emissions; and

cc) have separate truck parking area and monitor vehicular emissions at regular interval.

4. The project proponent shall (Water Pollution Control):

g) adhere to 'zero liquid discharge';

h) provide Sewage Treatment Plant for domestic wastewater; and

i) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

5. The project proponent shall (Water Conservation);

g) practice rainwater harvesting to maximum possible extent;

h) provide water meters at the inlet to all unit processes in the power plant; and

i) make efforts to minimise water consumption in the complex by segregation of used water, practicing cascade use and by recycling treated water.

6. The PP shall (Energy Conservation):

- m) 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;
 - n) provide the project proponent for LED lights in their offices and residential areas;
 - o) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
 8. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 9. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 10. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 11. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 12. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
 13. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 14. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 15. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 16. 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).
 17. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
 18. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
 19. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

20. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
21. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
22. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
23. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.16 Expansion of Cement Plant (Clinker from 2.0 MTPA to 5.0 MTPA and Cement from 3.0 MTPA to 7.0 MTPA) located at Villages Itagi & Diggaon, Taluk Chittapur, District Kalaburagi, Karnataka by M/s Orient Cement Limited [Online proposal No. IA/KA/IND/71494/2017; MoEFCC File No. J-11011/342/2011-IA-II(I)] – Terms of Reference for cement plant component only.

1.0 The proponent has made online application vide proposal no. **IA/KA/IND/71494/2017** dated **8th December 2017** 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 and the proposal is appraised at Central level.

2.0 M/s. Orient Cement Limited is operating a Cement Plant with a Clinker production capacity of 2.0 Million Tonnes Per Annum (MTPA) at Itagi & Diggaon villages, Chittapur taluk, Kalaburagi district, Karnataka. The limestone requirement of the cement plant is met from Chittapur Limestone mine located at Itga & Diggaon villages, Chittapur taluk, Kalaburagi district, Karnataka. Environmental Clearance for 2.0 MTPA Clinker and 3.0 MTPA cement capacity along with a 50 MW Coal based power vide MoEF letter no. J-11011/342/2011-IAII(I), dt. 11.3.2013. The current status of various units along with installed production capacities are given below:

Sl	Units	Capacity
1	Clinker Production Capacity	2.0 MTPA
2	Cement Production Capacity	3.0 MTPA
3	Captive Limestone Mining	3.0 MTPA
4	Captive Power Plant (CPP)	50 MW

3.0 M/s Orient Cement Limited proposed to increase clinker production capacity from 2.0 to 5.0 MTPA and cement production from 3.0 to 6.0 MTPA by enhancing the Unit-I production capacity from 2.0 to 2.50 MTPA and by installing another 2.5 MTPA new unit i.e., Unit-II. With increase of clinker production capacity, the limestone requirement also increases from 3.0 to 7.5 MTPA. The proposed capacities for expansion of cement plant are as below:

Cement Plant	Present approved Capacity (MTPA)		Capacity after proposed enhancement (MTPA)	
	Clinker	Cement	Clinker	Cement
Unit –I	2.0	3.0	2.50	3.50
Unit –II	-	-	2.50	3.50
Total	2.00	3.0	5.0	7.0

4.0 The additional limestone requirement will be met by increasing limestone production from captive limestone mining lease. The mining lease extends over an area of 519 Ha. in Itagi & Diggaon villages, Chittapur taluk, Kalaburagi district, Karnataka.

5.0 It was informed that the proposal for increase of Limestone from 3.0 to 7.5 MTPA is being submitted to MoEF& CC separately for necessary environmental clearance.

6.0 M/s OCL complex is located in an area of 266 Ha. No forestland involved. The new unit will be located within the existing complex. No additional area is required. Of the total area 33 % land will be used for green belt development.

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

8.0 Total project cost is about 1354 Crores. Proposed employment generation from proposed expansion project will be 143 persons direct or indirect employment.

9.0 The targeted production capacity of the Cement plant capacity of the Cement Plant is 5.0 MTPA Clinker and 7.0 MTPA Cement. The raw material for manufacture of Cement is Limestone and is sourced from the Captive Limestone Mine and others details is given below:

	Present	Additional	Total	Source	Mode of Transport
Limestone	3.0	4.5	7.5	Captive mine	Conveyor
Laterite	0.109	0.164	0.213	Vizag or Rajamundry Warangal	Road/Rail
Bauxite	0.118	0.178	0.296	Belgaum area, Karnataka	
Feld Spar	0.029	0.044	0.073	Vikarabad	
Gypsum	0.150	0.200	0.350	EID Pary India Ltd., Chennai & Coramandel Fertilizers Ltd., Vizag.	
Coal	Cement Plant	0.300	0.450	SCCL or WCL or Mahanandi	
	CPP	0.262	-		
Pet Coke	0.166	0.250	0.416	MRPL, Mangalore	
Ash requirement for PPC	0.590	0.790	1.376	Raichur power plant & Jindal Steel, Bellary	

10.0 The peak power consumption in the OC Cement plant complex including mine is 36 MW and is met from Captive Power Plant (CPP). An additional power of 36 MW is required for the expansion project which can be met from the Grid power and CPP.

11.0 Water Consumption for the proposed expansion project will be 2000 m³/day and waste water generation will be from cement plant and domestic activities. Waste water will be treated in ETP and reused.

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 Initially the standalone proposal for expansion of cement plant was received in the Ministry vide online proposal number **IA/KA/IND/69976/2017** dated 29th September 2017. The proposal was considered in the 24th meeting of Expert Appraisal Committee [EAC(Industry-I)] held during 13th – 15th November 2017. After detailed deliberations, the committee noted that the proposal involves multi sectoral components such as cement plant and mining. The committee informed that the procedure for consideration of the integrated and inter linked projects was issued by MoEF&CC vide OM No. J-11013/41/2006-IA.II(I), dated 24th December, 2010. Integrated and interlinked projects having multi sectoral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated / interlinked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended to return the proposal in the present form.

14.0 The project proponent has made application giving full details of the project (comprehensively for the integrated / interlinked projects as also for the particular component, sector specific) in the prescribed format (Form-I) vide online proposal number IA/KA/IND/71494/2017 dated 8th December 2017.

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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP
- v. A detailed action plan for 100% utilization of the solid waste shall be provided in the EIA/EMP.
- vi. Action plan for conservation of energy to reduce the GHG emission shall be included in the EIA/EMP.

27.17 Modification of Product Mix of Existing Ferroalloy Plant: 4 X 7.5 MVA and 1 X 5 MVA for production of Ferro-chrome in addition to existing product mix of Ferro-manganese, Silico-manganese and by-product Ferro-manganese Slag by M/S Sonic Thermal Private Limited located at Village- Namobandh-Sitarampur Panchayat/P.O.: Ghutgoria, PS Barjora Zilla Parishad - Bankura District – Bankra, West Bengal [Online Proposal No. IA/WB/IND/71516/2017; MoEFCC File No. IA-J-11011/569/2017-IA.II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/71516/2017** dated **9th December 2017** 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 the proposal is appraised at Central level.

2.0 M/s. Sonic Thermal Private Limited proposed expansion of existing manufacturing unit by way of modification of product mix for production Ferrochrome in addition to existing product mix of Ferro-manganese and Silico-manganese. It is proposed to modify the product mix of the plant for production of Ferrochrome based on reduction melting of chromite ore technology.

3.0 The existing project was accorded Consent to Establish by State Pollution Control Board, West Bengal vide letter No. NO 23801, dt. 10.05.2005. Consent to Operate was accorded by the West Bengal State pollution Control Board vide Ir.4210-7/WPBO-cont(4433)/09, dt 29/12/2015 validity of CTO is up to 31/12/2018.

4.0 The proposed unit will be located at Barjora Plasto Steel Park, Village: Namabandh - Sitarampur, Taluka: Ghutgoria, District: Bankura, State: West Bengal.

5.0 The land area acquired for the proposed plant is 7.96 Ha which is a government allotted land in an industrial park allotted by West Bengal Industrial Development Corporation Ltd. (WBIDCL). No forest land is involved. The entire land has been acquired for the project. Of the total area 2.65 ha (33%) land will be used for green belt development.

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

7.0 Total project cost is approx 80 Crores rupees. The expansion project being a modification of product mix, there is no possibility of employment generation of any kind direct or indirect.

8.0 The targeted production capacity of the Ferroalloy unit in terms of Ferro-manganese, Silico-manganese, Manganese slag and Ferrochrome respectively is 85,800 TPA, 60,720 TPA, 47,520 TPA and 89,580 TPA respectively. The ore for the plant would be procured from mines in Odisha and Chattisgarh (linkages would be established). The ore transportation will be done through Rail/Road. The proposed capacity for different products for new site area as below

Sl. No.	Facilities	Total Existing capacities	Proposed Capacity	Ultimate capacity
1	Ferro Alloys (Ferro Chrome /Ferro Manganese) /Silico Manganese in Submerge Electric Arc Furnace	4 X 7.5 MVA and 1 X 5 MVA The facility is used for manufacture of Fe-Mn and Si-Mn	The existing furnaces will be used for making Fe-Cr	4 X 7.5 MVA 1 X 5 MVA
2	Manganese Ore Briquetting Plant	20 TPH	The existing briquette plant will be utilized for briquetting of chrome ore fines	20 TPH
3	Zigging Plant	100 TPH	The existing Zigging Plant will be used	100 TPH

9.0 The electricity load of 40 MW will be procured from DVC grid. Company has also installed 2 DG Set (1 X 250KVA, 1 X 380 KVA).

10.0 Proposed raw material and fuel requirement for project are as in the appended table. The requirement would be fulfilled by procurement from indigenous sources. Fuel consumption will be mainly consisting of metallurgical coke.

11.0 Water Consumption for the proposed project will be 506 KL/day and waste water generation will be treated and full reused/ recirculated. Domestic waste water will be treated in

STP and reused in green belt development and industrial waste water generated will be treated in a settling pond and reused dust suppression. The waste water generated in jigging plant is recycled back.

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 project proponent along with EIA Consultant M/s Centre for Envotech and Management Consultancy Pvt. Ltd.(Sl. No. in QCI List : 23 as per MoEF & CC website).

14.0 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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP
- v. Management and disposal of hazardous waste as per the Hazardous and Other Waste Management Rules, 2016 shall be addressed in the EIA/EMP
- vi. Action plan for briquetting of chrome fines and 100% utilization of the same shall be prepared and provided in the EMP.
- vii. Possibility of providing fourth hole extraction of the fumes from the furnace to pre-heat the charge shall be prepared and given in the EIA/EMP.
- viii. The green belt shall be provided in 40% of the total project area
- ix. Action plan for disposal of chrome sludge shall be addressed in the EIA/EMP

27.18 Expansion of Steel Plant (Hot Metal Production From 0.5 To 0.75 MTPA, DI Pipe Production From 0.3 To 0.5 MTPA and Production of 0.1 MTPA Castings & Fittings) located at Village Gokulpur, Dist. Paschim Medinipur, West Bengal by Tata Metaliks Limited [Online Proposal No. IA/WB/IND/71202/2013; MoEFCC File No. J-11011/377/2013-IA.II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/71202/2013** dated **14th December 2017** 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 the proposal is appraised at Central level.

2.0 M/s Tata Metaliks Limited proposed to to expand their present hot metal production capacity from 0.5 MTPA to 0.75 MTPA, DI Pipes production from 0.3 MTPA to 0.5 MTPA and set up facilities for production of 0.1 MTPA Castings & Fittings. The proposed capacity for different production units is as follows:

Sl. No	Unit	Existing Facility	Proposed Facility	Final configuration
1	Sinter Plant	44000 TPM	50000 TPM (augmentation of existing)	50000 TPM
2	Pellet plant	-	450000 TPA	450000 TPA
3	Blast Furnace	2 x 259 cu m (0.5 MTPA Hot Metal)	2 x 305 cu m (0.75 MTPA Hot Metal) (augmentation of 2 x 259 cu m)	2 x 305 cu m (0.75 MTPA Hot Metal)
4	Pig casting machine	0.345 MTPA	-	0.345 MTPA
5	Oxygen Plant / Air separation unit		Oxygen - 3,600 Nm ³ /hr Nitrogen - 1,000 Nm ³ /hr	Oxygen - 3,600 Nm ³ /hr Nitrogen - 1,000 Nm ³ /hr
6	DI Pipe Plant	0.3 MTPA	0.2 MTPA	0.5 MTPA
7	Foundry	-	0.1 MTPA	0.1 MTPA
8	Power Plant	CPP#1 - 2.76 MW CPP#2 - 4 MW (BF Gas Fired) CPP#3 - 10 MW Coke Oven Gas Fired	CPP#1 - 10 MW BF Gas Fired (augmentation of existing) CPP#2 - 4.5 MW (Augmentation of existing 4 MW) CPP#3 - No change CPP#4 - 10 MW Coke Oven Gas Fired	CPP#1 - 10 MW BF Gas Fired (augmentation of existing) CPP#2 - 4.5 MW (Augmentation of existing 4 MW) CPP#3 - 10 MW Coke Oven Gas Fired CPP#4 - 10 MW Coke Oven Gas Fired

3.0 The plant site is located at Gokupur near Kharagpur in Paschim Medinipur district of West Bengal. The topography of the region is generally flat. The average elevation of the study area is about 45 m above msl. The general slope of the terrain is along the east and south-east direction. The project area is surrounded by the geographical grids approximately ranging from 87°16'47" to 87°17'36" E longitude and 22°22'27" to 22°23'24" N latitude.

4.0 The project would be situated within the existing premises of TML comprising of 79.7 Ha (197 acre) of land. Of the total area 26.3 Ha (65 acres) (33%) land will be used for green belt development.

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

6.0 Total project cost is approx Rs. 800 Crore. Employment generation from proposed project envisaged as both direct & indirect deployment will be 1,000. This would involve contractual & casual labour for semi-skilled & unskilled job and regular employment for skilled job.

7.0 Proposed raw material for project are iron ore fines, lump ore, PCI Coal, Steel scrap, limestone, dolomite, bitumen, magnesium and Cement & Sand for lining among others. While raw materials like PCI Coal would be imported, iron ore would be acquired from existing sources. The details of raw material inventory as follows:

Sl. No	Material	Quantity in TPA	Mode of transport
1	Iron ore fines	1,017,000	Rail
2	Sized iron ore	187,500	Rail
3	Quartzite	7,500	Rail
4	PCI coal	90,000	Rail
5	Limestone	60,400	Rail
6	Dolomite	28,000	Rail
7	Coke	345,750	Rail
8	Steel scrap	30,000	Road
9	Magnesium	3,500	Road
10	Inoculants	600	Road
11	Zinc	2000	Road
12	Bitumen, kl	1350	Road
13	Cement for lining	28,500	Road
14	Sand for lining	41000	Road
15	Resin, Hardener, catalyst, paints	450	Road

8.0 The electricity load of 45 MW will be met by Captive power generation units as well as the Grid power supply. DG sets of adequate capacities are proposed for the plant units as well as CPP auxiliaries to cater to the requirement of safe shutdown and safety of personnel during total black-out condition when power supplies to plant network from both the sources have failed.

9.0 The total water required would be approximately 130 m³/hr which would be extracted from 23 bore wells authorized by State Water Investigation Directorate (SWID). Industrial wastewater will be treated and reused as make-up water.

10.0 The estimated generation of major solid wastes after expansion is tabulated below:

Sl. No	Solid wastes	Expected generation in TPA	Management Scheme
1	BF Slag	320,000	Granulation in Slag granulation plant and used in cement manufacturing/construction purposes. Air Cooled slag for land fill, road making and ballast purpose.
2	BF GCP Sludge & Flue dust	24,000	Recycled in Sinter making process
3	Zinc Dust	1,000	Sold to authorized external agencies for recycling
4	Used Oil	15 KL	Sold to authorized external agencies for recycling

5	Waste Core Sand	17,500	Used in filling of low lying areas
6	Iron Scrap (from DI plant)	1,250	Recycled in process
7	Resin Hardener	20	Sold to authorized external agencies for recycling
8	Paint Drums	7	Sold to authorized external agencies for recycling

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 The project proponent made presentation along with EIA Consultant M/s MN Dastur & Company.

13.0 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. 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. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP
- v. Action plan for reduction of specific water and energy consumption shall be addressed in the EIA/EMP.
- vi. Action plan for 100 % utilization of the solid waste shall be provided
- vii. Fume extraction system for the blast furnace cast house shall be addressed in the EMP.
- viii. Action for recycling of foundry sand shall be provided
- ix. The slag shall be characterised including the TCLP test for the hazardous metals in the slag.

27.19 **Expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA, Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA), Lime Dolime Plant- (200 TPD), Oxygen Plant- (200 TPD) CPP- [45 MW to 159 MW (50 MW Coal & Dolochar Mix based and 109 WHRB] of M/s Rashmi Cement Limited at Mouja-Jitusole (J.L No. – 702 & 703), Junglekhas (J.L No. – 731) and Baghmundi (J.L No. – 928), Village Jitusole, PS-Jhargram, District- Paschim Midnapore, West Bengal. - [Proposal No IA/WB/IND/69919/2017, File No. J-**

11011/604/2008-IA.II(I)] – Terms of Reference Regarding – Further consideration based on ADS reply.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/69919/2017** dated **27th September 2017** 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 the proposal is appraised at Central level.

2.0 M/s Rashmi Cement Limited proposes to go for expansion of existing manufacturing unit for Sponge Iron Plant with Ferro Alloy Plant and Power Plant. It is proposed to set up the plant for expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA); Lime Dolime Plant- (200 TPD); Oxygen Plant- (200 TPD); CPP- [45 MW to 159 MW (50 MW Coal & Dolochar Mix based and 109 WHRB)].

3.0 The existing project was accorded environmental clearance vide File No-. J-11011/604/2008.I A II (I) dated 12.02.2009, got validity extension for next three year till 11th-Feb-2019 and also amendment in EC (inclusion of ferrochrome with ferro alloy within EC approved capacity) vide File No-J-11011/604/2008.I A II (I) dated 07.07.2017. Consent to Operate is accorded by West Bengal State Pollution Control Board vide Co No-102823 issued vide memo No-5683-hl-co-5/10/0399 dated 14-12-2016 validity of CTO is up to 31-Dec-2021. The detail about EC obtained vide File No- J-11011/604/2008.I A II (I) dated 12.02.2009 & 07.07.2017 is as

Plant	Existing (TPA)	Proposed (TPA)		Total Capacity
		Phase –I*	Phase-II*	
DRI (Sponge Plant)	3,00,000 (10 x 100 TPD)	1,20,000 (4 x 100 TPD)	1,80,000 (2 x 350 TPD)	6,00,000
Submerged Arc Furnace (SAF)		36,000 (3 X 9 MVA)	36,000 (3 X 9 MVA)	72,000 (Ferro Alloy like FeMn, SiMn, FeSi&FeCr)
Power	25 MW	--	--	25 MW

*Note- We submitted letter to MoEF&CC intimating the proposed changes in configuration of the proposed DRI (sponge plant) to 1 x 600 TPD + 1 x 100 TPD DRI (Sponge Plant) instead of 4 x 100 TPD + 1 x 350 TPD. The sponge iron production is within the EC permission and there will be no increase in pollution load. The company is permitted to do the proposed changes after intimating MOEF&CC under clause 7 (ii) (b) of EIA Notification (amended in November 2016)

4.0 The proposed unit will be located at Mouza – Jitusole (J.L No.-702 & 703), Junglekhas (J.L. No. 731) and Baghmundi (J.L. No.928),at Village: Jitusole, P.O –Garhsalboni, P.S – Jhargram, District: Paschim Mednipur, State: West Bengal.

5.0 The earlier EC of M/s Rashmi Cement Limited was awarded on 48.6 hectare land, out of which 0 ha is an agricultural land, grazing land and Government Land. No forestland is involved. The complete 48.6 hectare land is in possession by M/s Rashmi Cement Limited. The existing operational plant is located on 17.4 hectare of land and proposed expansion will take place within the RCL premises for which 12.2 hectare of land will be needed within the

48.6 hectare of land. Out of 48.6 hectare already 16.02 hectare (33%) of land is earmarked for green belt development. No additional land is required for the proposed expansion project.

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 790 Crores rupees. Proposed employment generation from proposed project will be 1200 direct employment and 2500 indirect employment.

8.0 The targeted production capacity of the proposed proposal is 9, 00,000 TPA Integrated Steel Plant & 114 MW CPP. The Iron ore for the plant would be procured from Barbil-Joda, Orissa (from our current mines owner like, Rungata Mines, Sirajuddin Mines & TP Sahoo Mines), and Coal would be procured from E-Auction or Imported. The ore transportation will be done through Rail/ Road. The proposed capacity for different products for new site area as below:

Sr. No	Plant	Existing (TPA)		Proposed		Total Production Capacity
		No. of unit	Production Capacity	No. of unit	Production Capacity	
1	DRI (Sponge Plant)	11 x 100 + 1 x 350 + 1 x 600 TPD	6,00,000	4 x 600 TPD	7,20,000 TPA	13,20,000 TPA
2	Ferro Alloy Plant (FeMn, SiMn, FeSi / FeCr) with FeCr Briquette plant	6 x 9 MVA	72,000	6 x 9 MVA	72,000 TPA	1,44,000 TPA
3	Steel Melting Shop (SMS) with Slag Crushing unit	----	-----	10 x 20 T I.F with LRF, AOD & CCM	9,00,000 TPA	9,00,000 TPA
4	Hot Rolling Mill Product: (H.R. Coils/ TMT Bar, Wire Rod & Wire/ Structural long product like- Angel, Channel & Beam)	----	-----	----	5,50,000 TPA	5,50,000 TPA
5	Cold Rolling Mill/ Wire drawing with Pickling Line & Continuous Galvanizing Line Product: (Galvanized Sheet/ Plate /Coils, Flat Sheet/ Checkered Sheet, Strip & Nail)	----	-----	---	3,00,000 TPA	3,00,000 TPA
6	Lime Dolime Plant	----	-----	01	200 TPD	200 TPD
7	Oxygen Plant	----	-----	01	200 TPD	200 TPD
8	Captive Power Plant	WHRB Based	45 MW WHRB (28 MW with existing DRI and 17 MW	64 MW WHRB Based + 50 MW CFBC)	114 MW	159 MW

			will be added to new DRI Plant)			
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9.0 The electricity load of 219 MW for proposed expansion project will be procured from proposed 114 MW Captive Power Plant and the remaining 105 MW will be drawn from WSEDCL/Open Access. Company has also proposed to install 10 Number DG Set of 720 KVA. At the time of Construction phase power requirement will be met from current operational Captive power plant of Rashmi Cement limited.

10.0 Raw materials requirement for proposed and existing project are Iron Ore, Bentonite, Coaking Coal, Dolomite, Quartzite, Lime, Magnesium Ore, Chromium Ore, etc. Fuel consumption will be mainly Electricity & Diesel (If required). The details are as :

Sr. No.	Name of the Raw Materials	Quantity (TPA)			Source	Mode of Transportation
		Existing	Proposed	Total		
1	Iron ore lump	2,70,000	3,24,000	5,94,000	Applied for captive iron ore mines Alternate source: Purchased from Barbil-Joda, Orissa	Train
2	Iron ore Pellet	6,30,000	7,56,000	13,86,000	From other unit of group	By Road
3	Non-coking	7,20,000	11,30,000	18,50,000	CCL, MCL & Imported Coal	Ship/Train
4	Coke	46,800	46,800	93,600	Imported	Ship/Train
5	Dolomite	32160	38160	70,320	From Birmitrapur, Orissa /	Train
6	Limestone	--	120000	120000	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni	Train
7	Manganese ore	1,87,000	1,87,000	3,74,000	Captive mines in Balaghat,	Train/By Road
8	Chromium Ore	1,58,000	1,58,000	3,16,000	Orissa, Jharkhand etc.	Train/By Road
9	Quartzite	18,000	18,000	36,000	From Belpahar Orissa / /	Train

11.0 Water Consumption for the proposed expansion project will be 6456 KLD (less water requirement because of use of Air type cooling system for Power Plant) and waste water generation will be 82 KLD. Rashmi Cement Limited has water withdrawal permission for 2060 KLD from SWID and application for withdrawing additional required water will/is made to SWID, West Bengal. 30 KLD Domestic waste water will be treated in Septic Tank followed by Soak Pit and 52 KLD industrial waste water generated will be treated and reused in the process and for green belt development and dust depression after treatment.

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 22nd meeting of EAC (Industry-I) held during 11th – 13th September 2017. After detailed deliberation, the committee observed that the company has not engaged any EIA consultant as required under the clause 13 of EIA Notification. The committee opined that EIA Coordinator shall present before the committee for understanding the environmental sensitivity of the project location, environmental issues of the proposal so as to address in the EIA/EMP. The committee also advised to present the senior officials who can take the decisions from the company during the appraisal.

14.0 The proposal was further considered in the 24th meeting of EAC (Industry-I) held during 13th – 15th November 2017 and the project proponent has made detailed presentation

along with EIA Consultant M/s Grass Root Research & Creations Private limited. After detailed deliberations, the committee observed that details of processes, products, raw materials to be used, potential impacts on the environment and proposed mitigation measures which are required to prescribe the specific ToRs were missing in the PFR submitted by the PP and not able to explain to the committee. Therefore, the committee advised to submit revised PFR *inter alia* include details of processes, products, raw materials to be used, potential impacts on the environment and proposed mitigation measures to meet the standards.

15.0 The committee observed that the layout plan presented was not matching with the layout plan approved in the earlier EC; the configuration of the proposed production facilities are not environmentally friendly in terms of pollution load, energy conservation and safety; the proposed layout is very congested for the proposed capacities.

16.0 Therefore, the committee suggested to re-submit the proposed layout plan matching with the layout plan of existing EC; relook into the configuration of the proposed facilities from the environmental perspective, decongestion and safety. Therefore, the proposal is deferred till the information is submitted by PP.

27.20 Expansion of Re-rolling mill by installation of new 30 T Rolling Mill Furnace (from 13000 TPA to 180500 TPA) by M/s JMD Alloys Ltd. (JMDAL) at Vill. Deokuli, Bihta, District Patna, Bihar [Proposal No IA/BR/IND/67762/2017; MoEF&CC File No. IA-J11011/478/2017-IA.II(I)] – Environmental Clearance based on ToR.

1.0 **M/s JMD Alloys Limited (JMDAL)** made online application vide proposal no. **IA/BR/IND/67762/2017** dated **29th August 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “B” EIA Notification, 2006 and due to non-existence of the SEIAA in the state of Bihar the proposal is appraised at Central level.

2.0 The proposed Rolling Mill and Induction Furnace project of M/s JMD Alloys Ltd., is located near Vill. Deokuli, Block Bihta, Dist. Patna, State Bihar, was initially received in SEIAA, Bihar on 11th February 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the State Expert Appraisal Committee [Bihar] during its meeting held on 07th March 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, SEIAA, Bihar had prescribed ToRs to the project on 16.03.2017 vide Lr. Ref. No. 570.

3.0 The present proposal of M/s JMD Alloys Ltd., is for enhancement of production of MS/TMT Bar from 13000 tonnes per annum (TPA) to 180500 tonnes per annum (TPA). The project is located near Village Deokuli, Block Bihta, Dist. Patna, State Bihar. The existing project was established in the year 1994 and at present installed capacity of 22500 TPA MS Ingot Production and Rolling Mill of 13000 TPA. Secondary metallurgical processing industry was not listed in the Schedule I of EIA Notification 1994 for obtaining Environment Clearance (EC). Therefore, environmental clearance was not required for existing project. The Bihar State Pollution Control Board has granted Consent Order for the existing unit vide Ref. No. T-7937 dt: 06.10.2016 & Ref. No. T-7936 dt: 06.10.2016 for the period of 3 years and valid up to 31.12.2018.

4.0 Now, it is proposed to expand the production capacity of Re-rolling mill from 13000 TPA to 180500 TPA and proposed to discontinue the operations of Induction furnace. The capacity of the plant after proposed expansion is as follows:

Manufacturing Facilities	Product	Existing capacity	Proposed Expansion	Total Capacity
Induction Furnace	MS Ingot/Billet	22500 MT/Annum	No Expansion (Plant is not under operation)	Plant is closed and operation will be discontinued
Re-rolling Mill Furnace	TMT Bars/Rods	13000 MT/Annum	167500 MT/Annum	180500 MT/Annum

5.0 The total land required for the project is 6.44 Acres, which is owned by project proponent. No forestland involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed. Land Utilization detail for proposed expansion is as under:

Sl	Land utilization	Existing (Ha.)	For Expansion (Ha.) (From existing land)	Total after Expansion (Ha.)
1	Main Plant	0.513	0.31	0.820
2	Storage area	0.505	0.10	0.606
3	Utilities and Office Area	0.230	0.00	0.230
4	Green Belt Area	0.343	0.51	0.861
5	Unused Vacant Space	1.010	0.08	0.085
	Total	2.602		2.602

6.0 The topography of the area is flat and reported to lies between 25°36'3.63"N to 25°36'12.25"N Latitude and 84°51'54.82"E to 84°52'0.01"E Longitude in Survey of India topo sheet No. 72 C/14 at an elevation of 51 m AMSL. The ground water table reported to ranges between 2.53 – 3.24 m. below the land surface during the post-monsoon season and 3.05 – 4.42 m. below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 500 m. Further, the stage of groundwater development is reported to be 55% in core and buffer zone and thereby these are designated as safe areas.

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

8.0 The production facilities inter alia include Induction Furnace (MS Ingot / Billet); and Re-rolling Mill (TMT Bar/Rods). Product wise raw materials requirement for the proposed project, source of raw materials & its transportation are mentioned in table below:

Raw Material	Existing raw material requirement (TPA)	Proposed raw material requirement (TPA)	Source	Mode of transport
MS Ingot / Billet	13780	181583	From local MS Ingot / Billet manufactures at	Through Road in Closed Trucks

Raw Material	Existing raw material requirement (TPA)	Proposed raw material requirement (TPA)	Source	Mode of transport
			Patna and from Jharkhand	
Indonesian Coal	1200	16500	From Kolkata Port	Through Road in Closed Trucks

9.0 The targeted production capacity of the project is 180500 TPA. The raw materials for the plant would be procured from local suppliers in Bihar & Jharkhand. The transportation of raw materials will be done through Road.

10.0 The water requirement of the project is estimated as 20 m³/day, which will be obtained from the borewells inside premises. Applied for permission for drawl of groundwater from CGWB vide Application No. 21-4/306/BR/IND/2017 dated 28.07.2017.

11.0 The power requirement of the project is estimated as 21000 KVA, which will be obtained from the BSEB Grid.

12.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from March to May'2017. Ambient air quality monitoring has been carried out at 8 locations during March to May'2017 and the data submitted indicated: PM₁₀ (48.3 µg / m³ to 140.9µg / m³), PM_{2.5} (32.3 to 85.4µg/m³), SO₂ (11.2 to 37.0µg/m³) and NO_x (31.4 to 64.7µg/m³). The results of the modelling study indicated that the maximum increase of GLC for the proposed project is 3.86µg/m³ with respect to the PM₁₀.

13.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.64 to 7.86, Total Hardness: 196.0 to 312.0 mg/ l, Chlorides: 10 to 32 mg/ l, Fluoride: 0.18 to 0.42 mg/l. Heavy metals are within the limits except Arsenic concentration of 0.015 & 0.018 mg/l. Surface water samples were analysed from 2 locations. pH: 7.12 to 7.18; DO: 5.4 to 5.8 mg/ l and BOD: 2.0 to 2.5 mg/ l. COD from 8.0 to 12.0 mg/l.

14.0 Noise levels are in the range of 42.2 to 60.3 dB(A) for daytime and 33.8 to 45.0 dB(A) for night-time.

15.0 It has been reported that there are no people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated as the project site is located within existing industry.

16.0 It has been reported that a total of 10050 tons of waste will be generated due to the project, which will be recycle and reused back in process for production of MS Ingot/Billet within existing plant premises. It has been envisaged that an area of 0.86 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.

17.0 The Public hearing of the project was held on 29th Jul.'2017 at PWD Inspection Bungalow at Bihta, Dist. Patna, State Bihar under the chairmanship of Sri Sanjiv Kumar, Sub-Divisional Officer, Danapur (nominated representative of DM Patna), District: Patna (Bihar) for production of 180500 TPA MS/TMT Bars. The issues raised during public hearing inter

alia include Air, Water and Noise pollution; employment generation; development of green belt; etc. The details of PH issues are as follows:

Name & Address of Respondent	Suggestion	Commitments by PAs	Time Bound Action Plan	Fund Allocation
Sri Krishna Kumar Singh, resident of Amna Wana, Bihta	He expressed his happiness for this initiative of Public Hearing by Government. He suggested that control of Water, Air and Noise pollution from units is also necessary along with development of Industry. System explained by consultant should be followed. Employment should be provided to local people so that number of people migrating in search of employment reduces.	JMDAL has assured that adequate air pollution control system will be installed in the proposed expansion project.	Before start of operation of expansion project i.e. upto Dec.'2018	Rs. 85 Lakhs
		Apart from above, existing green belt will be developed in more extensive and precise manner for reducing the air pollution Load.	Upto Dec.'2018	Rs. 15 Lakhs
			Every Year after Dec.'2018	Rs. 10 Lakhs
		It is assured by JMDAL that local youths will be preferred for employment in the proposed project.	Upto Dec.'2018	
Sri Sanjay Srivastava, resident of Katesar, Bihta	He told that in view of increasing demand enhancement in production capacity is necessary. Water, air and noise pollution will also increase due to operation of unit, for prevention of air and noise pollution, control system is necessary, therefore requested present officers for effective compliance of air and noise pollution control system.	JMDAL has assured that adequate air pollution control system will be installed in the proposed expansion project.	Before start of operation of expansion project i.e. upto Dec.'2018	Rs. 85 Lakhs
		Apart from above, existing green belt will be developed in more extensive and precise manner for reducing the air pollution Load.	Upto Dec.'2018	Rs. 15 Lakhs
Sri Gopal Jee Singh, resident of Korhar	He suggested that Industry has less land for plantation due to which plantation is not done in sufficient quantity. Therefore I suggest that all large industries situated in Bihta should be directed to do sufficient plantation in vacant government lands and road side. He also requested that compliance of suggestions given by them shall be assured.	Sri Sanjiv Kumar, Sub-divisional Officer explained that plantation by industry is mandatory on 33% of available land within its premises, otherwise environmental clearance will not be awarded by the authorities. Development and plantation activities in available government land are under jurisdiction of concerned panchayat. Therefore Mukhiya of	Upto Dec.'2018	Rs. 15 Lakhs
			Every Year after Dec.'2018	Rs. 10 Lakhs

		concerned panchayat identifying vacant government land can request these units for plantation on that land.		
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18.0 An amount of 61.45 Lakhs (2.5 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.

19.0 The capital cost of the project is Rs. 24.58 Crores and the capital cost for environmental protection measures is proposed as Rs. 60 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 38 Lakhs. The employment generation from the proposed expansion project is 50 nos. (indirect manpower).

Sl	Particulars	Amount in INR, Lakhs
One Time Installation Cost		
1	Installation of Air Pollution Control System	75.0 lakh
2	Green Belt Development	15.0 lakh
	Sub-Total	85.0 lakh
Recurring Cost / Annum		
1	Environmental Monitoring	8.0 lakh
2	Running Cost of Pollution Control Equipment	40.0 lakh
3	Greenbelt maintenance	10.0 lakh
	Sub-total	58.0 lakh
	Total	143.00 lakh

20.0 Greenbelt has been developed in 0.86 Ha which is about 33% of the total acquired area. Local and native species have been planted with a density of 2500 trees per hectare. Total no. of 1000 saplings will be planted and nurtured within premises in 5 years.

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

21.0 The Project Proponent along with EIA Consultant M/s **Consulting Engineers Group Ltd. (CEG)** (Sl. No. 28 of Rev. 57 Sep 05, 2017) made detailed presentation on the proposal.

22.0 The project proponent submitted revised EIA/EMP report incorporating reply to ADS on 19th December, 2017. The details of Enterprise Social Commitment based on public hearing issues are as given below:

Sl	ESC Activities	Amount in Lakhs					Total
		Upto Dec.' 2018	Upto Dec.' 2019	Upto Dec.' 2020	Upto Dec.' 2021	Upto Dec.' 2022	
1	Scholarship award to unprivileged Students	1.00	1.00	1.25	1.00	1.25	5.50
2	LED Lighting in streets of nearby Villeges	1.00	1.50	1.50	1.00	1.00	6.00
3	Hand pump setting up in community areas	1.50	2.00	2.00	2.00	1.50	9.00
5	Arrangement of separate Toilet	5.00	5.00	5.00	5.00	5.00	25.00

	and urinals for boys and girls in schools						
6	Arrangement of Skill development programs for youths	2.00	3.00	3.00	4.00	3.95	15.95
	TOTAL AMOUNT	10.50	12.50	12.75	13.00	12.70	61.45

23.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application:

Specific conditions:

1. An amount of Rs 61.45 Lakhs proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt shall be developed in 1.00 Ha with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
3. The Capital cost Rs. 85.00 Lakhs and annual recurring cost Rs. 58.00 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
4. Kitchen waste shall be composted or converted to biogas for further use.

General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R 414 (E) dated 30th May 2008 as amended from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R 414 (E) dated 30th May 2008 as amended from time to time;

- b) monitor regularly ground water through sufficient numbers of piezometers in the plant and adjacent areas; and
 - c) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - e) recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration;
 - f) use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin;
 - g) provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc;
 - h) provide primary and secondary fume extraction system at all melting furnaces; and
 - i) design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) Provide ETP for removal of all rolling mills.
5. The project proponent shall (Water Conservation):
- a) practice rainwater harvesting to maximum possible extent; and
 - b) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):

- a) provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
 - b) practice hot charging of slabs and billets/blooms as far as possible;
 - c) ensure installation of regenerative type burners on all reheating furnaces;
 - d) 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; and
 - e) Provide the project proponent for LED lights in their offices and residential areas.
7. Used refractories shall be recycled as far as possible.
 8. Sufficient number of colour coded waste collection bins shall be constructed at the shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
 9. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces.
 10. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 11. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 12. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 13. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 14. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Induction/ Electric Arc Furnace and Rolling Mills shall be implemented.
 15. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 16. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 17. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

18. 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).
19. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
23. The project proponent shall (Post-EC monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (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;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.21 Expansion of Asbestos Cement Sheet manufacturing unit (72,000 TPA to 1,75,000 TPA) of M/s HIL Limited located in Industrial Area, Jasdih, District Deogarh, Jharkhand. [Proposal No. IA/JH/IND/42684/2016; File No. J-11011/01/2016-IA-II(I)]- Environmental Clearance - Further Consideration based on ADS.

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/42684/2016**, dated **30th April 2017** 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. 4(c) Asbestos milling and Asbestos based products as Category "A" under EIA Notification 2006 and subsequent amendments. Therefore, the project is appraised at central level.

2.0 The Fibre Cement & Roofing Sheets (Asbestos) Project of **M/s Hyderabad Industries Limited (HIL)** located in Industrial Area, Jasidih, Tehsil Deoghar, District Deoghar, State Jharkhand, was initially received in the Ministry on 1st February 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 5th meeting held on 31th March 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 20th May, 2016 vide Lr. No. J-11011/01/2016-IA-II(I).

3.0 The project of M/s HIL Ltd., located in Industrial Area, Jasidih, Tehsil Deoghar, District Deoghar, State Jharkhand is for enhancement of production of Fibre Cement & Roofing Sheets from 72000 tonnes per annum (TPA) to 175000 tonnes per annum (TPA). The existing project was established in the year 1980 and is being in operation with 72000 TPA. Till date no expansion or modernization of the plant has been done. The proposed capacity for different products for new site area as below:

Sl. No	Description of product	Existing production capacity	Proposed expansion capacity	Total capacity
1	Fibre Cement & Roofing Sheets	72,000 TPA	1,03,000 TPA	1,75,000 TPA

4.0 The total land required for the project is 21.53 Acres, which is in Notified Industrial Area under the authority of Santhal Pargana Industrial Area Development Authority, Govt. of Jharkhand. No forestland is involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is undulated and reported to lies between 24° 31'4.3968" N to 24° 30'59.9544" N Latitude and 86° 38'19.2948" E" to 86° 38'25.2312" E Longitude in Survey of India Topo Sheet No. 72 L/10, 72 L/11, 72 L/14, 72 L/15, at an elevation of 264 m AMSL. The ground water table reported to ranges between 2.6 – 12 m below the land surface during the post-monsoon season and 5.6 – 12 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 500 m. Further, the stage of groundwater development is reported to be 35% in core and buffer zone and thereby these are designated as safe areas.

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

7.0 Asbestos roofing sheets manufacturing in the proposed project uses the renowned Hatschek process. In this process the raw material of port land cement, fly ash, Chrysotile fibre and cotton / paper pulp are treated and mixed to predetermined proportion with water to form slurry. Raw Chrysotile fibre packed in impermeable bags is placed in a pneumatic lift which automatically lifts & pushes the bags inside bag opening device (BOD), which is fully enclosed and connected to a pulsejet bag filter thus creating a vacuum (negative pressure) inside the BOD so that none of the fibre escapes into the atmosphere. There is a constant flow of air from the ambient inside the BOD chamber. The main sheeting machine comprises of rotating sieve cylinders which rotate in the vats immersed in cement fibre slurry. These sieve cylinders are in contact at the top with an endless felt pressed down by rubber couch rollers. The endless felt successively runs over 6 such vats. The front end of the felt is tightened against drive roller over which a forming drum of cast iron is pressed down on the felt. The drive roller is driven by a variable speed motor which drives the endless felt conveyors and the sieves and the forming drum. With each rotation of the sieve a thin film of Fibre-Cement (FC) material is deposited on the underside of the felt which immerge at the top and passes through vacuum suction trays for removal of the excess water. The dry films are now transferred to the forming drum at the end and are approximately 1.5 mm thick. Forming drum is allowed to rotate 4 rounds (in 6 vats machine) when the film is accumulated to a thickness of 6 mm at which stage it is cut off from the forming drum and transferred to a belt conveyor. The resultant product is a wet FC blanket of 6mm thick and 1400 mm width and 6 m length. This wet sheet is now conveyed through belt conveyor for trimming of the edges and sides and taken to a profiling machine known as corrugators.

8.0 The targeted production capacity of the project is 1,75,000 TPA. The raw materials for the plant would be procured from suppliers in India & Russia. The transportation of raw materials will be done through Road and Rail (cement only).

9.0 The water requirement of the project is estimated at 189 m³/day, out of which 153 m³/day of fresh water requirement will be obtained from the bore wells inside premises and the remaining requirement of 36 m³/day will be met from the recycling of water. Applied for permission for drawl of groundwater from CGWB vide Application No. 21-4/217/JH/IND/2017 dated 03.03.2017.

10.0 The power requirement of the project is estimated as 1070 MW, which will be obtained from the JSEB Grid.

11.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from March to May' 2016. Ambient Air Quality monitoring has been carried out at 8 locations during March to May' 2016 and the data submitted indicated: PM₁₀ (48.8 µg/m³ to 107.5 µg/m³), PM_{2.5} (27.3 to 62.4 µg/m³), SO₂ (12.7 to 35.2 µg/m³) and NO_x (15.8 to 39.1 µg/m³). The results of the modelling study indicated that the maximum increase of GLC for the proposed project is 3.66 µg/m³ with respect to the PM₁₀.

12.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.0 to 7.50, Total Hardness: 308.6 to 340.2 mg/ l, Chlorides: 15.1 to 34.3 mg/ l, Fluoride: 0.08 to 0.26 mg/l. Heavy metals are within the limits. Surface water samples were analysed

from 2 locations. pH: 7.26 to 7.32; DO: 4.3 to 4.8 mg/ l and BOD: 2.1 to 2.7 mg/ l. COD from 8.0 to 14.0 mg/l.

13.0 Noise levels are in the range of 30.8 to 80.7 dB(A) for daytime and 25.4 to 45.8 dB(A) for night time.

14.0 It has been reported that there are 225 people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated as the project site is located within Industrial Area and industry already exists.

15.0 It has been reported that a total of 1767.5 tons of waste will be generated due to the project, which will be recycle and reused back in process for production of Fibre Cement Roofing Sheets. It has been envisaged that an area of 2.89 ha (7.15 Acres) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities. At present 1007 Nos. of trees are planted within the premises of HIL Ltd. in approx. 0.65 Ha. (1.60 Acres) of land area. During the proposed expansion activity additional 4000 nos. of trees will be planted in 2.24 Ha. (5.55 Acres of Land).

16.0 It has been reported that the Consent to Operate from the Jharkhand State Pollution Control Board/Pollution Control Committee obtained vide Lr. No. JSPCB/HO/RNC/CTO-667870/2016/771 dated 13.10.2016 and consent is valid up to 30.06.2017.

17.0 The Public hearing of the project was held on 7th January, 2017 at Narendra Bhawan, Chakai More, Jasidih, Dist. Deoghar, State Jharkhand under the chairmanship of Sri Radheshyam Prasad, Land Acquisition Officer (ADM level), District: Deoghar (Jharkhand) for production of 175000 TPA Fibre Cement Roofing Sheets. The issues raised during public hearing *inter alia* include water pollution; air pollution; storage of hazardous chemicals; community development; local employment; etc. An amount of 45 Lakhs has been earmarked for Enterprise Social Commitment based on public hearing issues.

18.0 An amount of Rs. 85 lakhs with a detail of activities such as medical facilities, providing of tube wells in nearby villages, training and skill development etc. The employment generation from the proposed expansion project is 50 nos. (Indirect manpower). The details of ESC proposed are as follows :

Sl. No	Enterprise Social Commitment Activities	Up to Mar.' 2019	Up to Mar.'2020	Total (Up to Mar'2020)
		All figures in Rs. Lakh		
1.	Sinking of Tube wells in nearby villages within 5 Km. radius of HIL Project Area	8.00	4.00	12.0
2.	Rest Shelters in nearby villages within 5 Km. radius of HIL Project Area.	6.00	2.00	8.0
3.	Social Forestry Program which includes plantation of trees and distribution of saplings of trees among the local villagers and encourage them to plant more trees and to maintain them.	7.5	7.5	15.0

4.	Provision of solar panels in nearby villages for street lighting purposes and for domestic use also.	4.0	6.0	10.0
5.	TOTAL AMOUNT	25.5	19.5	45

19.0 The capital cost of the project is Rs 17 Crores and the capital cost for environmental protection measures such as installation of air pollution control devices, up gradation of existing green belt is proposed as Rs. 55 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 17 Lakhs toward environmental monitoring, running cost of pollution control devices, etc. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sl. No.	Description	Capital Cost Rs. Lakh	Recurring cost per annum, Rs Lakh
1.	Installation of Air Pollution Control System (Reverse Pulse Jet Bag Filters)	50.0	10.0
2.	Green Belt Development	5.0	2.0
3.	Environmental Monitoring	---	5.0
	TOTAL	55.0	17.0

20.0 Greenbelt will be developed in 2.89 ha (7.15 Acres) which is about 33% of the total acquired area. A 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 1200 saplings will be planted and nurtured within premises 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 The project was considered in the 19th EAC meeting (Industry-I) held during 8th – 9th June 2017. After detailed presentation by PP along with EIA Consultants, the committee noted that the PP explored use of synthetic fibre in lieu of asbestos fibres; use of imported asbestos fibre; all the operations are covered, automated and spill proof; adhered to ZLD, details provided for the ToR Points namely, Specific ToR (ii), 3(v), 7(iv), 7(vi), 7(ix), 9(iii), 11(i), 14 (v) are not found relevant.

23.0 The proposal was considered in the 19th meeting of Expert Appraisal Committee (Industry-I) held on 9th June 2017. After detailed deliberations, the committee desired the following information for further consideration of the proposal:

- i. Issues raised in Public Hearing shall be clearly addressed along with time bound action plan and fund provision for the same as part of Enterprise Social Commitment part of CAPEX in project mode.
- ii. Ground water withdrawal permission letter from the competent authority shall be provided.
- iii. Hydro geological report including ground water development, category of development of ground water, recharge measures shall be submitted.

- iv. Water flow diagram clearly indicating the quantity of consumption for different purpose including recycling, disposal shall be submitted.
- v. Corporate Environmental Policy along with board resolution, hierarchy and mechanism of reporting non-compliances to the board of directors as per the OM dated 26th April 2011 shall be provided
- vi. Details for the ToR Points namely, Specific ToR (ii), 3(v), 7(iv), 7(vi), 7(ix), 9(iii), 11(i), 14 (v) shall be revised and submitted as per the deliberations.
- vii. Provision for vacuum cleaning to check fugitive dust in the plant premises.
- viii. Provision for planting of 4,000 trees of local broad-leaved species in addition to about 1,000 presently existing in the plant area

24.0 Accordingly the project proponent submitted reply to Additional details sought above on 4th August 2017. The project proponent presented the details before the committee. After detailed deliberations the committee observed that the reply is not satisfactory and not furnished the relevant information. Therefore, the committee advised to submit the reply in proper manner by 10th October 2017. However, the project proponent requested for some more time vide their letter MoEF/16-17/EXP/EIA/EC, dated 9th October 2017.

25.0 The project proponent again submitted reply to Additional details sought on 19th December 2017, *inter alia*, including Issues raised in Public Hearing shall be clearly addressed along with time bound action plan; groundwater withdrawal permission; Hydro geological report; revised water flow diagram; corporate environmental policy, etc.

26.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application:

Specific Conditions:

1. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in impermeable bags and under compressed condition.
2. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.
3. There shall be no manual handling/opening of asbestos fibre bags. The company shall install fully automatic asbestos fibre debagging system.
4. Fugitive emissions shall be controlled by bringing cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle it into the process. Fugitive emissions generated from hopper of Jaw crusher and pulverizer shall be channelized through hood with proper suction arrangement, bag filter and stack.

5. The Company shall comply with total dust emission limit of 2 mg/Nm³ as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
6. The PP shall install High Efficiency Particulate Air filters (HEPA) preceded by primary filters on all asbestos contaminated areas.
7. Bags containing asbestos fibre shall be stored in enclosed area to avoid fugitive emissions of asbestos fibre from damaged bags, if any.
8. Asbestos contaminated materials (non-encapsulated) for off-site removal shall be placed in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.
9. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
 - a. All monitoring transfer points shall be connected to dust extraction system.
 - b. Leakages or dust from machines and ducts shall be plugged.
 - c. Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.
 - d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises.
10. Quarterly monitoring of pollutant (PM₁₀, asbestos fibre count) in the work zone area and stack(s) shall be undertaken by the Project proponents. In addition, the asbestos fibre count including the fugitive dust in the work zone area shall be monitored by an Independent monitoring agency like NIOH / ITRC / NCB or any other approved agency on six monthly basis and reports shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
11. The PP shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.
12. Empty and damaged fibre bags shall be shredded into fine particles in a bag shredder and recycled into the process.
13. Piling of AC sheets shall be done in wet condition only.
14. The PP shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment and Forests.

15. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. The proponent shall create in-house facilities for spirometry test. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, Spirometry test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for sugar and albumen, blood tests for TLC, DLC, ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court including the recent Kalyaneswari case.
16. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 7th January, 2017 shall be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office
17. The water drawl shall not exceed 189 m³/day (existing and the expansion project put together).
18. An amount of Rs 45 Lakhs proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
19. Green belt shall be developed in 2.89 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
20. The Capital cost Rs. 55.00 Lakhs and annual recurring cost Rs. 17.00 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
21. Kitchen waste shall be composted or converted to biogas for further use.
22. Asbestos fibre concentration shall be measured every six months and reports shall be submitted to Regional Office.

General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 913 (E) dated 24th October, 1989 as amended from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and

- d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - g) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 913 (E) dated 24th October, 1989 as amended from time to time; and
 - h) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
 3. The project proponent shall (Air Pollution Control):
 - a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - g) provide Low NO_x burners to control NO_x emissions. Regular calibration of the instruments must be ensured. If needed, NO_x will be controlled by using SCR/NSCR technologies; and
 - h) have separate truck parking area and monitor vehicular emissions at regular interval.
 4. The project proponent shall (Water Pollution Control):
 - a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 5. The project proponent shall (Water Conservation):
 - a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the cement plants; and
 - c) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
 6. The PP shall (Energy Conservation):
 - a) provide Waste heat recovery system for kiln and cooler;
 - b) 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;

- c) provide the project proponent for LED lights in their offices and residential areas;
 - d) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
 - e) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.
 8. Used refractories shall be recycled as far as possible.
 9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
 14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 17. 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).
 18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
 19. To educate the workers, all the work places where asbestos dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.

20. The company shall also undertake rain water harvesting measures and plan of action shall be submitted to the Ministry's Regional Office within three months.
21. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
22. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
23. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
24. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
25. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
26. The project proponent shall (Post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM10, SO₂, NO_x (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;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.22 Modification -Cum-Expansion Of 1.6 MTPY Stainless Steel Plant (1.6 MTPA) located at Kalingsagar Industrial Complex, Dangadi, Jajpur, Odisha by M/s Jindal Stainless Limited [Online proposal No. IA/OR/IND/20365/2007, MoEF&CC File No. J-11011/281/07-IA-II (I)] - De-merger of present company Jindal Stainless Limited (JSL) into three companies on Composite Scheme of Arrangement among Jindal Stainless Limited Page 7 of 12 (JSL), Jindal United Steel Limited (JUSL) and Jindal Coke Limited (JCL).

1.0 M/s Jindal Stainless Limited made application vide online proposal no. IA/OR/IND/20365/2007 dated 21st April, 2017 for seeking environmental clearance for demerger of present company Jindal Stainless Limited (JSL) into three different companies on Composite Scheme of Arrangement amongst Jindal Stainless Limited (JSL), Jindal United Steel Limited (JUSL) and Jindal Coke Limited (JCL) at Kalinga Nagar Industrial Complex (KNIC), Jajpur Road, Dist- Jajpur, Odisha.

2.0 Environmental Clearance for 1.6 MTPA Integrated Steel Plant was accorded by the Ministry of Environment, Forest and Climate Change vide letter No. J-11011/155/2005-IA. II (I), dated 5th August, 2005 and subsequently amendment to the Environmental Clearance was also obtained for modification – cum - expansion of 1.6 MTPA Integrated Steel Plant vide letter No. J-11011/281/2007-IA. II (I), dated 1st November, 2007 to the Parent Company, M/s. Jindal Stainless Limited (JSL). In addition Environmental Clearance for 4 X 125 MW Coal based CPP has been obtained vide letter No. J-13011/5/2006-IA.II(T), dated 30th November, 2006 in the name of JSL.

3.0 Jindal Stainless limited has restructured its business strategy for 1.6 MTPA Integrated Stainless Steel Plant at Jajpur, Odisha on Composite Scheme of Arrangement amongst Jindal Stainless Limited, Jindal United Steel Limited and Jindal Coke Limited and their respective shareholders and creditors under the provision of Sec -391-394 read with 100-103 of the Companies Act, 1956 and other relevant provision act of 1956 and/or companies Act, 2013. The objective of the Scheme is to unlock value for shareholders to increase profitability, reduction of the debt and improvement of the serviceability of the debt.

4.0 After the approval of Hon'ble High Court of Punjab and Haryana at Chandigarh on Composite Scheme of Arrangement among the three companies and their respective shareholders and Creditors, JSL has demerged its business undertakings as follow in accordance with the EC granted.

5.0 Therefore, now, M/s Jindal Stainless Limited proposed for demerger of present company Jindal Stainless Limited (JSL) into three different companies on Composite Scheme of Arrangement amongst Jindal Stainless Limited (JSL), Jindal United Steel Limited (JUSL) and Jindal Coke Limited (JCL) at Kalinga Nagar Industrial Complex (KNIC), Jajpur Road, Dist- Jajpur, Odisha and transfer the existing Environmental Clearance Order of Jindal Stainless Limited (JSL) granted vide EC Order No J-11011/155/2005-IA-II(I) dtd 5th August 2005, letter No. J-13011/5/2006-IA.II(T), dated 30th November, 2006 and EC Order No. J-11011/281/2007-IA-II(I) dated 1st Nov 2007 for proposed units.

6.0 As per the granted by the MoEFCC vide J-13011/5/2006-IA.II(T), dated 30th November, 2006, the status of existing & proposed installations as on date are as follows:

Sl. No	Facility	Capacity as per EC accorded to M/s. JSL, vide EC No: J-11011/155/2005-1A II (I), dated 5 th August, 2005 & Amendment vide EC No: J-11011/281/2007-1A II (I), dated 1 st November, 2007	Existing Installation Pre-Demerger under Jindal Stainless Limited, JSL (Parent Company)	Post-Demerger			Remarks
				Parent Company (Jindal Stainless Limited, JSL)	New Company-1 (Jindal Coke Limited, JCL)	New Company-2 (Jindal United Steel Limited, JUSL)	
1	Sinter Plant	1 X 180 m ²	-	1 X 180 m ²	-		No Change
2	Coke Oven battery (Recovery Type)	2 X 0.425 MTPA	0.425 MTPA	-	0.425 MTPA	-	No Change
3	Blast Furnace PCM SGP	1 X 1600 m ³ 2 X 1800 TPD 1 X 401200 TPY	-	1 X 1600 m ³ 2 X 1800 TPD 1 X 401200 TPY	-	-	No Change
4	Stainless Steel Making Unit	1.6 MTPA	1.6 MTPA	1.6 MTPA	-	-	No Change
5	Ferro Alloys Plant (Semi Closed SAF)	180 TPH Chromite Briquetting Plant 6 X 60 MVA Fe-Cr Plant 2 X 27.6 MVA Fe-Mn Plant 4 X 27.6 MVA Si-Mn Plant	180 TPH Chromite Briquetting Plant 2 X 60 MVA Fe-Cr Plant 1 X 27.6 MVA Fe-Mn Plant 2 X 27.6 MVA Si-Mn Plant	180 TPH Chromite Briquetting Plant 6 X 60 MVA Fe-Cr Plant 2 X 27.6 MVA Fe-Mn Plant 4 X 27.6 MVA Si-Mn Plant	-	-	No Change
6	Secondary Refining	2 X 120 T LRF	120 T LRF	2 X 120 T LRF	-	-	No Change
7	CCP Plant	2 X 1 Strand Slab Caster	1 X 1 Strand Slab Caster	2 X 1 Strand Slab Caster	-	-	No Change
8	Hot Strip Mill	1.6 MTPA	1.6 MTPA	-	-	1.6 MTPA	No Change
9	Cold Rolling Mill	0.8 MTPA	0.8 MTPA	0.8 MTPA	-	-	No Change
10	Power Plant - WHRB	1 X 12 MW from BF Gas 5 X 13 MW From Ferro Alloys Plant	1 X 13 MW From Ferro Alloys Plant	1 X 12 MW from BF Gas 5 X 13 MW From Ferro Alloys Plant	-	-	No Change
11	Lime Plant	5 X 300 TPH Lime Kiln	-	5 X 300 TPH Lime Kiln	-	-	No Change
12	Oxygen Plant	2 X 425 TPD Oxygen Plant	1 x 425 TPD Oxygen Plant	2 x 425 TPD Oxygen Plant	-	-	No Change

13	Raw Material preparation Plant	Matching the Production Facilities	Installed	Matching the Production Facilities	-	-	No Change
14	Coal Based CPP	4 X 125 MW Coal Based CPP	2 X 125 MW Coal Based CPP	4 X 125 MW Coal Based CPP	-	-	No Change
15	AFBC Boiler	--	1 X 50 TPH AFBC Boiler	1 X 50 TPH AFBC Boiler	-	-	No Change

7.0 The land area acquired for the integrated Steel Complex of JSL is of 502.016 Hectares. Out of total land of 502.016 Ha, 185.54 Ha of land is used for plantation and green belt. This is almost 37.0 % of total plant area. No additional requirement of land has been envisaged. The category of present land use is industrial and it will continue to be industrial use only. After De-merger, the land details of the Parent Company (JSL) and two more new companies namely M/s. Jindal Coke Limited (JCL) and Jindal United Steel Limited (JUSL) are as follows:

M/s. Jindal Stainless Limited (JSL)	:	318.02 Ha
M/s. Jindal Coke Limited (JCL)	:	29.336 Ha
M/s. Jindal United Steel Limited (JUSL)	:	154.66 Ha

8.0 Green belt coverage with suitable plant species have been planted all along the internal road, raw material storage & handling, ash/dust prone areas. It is planned to plant further saplings considering the parameters as type, height, leaf area, crown area, growing nature, water requirement etc.

9.0 No Ground Water is used. JSL will provide surface water drawn from River Brahmani to JUSL and JCL for their Industrial and Domestic Use. Permission for drawl of water by JSL from Water Resource Department, Odisha has been obtained.

10.0 Power is made available through 220/132 KV Duburi Grid Substation of Odisha State Electricity Board by JSL to JUSL and JCL. Requirement is 540 MVA Maximum Demand for JSL, JUSL and JCL.

11.0 The gross annual requirement of raw material for the projects for EC already granted are as follows :

Sl. No	Raw Materials in (MTPA)	Parent Company (Jindal Stainless Limited, JSL)	New Company-1 (Jindal Coke Limited, JCL)	New Company-2 (Jindal United Steel Limited, JUSL)
i.	Chrome Ore	6,30,000	-	-
ii.	Coal	16,50,000	6,30,000	-
iii.	Coke	1,45,000	-	-
iv.	Lime	90,000	-	-
v.	Quartzite	37,000	-	-
vi.	Crude Steel Slab	-	-	18,00,000

12.0 HFO requirement for JSL, JUSL and JCL is about 45,000 KL per year.

13.0 Hazardous waste generated from Existing Facilities of JSL, JUSL and JCL are Used Oil, Waste Containing Oil, Flue Gas Cleaning Residue, Oily Sludge, Empty barrels/ Discarded Container, CRM ETP Sludge, Acid sludge from pickling bath tank of CRM, Rejected

refractory liners from pickling bath cell, Acid Handling Area, Pipe line waste of acid regeneration, BOD Plant sludge from Coke Oven, Tar Storage Tank Residue and Spent Resins. Other wastes are Furnace slag, Mill Scale, Fly ash, Grinding sludge, SMS Bag filter dust.

14.0 The proposal was considered in the 20th meeting of EAC (Industry-I) held during 10th – 12th July 2017. After deliberations, the committee observed that there is a violation regarding installation of a standby boiler under the provisions of EIA Notification, 2006 and PP has already made an application for Terms of reference under the provisions of SO 804 (E), dated 14th March 2017. Since the project is already under the violation of EIA Notification, 2006, the committee opined that it would be appropriate to consider the proposal subsequent to final settlement of the final case by competent authority.

15.0 The application made under the provisions of SO 804 (E), dated 14th March 2017 was considered in the 1st meeting of Expert Appraisal Committee for projects related to Violation of Environmental Clearance held on 22nd June, 2017. After detailed deliberations, the expert committee noted that the EC granted to PP provided two sets of WHRB to feed steam to 13 MW turbo generator (TG) set for utilization of waste heat of Ferro Alloys plant inside the premises. In the year 2010, it was proposed to install one 50 TPH AFBC boiler to supplement the required steam for the process use. There being no requirement of prior EC for the standalone AFBC boiler, the project proponent applied directly for Consent to Operate from the SPCB. During inspection by the SPCB in August, 2013, the project proponent was asked to stop the construction/installation of the boiler, and to obtain the EC and the Consent to Establish for the same first. The same was closed down on 15th November, 2013 in the presence of SPCB and remains closed till date. The project proponent applied to SEAC on 31st January, 2014 for grant of EC. After being advised by the SEAC in its meetings held on 22nd March & 2nd July, 2014, applied to MoEF&CC on 25th March, 2015 for amendment in the EC for Integrated Steel Plant. In response to the fresh request for Consent to Establish, permission was granted by the SPCB on 2nd May, 2016 after depositing the levy of Rs.5 lakhs. The EAC in its meeting held on 30th August, 2016 asked to apply for fresh ToR due to validity period expired of the earlier EC dated 1st November, 2007 for the Integrated Steel Plant. The proposal for fresh ToR for 50 TPH boiler along with expansion of CRM from 0.8 MTPA to 1 MTPA was considered by the EAC (Industry-II) in its meeting on 27th October, 2016. During the meeting, the case was tagged with the violation of the EIA Notification, 2006 and was not taken forward.

16.0 The EAC, after detailed deliberations in the 1st meeting of Expert Appraisal Committee for projects related to Violation of Environmental Clearance held on 22nd June, 2017 on the proposal in terms of the provisions of the MoEF&CC Notification dated 14th March, 2017, observed that installation of a standby boiler to supplement steam to run the TG set, neither contributes to increase in production of the Integrated Steel Plant nor may be termed as expansion or modernization of the existing project/activity, but as an auxiliary facility to meet the target production. The Committee also noted that the installation of 50 TPH AFBC boiler has been closed down w.e.f. 15th November, 2013, and the project proponent has already deposited the levy of Rs.5 lakhs imposed by SPCB. Further, as per the records and information available, it seems that the boiler was not commissioned and not operated, and thus no ecological damage. The Committee opined that the case may not be considered as violation of the EIA Notification, 2006 and thus not in the domain of the Committee. However, the Ministry may seek inputs from the SPCB for the factual status/documentary evidence for further consideration of the EAC, if so required.

17.0 Since the Expert Appraisal Committee for projects related to Violation of Environmental Clearance in its meeting held on 22nd June, 2017 opined that the case may not

be considered as violation of the EIA Notification, 2006, the competent authority directed to refer the present application of demerger of present company Jindal Stainless Limited (JSL) into three different companies to Expert Appraisal Committee (Industry-I) for deliberation on environmental issues involved in the proposal.

18.0 The committee observed that several components envisaged in the earlier EC were not implemented within the validity period of EC. Therefore, the project proponent shall submit revised table for de-merger of the already implemented units only to the proposed three companies. The project proponent unable to present before the committee regarding applicability of the specific and general conditions imposed in the original ECs to new companies.

19.0 The Committee, therefore, asked the PP to submit complete information, as sought earlier, in the form of following two matrices:

- Against each specific and general conditions imposed in the original ECs, the responsibility of the compliance should be clearly indicated against each unit including the original PP and as well as the new companies. In case any condition partially applicable, shall indicate the portion of the original condition applicable to the new company.
- Against each company, including the original company, the split of the facilities/utilities /activities/ancillary unit (as per the original EC) should be clearly indicated. Further, against each company, facilities proposed to transfer, location of the project in terms of coordinates of each node of the boundary of split unit, the brief description of nature of operations, raw material required, final products, pollutants, mitigation measures, water requirement, power requirement, manpower employed, capital cost of the project, capital cost provided for implementation of EMP, recurring cost towards EMP, etc., should be indicated

20.0 Therefore, the proposal is deferred till the information sought is submitted by the project proponent.

27.23 Expansion of Integrated Cement Plant [Clinker (2.8 MTPA to 5.0 MTPA); Cement (3.6 MTPA to 6.5 MTPA); CPP (22 MW to 47 MW); and WHRB (13.2 MW to 15 MW) located at Kailash Nagar, Tehasil Nimbahera, District Chittorgarh, Rajasthan by M/s JK Cement Limited Kanpur - [Online Proposal No: IA/RJ/IND/60653/2016 dated 2nd November,2017; MoEFCC File No: J-11011/243/2016-IA-II(I)]- Environmental Clearance based on ToRs.

1.0 **M/s J. K. Cement Works** has made online application vide proposal no. **IA/RJ/IND/60653/2016** dated 2nd November 2017 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level

2.0 The proposed expansion project of M/s J. K. Cement Works, Nimbahera located at Kailash Nagar, Tehsil –Nimbahera, District-Chittorgarh State Rajasthan was initially received in the Ministry on 25th November 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 14th meeting held on 23rd December 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 31st January, 2017 vide letter No. J-11011/243/2016-IA.II (I).

3.0 The project of M/s J. K. Cement Works, Nimbahera located at Kailash Nagar, Tehsil – Nimbahera, District-Chittorgarh State Rajasthan is for expansion of production of Clinker from 2.8 MMTPA to 5.0 MMTPA, Cement from 3.6 to 6.5 MMTPA, WHRB from 13.2 MW to 15.0 MW and CPP from 22 MW to 47 MW. The existing project was accorded Consent to Operate vide letter no. F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 8039-8041 dated 20.12.2017 which is valid up to 31.05.2022 with respect to the clinker and cement, F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 2378 – 2380 dated 25.05.2016 which is valid up to 31.03.2019 with respect to 22 MW CPP and F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 5724 – 5727 dated 28.12.2015 which is valid up to 31.07.2018 with respect to WHRB. The status of Certified compliance of Present CTO was obtained from RSPCB Regional Officer Chittorgarh on 22.09.2017. There were no non-compliances reported by Regional Officer. The proposed capacity after expansion for different products are as below:

Sl. No	Product	Existing Capacity (MMTPA)	Proposed Capacity (MMTPA)	Capacity after proposed expansion (MMTPA)
1	Clinker	2.8	2.2	5.0
2	Cement	3.6	2.9	6.5
3	CPP	22 MW	25 MW	47 MW
4	WHRB	13.2 MW	1.8 MW	4.0 MW

4.0 The total land required for the project is 170.27 Ha (including residential colony), out of which 57.77 ha is for greenbelt. The proposed expansion will be carried in the existing plant premises and no additional land is required to be acquired. No forestland involved. Water bodies existing around the project are Gambhiri Dam-7.1 km, NE; Gambhiri River-2.5 km, E; Uncha Talab-8.976km, SW; Nimbahera River-2.087km, E and Kadmali River - 2.187 km, NE and no 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 lies between 24°38'18.46" to 24°38'41.50" N latitude and 74°41'5.93" to 74° 41'1.84" E Longitude in Survey of India toposheet No. 45L/10, at an elevation of 446 m AMSL. The ground water table is ranges between 22.05m below the surface level during the post-monsoon season and 38.11m below the land surface during the pre-monsoon season.

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. The authenticated list of flora and fauna provided through the Dy conservator of forests, Chittorgarh reporting presence of schedule-I fauna in the study area (Annexure-XI of EIA).

7.0 It was reported that dry process of cement manufacture utilizing the pre-calciner technology is adopted. The basic raw materials used in the cement plant are Limestone, Red Ochre, Laterite, Flyash and Gypsum. Pet coke, Indian Coal, alternative fuels (AFR) and Imported Coal respectively are used in the process. The major raw material for manufacture of

cement is limestone and is sourced from various limestone mines located at villages- Maliakhera, Karunda and Ahirpura. Limestone produced will be transported to the cement plant by tippers/ Rubber Belt Conveyor (RBC). The proposed Over Land Belt Conveyor System length is approx. 8.0 Km, Width – 1000 mm. (Capacity – 1500 TPH), Total no. of pillars proposed are 208.

8.0 The requirement of raw material for project are Limestone (7.28 MMTPA); Red Ochre (0.537 MMTPA); Laterite (0.78 MMTPA); Gypsum (0.387 MMTPA); Dry Fly ash (0.888 MMTPA); wet fly ash (0.161MMTPA); Indian coal for CPP (1150 TPD); Pet coke for CPP (615 TPD) based on MoEF notification; Indian Coal for Cement Plant (3099 TPD); Pet coke for Cement Plant (1697 TPD) ; Imported Coal for Cement Plant (2498 TPD). Coal requirement would be fulfilled by Indian as well as imported. The fuel will be mainly coal and pet coke and partially AFR fuel (like Agro Waste; Tyre Chips/carbon black, Plastic resin waste; ETP waste ; Pb-Zn slag; Pharma waste, Municipal segregated solid waste, waste mix solid and liquid; Chemical Gypsum, Jerosite & Red oxide as additive) to minimize hazardous and other waste generating from various industries.

9.0 The water requirement of the project is estimated as 4,071 m³/ day. Daily water requirement will be 3,301 m³/day and Recycled Water – 770 m³/day. About 2,545 KLD will be met from Ground water, 1,396 KLD from Gambhiri Dam and remaining water will be met from existing adjacent Ahirpura Limestone Mine Pit, Maliakhera Mine, Karunda Mine, Tilakhera Mine & Mangrol Mine. The permission for drawl of groundwater/surface water is obtained from CGWA vide letter No. 21-4(34)/WR/CGWA/2005-1675 on dated 28.10.2015 and dam water vide agreement between J K Cement works Nimbahera and Govt. of state of Rajasthan.

10.0 The power requirement of the project after expansion is estimated as 62.6 MW. Out of which 22 MW will be met from CPP, 15.0 MW (13.2 MW existing + 1.8 MW proposed) from WHRB, 25 MW from proposed CPP and remaining will be met from State grid as and when required.

11.0 Baseline Environmental studies were conducted during winter season i.e. from December' 2016, January' 2017 and February' 2017. Ambient air quality monitoring has been carried out at eight locations during December' 2016, January' 2017 and February' 2017 and the data submitted indicated: PM₁₀ (91.2 µg/m³ to 28.9 µg/m³), PM_{2.5} (56.2 µg/m³ to 15.8 µg/m³), SO₂ (13.1 µg/m³ to 4.1 µg/m³) and NO_x (28.3 µg/m³ to 8.9 µg/m³). The results of the modeling study indicate that the maximum increment of GLC for the proposed expansion will be 8.2 µg/m³ with respect to the PM₁₀, 5.5 µg/m³ with respect to the PM_{2.5}, 8.6 µg/m³ with respect to the NO_x and 5.1 µg/m³ with respect to the SO₂.

12.0 Ground water quality has been monitored in eight locations in the study area and analysed. pH: 7.18 to 7.65, Total Hardness: 200mg/ l to 630mg/ l, Chlorides: 50 mg/l to 270.1 mg/l, Fluoride: 0.5 mg/l to 1.1 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from two locations. pH: 7.96 to 7.91; DO: 6.0 mg/l to 6.6 mg/l and BOD: 05mg/l to 06 mg/l. COD from 16 mg/l to 18 mg/l.

13.0 Noise levels are in the range of 66.1 to 48.8 dB (A) for daytime and 60.9 to 39.3 dB(A) for night time.

14.0 It has been reported that there is no habituation in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated.

15.0 The dust collected in the air pollution control equipment in Cement process will be recycled back fed to the transport system. Hence no solid waste which requires disposal is generated from the plant. Fly ash generated from CPP will be utilized in the cement manufacturing process. Solid waste generated from colony is disposed after segregating the waste into biodegradable and non-biodegradable. Bio- Degradable waste is being used as compost and Non Bio- Degradable waste is land filled within the colony premises at identified areas. Solid waste generated at STP is dried in the sand beds and is being used as compost for Green Belt development. Existing hazardous waste generated to the tune of 29.0 KL used oil during FY 2016-17, out of which 27.8 KL was sent to authorized recycler and remaining 1.2 KL used in-house.

16.0 It has been reported that the Consent to Operate from the Rajasthan State Pollution Control Board obtained vide letter no. F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 1636 – 1639 dated 26.05.2014 which is valid up to 31.05.2017 and renewal application has already been submitted. With respect to the clinker and cement, F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 2378 – 2380 dated 25.05.2016 which is valid up to 31.03.2019 with respect to the 22 MW CPP and F (Tech)/ Chittorgarh (Nimbahera)/ 5(1)/ 2010 – 2011/ 5724 - 5727 dated 28.12.2015 which is valid up to 31.07.2018 with respect to the WHRB. The status of earlier CTO was obtained from RSPCB Regional Officer Chittorgarh on 22.09.2017.

17.0 Public hearing of the project was held on 30.06.2016 at Sub Divisional Office, Nimbahera, Tehsil – Nimbahera, District – Chittorgarh (Raj.). under the chairmanship of ADM, Sh. Anurag Bhargava for the expansion project. The issues raised during public hearing are employment, development of social infrastructure, pollution issues & women empowerment etc. The statement of main issues raised by the public and response of the project proponent with action plan is as follows:

S. No.	Issues Raised	Response by project proponent (after PH)	Budgetary provision (INR In lac)		Time Bound Action Plan proposed
			Capital	Recurring	
1.	Jobs & Sustainable Employment self income – generating opportunities	<ol style="list-style-type: none"> 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. Continued Women Income Generating Programmes through the various economic activities Cutting & Tailoring, Pickle & Sauces making, Soft Toys & Gem Jeweler, and Beautician Courses and for making affordable price of Sanitary Pads. Workshop on Mobile repairing for self employment and skill generation along with digital self employment training of online mobile payments / net banking. Funding for <i>Shishu (projects accepted under the Mudra Scheme of the Government)</i> Start-ups in the 10.0 km Radius for self employment in 	60.0	5.00	Year 2018-19 : Post Expansion Quarter-I Year 2018-19 : Quarter I , II , III, IV continuous ongoing programmes. Year 2018-19 : Quarter I , IV Year 2018-19 : Quarter II

		<p>Manufacturing or Services Sector capped at the upper limit of 50.0 thousand (not in Cash but in Tools / Implements or Machines/ as per the requirement of the respective Start-up).</p> <p>5. JK Cement welcomes hardworking Farmers for their tools & implements to find self employment. No funds or cash will be given to farmers but a network and resources required towards Beej/ fertilizers& Pesticides / Animal Welfare/ tools/ Sales & promotion of Crops / self employment is and will always be supported.</p>			Year 2018-19 : Quarter III
2.	Public Convenience Centre required at Nimbahera	Convenience center in Nimbahera	210.0	1.0	Year 2018-19 : Foundation , Construction , Fitting 2019-20 : Further Construction 2020-21 : Finishing
3.	Soil Fertility Depletion	<p>Measures to improve Soil Fertility :</p> <p>1. Training to improve soil fertility as depicted by the Soil report. Sample Materials to improve Soil Fertility will be provided to local farmers in the Workshop.</p> <p>2. Soil Fertility Improvement demo in 2-3 sample farms nearest to the plant site.</p>	22.5	1.5	Pre-Monsoon Every year
4.	Community Centre required at Mangrol	Mangrol residents were continuously requiring a Community centre as mention in the Public Hearing	40.0	-	Year 2018-19 : Quarter III Foundation , Construction , Fitting & Finishing
5.	Medical & Modern Health Technology & blood Bank required at Nimbahera	1. Further Modern Technology Development in the Hospital Nimbahera in CSR 2017-18.	20.0	0.25	Year 2018-19 : Quarter II
		1. Establishment/ Contribution for the Blood bank in Nimbahera in approach of the Hospital, Nimbahera.	19.0	0.45	Year 2018-19 : Quarter III
6.	Water supply line works required at Shahabad	Laying of Water supply line works in Shahabad 4.3 km N, to solve the Water supply issues and temporary solutions of 20-25 litres tank water storage.	15.0	0.25	Year 2018-19 : Quarter III / IV or Both
7.	For improvement in survival rate of plantation eaten by stray cattle	<p>Installation of Tree Guards at public places, where JK proposes for Green Cover.</p> <p>Funds for plantation and conservation plans are allocated in the Environment Protection Measures for Green Cover.</p>	8.0	0.50	Pre monsoon – Monsoon – Post Monsoon , alongwith phases of Plantation

8.	Requires Management of Truck movement and reduction.	Financial Assistance from JK Cement works for four lane of incoming road from flyover end (Chittorgarh side) in towards Nimbahera Municipal limits. This shall contribute in public convenience from truck movement towards highways and management of traffic.	400.0	-	As per PWD (Government)directives
Total			794.5	8.45	

18.0 An amount of Rs 13, 15, 80,000 (Thirteen Crore Fifteen Lacs Eighty thousand only) (more than 2.5% of the average annual profit of the corporation) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

Sl. No	ESTIMATED BUDGET] C.S.R. SCHEMES FOR THE FINANCIAL YEAR 2017-22								
	Enterprise Social Commitment Activities	2017-18	2018-19	2019-20	2020-21	2021-22	Total		
1	Medical & Health								
	Organized Free Eye(Cataract) camp at Govt Hospital NBH in 2016-17 as per past practice. Nimbahera	700000	-	-		-	700000		
	Organized the Free medical camps in Near by NBH Sub Division 34 Villages. Mangrol	600000	-	-		-	600000		
	Further modern technology Development in the Hospital Nimbahera in CSR 2017-18.	-	500000	500000	500000	500000	2000000		
	Establishment of the Blood bank in Nimbahera in approach of the Hospital, Nimbahera.	-	1500000	200000	200000	-	1900000		
2	School/ Education								
	Construction of Three New rooms in Govt. School Phacher Ahiran(Total six room construct)	2200000	-	-	-	-	2200000		
	Financial Help for Promotion of Govt. School Sports tournament 2017-18(Approx.).	100000	-	-	-	-	100000		
	Construction of Two New rooms in Govt. School Lhottha Bharu village .Nimbahera	400000	-	-	-	-	400000		
	To recognize and motivate the Students on Independence day function (8th to 12th class) by Distributor of Silver Medal to those who have achieved 65% and above marks in Board Exam Nimbahera	200000	-	-	-	-	200000		
	Financial Help in District Corpus Fund for CSR Work in Govt. PHC & Schools.	-	-	1100000	1100000	-	2200000		
3	Livelihood Promotion/ Job Creation & Skill Generation								
	Organise a Rural Skill developing programe for Women & Youth. Provide the various kind of training.	2300000	-	700000	700000	-	3700000		

	"SPARH" Sanitary napkin making Through S.H.G. (Womens Empowerment & Health & hygiene).	2500000	-	-	2500000	-	5000000
	Adopt the 18 Agwanwadi Centers for Development as per their needs .(MOU For three Year)	650000	-	-	-	-	650000
	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.	-	500000	500000	500000	-	1500000
	Continued Women Income Generating Programs through the various economic activities Cutting & Tailoring, Pickle & Sauces making, Soft Toys & Gem Jeweler, and Beautician Courses and for making affordable price of Sanitary Pads .	-	1000000	1000000	1000000	1000000	4000000
	Workshop on Mobile repairing for self employment and skill generation along with digital self employment training of online mobile payments / net banking.	-	1000000	-	1000000	-	2000000
	Funding for <i>Shishu (projects accepted under the Mudra Scheme of the Government)</i> Start-ups in the 10.0 km Radius for self employment in Manufacturing or Services Sector capped at the upper limit of 50.0 thousand (not in Cash but in Tools / Implements or Machines/ as per the requirement of the respective Start-up)	-	500000	1000000	-	-	1500000
	JK Cement welcomes hardworking Farmers for their tools & implements to find self employment. No funds or cash will be given to farmers but a network and resources required towards Beej/ fertilizers & Pesticides / Animal Welfare/ tools/ Sales & promotion of Crops / self employment is and will always be supported.	-	500000	-	500000	-	1000000
4	Infrastructure work						
	C.C.Road & Drainage line construction work in Phalwa village .(P.P.Mode)&Maintainence	500000	-	50000	-	-	550000
	Grave Yard shed & Boundary wall construction work in Shabad village . (P.P.Mode)	500000	-	-	50000	-	550000
	C.C.Road & Drainage line construction work in Mangrol village .(P.P.Mode)	1000000	-	-	-	-	1050000
	construction work at Jhoon Ji Bawe Ji Temple in Tillakhera Village .(P.P.Mode)	500000	-	-	50000	-	550000
	Community hall construction work in Bhawliya village (P.P.Mode).	500000	-	50000	-	-	550000

	C.C.Road& Drainage line construction work in Sand village .(P.P.Mode)	500000	-	-	50000	-	550000
	C.C.Road& Drainage line construction work in Pipliyagadiya village .(P.P.Mode)	500000	-	-	-	-	500000
	Construction of 450 Toilets in Nimbahera Urban area .With associate Govt. Schems (Swacch Bharat Abhiyan) Make ODF City in Rajasthan . (Cost per toilet 7000x400)	2800000	Continue dwith Same Budget	2800000	Continue with Same Budget	-	5600000
	Financial Assistance from JK Cement works for four laning of incoming road from the flyover end (Chittorgarh side)towards Nimbahera in Municipal limits	-	-	8000000	12000000	2000000	40000000
	Construction &Development of a Community centre.	-	4000000	-	-	-	4000000
	Public convenience Centre Nimbahera		9000000	4400000	7600000	-	21000000
	Laying of Water supply line works in Shahabad 4.3 km N, to solve the Water supply issues and temporary solutions of 20-25 litres tank water storage.	-	15,00,000	-	-	50000	1550000
5	Drinking Water						
	Water Tenker Supply in Summer seasion in Nimbahera city &Nearby villages.	1000000	1000000	-	-	-	2000000
	Mukyamantri JAL SWALAMBAN YOJNA 2017-18.	1000000	-	-	-	-	1000000
	water Pipe Line work construction work in Karunda & Pipliya village (P.P.Mode)	1500000	-	50000	-	-	1550000
	Provide the New Water Pipe Line work in MaliyaKheri Village.	500000	Shahabad	-	50000	-	550000
6	Environment						
	As per Green Belt development plan Approved & authentic by DFO Chittorgarh Plantation in surrounding area of mines & Plant and Green & clean Nimbahera campaign.	1500000	-	4650000	-	-	61,50,000
	Plantation with 3500 thousand Herbal High breeder trees.	1000000	-	-	-	-	1000000
	Installation of Tree Guards at public places, where JK proposes for Green Cover.	-	800000	-	150000	-	950000
	As per Conservation Plan authentic and approved by DFO Chittorgarh for Peacock : <ul style="list-style-type: none"> • 8.9 Lacs per year for ten years • Alongwith 36.0 Lacs for ten years 	-	-	890000	890000	36,00,000	5380000
	As per Conservation Plan authentic and approved by DFO Chittorgarh for Leopard:	-	4650000	-	-	-	4650000

	4.60 lacs per year from a corpus fund of 46.5 lacs for ten years						
7	Social						
	Measures to improve Soil Fertility : 1. Training to improve soil fertility as depicted by the Soil report. Sample Materials to improve Soil Fertility will be provided to local farmers in the Workshop. 2. Soil Fertility Improvement demo in 2-3 sample farms nearest to the plant site.	-	650000	1600000	-	-	2250000
	Total	2295000 0	2645000 0	2749000 0	2884000 0	251500 00	1315800 00

18.0 The overall investment in the existing & proposed project for plant is assumed to be Rs. 2,667.51 Crore and the capital cost for environmental protection measures is proposed as Rs. 1484.65 Lacs. The annual recurring cost towards the environmental protection measures is proposed as Rs 121.48Lacs. The employment generation from the proposed project / expansion is 125 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S. No.	Description of Item	Existing		(Proposed)	
		Capital Cost (In Lacs)	Recurring Cost (In Lacs)	Capital Cost (In Lacs)	Recurring Cost (In Lacs)
1	Air Pollution Control/ Noise	1804	180.0	1288.65	99.5
2	Water Pollution Control	55.0	8.0	20.0	0.60
3	Environmental Monitoring and Management	100.0	14.04	124.5	12.38
4	Green Belt Development	175.0	17.5	46.5	6.50
5	Occupational Health	62.0	68.04	5.0	2.5
Total		2196.0	287.58	1484.65	121.48

19.0 Greenbelt will be developed in 3.752 Ha and 54.02 hectare greenbelt is already developed around plant boundary green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per ha. As stipulated in the ToR prescribed by the Expert Appraisal Committee, New Delhi, vide their letter no. J-11011/ 243/ 2016 – IA.II (I) dated 31.01.2017. In Para iv of point no 7 described green belt over an additional area of 15 ha for the same company will be develop additional green belt by using local plant species. For additional 15 ha green belt development, every year 3.0 hectare area will be developed for plantation for next five years

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

21.0 Name of EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd., Jaipur QCI Accredited (SI.No.41, at QCI list dated 16/11/2017).

22.0 The committee observed that the existing plant is operating with consent to operate from the state pollution control board. The project project proponent informed that the plant was established before 1994 notification and subsequently expanded with consent to

establishment with an investment less than 50 Crores and also established captive power plant with an investment of 80 Crs as a standalone project.

23.0 After detailed deliberations, the committee sought following information for further consideration of the proposal;

1. Detailed note on justification for not obtaining prior environmental clearance for the existing facilities including CPP under EIA Notification; and
2. Production of cement plant and power generation shall be submitted year wise against the consented capacity since inception along with substantiating evidences;
3. Detailed action plan for conservation of schedule-I species found in the area in consultation with local DFO;
4. Revised statement of Public hearing issues and commitments made along with time bound action plan and budgetary provision;
5. Revised Enterprise Social commitment based on the issues raised during the PH and social need assessment in the form of asset creation and implement in concurrence with project implementation.
6. Action plan for adoption of slip power recovery system

27.24 **Proposed 300 TPD Standalone Cement Grinding Unit located at Survey Number 69-3, 69- 4, Pachanapalli Village, Chittoor Mandal and District, Andhra Pradesh by M/s Lakshmanan Cements Private Limited [Online proposal No. IA/AP/IND/59397/2016; MoEFCC File No. J-11011/231/2016-IA-II(I)] – Environmental Clearance.**

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/59397/2016**, dated **2nd December 2017** 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 subsequent amendments. Therefore, the project is appraised at central level.

2.0 The standalone cement grinding unit of M/s Lakshmanan Cements Pvt Ltd proposed at Pachanapalli village, Chittoor Mandal and District, Andhra Pradesh initially received in the Ministry on October 3, 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 12th meeting held on October 27, 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 ToR to the project on January 18, 2017, vide Lr. No J-11011/231/ 2016 -IA-II (I).

3.0 The project of M/s Lakshmanan Cements Private Limited located in Survey Number 69-3, 69-4, Pachanapalli Village, Chittoor Mandal and District, Andhra Pradesh State proposes to establish a new standalone cement grinding unit for production of 300 TPD or 0.099 million tones per annum (million TPA) of cement. The proposed capacity for different products for new site area as below:

4.0 The total land required for the project is 1.41 ha, out of which 1.41 ha is agricultural land, No grazing land, Government Land and forestland is involved. The entire land has been acquired. No river passes through the project area. It has been reported that no water body/water body exists 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 flat and reported to lie between 13^o 09'56" to 13^o 09'58" N Latitude and 79^o 11'36" to 79^o 11'42"E Longitude in Survey of India Topo sheet No. 57 O/4, at an elevation of 272 m AMSL. The ground water table reported to range between 9.8 – 20.2 m BGL Below the land surface during the post-monsoon season and 7.5 - 19 m BGL below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 20 m. Further, the stage of groundwater development is reported to be 68% and 68% in core and buffer zone respectively and thereby these are designated as safe areas.

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. The list of flora and fauna reporting presence of no schedule-I fauna in the study area (Chapter 3 of EIA).

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. It is proposed to utilize 1 x 20 TPH ball mill with a capacity of 300 TPD. The raw materials – clinker, gypsum and fly ash are stored in silos, and are charged into a dump hopper fitted with table feeders and screw feeders to control feed rate. The material is extracted by means of table feeders in the desired proportion and fed to the ball mill hopper. The mix is fed to the ball mill hopper for intermediate storage where a mill feeder is installed, which controls the feed rate to mill, and desired fineness can be adjusted. The cement produced is stored in the cement silo and is extracted from the cement silo by means of a screw feeder and transported to packer plant where it is first screened to remove any foreign particle and then stored into a hopper for packing with the help of auto packers. Spillage if any during the packing is collected into a spillage hopper and recycled to the system. The packed bags are handled by a belt conveyor and transported for sale.

8.0 The main solid waste generated from the cement plant is cement dust collected from pollution control device. The dust collected in the air pollution control equipment in the cement plant will be recycled back to the process. Hence no solid waste that requires disposal is generated from the plant. Regular road sweeping activity shall generate 9 kg/day of solid waste containing mainly cement dust, which is returned to the process.

9.0 The targeted production capacity of the standalone cement grinding unit is 300 TPD or 0.099 million TPA. There is no requirement of ore or mineral and the required raw materials are clinker, fly ash and gypsum. Fly ash will be transported by Bulker, while clinker and gypsum are transported by trucks covered with tarpaulin.

10.0 The water requirement of the project is estimated as 5.0 m³/day, out of which 5 m³/day of fresh water requirement will be obtained from the bore well/stored storm water runoff. The permission for drawl of groundwater was obtained.

11.0 The power requirement of the project is estimated as 800 KVA, which will be sourced from the Southern power distribution company of AP Ltd (SPDCL).

12.0 Baseline Environmental Studies were conducted during post monsoon season i.e. from December 2, 2016 to March 03, 2017. Ambient Air Quality monitoring has been carried out at 8 locations during December 2, 2016 to March 03, 2017 and the data submitted indicated: PM10 (49 $\mu\text{g}/\text{m}^3$ to 44 $\mu\text{g}/\text{m}^3$), PM2.5 (17 to 22 $\mu\text{g}/\text{m}^3$), SO₂ (12 to 14 $\mu\text{g}/\text{m}^3$) and NO_x (11 to 13 $\mu\text{g}/\text{m}^3$). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.96 $\mu\text{g}/\text{m}^3$ with respect to the PM₁₀, 0.44 $\mu\text{g}/\text{m}^3$ with respect to the PM_{2.5}.

13.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.04 to 7.6, Total Hardness: 284 to 564 mg/l, Chlorides: 35 to 261 mg/l, Fluoride: 0.13 to 0.59 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 2 locations. pH: 7.2 to 7.67; DO: 4.7 – 4.9 mg/l and BOD: 10-19 mg/l. COD from 28-48 mg/l.

14.0 Noise levels are in the range of 44 to 49 dBA for daytime and 32 to 39 dBA for night time.

15.0 It has been reported that there are no people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated, which will be provided compensation and preference in the employment.

16.0 It has been reported that a total of 9 kg/day of dust from bag filters is collected due to the project, and the entire quantity is returned to process. It has been envisaged that an area of 0.48 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. The hazardous wastes generated from the plant are mainly waste oil and grease drained out of gearboxes and DG sets, in addition to used lead acid battery from DG set.

Description	Units	Quantity	Remarks
Dust collected in Bag filter	Kg/Day	9	Returned to process
Waste Oil	l/Year	150	Sent to Authorized Recyclers
Used lead acid batteries	No/year	10	Sent to Authorized recyclers

17.0 It has been reported that Consent to Establish/Consent to Operate from the Andhra Pradesh State Pollution Control Board is not obtained.

18.0 The Public hearing of the project was held on August 29, 2017 at Project site under the chairmanship of Smt. S. Razia Begum, District Revenue Officer and Additional District Magistrate, Chittoor District for production of 300 TPD or 0.099 million TPA by setting up a standalone cement grinding plant, under the member convener was Sri A. Narendra Babu, Environmental Engineer, APPCB, Regional Office, Tirupati, Andhra Pradesh. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

Sl. No.	Question/ Issue/ Suggestion	Response by project Proponent (after PH)	Time Bound Action Plan proposed	Budgetary provision
1	Employment to locals	Assured employment of locals based on skill level	During construction and before operation	

Sl. No.	Question/ Issue/ Suggestion	Response by project Proponent (after PH)	Time Bound Action Plan proposed	Budgetary provision
2	Air pollution control	Assured to provide bag filter and greenbelt to mitigate and control air pollution	As part of project implementation	Rs. 20.8 lakhs
3	Request for conducting skill development programs	Request for conducting skill development programs	6 months	Rs. 0.5 lakhs
4	Pollution due to an industry located at Krishnapuram village	Issue not related to the present project, Krishnapuram village is located at a distance of 4.5 km in NW direction from our project site.	Issue not related to the present project	Issue not related to the present project
5	Cement on subsidised price for community development works	Agreed to provide	After commissioning the project	

19.0 An amount of 4.4 Lakhs (2.0% of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

Sl. No.	Enterprise Social Commitment Activities	Y - 1	Y - 2	Y - 3	Y - 4	Y - 5	Y - 6	Y - 7	Total, Rs.
1	Provide drinking water facility	50,000	50,000						1,00,000
2	Installation of solar street lamps		35,000	35,000	35,000	35,000			1,40,000
3	Supply of saplings for tree plantation (Agroforestry)			25,000	25,000	25,000	25,000		1,00,000
4	Construction of community toilets				25,000	25,000	25,000	25,000	1,00,000
Total		50,000	85,000	60,000	85,000	85,000	50,000	25,000	4,40,000

20.0 The capital cost of the project is Rs. 2.2 Crores and the capital cost for environmental protection measures is proposed as Rs. 20.80 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.57 Lakhs. The employment generation from the proposed project is 22. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S.No	Description	Capital cost (Rs. Lakhs)	Recurring cost / Annum (Rs. Lakhs)
1	Water pollution control	0.30	0.2
2	Air pollution control	20	3.8
3	Noise pollution control	0.50	0.1
4	Environmental monitoring	-	1.47

	& management		
Total		20.80	5.57

21.0 The proposed site area is located in the midst of a mango orchard. The establishment of this plant requires removal of 25 trees. Hence the proponent obtained approval from revenue department to cut 25 trees and proposed to compensate the same by planting 125 plants. It is proposed to ensure a green belt of 0.48 ha in the site. Greenbelt will be developed in 0.48 Ha which is about 34% of the total acquired area. 9 - 45 m wide greenbelt, consisting of around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines.

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

23.0 The project proponent has made detailed presentation along with EIA Consultant M/s Team Labs Private limited, Hyderabad.

24.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application:

A. Specific conditions:

1. Approval for withdrawal of ground water shall be obtained from the competent authority.
2. An amount of Rs 4.40 Lakhs proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
3. Green belt shall be developed in 0.48 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The plantation shall be completed within 2 years from the date of issue of EC.
4. The Capital cost Rs. 20.80 Lakhs and annual recurring cost Rs. 5.57 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
5. Kitchen waste shall be composted or converted to biogas for further use.
6. The emission for the bag house shall be maintained less than 20 mg/N-m³

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install emission monitoring system at power plant stack to monitor stack emission with respect to parameters prescribed from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;

- c. carryout Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
- a) install effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed from time to time; and
 - b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 20 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) use leak proof trucks/dumpers for carrying raw materials & cement and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - g) Provide wind shelter fence and chemical spraying on the raw material stock piles; and
 - h) have separate truck parking area and monitor vehicular emissions at regular interval.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);

- a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the power plant; and
 - c) make efforts to minimise water consumption in the complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- a) 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;
 - b) provide the project proponent for LED lights in their offices and residential areas;
 - c) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
8. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
9. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
11. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
12. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
13. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
14. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
15. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
16. 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).

17. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
18. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
19. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
20. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
21. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
22. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
23. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.25 Proposed Cement Plant (Dalmia DSP Unit) - Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (10 MW) and D.G. Set (1000 KVA) by M/s OCL India Limited located at Village & Tehsil Rajgangpur, District Sundergarh, Odisha [Online proposal No. IA/OR/IND/59484/2016; MoEFCC File No. J-11011/232/2016-IA-II(I)] – Environmental Clearance.

1.0 M/s OCL India Limited has made online application vide proposal no. IA/OR/IND/59484/2016 dated 18th December 2017 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposed project M/s OCL India Limited located at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha) was initially received in the Ministry on 07th October 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 12th meeting held on 28th October 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 17th March 2017 vide letter no. J-11011/232/2016-IA.II(I).

3.0 The project of M/s. OCL India Limited located at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha) is for setting up of a new Cement Plant for production of Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA). The proposed capacity for the different products for new site area as below:

Sl. No	Name of Unit	Proposed Production Capacity
1	Clinker	3.0 MTPA
2	Cement	2.25 MTPA
3	WHRs	15 MW
4	D.G. Set	1000 KVA

4.0 Total land required for the project is 39.27 ha (97.06 acres); which is industrial land and totally under the possession of M/s. OCL India Limited. No forest land is involved. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is almost flat and reported to lie between 22° 11' 52.69"N to 22° 12' 18.28"N Latitude and 84° 34' 25.20" E to 84° 34' 50.62" E Longitude in Survey of India topo sheet no. 73 B/12 at an elevation of about 220 - 260 m. The ground water level reported to range between 2.2 m to 8.8 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 34.4% 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 area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the forest department (Divisional Forest Officer, Rourkela Division)

reporting no presence of Schedule -I fauna in the study area [Annexure - 3(b) of Final EIA/EMP Report].

7.0 The raw materials required for the proposed project are Limestone, Chemical Gypsum, Mineral Gypsum, Fly ash, Clay and Granulated Slag. The proposed Cement Plant will be based on Dry Process Technology for Cement manufacturing with Pre-Heater and Pre-Calciner Technology. The cement manufacturing process, *inter alia*, include transport of excavated limestone from mine site via covered conveyer belt; Raw Mix Preparation & Homogenization; Fuel preparation (Coal/ Petcoke/AFR); Calcination; Clinkerization & storage; Cement Grinding, Packing & Dispatch; and Clinker dispatch to split grinding Units Depending upon the market condition, it is proposed to manufacture 2.25 MTPA Cement at the proposed site and part of the clinker is proposed to be sent to split located Grinding Unit. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA). Limestone will be sourced from the Captive Lanjiberna Limestone Mine and transported through covered conveyer belt.

9.0 Water requirement for the project is estimated at 1200 m³/day; which will be sourced from Nakti Nallah. Permission for drawl of water from Nakti Nallah has been obtained from Sundergarh Irrigation Division, Sundergarhvide Agreement No. 19 dated 20th February 2015.

10.0 Total power requirement for the project is estimated as 45 MW; which will be sourced from State Electricity Board, WHRS, Solar Power Plant and D.G. Set (for back-up).

11.0 Baseline Environmental Studies were conducted during Post-Monsoon Season i.e. from Oct., to Dec., 2016. Ambient air quality monitoring was carried out at 8 locations during 01st Oct., 2016 to 31st Dec., 2016 and the data submitted indicated: PM₁₀ (56.7 to 86.6 µg/m³), PM_{2.5} (21.8 to 40.2 µg/m³), SO₂ (6.1 to 11.8 µg/m³) and NO_x (10.2 to 26.3 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.31 µg/m³ with respect to the PM, 0.71 µg/m³ with respect to the SO₂, 2.11 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored at 8 locations in the study area and analyzed. pH: 7.03 to 7.43, Total Hardness: 116 to 348 mg/l, Chlorides: 27.93 to 124.94 mg/l, Fluoride: 0.24 to 0.48 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 10 locations. pH: 7.13 to 7.96, DO: 4.10 to 4.90 mg/l, BOD: 5.80 to 12.80 mg/l, COD: 16.28 to 37.12 mg/l.

13.0 Noise levels are in the range of 48.2 to 62.8 Leq dB(A) for day time and 40.5 to 53.7 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 / coprocessing in kiln. It has been

envisaged that an area of 12.95 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 Odisha State Pollution Control Board after getting Environmental Clearance from MoEFCC, New Delhi.

17.0 Public hearing of the project was held on 20th September, 2017 at the Play ground of Gopabandhu High School, Rajgangpur under Rajgangpur Block of Sundergarh District, Odisha under the chairmanship of Shri Bhaskar Chandra Turuk (OAS, Additional District Magistrate, Sundergarh) for proposed Cement Project having production capacity of Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA) under the Odisha State Pollution Control Board. The issues raised during public hearing are employment, environment, education, health, plantation, CSR activities related etc. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

S. No.	Issues	Response by project proponent (after PH)	Time Bound Action Plan proposed & Budgetary provision
6.	Employment	Proposed project will generate more than 800 employments, where the preference will be given to suitable candidates from local as per Company requirement. Apart from providing direct employment, the company have proposed to undertake/ impart skill development programs to empower the local unemployed youths for a self-sustaining career. Dalmia Bharat Foundation (DBF) has collaborated in Odisha Skill Development Mission under Skill India Mission. DBF is committed for 5 skill training centers providing training in 9 trades to about 4410 youths in a span of 3 years.	An amount of Rs. 4.0 Crores have been earmarked by the Company for next 10 years under skill Development.
7.	Environment	The proposed plant will come up with adequate Pollution Control Equipments having advance technological features for the protection of environment. The Pollution control measures will be undertaken as per guidelines of MoEFCC, New Delhi and State Pollution Control Board.	Company has allocated Rs. 95 Crores as a capital cost and Rs. 5 Crores / annum as a recurring cost for Environmental Protection Measures. Apart from the state-of-the art pollution control devices along with implementation of Environmental Management Plant within the Plant, company has earmarked Rs. 10.10 Crores to be spent in next 10 years for the betterment of the environment in surrounding areas and Rs. 10.80 Crores on Health and Sanitation.
		Measures for protecting the environment after felling the trees for the project. It shall be ensured that minimal disturbance shall be done to the existing trees.	Company has allocated Rs. 2.0 Lakhs as a recurring cost for plantation and distribution of saplings.
8.	Education	The Company is organizing the remedial classes in and around the Rajgangpur, wherein around 300 nos. of teachers are engaged. The company is committed to provide emphasis on the skill development to generate the self-employment and to promote	Company has allocated Rs. 6.66 Crores for educational activities to be done in next 10 years. An amount of Rs. 4.0 Crores have been earmarked by the Company for next 10 years under skill Development.

S. No.	Issues	Response by project proponent (after PH)	Time Bound Action Plan proposed & Budgetary provision
		the education to make others employable. The opinion from public is invited for more improvements.	
9.	Health	The company has worked with LVPEI and established an eye hospital 'OCL Eye Centre' at Rajgangpur. Further, for health improvements, company has promised to provide two full time doctors at Rajgangpur Community Health Centre. The company is ready to work with the community to explore further requirements.	Company has allocated Rs. 10.80 Crores for Health and Sanitation facilities under ESC activities for next 10 years. Apart from this, company has also allocated Rs. 30.0 Lakhs recurring expenses in budgetary provision for providing two full time Doctors at Rajgangpur Community health Centre.
10.	CSR Activities related	Since, inception of the company in Rajgangpur, OCL has committed for development of Rajgangpur and peripheral areas. The same shall continue to undertake various areas like upliftment of livelihood of local public, health care, education, sanitation soil & water related activities along with energy conservation measures.	Company has earmarked Rs. 46 Crores under Enterprise Social Commitment (ESC) for next 10 years.
		The public support is required to be extended to the company to explore the feasibility of over bridge. The feasibility proposal is already under preparation.	Company shall work on the feasibility of Railway Over bridge in consultation with the local authority and railway.
11.	Plantation	Greenbelt development has been made since inception of existing plant near to proposed project site. Total 2,20,900 no. of plantation was made in & around plant & in Rajgangpur.	Company has allocated Rs. 30 Lakhs as capital cost and a recurring amount of Rs. Three Lakhs per annum.

18.0 An amount of Rs. 46 Crores (2.5% 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.	ESC activities	Years										Total Amount
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	
1.	Education	70	70	80	55	60	50	51	80	75	75	666
2.	Health & Sanitation	150	120	120	110	100	100	100	100	90	90	1080
3.	Infrastructure Development incl. roads, railway over bridge etc.	100	100	130	124	100	100	100	100	100	100	1054
4.	Sustainable Livelihood	60	50	40	50	40	35	30	35	30	30	400
5.	Social Development	50	40	30	30	50	40	40	40	40	40	400
6.	Environment	150	100	100	75	75	110	100	100	100	100	1010
Grand Total		580	480	500	439	420	435	421	455	435	435	4600

19.0 The cost of the project is about Rs. 1874 Crores and the capital cost for environmental protection measures is proposed as Rs. 95 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5 Crores / annum. The employment generation from the proposed project is 365 persons. The details of capital cost for

environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

(In Rs. Lakhs)

S. No.	Particular	Capital Cost	Recurring Cost
1.	Air Pollution Control & House Keeping measures	8770	450
2.	Water Pollution Control and Rain Water Harvesting Measures	200	20
3.	Environment Monitoring and management	500	25
4.	Green Belt Development	30	5
	Total	9500	500

20. Greenbelt will be developed in 12.95 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 1500 trees per hectare. Total no. of 20,000 saplings will be planted and nurtured in 12.95 hectares in 5 years.

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

22.0 The committee observed that the Enterprise Social Commitment needs to be revised for the period of implementation and detailed action plan with asset creations. The project proponent has submitted during course of the meeting which is reproduced below:

Summary of Proposed Expenditure on ESC activities

(Rs. in Lacs)

S. No.	Activity Heads	Years					Total Amount
		1 st	2 nd	3 rd	4 th	5 th	
1.	Education	100	175	175	100	110	660
2.	Health & Sanitation	195	285	280	160	160	1080
3.	Infrastructure Development	195	350	335	195	225	1300
4.	Sustainable Livelihood	80	110	90	65	55	400
5.	Social Development	75	95	130	60	40	400
6.	Environment	150	210	200	100	100	760
	Grand Total	795	1225	1210	680	690	4600

Detailed Action Plan for ESC Activities

(Rs. in Lacs)

S. No.	Major activities	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount
	Education						
1	Running of Remedial Education Centers	25	30	20	13	13	101
2	Maintenance & renovation of Theme park	5	5	7	5	5	27
3	Transportation facility for school students	5	10	8	7	7	37
4	Infrastructure related support to schools such as construction of class rooms, anagwadis, teaching aid materials etc.	65	130	140	75	85	495

S. No.	Major activities	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount
Sub Total		100	175	175	100	110	660
Health & Sanitation							
1	Support to Rajgangpur CHC for enabling quality health services	40	50	50	40	40	220
2	Mobile Ambulance	10	10	10	10	10	50
3	Life Skill Education for Adolescent Girls	10	10	10	10	10	50
4	Infrastructural support to existing hospitals	75	120	115	55	55	420
5	Open Defecation free village by introducing community & Individual Toilets	60	95	95	45	45	340
Sub Total		195	285	280	160	160	1080
Infrastructure Development							
1	Provision of drinking water through Overhead Tank & Borewell	20	25	25	20	20	110
2	Solar street light	30	30	30	30	25	145
3	Construction of roads / culverts	35	75	75	35	50	270
4	Construction of water harvesting structures/ culverts/ pond deepening etc.	35	75	65	35	35	245
5	Construction of Pyau	5	7	7	5	7	31
6	Renovation of temples	4	13	13	4	9	43
7	Construction of Funeral Shed in the nearby villages	6	10	10	6	10	42
8	Vermi-composting / Bio-gas Plant etc.	10	20	20	10	10	70
9	Construction of Community center, Club House, Cremation ground etc.	50	95	90	50	59	344
Sub Total		195	350	335	195	225	1300
Sustainable Livelihood through Skill Development							
1	Exposure & training to Women SHG Members	10	20	15	10	15	70
2	Promotion of Income generating activities	30	35	30	25	15	135
3	Skill Development of Youths	40	55	45	30	25	195
Sub Total		80	110	90	65	55	400
Social Development							
1	Setting up of rehabilitation Center for eradication of Alcoholism	40	60	85	40	25	250
2	Promotion of Rural Sports	35	35	45	20	15	150
Sub Total		75	95	130	60	40	400
Environment							
1	Soil & water conservation	75	110	120	55	55	415
2	Fuel efficient Chulla for Co2 emission	10	20	20	10	10	70
3	Drainage system in the Municipality	35	55	30	20	20	160
4	Plantation	30	25	30	15	15	115
Sub Total		150	210	200	100	100	760
Grand Total		795	1225	1210	680	690	4600

23.0 As reported by the PP, the study area comprised of more than 9% forestlands. The PP has also reported that there are no Schedule-I species in the study area. The committee felt that this should be re-examined and detailed study of the fauna to be carried out within one year. If schedule-I species are found then conservation plan for schedule-I species be prepared and implemented in consultation with state forest department. The PP shall provide necessary financial resources for implementation of the plan

24.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject the following Specific and General conditions in addition to any other conditions stipulated by the Ministry from time to time:

A. Specific conditions:

1. An amount of Rs 46 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt shall be developed in 12.95 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The plantation shall be completed within one year from the date of issue of EC. In addition to the this 1500 additional plants shall be planted within the premises.
3. The Capital cost Rs. 95.00 Crores and annual recurring cost Rs. 5.00 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
4. Kitchen waste shall be composted or converted to biogas for further use.
5. The project proponent shall adopt the slip power recovery system for energy conservation.
6. Detailed study of the fauna in the study area shall be carried out within one year. If schedule-I species are found then conservation plan for schedule-I species be prepared and implemented in consultation with state forest department. The PP shall provide necessary financial resources for implementation of the plan.
7. No ground water shall be used for plant & township.

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;

- c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
- a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and
 - b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;
 - g) use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - h) Provide wind shelter fence and chemical spraying on the raw material stock piles;
 - i) provide Low NO_x burners to control NO_x emissions. Regular calibration of the instruments must be ensured. If needed, NO_x will be controlled by using SCR/NSCR technologies; and
 - j) have separate truck parking area and monitor vehicular emissions at regular interval.

4. The project proponent shall (Water Pollution Control):
 - a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);
 - a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the cement plants; and
 - c) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
 - a) provide Waste heat recovery system for kiln and cooler;
 - b) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;
 - c) 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;
 - d) provide the project proponent for LED lights in their offices and residential areas;
 - e) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
 - f) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.
8. Used refractories shall be recycled as far as possible.
9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
17. 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).
18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
19. The storage of NH₃ and other hazardous chemicals at the site shall be as per the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.
20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
25. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.

- c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
- d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
- e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

27.26 Mini Blast Furnace (65 m³) and Sinter Plant (12 m²) located at Village Bongabari, P.O Vivekanandnagar, District Purulia, West Bengal of M/s Purulia Metal Casting Private Limited (Pig Iron Division). [Online Proposal No. IA/WB/IND/65443/2016; MoEFCC File No. J-11011/236/2016-IA.II(I)]-Corrigendum

1.0 **M/s Purulia Metal Casting Private Limited** made application vide online proposal No. **IA/WB/IND/65443/2016** dated 16 Nov 2017 seeking corrigendum to Environmental Clearance granted to the above-mentioned project vide F. No. **J-11011/236/2016-IA.II(I)** dated 20th October 2017.

2.0 It was requested to issue corrigendum to Environmental Clearance as follows:

Reference in EC letter	For	Read as
22A(iv) at page 4	Green belt shall be developed in 33.15 acres equal to 33 % of plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the 5 m wide strip along the periphery of the plant	Green belt shall be developed in 1.65 acres equal to 33 % of plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the 5 m wide strip along the periphery of the plant
22B (vii) at page 6	An amount of Rs. 866.5 Lakhs towards Capital cost and Rs 85.0 Lakhs per annum for recurring cost	An amount of Rs. 2.00 Crores towards Capital cost and Rs 24.00 Lakhs per annum for recurring cost for

	for environment pollution control measures shall be earmarked. The funds so provided shall not be diverted for any other purpose	environment pollution control measures shall be earmarked. The funds so provided shall not be diverted for any other purpose
22B (ix) at page 6	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions including results of monitored data on their website and shall update the same six-monthly. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Lucknow , the respective Zonal Office of CPCB and the SPCB (both in hard copies as well as by e-mail). The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions including results of monitored data on their website and shall update the same six-monthly. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Bhubaneswar , the respective Zonal Office of CPCB and the SPCB (both in hard copies as well as by e-mail). The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain
22B (xi) at page 6	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Lucknow .	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar .

3.0 The committee verified the facts from the application and EIA/EMP report and recommended for issue of corrigendum to Environmental Clearance granted to the above-mentioned project vide F. No. **J-11011/236/2016-IA.II(I)** dated 20th October 2017 as mentioned at above para.

27.27 **Ferro Alloy and Steel Plant located at Sy.No. 179, 181-183, 185-203 of APICC Industrial Area, Village Kantakapalli, Mandal Kothavalsa, District Vijayanagaram, Andhra Pradesh by M/s Sarda Metals and Alloys Ltd [Online Proposal No. IA/AP/IND/2973/2009; MoEFCC File No. J-11011/164/2009-IA.II(I)] – Amendment in Environmental Clearance.**

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

27.28 **Expansion of Sponge iron and steel plant at plot No.428/2, Phase-I, Industrial Area, Siltara, Raipur by M/s Godawari Power and Ispat Limited [Online Proposal No. IA/CG/IND/4250/2005; MoEFCC File No. J-11011/326/2005-IA.II(I)] - Amendment in Environmental Clearance.**

1.0 M/s Godawari Power & Ispat Limited made application vide online proposal no. **IA/CG/IND/4250/2005** dated **8th December 2017** seeking amendment in the Environmental Clearance issued vide F.No. J-11011/326/2005-IA.II dated 2nd march 2006 and subsequent amendment dated 12th May 2016 and 30th June 2017 and another clearance for the facilities existing in the premises vide J-11011/179/2009-IA.II(I) dated 25th August 2009 and subsequent amendment dated 17th August 2015 and extension of validity vide even letter number dated 21st July 2017 to the above-mentioned project.

2.0 The instant application was made for amendment in the above said environmental clearances under clause 7(ii) of EIA Notification for and the provisions of SO 3518 (E) dated 23rd November 2016 for modernizing the power plant by replacing the existing 3 TG Sets (TG-1: 9 MW; TG-2: 9 MW; TG-4: 30 MW (+1 Standby)) with new energy efficient TG set of 48 MW capacity in the existing power plant.

3.0 It was observed that the project proponent multiple environmental clearances and several amendments for the facilities located in the premises. The details of EC clearances and amendments obtained are as follows:

Sl.	Details of Environmental Clearance	Activity	Capacity	Remarks
1	MoEF F. No. J-11011/326/2005-IA II(I) Dated 02/03/2006	Sponge Iron	4,95,000 TPA	Phase-I
		Steel Billet	4,00,000 TPA	
		Ferro Alloys	16,000 TPA	
		Pig Iron	33,000 TPA	
		H.B. Wire	1,00,000 TPA	
		O2 Generation	12,00,000 lakh NM ³	
		N2 Generation	45,00,000 lakh NM ³	
	Fly Ash Brick Plant	165.00 lakhs		
2	MoEF F. No. J-11011/179/2009-IA II(I) Dated 25/08/2009	Iron Ore Beneficiation Plant	10,00,000 TPA	Expansion of Steel Plant (Phase-II)
		Rolling Mill	3,00,000 TPA	
		Arc Furnace	5,000 TPA	

		Biomass Based Power Plant	20 MW	
3	Amendment in EC vide F. No. J-11011/407/ 2011-IA II(I) Dated 21/12/2011	Ferro Alloys Plant	From 16,500 TPA to 15,450 TPA	Capacity Expansion
4	Amendment in EC vide F. No. J-11011/179/ 2009-IA II(I) Dated 17/08/2015	Rolling Mill	From 3,00,000 TPA to 4,00,000 TPA	Capacity Expansion
5	MoEF F. No. J-11011/216/2014-IA.II (I) Dated 07/04/2016	Iron Ore Pellet Plant	2.1 MTPA	2 Units : Kiln-I of 0.6 MTPA & Kiln-II of 1.5 MTPA
6	Amendment in EC vide F. No. J-11011/326/ 2005-IA II(I) Dated 12/05/2016	Sponge Iron Plant	From 4,95,000 TPA to 6,50,000 TPA	Capacity Expansion
7	Amendment in EC vide F. No. J-11011/326/2005-IA II(I) Dated 30.06.2017	Steel making Process	Electrical Arc Furnace route to Induction Furnace	Amendment in steel making process
8	J-11011/326/2005-IA.II(I) Dated 20 th July 2017	For expansion of Ferro allows from 16500 TPA to 33000 TPA		Terms of Reference
9	Application vide online proposal no. IA/CG/IND/65739/2017 dated 16th December 2017	for enhancement in production capacity of Iron Ore Pellet Plant from existing 2.1 MTPA (2 units) with Coal Gasification System to 2.3 MTPA with existing Coal Gasification System; Change in Product mix of Pelletization plant to include manufacture of 2,00,000 TPA Magnetite Powder / Heavy Media for coal washers; Enhancement of production capacity of from existing 4.00 lac TPA to 5.00 lac		For seeking amendment in Terms of Reference granted on 20 th July 2017

		TPA Steel Melting Shop (Steel Billets) by change in configuration of induction furnaces		
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4.0 The committee observed that the project proponent has obtained amendments to the original EC several times. Therefore, the committee advised to address the proposed amendment in the ToR amendment application vide online proposal no. IA/CG/IND/65739/2017 dated 16th December 2017. Therefore, the committee not agreed for amendment in EC.

27.29 Expansion of Ferro Alloys unit – Enhancement in production capacity of Ferro Alloys from 16500 TPA to 33,000 TPA by installing additional 1x9.6 MVA Submerged Arc Furnace with the existing steel plant at plot No.428/2, Phase-I, Industrial Area, Siltara, Raipur by M/s Godawari Power and Ispat Ltd- [Online Proposal No. IA/CG/IND/65739/2017, MoEF&CC File No. J-11011/326/2005-IA.II(I)] – Amendment in Terms of Reference.

1.0 M/s Godawari Power & Ispat Limited made application vide online proposal no. **IA/CG/IND/65739/2017 dated 16th December 2017** seeking amendment in the Terms of Reference issued to the above-mentioned project.

2.0 Terms of reference for the proposed expansion of of Ferro Alloys unit – Enhancement in production capacity of Ferro Alloys from 16500 TPA to 33,000 TPA by installing additional 1x9.6 MVA Submerged Arc Furnace with the existing steel plant at plot No.428/2, Phase-I, Industrial Area, Siltara, Raipur by **M/s Godawari Power and Ispat Ltd** was granted vide F.No. J-11011/326/2005-IA.II(I) dated 20th July 2017. The details of the proposed expansion and final configuration for which ToR granted is given below:

Sl	Name of the Unit	Capacity of manufacturing facilities in Phase-I	Capacity of manufacturing facilities in Phase-II	Total Capacity	After Approval of this Proposal
1	Sponge Iron	2,35,000	2,60,000	4,95,000 (Later amended to 6,50,000)	6,50,000
2	Steel Billet	2,00,000	2,00,000	4,00,000	4,00,000
3	Power	28 MW	25 MW	53 MW	53 MW
4	Ferro Alloys	16,500	--	16,500	33,000
5	Pig Iron	33,000	--	33,000	33,000
6	H.B. Wire	1,00,000	--	1,00,000	1,00,000

7	Oxygen Plant	--	12,00,000 NM ³	12,00,000 NM ³	12,00,000 NM ³
8	Nitrogen Plant		45,00,000 NM ³	45,00,000 NM ³	45,00,000 NM ³
9	Fly Ash Brick Plant		1,65,00,000 Nos	1,65,00,000 Nos	1,65,00,000 Nos
10	Biomass Power			20 MW	20 MW
11	Rolling Mill	(Under commissioning stage)		4,00,000	4,00,000
12	Iron Ore Pelletization			21,00,000	21,00,000

3.0 Now, it is proposed for enhancement in production capacity of Iron Ore Pellet Plant from existing 2.1 MTPA (2 units) with Coal Gasification System to 2.3 MTPA with existing Coal Gasification System; Change in Product mix of Pelletization plant to include manufacture of 2,00,000 TPA Magnetite Powder / Heavy Media for coal washers; Enhancement of production capacity of from existing 4.00 lac TPA to 5.00 lac TPA Steel Melting Shop (Steel Billets) by change in configuration of induction furnaces.

4.0 The details of the existing configuration and proposed configuration after amendment is as follows:

Sl	Name of the Unit	Capacity of manufacturing facilities in Phase-I	Capacity of manufacturing facilities in Phase-II	Total Capacity	Capacity as per ToR dtd 20.7.2017	Capacity after amendment in ToR
1	Sponge Iron	2,35,000	2,60,000	4,95,000 (Later amended to 6,50,000)	6,50,000 TPA	6,50,000 TPA
2	Steel Billet	2,00,000	2,00,000	4,00,000	4,00,000	5,00,000 TPA
3	Power	28 MW	25 MW	53 MW	73 MW (1X10 MW; 2X9 MW; 2X12.5 MW; 1X20 MW)	78 MW (1X53 MW; 1X25 MW)
4	Ferro Alloys	16,500	--	16,500	33,000	33,000 TPA
5	Pig Iron	33,000	--	33,000	33,000	33,000 TPA
6	H.B. Wire	1,00,000	--	1,00,000	1,00,000	1,00,000 TPA
7	Oxygen Plant	--	12,00,000 NM ³	12,00,000 NM ³	12,00,000 NM ³	12,00,000 NM ³
8	Nitrogen Plant		45,00,000 NM ³	45,00,000 NM ³	45,00,000 NM ³	45,00,000 NM ³

9	Fly Ash Brick Plant		1,65,00,000 Nos	1,65,00,000 Nos	1,65,00,000 Nos	1,65,00,000 Nos
10	Biomass Power			20 MW	20 MW	20 MW
11	Rolling Mill	(Under commissioning stage)		4,00,000	4,00,000	4,00,000 TPA
12	Iron Ore Pelletization			21,00,000	21,00,000	23,00,000 TPA
13	Gasifier for Iron Ore Pellet Plant (2 Units)	-	-	-	-	76000 Nm ³
14	Magnetite Powder Plant	-	-	-	-	200000 TPA

5.0 After detailed deliberation the committee agreed and recommended for amendment proposed in the Terms of reference by the applicant.

27.30 STANDARDIZATION OF EC CONDITIONS FOR STANDALONE CEMENT GRINDING UNITS WITH POWER PLANT

After detailed deliberations, the committee recommended following standard EC conditions for the standalone cement grinding units with CPP/WHRB.

A. Specific conditions:

1. An amount of Rs. ----- (2.5% Of of total cost proposed) towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt in an area of ----- Ha shall be developed equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
3. The Capital cost **Rs. ----** and annual recurring cost Rs. ----- towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system at power plant stack to monitor stack emission with respect to parameters prescribed in S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;

- b. monitor fugitive emissions in the plant premises;
 - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
- a) install effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and
 - b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 20 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) use leak proof trucks/dumpers for carrying raw materials & cement and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - g) Provide wind shelter fence and chemical spraying on the raw material stock piles;
 - h) provide Low NO_x burners to control NO_x emissions; and
 - i) have separate truck parking area and monitor vehicular emissions at regular interval.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';

- b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);
- a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the power plant; and
 - c) make efforts to minimise water consumption in the complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- a) 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;
 - b) provide the project proponent for LED lights in their offices and residential areas;
 - c) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and
7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
8. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
9. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
11. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
12. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
13. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
14. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP,

Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

15. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
16. 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).
17. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
18. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
19. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
20. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
21. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
22. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
23. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

STANDALONE CEMENT GRINDING UNIT

A. Specific conditions:

1. An amount of Rs. ----- (2.5% Of of total cost proposed) towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt in an area of ----- Ha shall be developed equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
3. The Capital cost **Rs. ----** and annual recurring cost Rs. ----- towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

B. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install emission monitoring system at power plant stack to monitor stack emission with respect to parameters prescribed from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
 - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - a) install effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed from time to time; and
 - b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):

- a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 20 mg/Nm³;
 - c) provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
 - d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
 - e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - f) use leak proof trucks/dumpers for carrying raw materials & cement and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
 - g) Provide wind shelter fence and chemical spraying on the raw material stock piles; and
 - h) have separate truck parking area and monitor vehicular emissions at regular interval.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
 - b) provide Sewage Treatment Plant for domestic wastewater; and
 - c) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
5. The project proponent shall (Water Conservation);
- a) practice rainwater harvesting to maximum possible extent;
 - b) provide water meters at the inlet to all unit processes in the power plant; and
 - c) make efforts to minimise water consumption in the complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- a) 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;
 - b) provide the project proponent for LED lights in their offices and residential areas;
 - c) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and

7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
8. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
9. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
11. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
12. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
13. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
14. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
15. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
16. 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).
17. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
18. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
19. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
20. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
21. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
22. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop

floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.

23. The project proponent shall (post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

Mineral beneficiation plants:

A. General Conditions:

1. The project proponent shall (Air Quality Monitoring):
 - a. install emission monitoring system to monitor emission with respect to parameters prescribed by CPCB from time to time and connected to CPCB online;
 - b. monitor fugitive emissions in the plant premises;
 - c. carryout Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and

- d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
 - a) provide effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed by CPCB;
 - b) monitor regularly ground water through sufficient numbers of piezometers in the plant and adjacent areas; and
 - c) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
 3. The project proponent shall (Air Pollution Control):
 - a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;
 - b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm³;
 - c) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
 - d) use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin;
 - e) provide wind shelter fence and chemical spraying on the raw material stock piles; and
 - f) design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
 4. The project proponent shall (Water Pollution Control):
 - a) provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled;
 - b) adhere to 'zero liquid discharge';
 - c) provide Sewage Treatment Plant for domestic wastewater; and
 - d) provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
 5. The project proponent shall (Water conservation):
 - a) practice rainwater harvesting to maximum possible extent; and
 - b) make efforts to minimise water consumption in the beneficiation plant by segregation of used water, practicing cascade use and by recycling treated water.

6. The PP shall (Energy Conservation):
 - a) 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; and
 - b) provide LED lights in their offices and residential areas.
7. The PP shall ensure that the concentration of the chemicals such as cyanides, dichromate, amines and polymers kept below the toxic limits.
8. Sufficient number of colour coded waste collection bins shall be constructed at the shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
11. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
12. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
13. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
14. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
15. 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).
16. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016. Coal tar sludge shall be recycled to coke ovens.
17. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
18. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

19. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
20. The project proponent shall (Post-EC monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. put on the clearance letter on the web site of the company for access to the public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (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;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. 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;
 - h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

B. Specific conditions:

1. An amount of Rs----- proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
2. Green belt shall be developed in ----- Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
3. The Capital cost Rs. ----- and annual recurring cost Rs. ----- towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

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 PM₁₀, PM_{2.5}, SO₂, 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. Enterprise Social Commitment (ESC)
- i. To address the Public Hearing issues, 2.5% of the total project cost of (Rs.crores), amounting to Rs.crores, shall be earmarked by the project proponent, towards Enterprise Social Commitment (ESC). Distinct ESC 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 ESC 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 ESC 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 (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and 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.

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 (PM₁₀ 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 PM₁₀ 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(PM₁₀ 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 PM₁₀ 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.

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






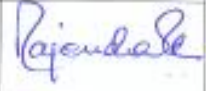

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Executive Summary

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

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 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 characteristics, 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

**LIST OF PARTICIPANTS OF EAC (I) IN 27TH MEETING OF EAC (INDUSTRY-I)
HELD ON 3RD TO 5TH JANUARY 2018**

S. No	Name and Address	Position	Attendance			Signature
			3 rd	4 th	5 th	
1	Dr.Chhavi Nath Pandey, IFS(Retired)	Chairman	P	P	P	
Members						
2.	Dr. Nitin Endaly Representative of Central Pulp and Paper Research Institute	Member	A	A	A	
3.	Director, Central Leather Research Institute	Member	A	A	A	
4.	Dr.Siddarth Singh, Representative of Indian Meteorological Department	Member	A	A	A	
5.	Representative of Central Ground Water Board	Member	A	A	A	
6.	Dr. G. Bhaskar Raju	Member	P	P	P	
7.	Prof. Naresh Chandra Pant	Member	A	A	A	
8.	Dr. Jagdish Kishwan, IFS(Retired)	Member	A	A	A	
9.	Dr.G.V.Subrahmanyam	Member	P	P	P	
10.	Prof.Arun Pandey	Member	A	A	A	
11.	Shri Santosh Raghunath Gondhalekar	Member	A	P	P	
12.	Shri Ashok Upadhyay	Member	P	P	P	
13	Mr. R.P. Sharma	Member	P	P	P	
14.	Shri Sharath Kumar Pallerla, Scientist 'F' / Director, MoEF&CC	Member Secretary	P	P	P	
15.	Shri RajasekharRatti, Scientist 'C', MoEF&CC	Dy. Director	P	P	P	