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

**SUMMARY RECORD OF THE EIGHTEENTH (18th) MEETING OF EXPERT APPRAISAL COMMITTEE HELD ON 3rd-5th MAY 2017 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECT`OR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The eighteenth 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 on 3rd-5th May 2017 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

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

**18.2 Confirmation of the minutes of the 17th Meeting**

The minutes of the 17th meeting, as circulated were confirmed.

## DATE: 3rd May 2017

**18.3 Proposed Technology Demonstration Plant (TDP) [For processing 1900 TPA of Zircon and 3500 TPA of Ilmenite] within the existing premises of Orissa Sands Complex of M/s Indian Rare Earths Limited at Orissa Sands Complex, village Matikhalo, Tehsil Chatrapur, District Ganjam, State Orissa. [Proposal No. IA/OR/IND/22927/2014 dated 15th April 2017. File No. J-11011/44/2014-IA-II (I)] (Environmental Clearance based on ToR)**

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/22927/2014**, dated 15.04.2017 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. 2(b) Mineral Beneficiation under Category "A" EIA Notification 2006.

2.0 The project of M/s Indian Rare Earths Ltd. (IREL), Orissa Sands Complex (OSCOM) located in Village Matikhalo, Tehsil Chatrapur, District Ganjam, State Odisha, was initially received in the Ministry on 18.03.2014 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 17th meeting held on 18-03-2014 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 19.05.2014 vide F.No. J-11011/44/2014-IA-II (I). Based on the ToRs prescribed to the project, the project proponent applied for environmental clearance to the Ministry.

3.0 The project of M/s IREL-OSCOM located in Matikhalo Village, Chatrapur Tehsil, Ganjam District, Odisha State is for setting up of a new Technology Demonstration Plant for production of 1900 tons per annum (TPA) of Zircon and 3500 TPA of Ilmenite. The existing

project was accorded environmental clearance vide letter No.21/18/84-ENI/IA II dated 14th May 1991 for OSCOM operations and vide letter No. J-14011/5/91/IA-I dated 24th September 1993 for Thorium Plant operation. Subsequently, EC was granted vide letter No.J-11015/348/2009-IA.II (M) dated 9th February 2011 for Monazite Processing Plant (MoPP). The expansion of Mining and Mineral Separation Units (CEMMU) to enhance the Raw sand mining from 25,00,000 TPA to 75,00,000 TPA, EC has been granted vide letter No. J-11015/528/2007-IA.II (M) dated 23rd September 2014 subject to submission of Stage-1 forest clearance for the forestland involved. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Letter No.106-102/EPE dated 14th March 2014.

The existing plant end products and their capacities are as follows:

| Sl. | Plant | End product | Capacity (TPA) |
|---|---|---|---|
| 1 | Mining & Mineral Separation | Ilmenite along with other associated heavy minerals | 2,20,000 T of ilmenite plus 46,000 T of associated heavy minerals. |
| 2 | ZPP | Zirconia & zirconia based chemicals | 3.5 |
| 3 | Monazite Processing Plant | Tri Sodium Phosphate (TSP) | 13500 |
| | | Rare Earths Chloride | 10375 |
| | | Ammonium Di-uranate as $U_3O_8$ | 22 – 26 |
| | | Thorium Oxalate | 2000 |
| | | Thorium Nitrate/Thorium Oxide | 150 |

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

| Name of unit | No. of units | Capacity of each Unit | Production Capacity |
|---|---|---|---|
| Technology Demonstration Plant(TDP) | 1 | Production capacity :<br>(i) Zirconium oxy chloride<br>(ii) Titanium Dioxide<br>(iii) Iron Oxide(RED)<br><u>By products</u><br>(i) High pure silica<br>(ii)Ammonium chloride crystal<br>(iii) Gypsum | <br><br>3416 TPA<br>1672 TPA<br>1038 TPA<br><br>566 TPA<br>3197 TPA<br>10,513 TPA |

4.0 A total of 7500 $m^2$ of land is required for the proposed project within the existing premises of IREL, OSCOM. No land acquisition or land-use conversion is proposed.

5.0 The proposed project site is a flat terrain with a gentle slope and it is within the existing premises of OSCOM plant. The approximate latitude and longitude of the site are 19°18'47.48" North & 84°57'51.25" East at an elevation between 8 – 12 m above MSL.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are located within the core and buffer zone of the project. The authenticated list of flora and

fauna provided reporting presence of no /schedule-I fauna except Olive Reedley sea turtle (at about 12 km away from the project site) in the study area.

7.0 'OR' zircon is fused with caustic for production of frit. The frit manufacturing process involves fusion of zircon sand in the presence of caustic or caustic flakes. The sintered mass is leached with water. The water soluble rich sodium silicate is removed by filtration and kept in a separate storage tank for recovering silica value. The slurry is filtered and the air dried cake known as frit is allowed to react with dilute sulphuric acid. The zirconium present in the frit is converted to zirconium sulphate while silica present as sodium silicate in the frit is converted to silicic acid gel. The zirconium sulphate slurry is filtered to separate zirconium sulphate solution from silicic acid and purified by Solvent Extraction (SX) process. The SX is carried out in counter current 'Mixer Settlers' which involves three steps i.e. Extraction, Scrubbing and Stripping. The stripped out solution is converted to zirconium sulphate. The sulphate slurry is converted to zirconium hydroxide by ammonia and filtered. After washing, zirconium hydroxide wet cake is collected. For production of Zirconium Oxy-chloride, the wet hydroxide cake is re-dissolved in concentrated HCl and cooled. The zirconium oxy-chloride crystal are precipitated & filtered. The mother liquor is recycled after recovery of zirconium oxy-chloride. The sodium sulphate filtrate is treated with calcium chloride to precipitate sulphate value as Gypsum. The filtrate containing 11% w/v of sodium chloride is collected separately for further processing. The wash water generated from the frit washing (for sodium removal) is enriched with sodium chloride which is collected separately for further processing. The effluent obtained from hydroxide section is a mixture of ammonium sulphate and ammonium chloride which is then treated with calcium chloride to precipitate sulphate value as Gypsum. Pure ammonium chloride solution is sent to evaporator for concentration and recovered as a by-product after crystallization. The sodium silicate leach liquor obtained from frit production unit is treated with un-slaked lime under controlled precipitating conditions to precipitate out Calcium silicate leaving behind Sodium hydroxide in filtrate. Dissolution of calcium silicate in conc. HCl precipitates out silica and calcium chloride so produced is used for extraction of sulphate value present in zirconium hydroxide filtrate. By this process, Sodium hydroxide with a concentration of approxamately 12-13% w/v is generated which is re-utilized to precipitate out Copperas for production of Iron oxide Red pigment.

8.0 M/s IREL has accorded to use 13,500 $m^3$/day of water, supplied by Orissa Public Health & Engineering Department (OPHED) as per contractual agreement and 1,776 $m^3$/day of bore well water (from existing 12 number of bore wells) for existing operations at rated capacity. The total raw water requirement for TDP is 238 $m^3$/day. This water will be met from the existing OPHED water supply system or through one single bore well (existing).

9.0 M/s IREL has an agreement with Orissa State Electricity Board (OSEB) for supply of power up to 15 MW. Due to the stoppage of Chemical Plants, the contract demand has been reduced to 6.5 MW. The present power consumption for existing Mining & Mineral Separation units is around 4.8 MW and 3.6 MW for Monazite Processing Plant. The additional power requirement for proposed Capacity Expansion of Mining & Mineral Separation Units (CEMMU) will be around 6.0 MW, and 2.0 MW for TDP. Therefore, the total power requirement will be around 16.4 MW which will be met by increasing contract demand of existing power supply agreement with SOUTHCO, OSEB. Provision of one D.G. set (250 KW capacity) may be taken up in future depending upon the requirement which will be operated occasionally in case of power failure.

11.0 Baseline Environmental Studies were conducted during winter season i.e. from October to December 2014. Ambient air quality monitoring has been carried out at 8 locations during December 2014 to February 2015 (Winter Season) and the data submitted indicated: Particulate matter ($PM_{10}$) ranges from 42.3 to 63.4 $\mu g/m^3$; Particulate matter ($PM_{2.5}$) ranges from 16.4 to 28.7 $\mu g/m^3$; Sulphur dioxide ($SO_2$) are 10.1 to 15.2 $\mu g/m^3$; Oxides of Nitrogen ($NO_x$) are 15.3 to 21.3 $\mu g/m^3$; and Carbon monoxide (CO) are 0.6 to 1.3 $\mu g/m^3$ The predicted Ground Level Concentrations (GLCs-max) are Particulate matter ($PM_{10}$) is 4.78 $\mu g/m^3$; Sulphur dioxide ($SO_2$) is 7.65 $\mu g/m^3$; Oxides of Nitrogen ($NO_x$) is 4.36 $\mu g/m^3$; HCl is 0.14 $\mu g/m^3$

12.0 The results of the collected ground water samples shows that most of the water samples collected adhered to IS permissible limits for drinking water sources. The pH values of the ground water samples were found to be in the range of 6.8 – 7.9. The Total dissolved solids of the ground water samples were found to be in the range of 153 - 1157 mg/l. The Total hardness value of the ground water samples were found to be in the range of 37 - 598 mg/l

13.0 The Noise levels observed in the study area at 8 locations indicated that Leq (Day) ranges from 50.0 to 67.8 dB(A) and Leq (Day) ranges from 42.3 to 62.9 dB(A).

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.

15.0 The main solid waste from the Technology Demonstration Plant will be Insoluble mass from Ilmenite processing unit (156 kg/day), Iron and Heavy metal solid cake from SX-2 (1774 kg/day), the un-reacted mass from Zircon processing unit (90 kg/day) and ETP cake (481 kg/day). The insoluble mass along with Iron and Heavy Metal solid cake from Ilmenite processing will be stored for recovery of valuable rare elements like vanadium and niobium. Un-reacted mass from Zircon processing unit can be sold as by-product. Solid waste of ETP cake will be stored in an identified location. About boiler ash and clinker, generated from the proposed boiler house, will be periodically transported to low lying/mined out area for backfilling and road making. Plantation will also be developed around the interim storage area. The possibility of selling it to brick manufacturers shall be explored in future.

16.0 The public hearing was scheduled on 22.04.2016 under the chairmanship of Additional District Collector, but it was postponed due to entering of miscreants/anti-socials forcibly to the venue/dais area. The Public hearing was conducted again on 6$^{th}$ December 2016 at old site office of IREL, in front of SBI (IREL Campus branch), Matikhalo, Chatrapur. The main issues raised during the PH are non-compliance of commitments made during earlier PH; pollution; plantation in the project including mining area; infrastructure development; etc.

17.0 The total project cost is Rs. 54.16 Crores for establishing Technology Demonstration Plant, out of which Rs. 450 Lakhs will be the capital investment for environment and pollution control measures. Provision of Rs. 9.0 Lakhs will be the annual recurring expenditure for pollution control and maintaining the environmental safeguard measures.

18.0 Green belt will be developed in 2475 $m^2$ in project area and along periphery of the site. In addition to that, thick green belt will be developed along the Tsunami protection bund. Apart from the bulk plantation around the boundaries, roadside avenue plantations will also be taken up. Based on the agro-climatic conditions of the region, location of the proposed plant, physico-bio-chemical properties of the soil strata, nature of the pollutants and their rate of dispersion, it is

suggested to develop greenbelt around the plant. It was reported that mass scale plantation in mined out area is already in progress for the exiting OSCOM plant operations.

19.0 The manpower requirement for the proposed project will be 113 persons. The project benefits include: installation of Technology Demonstration Plant at OSCOM is to demonstrate the indigenously developed innovative technology for processing of two minerals i.e., Zircon and ilmenite for production of new material wealth via chemical transformation; indirect employment; social infrastructure; etc.

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

21.0 Based on the presentation and detailed deliberations held, the committee desired following information for further consideration of the proposal.

i. EIA/EMP should address the acids and bases generated in the process; recovery of by products; biological degradation of hazardous primary amines and volatile solvents used for solvent extraction.

ii. Wastewater management plan to achieve zero liquid discharge (ZLD).

iii. Assessment of concentrations of Alpha and Beta radiations in pre and post treatment of effluents.

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

v. Risk Assessment report should also include site specific also

vi. Storage facilities and operations for all the hazardous substances utilised in the process. The damage criteria and consequent analysis shall be addressed on the layout plan of the plant.

vii. Comprehensive details of existing and proposed plant with respect of land, production, configuration of the processing units and by products shall be provided.

viii. Comprehensive details of existing and proposed plant with respective to emissions, discharge and control measures shall be provided.

ix. Certified compliance report of earlier EC of the existing plant from the RO, Bhubaneswar shall be submitted.

x. Greenbelt development plan shall be prepared and submitted with substituting the casuarina species with other indigenous species.

xi. The site plan/plant layout shall be prepared clearly showing the existing plant, proposed TDP, greenbelt, approach road, internal roads, mining lease area, etc.

xii. Conservation measures for Olive Ridley Turtles.

xiii. The PP should confirm that the proposed plant area does not fall under CRZ.

**18.4 Proposed expansion project for manufacturing of Manganese Oxide and Proposed Product Mix in Existing Product at Plot No. C-235, MIDC Butibori, District Nagpur, Maharashtra of M/s D S Alloys Pvt Ltd. F. No. J11011/242/2015-IA II (I). Proposal No. IA/MH/IND/62395/2015 dated 09.02.2017. (Environmental Clearance based on ToR).**

1.0 The proponent has made online application vide proposal no. **IA/MH/IND/62395/2015**, dated 09.02.2017 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(a) in Metallurgical industries (ferrous and non-ferrous) under Category "A" EIA Notification 2006.

2.0 The proposed expansion project of M/s D.S. Alloys Private Limited is in Plot No. C-235, MIDC Butibori, District Nagpur, Maharashtra in a notified Industrial Area was initially received in the Ministry on 27$^{th}$ November 2015 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 2$^{nd}$ meeting held on 28$^{th}$ to 30$^{th}$ December 2015 and prescribed ToRs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment and Forests had prescribed ToRs to the project on 29$^{th}$ January 2016.

3.0 The existing plant of M/s D.S. Alloys Private Limited is currently manufacturing 10080 TPA Ferro Alloys based on Thermite Process. Now it is proposed to set up manufacturing of Manganese Oxide and product mix in existing products. The total production capacity of the mix product is 10080 MTPA & of MnO is 6000 MTPA. The existing plant was accorded environmental clearance vide letter no. J-11011/75/2008-IA II (I) dated 17$^{th}$ July 2008. The status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. No. 5-186/2008/ENV/1103 dated 29.11.2016. There are some non-compliances reported by RO.

4.0 The total land available for the project is 2.233 ha which is in industrial area. No forest land involved. Total Plot area of Plant is 22334.5 $m^2$ and 6000 $m^2$ shed is already constructed and sufficient for proposed expansion activities. No water body passes through the proposed expansion project.

5.0 The topography of the area is flat and reported to fall between Latitude 20°56'11.25"N and Longitude 78°56'35.70"E in Survey of India toposheet No. 55 L/13,55K/16, 55 P/1 and 55 O/4 at an elevation of 970 MSL.

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. There is no schedule-I fauna reported in the area.

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

8.0 The water requirement of the project is 25 $m^3$/day, out of which 10 $m^3$/day of fresh water requirement will be obtained from the MIDC and the remaining requirement of 15 $m^3$/day will be recycled.

9.0 The power requirement for the proposed expansion project will be 250 KVA which is obtained from the Maharashtra State Electricity Distribution Company Limited.

10.0 Ambient air quality monitoring has been carried out at 8 locations during February, March, April and May 2016 and the data submitted indicated: $PM_{10}$ (32.2 to 57.2µg/$m^3$), $PM_{2.5}$ (13.6 to 44.5 µg/$m^3$), $SO_2$ (7.8 to 32.9 µg/$m^3$) and NOx (8.7 to 29.5 µg/$m^3$). The results of the modelling study indicated that the maximum increase of GLC for the proposed expansion project is 0.02411 µg/$m^3$ with respect to the $PM_{10}$; 0.1309 µg/$m^3$ with respect to the $SO_2$; and 0.01516 µg/$m^3$ with respect to the NOx.

11.0 Ground water quality has been monitored in 4 locations in the study area and analyzed. pH: 8.1 to 8.3; Total Hardness 532 to 592 mg/L; Chlorides: 105 to 168 mg/L; Fluoride: 0.2 to 0.6 mg/L. Heavy metals are within the limits. Surface water was analyzed from 4 locations. pH: 7.9 – 8.5, DO: 5.1 to 6.1mg/L.

12.0 Noise levels are in the range of 38.2 to 54.7 dBA for daytime and 35.4 to 43.4 dBA for night time.

13.0 No R&R involved in the proposed project.

14.0 The slag generated from the proposed product mix will be from 3464 to 9949 MTPA and it will be sold to manufacturer of Silico-manganese. Ash generated from the proposed plant will be used for the manufacturing of bricks. It has been envisaged that an area of 0.8 ha will be developed as green belt. Till date about 400 trees were planted.

15.0 The Consent to Operate has been obtained from the Maharashtra Pollution Control Board vide Consent No. MPCB/14/5054 dated 28/05/2014 and is valid upto 31/07/2019.

16.0 Public Hearing is not applicable since the proposed project is located in Notified Industrial Area of MICD.

17.0 The capital cost of the project is Rs. 4.87 Crores and the capital cost for environmental protection measures is proposed as Rs. 30Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 3.0 Lakhs.

18.0 Green Belt will be developed in 33% of the total area. The Company has already planted 400 trees and proposed to plant 800 more trees in and around the premises.

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

20.0 After the presentation made by PP along with Pollution and Ecology Control Service, EIA Consultant, the committee noted that the Public Hearing was not conducted as per the prescribed ToRs. The proponent desired to withdraw the application in view of continuing the operation of the plant with the granted EC capacity and exclude the proposed MnO production and submitted withdrawal letter.

21.0 After detailed deliberations, the committee accepted the request of the PP for withdrawal of the application for present proposal.

**18.5 Expansion of cement plant from 2.6 MTPA to 8.6 MTPA (Phase-II) of M/s Sanghi Industries Ltd at Sanghipuram, Dist.Kutch, Gujarat. [Proposal No. IA/GJ/IND/4327/2006. F. No. J-11011/337/2006-IA-II(I)] – (Extension of validity of Environmental Clearance).**

1.0 The proponent has made online application vide proposal no. **IA/GJ/IND/4327/2006** dated 5th April 2017 seeking extension in validity of Environment Clearance under the provisions of EIA Notification, 2006 for the project mentioned above.

2.0 M/s Sanghi Industries Limited has obtained environmental clearance for expansion of cement plant from 2.6 MTPA to 8.6 MTPA (Phase-II) of M/s Sanghi Industries Ltd at Sanghipuram, Dist. Kutch, Gujarat vide F. No. J-11011/337/2006-IA-II(I) dated 5th April 2007 which is valid for 5 years as per the provisions of EIA Notification, 2006.

3.0 It was informed that the proponent has slowed down and temporarily stopped the expansion due to recession in global economy and ban on export of cement during 2008-09. Accordingly, application was made for extension of validity of environmental clearance and the proposal was considered in the EAC meeting held during 29th – 31st October 2012 and recommended for further period of 5 years i.e. up to 4th April 2017. After receiving an extension of validity, the company has completed the expansion of the plant capacity up to 4.00 MTPA. Balance work of expansion is in progress.

4.0 It was informed that the company has completed establishment of 4.0 MTPA completely and common infrastructure required for the total capacity. About 60% of the project activities required for 2.6 MTPA to 8.6 MTPA was completed. Further, detailed engineering was done for balance works and purchase orders were kept ready to place for procurement of main equipment required for 4.0 MTPA to 8.6 MTPA expansion. Therefore, the proponent requested for extension of the validity of EC beyond ten years.

5.0 After detailed presentation by PP, it was noted that the ten-year validity of the Environmental Clearance has already been expired; No main equipment required for 4.0 MTPA to 8.6 MTPA was installed except common infrastructure facilities that caters the existing plant and proposed expansion. After detailed deliberation, the committee not agreed for recommendation for further extension of validity of EC.

**18.6 Amendment of Environmental Clearance for change of captive power plant capacity from 15 MW to 18 MW due to implementation of CFBC technology based power plant and Waste Heat Recovery Power Plant from 10 MW to 7 MW totally 25 MW as approved by EC at cement plant located at Mattapalli Village, Matampally Mandal, Suryapet District, Telangana State of M/s Sagar Cement Ltd. [Proposal No. IA/AP/IND/4635/2006. F.No. J-11011/379/2006-IA.II(I)] – (Extension of Validity of Environmental Clearance)**

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/4635/2006** dated 18th April 2017 seeking extension in validity of Environment Clearance under the provisions of EIA Notification, 2006 for the project mentioned above.

2.0 M/s Sagar Cements Limited has obtained environmental clearance for the expansion of cement plant with clinker production from 0.30 MTPA to 2.35 MTPA and 25 MW Captive Power Plant at Mattapalli Village, Matampally Mandal, Suryapet District, Telangana State

(Erstwhile Andhra Pradesh) vide F.No. J-11011/379/2006-IA.II(I) dated 02.04.2007. The M/s Sagar Cements has implemented the expansion in cement plant and power plant could not implement. Subsequently amendment in EC was obtained on 30.08.2013 for 10 MW WHRB and 15 MW Coal Based TPP in place of 25 MW Coal Based TPP along with extension of validity up to 02.04.2017.

3.0 It is reported that Waste Heat Recovery based Power Plant of 7 MW constructed and about to commission. SCL has obtained EC for 15 MW coal based power plant based on AFBC Technology.

4.0 Now it is proposed to adopt Circulating Fluidized Bed Combustion Boiler in place of AFBC Technology, which is economically adopted CPP capacities of 18 MW and meet emission norms dated 8.12.2015. It is also informed that total capacity of the power plant remains same i.e. 25 MW as per the EC granted on 02.04.2007.

5.0 After presentation by PP along with EIA Consultant, the committee noted that the proponent has already obtained extension of validity of EC once and completed 10 years. Therefore, the existing project shall be deemed with the capacity which was already commissioned i.e. cement plant with clinker production of 2.35 MTPA and Power Plant of 7 MW (WHRB). Hence, the current proposal will be treated as establishment of 18 MW Coal Based Power Plant.

6.0 After detailed deliberations, the committee has not agreed to recommend for further extension of validity and change in the configuration.

**18.7 Expansion of Steel Plant (0.5 MTPA MBF and SMS) by adding 1.5 MTPA beneficiation cum pellet plant to produce 1.32 MTPA pellet (2×0.66 MTPA) with producer gas plant (75000 $Nm^3$/hr) at Shyamraipur, Gokulpur, Khargargpur, Dist. Paschim Midnapur, West Bengal of M/s Orissa Metaliks Private Limited [ Proposal No. IA/WB/IND/5853/2011, F.No. -11011/604/2010-IA-II(I) (Expansion under 7(ii) of EIA Notification, 2006.**

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/5853/2011** dated 12th April 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report and Environment Management plan for expansion under clause 7(ii) of 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 The 1.5 MTPA Beneficiation Plant, 2 x 0.6 MTPA Pellet Plant & Producer Gas Plant - 75000 $Nm^3$/hr of **M/s Rashmi Metaliks Limited** located in Village Gokulpur, P.O-Shyamraipur P.S-Kharagpur (L), District Paschim Manipur, State West Bengal has accorded environment clearance vide letter no J-11011/604/2010-I A II (I) dated 01.06.2012. Subsequently the plant was transferred to **M/s Orissa Metaliks Private Limited** vide File No- J-11011/604/2010-I A II (I) dated 4th January 2017. Consent to Operate was obtained from State Pollution Control Board vide CO No-106504 vide memo no-138-3888/WPB(HRO)-k/2014 (Pt-I); dated 19.01.2017 and valid up to 31.10.2021.

3.0 Now it is proposed to increase the production capacity from 1.2 MTPA to 1.32 MTPA by using 2 x 0.66 MTPA Pellet plant instead of 2 x 0.6 MTPA. The details of existing capacity and proposed enhancement and total capacity after expansion are as given below:

| Sl. No | Plant | Unit | Existing Capacity | Proposed enhancement capacity | Total Capacity after expansion |
|---|---|---|---|---|---|
| 1 | I/O Beneficiation Plant | MTPA | 1.50 | --- | 1.50 |
| 2 | Pellet-II | MTPA | 0.60 | 0.06 | 0.66 |
| 3 | Pellet-III | MTPA | 0.60 | 0.06 | 0.66 |
| 4 | Producer Gas Plant | N.c.m/hr | 10 x 7500 | --- | 10 x 7500 |

4.0 Inspection of Regional Officer of MoEF&CC, Bhubaneswar was made in relation to the transfer of EC & compliance status submitted vide letter dated 27.07.2016

5.0 The current emission from the existing 1.20 MTPA Pellet plant is in the range of 14-25 mg/$Nm^3$, there will not be too much incremental increase in the emission level, and existing APC devices (ESP, ID Fan, Multicone Cyclone) are sufficient enough to keep the point emission level below the permissible limit (50 mg/$Nm^3$) and in order to keep the fugitive emission below the permissible limit (100 mg/$Nm^3$) travelling grate, pneumatic conveying system, Dry fog system of sufficient capacities are already existing.

6.0 It was reported that enhancement in the production capacity will be made with following modifications / enhancement in the existing system:

| Sl. No. | Proposed Modification Area | Enhancement / Modification Component | Existing Facilities | Proposed Additional facilities |
|---|---|---|---|---|
| 1 | Concentrate Unloading Handling Storage and Reclaiming | Belt conveyors Speed | 1.00 meter/Sec | 1.50 meter/Sec |
| | | Covered storage shed for stacking and blending | 25.00 x 104.00 meters | Adequate capacity |
| | | Crane | One 20 Mt capacity with 5 $M^3$ Grab Bucket | Another one more crane will be introduced |
| | | Intermediate storage Bins | 10 storage bin and capacity is 4000 MT | Adequate capacity |
| 2 | Concentrate Drying, Flux Storage, Blending and Mixing | Concentrate Dryer | Operated at 45% of its Capacity | Will be operated for 20-22 hours in day |
| | | Flux bins transfer time | 4-5 hours | 6-7 hours |
| 3 | Pelletizing, Screening and Handling | Pellet Disc | 3 sets of Pellet Disc, having capacity 150 TPH | Adequate capacity |
| 4 | Preheating | Bad Designed | Bed Level: 190 mm | Adequate capacity |
| | | Speed range for travelling grate | 0.5 to 1.3 meters/minutes | It may be operated at 1 to 2.00 meters/sec |

| | | | | |
|---|---|---|---|---|
| | | Heat resistance fan | Two sets of fans, capacity is 1,20,000 $NM^3$ / hour each where one is standby mode | Both fans will be made operative condition to meet the draft with additional capacity |
| | | ID Fan | Now operated 30% of its designed capacity | Can be using 70% of its designed capacity |
| | | Preheating zone Burners | Burners – 02 sets | Adequate capacity |
| | | | Capacity - 6,00,000 kcal / hour in each burners | Adequate capacity |
| | | Multi-cone Cyclone operating cycle | 6 cycles/hour | 10 cycles/hour |
| 5 | Roasting | Kiln operating range | 1.2 rpm | 1.5 rpm |
| 6 | Cooling | Cooler area | 60 Sq.m | Adequate, each fan Capacity 1,00,000 Nm3/hour with static pressure 6000 Pascal |
| 7 | Product Handling | | No change | Adequate capacity |
| 8 | Environment Handling Equipment | ESP, Multi cone - cyclones, bag filters, product discharge, pneumatic handling system etc. | No Change | Adequate capacity |
| 9 | Electrical system | | | Adequate capacity |

7.0 No Additional land will be required for increase in production capacity of Pellet from 1.2 to 1.32 MTPA

8.0 It was informed that, Chartered Engineer has certified that existing plant/ machineries sufficient to meet the production capacity for enhancement.

9.0. Additional employment generation from proposed proposal will be 50 direct employments and 100 indirect employments.

10.0 Power requirement for enhancement in production capacity is 0.8 MW which will be made by own Captive Power Plant. 24 KLD additional water will be required. OMPL has sufficient water withdrawal permission (1789 KLD) from SWID.

11.0 No additional cost is required for the proposed expansion. There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 The proposal for increase the production capacity from 1.2 MTPA to 1.50 MTPA by using 2 x 0.75 MTPA Pellet plant instead of 2 x 0.6 MTPA was made by the project proponent

vide proposal no. IA/WB/IND/5853/2011, dated 24.02.2017 and the proposal was considered in the 17th meeting of EAC(Industry-I) held during 6th – 7th April 2017 and the committee noted that, to achieve the proposed enhancement, one more disc in the unit is proposed to install. The Committee after detailed deliberation is of the view that since the proponent has proposed to add additional unit(s) to the existing plant apart from the proposed enhancement in the performance in the process, the proposal may not be considered under clause 7(ii) of EIA Notification, 2006, as amended. The committee asked the PP to submit either for fresh ToR for the proposed expansion or submit revised application for the enhancement without additional units (discs).

13.0 Accordingly, the project proponent has made an application for enhancement of production without additional units and proposed to increase the production capacity to 1.32 MTPA in lieu of 1.50 MTPA proposed in the earlier application without adding any additional discs.

14.0 After detailed deliberation, the committee recommended for proposed expansion of production of pellet plant from 1.20 MTPA to 1.32 MTPA subject to following conditions

i. The PP shall carryout the required plantation as per the earlier EC within 6 months from the date of EC and the compliance of the same shall be submitted to Regional office of MoEF&CC

ii. No additional discs shall be installed for expansion.

**18.8 Proposed 1.2 MTPA Integrated Steel Plant with 225 MW CPP Mouza Nandarchak (J.L.No.124) Bargi (J.L.No.124) and Kanjarichak (J.L.No129) at village Gokulpur, P.O.Shyamraipur, P.S.Khargpur (L), Dist. Pachim Midnapur, West Bengal of M/s Orissa Metaliks Private Limited. [Proposal No. IA/WB/IND/64050/2017, F.No. IA-J-11011/169/2017-IA-II(I)]- (ToR)**

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/64050/2017** dated 19th April 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 **M/s Orissa Metaliks Private Limited** proposes to install a new manufacturing unit for Integrated Steel Plant along with Captive Power Plant at village Gokulpur, P.O. Shyamraipur, P.S. Khargpur (L), Dist. Pachim Midnapur, West Bengal.

3.0 It is proposed to install a new manufacturing unit for 1.2 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant. The proposed capacity for different products for new site area as below:

| Sl. No | Particulars of Facilities | Capacity |
|---|---|---|
| 1. | Blast Furnace (2 x 550$m^3$) | 1.00 MTPA |
| 2. | Sinter (1 x 175$m^2$) | 1.00 MTPA |
| 3. | DRI (2 X 500 TPD + 2 x 350 TPD) | 0.50 MTPA |
| 4. | Steel Making Facilities [(20 T EIF X 10) + (50T EAF X 2)] with LRF and oxygen optimized furnace | 1.00 MTPA |

| | | |
|---|---|---|
| 5. | Ferro Alloy (FeMn, FeSi, SiMn, FeCr) Plant (10 x 9 MVA) | 0.12 MTPA |
| 6. | FeCr Briquette Manufacturing plant | 40 ton/hr |
| 7. | Coke Oven Plant ( 2 x 0.25 MTPA) | 0.50 MTPA |
| 8. | Lime Dolomite Plant | 200 TPD |
| 9. | Oxygen Plant | 200 TPD |
| 10. | Hot Rolling Mill | 0.60 MTPA |
| 11. | Cold Rolling Plant with Pickling Line & Continuous Galvanizing | 0.35 MTPA |
| 12. | Ductile Iron Pipe Unit | 0.20 MTPA |
| 13. | Captive Power Plant | 225 MW [WHRB Based 90 MW + CFBC (Coal & Dolochar Mix based) 3 x 45 MW] |
| 14. | Pellet Plant | 2.4 MTPA (2 x 1.2 MTPA) |
| 15. | I/O Beneficiation Plant | 2.4 MTPA (2 x 1.2 MTPA) |
| 16. | Producer Gas Plant | 150000 (20 x 7500 $N.m^3$/hr) |

4.0 The land area acquired for said proposal is 310 Acers out of which 98 Acers land will be used for green belt development. No forestland is involved. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project. It is reported that Kalai Kunda Air Base is at 8.0 km in SW Direction.

5.0 Raw material such as Coal: 1.4 MTPA; Coking Coal: 0.67 MTPA; Iron Ore: 3.0 MTPA; Lime stone: 0.12 MTPA; Magnesium Ore: 0.31 MTPA; Chromium Ore: 0.27 MTPA; and Quartzite/ Limestone: 0.33 MTPA required for the project. The details of raw material requirement and source are as follows:

| Sl. | Name of the Raw Materials | Source |
|---|---|---|
| 1 | Iron ore lump | Applied for captive iron ore mines<br>Alternate source: Purchased from Barbil-Joda, Orissa |
| 2 | Iron ore fines | Applied for captive iron ore mines<br>Alternate source: Purchased from Barbil-Joda, Orissa |
| 3 | Non-coking coal | Captive coal mines in Raniganj Coalfields<br>Balance through E-Auction or Imported |
| 4 | Coking coal | Purchased from BCCL, Dhanbad<br>Alternate source: Imported |
| 5 | Dolomite | From Birmitrapur, Orissa / Bilaspur, CG |
| 6 | Limestone | From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP |
| 7 | Manganese ore | Captive mines in Balaghat, MP |
| 8 | Quartzite | From Belpahar Orissa / / Bilaspur, Raipur CG |

6.0 Water requirement for the proposed project is 1229 kL/h (Approx) and sourced from Kansabati River / Bore well.

7.0 Total power requirement of the proposed Unit would be around 334.8 MW, which will be sourced from WBSEDCL initially and after commissioning of propose 3 x 45 MW Dolochar Coal Mix based & 90 MW WHRB Based Captive Power Plant power requirement will be

sourced from there and remaining 109.8 MW from WBSEDCL/ Open Access. At the time of Construction phase power requirement will be met from current operational CPP of OMPL.

8.0 The project will create the direct employment of 3000 people during the operation phase and construction phase of the project. The project will create indirect employment for around 5500 people.

9.0 Solid waste from Beneficiation unit will be disposed of in a designated location within the project premises. Solid/ Liquid waste (Coal Tar/Sludge) from Producer Gas plant will be sold to State Pollution Control authorized vendor. There will be no discharge of any effluent outside the plant boundary. Domestic wastewater will be treated in septic tank-soak pit system.

10.0 Total Capital investment is Rs. 1700 Crores. There is no litigation pending against the project and/or land in which the project is proposed to be set up.

11.0 The PP has made detailed presentation on the proposal. It is noted that the PP has proposed one more plant near the present proposal.

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. EIA/EMP shall address the cumulative impacts of the upcoming plant of the proponent in the area.

ii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iii. The project proponent shall plan for LED lights in their offices and residential areas.

iv. Solid Waste Management for the proposed colony if any as per the SWM Rules, 2016 shall be included in the EIA Report

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

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

vii. The project proponent should carry out social impact assessment of the project 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.9 Expansion of Steel Plant – Sponge Iron (60,000 TPA to 1,20,000 TPA), New Induction Furnace (90,000 TPA), New Rolling Mill (1,80,000 TPA), Power Generation -16 MW [8.0 MW through Waste Heat Recovery Boiler (WHRB) and 8.0 MW through Fluidised bed combustion (FBC) Boiler] in the existing premises at village Belpan, Tehsil Masturi, District Bilaspur, Chattishgarh of M/s Kalindi Ispat Ltd., [Proposal No. IA/CG/IND/63530/2017, F.No. IA-J-11011/133/2017-IA-II(I)] – (ToR for Expansion)**

1.0 The proponent has made online application vide proposal no. **IA/CG/IND/63530/2017** dated 30th March 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Kalindi Ispat Limited is operating 2 x 100 TPD Sponge Iron Plant located at Village: Belpan, Tehsil: Masturi, District: Bilaspur, Chhattisgarh. Existing plant has obtained Consent to Establishment (CTE) vide letter no. 2438/TS/CECB/2005 Raipur dated 03/06/2005 prior to EIA notification 14th September 2006. Hence Environment Clearance is not applicable for existing plant.

3.0 Now, it is proposed to expand the production capacity of DRI Kiln and establish Induction furnace; Rolling Mill and Power Plant. The details of existing and expansion plant are as follows:

| Sl. No. | Unit | | Existing | Proposed expansion | Capacity after expansion |
|---|---|---|---|---|---|
| 1 | DRI Kilns (Sponge Iron) | | 2 x 100 TPD (60,000 TPA) | 2 x 100 TPD (60,000 TPA) | 4 x 100 TPD (120,000 TPA) |
| 2 | Induction Furnace with Concast (MS Billets) | | -- | 3 x 10 T (90,000 TPA) | 3 x 10 T (90,000 TPA) |
| 3 | Rolling Mill (Structural Steel & Rolled products) | | -- | 2 x 300 TPD (1,80,000 TPA) | 2 x 300 TPD (1,80,000 TPA) |
| 4 | Power Plant (Electricity) (16 MW) | WHRB | -- | 8 MW (4 x 2.0 MW) | 8 MW (4x2.0 MW) |
| | | FBC | -- | 8 MW | 8 MW |

4.0 The existing plant is in the 93.0 acres of land. Proposed expansion will be carried out in the existing plant premises only. Greenbelt of 33% of the area will be developed in the plant premises as per CPCB guidelines. Coordinates of the project site are 21°47'21.19"N 82°14'8.18"E. The entire project area will fall in the Survey of India topo sheet no. 64 K/1 and partly in 64 K/2, 64 K/5 & 64 K/6. No forestland is involved. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project.

5.0 The raw material will be required for DRI Kiln are Iron Ore 96,000 sourced from Barbil, Orissa: NMDC, Chhattisgarh; Indian Coal- 72000 TPA sourced from SECL Chhattisgarh / MCL Orissa; Imported coal 54000 TPA, sourced from Indonesia / South Africa / Australia and transported through Rail / Road. Raw material required for Steel Melting Shop (MS Billets); Rolling Mill (TMT bars & Structural Steel); and FBC Boiler [Power Generation 8 MW] will be sourced from own generation.

6.0 Water required for the proposed expansion project will be 450 KLD and the same will be sourced from ground water.

7.0 Power requirement for the existing plant is being met from Chhattisgarh State Electricity Board. Power required for proposed expansion will be met from proposed WHRB and FBC based power plant.

8.0 The estimated manpower requirement for the proposed project is 100 numbers; the total manpower requirement for the entire plant is 100 numbers inclusive of staff and security.

9.0 Entire Dolochar generated from DRI will be utilized in the FBC boiler. Slag generated during the manufacturing of the Billets is crushed and after recovery of iron the inert material will be used as landfill and Road construction. Mill scales from Rolling mill will be reused in SMS. Ash generated will be given to Cement / Brick manufacturers. There will be no effluent generation in the DRI, SMS & Rolling mill as closed circuit cooling system will be adopted. Effluents from boiler blowdown, DM Plant regeneration are treated as per the environmental norms. The acidic and alkaline effluent streams coming from cation and anion units of DM plant will be neutralized in a neutralization tank. Service water will then pass through an Oil Separator to remove the oil content in the effluent.

10.0 The estimated cost for the proposed expansion project will be Rs. 120 Crores.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 The PP has made detailed presentation along with EIA Consultant on the proposal. It is noted that the existing plant is operating with Consent to Operate from the State pollution Control Board

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2 and 3.</u>**

i. Specific water consumption, power consumption and pollution load shall be reduced from the present level.

ii. The PP shall ensure no cutting of trees in the plant area during the proposed expansion.

iii. Certified compliance report of CTO conditions of existing plant from regional officer of State Pollution Control Board should be obtained.

iv. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

v. The project proponent shall plan for LED lights in their offices and residential areas.

vi. Solid Waste Management for the proposed colony if any as per the SWM Rules, 2016 shall be included in the EIA Report

vii. The PP may adopt any surrounding village and submit a plan for development in terms of greenbelt, waste management, community sanitation, etc.

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

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

x. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.10 Expansion of manganese ore processing plant (in Sy No. 92, 93, and 94) at village Tatiguda, Mandal Garividi, Dsitrict Vizianagaram, Andhra Pradesh of M/s Shiv Shanti Cement Private Limited. [Proposal No. IA/AP/IND/63573/2017, F.No. IA-J-11011/134/2017-IA-II(I)]- (ToR for Expansion – Violation Case).**

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/63573/2017** dated 30th March 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' of the Schedule of EIA Notification, 2006; the proposal involves violation of EIA Notification, 2006, as the project is commenced without prior environmental clearance as required. Therefore, the proponent made an application under the provisions of SO 804(E) dated 14th March 2017 and appraised at the Central level.

2.0 **M/s Shiv Shanti Cement Private Limited** has operating Manganese Sinter plant and Manganese oxide plant at Sy. Nos. 92, 93 & 94, Tatiguda Village, Garividi Mandal, Vizianagaram District, Andhra Pradesh. Consent to Establish was obtained from AP Pollution Control Board for manufacturing of Ordinary Portland Cement (50 TPD), Clinker (50 TPD) vide order number 9037 / PCB / ZO-VSP / Tech / 2000-1573 dated 12.10.2001. Consent to Operate has been issued by APPCB for manufacturing of Ordinary Portland Cement – 50 TPD in the year November 2003 and renewal has issued regularly and last CFO issued vide order number 9037 / PCB / ZO-VSP / Tech / 2001-1955 dated 14/02/2005.

3.0 The Manganese Sinter plant and Manganese oxide plant operating with a production capacity of 25 TPD Manganese Sinter and 25 TPD Manganese Oxide. Now it is proposed to increase the production capacity and establish concentrate plant. The details of operating and expansion are as follows:

| Sl. No | Unit | Product | Existing capacity as per CFE/CFO | Proposed expansion capacity | Total capacity after expansion |
|---|---|---|---|---|---|
| 1 | Manganese Sinter plant | Manganese Sinter | 25 TPD | -- | 25 TPD |
| 2 | Manganese oxide plant | Manganese Oxide | 25 TPD | 25 TPD | 50 TPD |
| 3 | Concentrate plant | Manganese Concentrate | Nil | 50 TPD | 50 TPD |

4.0 Total 6.98 Acres of land has been acquired for the existing plant. Proposed expansion is planned in the existing land and no additional land is required to be acquired. The existing land is for industrial use. The total land already acquired by the proponent. Out of total area, 2.3 Acres (33% of total area) of Green belt will be developed in the plant premises.

5.0 The raw material required for the project includes Manganese Ore and Coke and met from captive and other mines located in the area. Ore transport is through trucks and pipeline.

6.0 Water requirement for the project will be 10 KLD and same will be met from the ground water source.

7.0 The solid waste generated from Manganese concentrate unit will be used in filling mine pits in their own mine which is at a distance of 14 km from this plant. There will be no effluent generation from the plant. Sanitary wastewater will be treated in septic tank followed by soak pit.

8.0 Total cost of the project is Rs. 240.61 Lakhs. Manpower working in the existing plant is 38 (direct).

9.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

11.0 The PP has made detailed presentation on the proposal. It is noted that the existing plant was operating with CTO but PP has not obtained Environmental Clearance as required under EIA Notification, 2006. It was informed that the plant is presently closed due to violaton.

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2 and 3.</u>**

i. Assessment of damage shall be carried with respect to air, water, land, ecology and other environmental attributes. The collection and analysis of data for assessment of ecological damage shall be done by an environmental laboratory duly notified under EP Act, 1986 / accredited by NABL/CSIR.

ii. The remediation plan and natural and community resource augmentation plan shall be prepared corresponding to the ecological damage assessed and economic benefit derived due to violation.

iii. The plan shall be prepared as an independent chapter in the EIA report by the accredited consultants.

iv. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

v. The project proponent shall plan for LED lights in their offices and residential areas.

vi. Solid Waste Management for the proposed colony if any as per the SWM Rules, 2016 shall be included in the EIA Report.

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

viii. 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.

ix. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.11 Proposed Greenfield Cement Plant of capacity 3.15 MTPA Clinker & 2.0 MTPA Cement and 2×25 MW Thermal Power Plant Kalvatala Village, Kolimigundla**

**Mandal, Kurnool District, Andhra Pradesh of M/s The Ramco Cement Ltd. [Proposal No. IA/AP/IND/63579/2017, F.No. IA-J11011/135/2017-IA-II(I))- (ToR)**

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/63579/2017** dated 31st March 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Ramco Cements Limited has proposed to setup a greenfield Cement Project at Kalvatala village of Kolimigundla Mandal of Kurnool district, Andhra Pradesh. The proposed project will be bounded between 15° 3' 42.86" N - 15° 4' 31.21" N Latitude and 78° 7' 59.97" E - 78° 8' 50.68" E Longitude with an altitude of 260 m above MSL.

3.0 The production capacity of the proposed plant will be 3.15 MTPA Clinker; 2.0 MTPA Cement Plant; and 50 MW (2 X 25 MW) Coal Based Captive Thermal Power Plant. The limestone requirement of the plant will be 4.5 Million TPA which will be met from the Captive Limestone Mining Leases located adjacent.

4.0 The land requirement for setting up the cement plant including railway siding works out to about 186.63 hectares including Residential colony of 43.72 ha. Out of total land area 33% of the area (77.00 ha) will be developed for Greenbelt. No forestland is involved. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project. It is reported that Mada Vagu is at 0.5 km in South; Pedda Vanka is at 1.0 km in South West; OWK Reservoir is at 11.0 km in NNW; and SRBC Canal at 4.5 km in ENE direction.

5.0 The principal raw materials are Limestone, iron ore, Coal and Gypsum. The major raw material, limestone will be met from Captive limestone mine. The Captive Limestone mines spread over an area of 1957.36 Ha with about 386.62 million tonnes of mineable reserves will meet the limestone requirement for more than 86 years. Indian Coal, Imported Coal and Pet Coke is required for Cement Plant. Indian coal is sourced from Singareni Collieries Company Limited (SCCL), and imported coal from South Africa/Australia/Indonesia & USA. Pet Coke will be sourced from Indian Refineries.

6.0 Water requirement for the proposed cement plant and power plant is estimated to be around 5500 $m^3$/day. Water requirement will be met from ground water initially and later from the canal proposed to be laid by APIIC

7.0 The total power requirement of the cement plant including the requirement of the colony is estimated to be about 45 MW. This requirement will be met from the proposed 50 MW Coal Based Captive Power Plant. 2 x 1250 KVA DG sets will be installed as standby power supply units. These DG sets will be operated only when there is a normal power supply failure.

8.0 The project will create the direct employment of 300 People during the operation phase of the project. During the construction phase, 300 people on daily average will be employed for a period of 18 months.

9.0 No solid waste will be generated from the cement plant. Solid waste in the form of sludge generated from the Sewage Treatment Plant will be dried and used as manure for Greenbelt

development. The Ash generated from the power plant will be used for PPC production. No waste water will be generated from the cement plant. The domestic wastewater generation is about 200 $m^3$/day and this wastewater will be treated in sewage treatment plant and will be used for greenbelt and dust suppression.

10.0 Total Capital investment is Rs. 1500 crores in 2 phases and Rs. 120 crores will be spent for Environmental Management Plan.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 The PP along with EIA consultant has made detailed presentation on the proposal. It was noted that seasonal nalla, cart roads are passing across the proposed site; the PP proposed to commence the two limestone mines near the proposed plant site for captive use.

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. The proposed plant shall not disturb the nalla passing through the proposed site.

ii. The project proponent shall provide culverts over the nalla to enable the local people cross the nalla safely.

iii. Green belt shall be developed both side of the nalla and north side of the nalla shall not be used for any other purpose except for green belt development with local broad leaved species.

iv. EIA/EMP shall address the impact due to proposed plant particularly particulate matter on the agriculture and villages surrounding.

v. The air quality modelling shall be carried considering the terrain of the area.

vi. The details of the proposed mines, mode of the transport form the sourcing mines shall be provided in the EIA Report.

vii. The cumulative impact of the plant and mining activity shall be addressed in the EIA report.

viii. Baseline Data collection shall be carried during non-monsoon period after issue of ToRs from the Ministry.

ix. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

x. The project proponent shall plan for LED lights in their offices and residential areas.

xi. Solid Waste Management for the proposed colony if any as per the SWM Rules, 2016 shall be included in the EIA Report

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

xiii. During the public hearing, the project proponent shall share with the villagers, the plan for diversion of existing roads, and plan for laying and construction of new roads in consultation with villagers.

xiv. 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.

xv. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.12 Proposed Modification of 0.4 MTPA Integrated Steel Plant of M/s Gagan Ferro Tech Limited to 0.3 MTPA Integrated Steel Plant by changing 1X35 T EAF to 1X350 TPD DRI kiln and 2X20 T IF. [Proposal No. IA/WB/IND/63631/2017, F.No. J-11011/232/2010-IA-II(I)]-(ToR)**

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/63631/2017** dated 31st March 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 **M/s Gagan Ferrotech Limited** has its integrated steel plant located at Jamuria Industrial Estate, PO- Ikra, Dist-Burdwan, West Bengal with latitude 23° 41' 42.40'' N and longitude 87° 06' 59.15'' E with 105 m AMSL. The unit was running since 2004, and was granted EC vide F. No. J-11011/232/2010-IA-II(I) dated 11th March 2015.

3.0 The proposed project is an expansion integrated steel project of category-A, proposing to setup 1x350 TPD DRI Kiln, 2x20T IF with CCM and enhance the production capacity of existing Re-rolling mill and hot roll billets from CCM abolishing re-heating Furnace. The increase in production capacity of TMT Rods from 0.1 MTPA to 0.4 MTPA and power generation from 12 MW to 24 MW.

| Sl. No. | Plant Facilities | No. Plant Facilities Existing Configuration | Configuration For which EC obtained dtd. 11th Mar 2015 | Expansion Configuration | Final configuration after expansion | Product | Production after expansion |
|---|---|---|---|---|---|---|---|
| 1 | DRI Kilns | 4x100 TPD | Nil | 1x350TPD | 4x100 TPD 1x350 TPD | Sponge Iron | 2,40,000 TPA |
| 2 | Induction Furnace with LF & CCM | 2x20 T | 1x20T | 2x20T | 5x20T | Billet | 3,20,000 TPA |
| 3 | Rolling mill | 1x342 TPD | Nil | 1x1000 TPD (Capacity increase) | 1x1000 TPD | TMT Rods & Coils | 3,00,000 No.s |
| 4 | SAF | Nil | 2x9 MVA | Nil | 2x9 MVA | Fe-Mn, SiMn & Fe-Cr | 27,000 TPA |
| 5 | EAF with LRF | Nil | 1X35 T | Nil | Not commissioned | Nil | Nil |
| 6 | AOD | Nil | 1x30T | Nil | 1x30T | Alloy steel | Nil |
| 7 | CCM | Nil | 2x3 strand | Nil | 2x3 strand | Billet for RM | Nil |
| 8 | CPP | 12MW [8MW(WHR) 4MW(FBC)] | 12 MW (FBC) | 7 MW WHRB | 16 MW (WHRB) MW(FBC) | Power | 24 MW |

4.0 The project is operating in the total area of 18.85 ha and the proposed expansion will be set up on the existing land available in the premises. No additional land is required to be acquired for the proposed expansion. Greenbelt will be developed in 6.22 ha. No forestland is involved. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project.

5.0 Raw material for the expansion will be about 0.33 MTPA Iron ore lumps for DRI Kilns, 0.36 MTPA DRI grade coal, 0.01 MTPA Dolomite, 0.08 MTPA Sponge Iron and 0.09 MTPA Pig Iron.

6.0 Fresh water requirement for the expansion project is estimated to be within 202.5 $m^3$/day permitted for the existing EC. Zero Liquid Discharge (ZLD) will be achieved and Rain water will be harvested and used in process, which will help in reducing fresh water intake from river.

7.0 Power requirement after expansion will be about 48 MW and captive generation will be 24 MW, hence about 24 MW will be purchased from DVC. Agreement for supply of power has already been done with DVC for 25 MVA.

8.0 The total man power requirement for plant operation on completion of the proposed expansion will be around 750 including 500 employees of the existing unit. Besides this some contractual workers are to be employed to manage canteen, security and housekeeping during construction as well as operation phase.

9.0 Solid waste such as Dolchar, IF Slag, Dust & scrap will be generated. About 60,000 TPA Dolchar will be generated and used to burn in FBC to produce steam for power; IF slag as a substitute to river sand and for land filling; and Dust & scrap will be consumed in plant completely.

10.0 Total project cost is about Rs. 250 crore including expansion cost Rs 100 crores.

11.0 No litigation or court cases are pending against the project and/or no direction/order has been passed by any court of law against the project.

12.0 The PP has made detailed presentation on the proposal along with EIA consultant. It is noted that the PP has proposed one more plant near the present proposal.

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2 and 3.</u>**

i. Specific water consumption, power consumption and pollution load shall be reduced from the present level.

ii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iii. The project proponent shall plan for LED lights in their offices and residential areas.

iv. The PP may adopt any surrounding village and submit a plan for development in terms of greenbelt, waste management, community sanitation, etc.

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

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

vii. The project proponent should carry out social impact assessment of the project 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**Date: 4th May, 2017 Thursday**

**18.13 Proposed 6 MTPA Integrated Steel Plant along with captive power generation of 893 MW of M/s. Uttam Galva Ferrous Limited at villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Taluka & District: Bellary, Karnataka. F.No. J-11011/80/2014-IA-II-(I). [Proposal No. IA/KA/IND/22038/2014 dated 20.01.2017]. (Environmental Clearance based on ToR)**

The Project Proponent requested for deferment of proposal for 6 months due to own reasons

**18.14 Expansion Proposal for Upgradation & Modernization in Agro Pulping capacity 165 Ton Bleached Pulp paper per day and Expansion in Hard wood pulping Capacity (from 60 Ton to 200 Ton Bleached pulp per day) conventional Chemical Recovery Plant (from 230 Ton to 580 Ton Black Liqior solids per day) & Co-Generation Plant (from 17.5 MW to 28 MW) at village saila khurd, tehisil Garhshanker, District Hoshiarpur, Punjab by M/s Kuantum Papers Limited. [Proposal No. IA/PB/IND/24304/2014, File No. J-11011/344/2008-IA.II(I)] - (Environmental Clearance for Expansion)**

1.0 The proponent has made online application vide proposal no. IA/PB/IND/24304/2014, dated 27.03.2017 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The ToRs to the project were prescribed by the Ministry vide letter number J-11011/217/2016-IA.II(I) dated 03.12.2015. The proposed project activity is listed at Sl. No. 5(i) Pulp manufacturing and Pulp & Paper manufacturing industry under Category "A" EIA Notification 2006.

2.0 The proposal for Upgradation & Modernization in Agro pulping; expansion in hard wood pulping; conventional chemical recovery plant; and Co-Generation Plant at village saila khurd, Tehsil Garhshanker, District Hoshiarpur, Punjab of M/s Kuantum Papers Limited was initially received in the Ministry on 26.08.2014 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Reconstituted Expert Appraisal Committee (Industry) [EAC (I)] during its 23rd meeting held during 18th – 19th September 2014 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 dated 12th June 2015. Based on the ToRs prescribed to the project, the project proponent applied for environmental clearance to the Ministry online on 27th March 2017 along with EIA/MP report.

3.0 Kuantum Papers Limited (Earlier ABC Papers Limited) was established in 1980 at Village Saila Khurd, Tehsil Garhshankar, District Hoshiarpur (Punjab) to manufacture writing and printing grades of paper. It is spread in an area of 258 acres with existing paper manufacturing capacity of 148500 tonnes per annum or 450 TPD of writing and printing grades

of paper. Presently, the company is operating at a capacity of 350 TPD using both wood and agro – residues due to negative cost implications of using imported/ purchased pulp for additional 100 TPD capacity. It was reported that the existing plant was accorded environmental clearance Vide F. No.-J- 11011/344/2008-IA (II)-I dated 01.01.2009. Consent to Establish Vide NoC No. ZJ/2009/LM/HSR/23/23719 dated 15.07.2009. Consent to Operate under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 Vide letter no. 6960 dated 29th August 2014 valid till 31st March 2019. Consent to Operate under Section 26 of Water (Prevention & Control of Pollution) vide letter no. 6962 dated 29th August 2014 valid till 31st March 2019.

4.0 Kuantum Papers Ltd. is now proposing expansion plan for up-gradation & modernization in project on writing and printing paper based on wood and agro-residues at Village Saila Khurd, Tehsil Garhshankar, District Hoshiarpur (Punjab). The overview of the existing, proposed and the total plant production capacities after the proposed expansion proposal for up-gradation & modernization are given below:

| Sl. No. | Particulars | Existing Installed Capacity | Proposed expansion in Installed Capacity | Total Installed Capacity After Proposed Expansion |
|---|---|---|---|---|
| 1. | Paper | 450 TPD | Nil | 450 TPD |
| 2. | Agro-Pulp | 165 TPD | Nil | 165 TPD |
| 3. | Hard Wood Pulp | 60 TPD | 140 TPD | 200 TPD |
| 4. | Pulper for Waste Paper/ Purchased Wood Pulp | 20 $m^3$ | Nil | 20 $m^3$ |
| 5. | Conventional Chemical Recovery Plant | 230 T Black Liquor Solids per day for Caustic Soda Recovery, FBR Soda Ash Recovery Plant with capacity of 100 T Black Liquor Solids per day, Lignin Precipitation System (LPS) Plant to recover 25 MT Lignin per day | 350 T Black Liquor Solids per day | 580 T Black Liquor Solids per day, existing FBR Soda Recovery Plant will be kept as standby plant for planned and unplanned shuts of CRP. LPS plant will be operated based on market demand of Lignin |
| 6. | Co-generation Power Plant | 17.5 MW (10 + 5 + 1.5 + 1 = 17.5 MW) | 12 MW | 28 MW (Existing 1.5 MW Turbine will be abandoned) |
| 7. | Effluent Treatment Plant | 20000 m3 /day | 10000 m3 /day | 30000 m3 /day |

5.0 Addition of one more continuous digester to debottleneck the existing Continuous digester resulting after up-gradation due to change in pulping from soda process to sulphate process in the Agro Pulping Street; Addition of Oxygen Delignification (ODL) Stage and

modifications in bleaching lines to make the material of construction suitable for partial substitution of elemental chlorine with chlorine dioxide to reduce elemental chlorine usage in agro pulping street. This street will ultimately be converted to ECF bleaching sequence. Modified bleaching sequence - XC/DEopHH followed by XDEopHH in two phases to phase out use of elemental chlorine. Installation of three Vertical digesters to enhance the bleached pulping capacity to 200 MT/day and addition of ODL stage. Enhancement of washing and bleaching capacity to produce 200 MT elemental chlorine free (ECF) wood pulp per day. The operation of 1.5 MW Turbine will be discontinued. With the installation of new 12 MW Turbine, the total Co-generation power capacity will be 28 MW. One power Boiler with capacity of 80 TPH will be added. One more Chemical Recovery plant with 350 MT Black Solids/day Capacity will be installed. Existing Fluidized Bed Reactor, presently being operated to process 100 MT Black Liquor solid will be discontinued and will be retained as Standby equipment. Existing 230 MT/day capacity conventional CRP and proposed new 350 MT /day capacity conventional chemical recovery plant will be operated after expansion to regenerate white liquor. Existing Recovery Boiler will be modified to make it suitable for black liquor generated from sulphate process Lignin Precipitation System (LPS) will be operated only to meet the market demand of lignin for specialized applications. The filtrate (Sodium Sulphate) of Lignin Precipitation System (LPS) will be used as make up chemical in Chemical Recovery plant.

6.0 The Status of compliance of earlier EC was obtained from Regional Office, Chandigarh vide F.No.5-169/2009-RO(NZ)/6113, dated 25.07.2014.

7.0. Total project area is 258 acres (104.4 ha); out of which 108.4 acres of land (about 42% of the total plant area) has already been developed under greenbelt / plantation. Additional 8 acres of land is currently under greenbelt development within the plant premises making it around 45% of the total plant area. Proposed upgradation/modernization and expansion will be done within the existing plant premises. Thus, no additional land is required for the same.

8.0. The topography of the project area is flat and reported to lies between 31° 17'57.11" N to 31° 18'53.33" N Latitude and 76° 04'08.40" E to 76° 04'56.28" E Longitude in Survey of India Topo Sheet Nos. 44M/15, 44M/16, 53A/3 & 53A/4. Interstate boundary of Punjab & Himachal Pradesh is at 8.5 km in NE direction).

9.0 No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor etc. exists within 10 km radius. The area also does not report to form corridor for Schedule-I fauna. It was reported that no schedule-I fauna in the study area.

10.0 Details regarding quantity of raw materials required, their source along with mode of transportation for proposed expansion for up-gradation & modernization is given below:

| Sl. No. | Particulars | Existing | Proposed | Total after expansion | Source and Mode of Transportation |
|---|---|---|---|---|---|
| 1. | Agro-residues | 413 TPD | Nil | 413 TPD | Wild Growth/Crop Waste, through Tractor trolleys/trucks |
| 2. | Woody Raw Materials | 134 TPD | 366 TPD | 500 TPD | Bamboo from HP, Wood (Eucalyptus & Poplar) from Farmers and contractors, Veneer scrap from Plywood industry. Transported through Trucks. |

| Sl. No. | Particulars | Existing | Proposed | Total after expansion | Source and Mode of Transportation |
|---|---|---|---|---|---|
| 3. | Purchased Pulp | 152 TPD (Required to operate at full capacity to produce 450 TPD Paper) | (- 90 TPD) | 62 TPD | Mostly imported. Some indigenous quantities also purchased. Transported to mill in containers. (Acacia & Pinus species) |
| 4. | Fillers | 48 TPD | 43 TPD | 91 TPD | Onsite Manufacturing by utilizing flue gas from the boilers. |
| 5. | Cooking Chemicals (Caustic & white Liquor) | 75 TPD | 55 TPA | 130 TPD | Recovered in the CCRP. Make Up quantity purchased from Market |
| 6. | Total Chlorine (Elemental & Hypochlorite) | 14 TPD | -- | 9.2 TPD | Sourced from Caustic and Chlorine Manufacturers in Punjab. Transported in Trucks |
| | Elemental Chlorine | 8.4 TPD | -- | 4.6 TPD (will be further reduced to Zero after implementation of Chlorine dioxide bleaching in agro street as well)) | |
| | Hypochlorite | 5.6 TPD | | 4.6 TPD (will be further reduced to Zero after implementation of Chlorine dioxide bleaching in agro street as well) | |
| 7 | $ClO_2$ | Nil | 8 TPD | 8 TPD | Onsite Generation |
| 8 | Oxygen | 1.3 TPD | 7.3 TPD | 8.6 TPD | Presently purchased in tanker. Onsite Generation after expansion may also be added. |
| 9 | Hydrogen Peroxide ($H_2O_2$) | 3.2 TPD | 1.8 TPD | 5.0 TPD | Purchased in Tankers |

| Sl. No. | Particulars | Existing | Proposed | Total after expansion | Source and Mode of Transportation |
|---|---|---|---|---|---|
| 10 | Multi fuels (Rice Husk, Indian Coal, Pet Coke & Biogas) | 475 TPD (217 TPD Husk + 258 TPD coal) | 285 TPD Coal (including 15 to 20% Petcoke use as Auxiliary Fuel of total fuel) | 760 TPD (217 TPD Husk + 543 MT coal including 15 to 20% Petcoke use as Auxiliary Fuel) | Coal purchased from CCL & Open Market & Petcoke purchased nearby refinery. Husk purchased from rice shellers. Other bio-fuels from farmers viz Khudi, mustard husk etc. Inhouse generated raw material dust.<br>Transport: Coal - Railways and trucks. & Pet Coke - Trucks. Husk- Trucks and Tractor trolleys. |

11.0 The total water requirement for the plant will be 23500 $m^3$ /day, out of which existing water requirement is 21600 $m^3$ /day and rest 1900 $m^3$ /day of water will be required after up-gradation, modernization and expansion of the plant. Therefore, the quantity of fresh water consumption projected after implementation of the proposed plan is 50 $m^3$/ton of paper against existing 60 $m^3$/ton of paper. Permission for 40054 m3 /day has already been obtained from CGWA vide letter no. 21- 4(240)/NWR/CGWA/2009-214 dated 14th July 2009 and renewal under process.

12.0 The existing power requirement for the plant is 15 MW which is met by Co-Generation Power plant of capacity 17.5 MW and additional requirement is 9.4 MW after proposed expansion, the power requirement will be around 24.4 MW which will be met by Co-Generation Power plant of total capacity of 28 MW. Besides, the mill has provision to get power from Punjab State Electricity Board and open access system as and when required.

13.0 Baseline Environmental Studies were conducted during post monsoon season i.e. from October to December 2014. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated that mean $PM_{10}$ (57.8 to 89.4 µg/$m^3$), mean $PM_{2.5}$ (28.1 to 43.3 µg/$m^3$), mean $SO_2$ (5.9 to 12.3 µg/$m^3$) and mean NOx (14.3 to 22.3 µg/$m^3$). The results of the modelling study indicate that the maximum increase of GLC for the proposed project is 0.77 µg/$m^3$ with respect to the $PM_{10}$, 6.21 µg/$m^3$ with respect to the $SO_2$ and 1.90 µg/$m^3$ with respect to the NOx.

14.0 The analysis results of soil show that soil is slightly to moderately alkaline in nature as pH ranges from 7.42 to 7.98. Organic Matter ranges from 0.72% to 1.12% in the soil samples. Nitrogen is found to be in better amount as it ranges from 210.03 kg/ha to 253.79 kg/ha and Phosphorous in less amount i.e. from 11.41 to 17.30 kg/ha, whereas the Potassium is found to be ranging from 210.02 to 374.7 kg/ha which is in better amount

15.0 The ground water analysis for all the 8 samples collected within the study area shows that pH varies from 7.05 to 7.95, Total Hardness varies from 261.12 to 550.80 mg/l, Total Dissolved Solids vary from to 358.0 to 688.0 mg/l, Calcium concentration varies from 62.14 to 119.37 mg/l, magnesium concentration varies from 25.78 to 40.65 mg/l and Chloride concentration varies from 11.40 to 115.91 mg/l.

16.0 Ambient noise levels were measured at 8 locations in and around the project site. Noise levels varies from 52.15 to 67.35 Leq dB(A) during day time and from 40.65 to 54.45 Leq dB(A) during night time.

17.0 580 T Black Liquor Solids per day will be treated in the conventional Chemical Recovery Process (CRP) Plant of capacity 350 TPD to recover energy (in the form of steam which will be reused in the Co-Generation Power Plant) and chemicals (Caustic soda and lime), which will be reused in the process itself.

18.0 Existing Effluent generation to ETP: Trade Effluent is 17000 KLD, Domestic Effluent is 114.0 KLD After capacity enhancement, Effluent generation to ETP: 18000 KLD, Domestic Effluent will go up to 500 $m^3$/day. ETP sludge generation after proposed up-gradation, modernization and expansion will be 20 TPD. Mill has installed sludge thickening presses for dewatering of primary sludge. The secondary sludge is thickened in decanters. The treated effluent from Activated Sludge Process followed by Secondary Clarifier will be further subjected to suitable chemical treatment to further reduce color and suspended solids. The chemically treated effluent will be further clarified in a tertiary clarifier before using it for plantation and irrigation.

19.0 The Public hearing of the project was held on 16th October,2015 at Plant Site, Village Saila Khurd, Tehsil Garhshankar, District Hoshiarpur (Punjab) under the chairmanship of Harbir Singh, Addl. Deputy Commissioner (Dev), Hoshiarpur for expansion proposal for upgradation & modernization in agro pulping capacity 165 ton bleached pulp per day and expansion in hard wood pulping capacity (from 60 Ton to 200 ton bleached pulp per day), conventional chemical recovery plant (from 230 Ton to 580 ton black liquor solids per day) & co- generation power plant (from 17.5 MW to 28 MW) under Punjab Pollution Control Board. The point raised during public hearing was regarding extension of treated effluent distribution pipe line for irrigation so that more farmers can be benefitted. The company agreed to extend the pipeline to supply the additional treated waste water to be generated after proposed expansion. An amount of Rs. 175 lakhs have been kept for this purpose to be spent in next 5 years under the infrastructure scheme. Further, an amount of Rs. 842.5 lakhs (2.5% of total project cost i.e. 337.06 Crores) has been earmarked for Enterprise Social Commitment (agro/forestry, education, skill development and other social schemes).

20.0 The capital cost of the project is Rs. 337.06 Crores and the capital cost for environmental protection measures is proposed as Rs. 158 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 30 Crores.

21.0 Existing manpower requirement is 1950 persons (including 1403 Regular employees and 547 contractual employees); 300 additional manpower is required for the proposed expansion project; thus, the total manpower required after proposed expansion will be 2250 persons.

22.0. The proponent has mentioned that there is no litigation or court case pending against the project and/or no direction/order has been passed by any court of law against the project.

23.0 After detailed presentation by PP along with their EIA consultant J. M. Enviro Net Pvt. Ltd the committee noted that the production capacity of the plant remains same but the hardwood pulp is proposed to increase in place of Agro pulp; the proponent has laid 13 km pipeline for supply of treated effluent for irrigation of about 2080 Ha; the specific water consumption is proposed to reduce from 60 $m^3$/t to 50 $m^3$/T; proposed to use pet coke in the CPP; possibility of

accumulation of halo organs in the irrigation area by the treated effluent; New CRP for recovery of caustic to handle black liquor from wood pulping street etc.

24.0 After detailed deliberations, the Committee recommended the for grant of Environmental Clearance subject to following specific conditions along with other environmental conditions while considering for accord of environmental clearance by the ministry.

i. The project proponent shall carryout analysis of AOX both in soil and water samples collected from the irrigated area periodically (once in six months) and the report of same shall be submitted to Regional office of MoEF&CC.

ii. The project proponent shall undertake every year, bio-accumulation study on the soils of surrounding agricultural fields with a view to ascertaining the build-up of toxic chemicals in these fields

iii. Pet coke shall not be used in the CPP.

iv. The cost of the proposed 1 km length pipeline for discharge of additional treated effluent to surrounding formers shall not be part of proposed ESR funds.

v. The PP shall develop green belt in 45% of total area of the plant as proposed. The additional 3% of the plantation area proposed as a part of expansion project shall be carried along the boundary of the project with local and broad leaved species.

vi. The PP shall adopt at least one village surrounding the project and shall prepare a comprehensive plan for development of solid waste management; education; health; skill development; Biogas generation from the composting; solar lighting; LED lighting etc. as a part of ESR.

vii. The PP shall ensure the reduction in specific water and power consumption and increase in the recycling of the treated effluent to minimize the discharge.

viii. Black Liquor shall be separately processed for recovery of energy and chemical in a Chemical Recovery Process.

**18.15 Expansion of steel plant (0.3 to 1.0 MTPA) at Village Jumbulapadu, Mandal Tadipatri, Anantapur, Andhra Pradesh by M/s Kalyani Gerdau Steel Ltd. (Formerly, M/s SJK Steel Plant Ltd.) [Proposal No. IA/AP/IND/4225/2010, F. No. J-11011/322/2008-IA.II(I)- (Extension of validity of Environmental Clearance)**

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/4225/2010** dated 23rd March 2017 seeking extension of validity of environmental clearance granted to the above said project under the provisions of amendment in EIA notification, 2006 vide SO 1141 (E), dated 29th April, 2015.

2.0 M/s Kalyani Gerdau Steel Limited obtained environmental clearance for expansion of steel plant (0.3 to 1.0 MTPA) at Village Jumbulapadu, Mandal Tadipatri, District Anantapur, Andhra Pradesh vide F. No. J-11011/322/2008-IA.II(I) dated 31st May 2010.

3.0 After detailed deliberations, the committee is in view that PP did not present the justification for extension of validity of EC; progress made so far; proposed schedule of the

completion. Further, it is noted that no senior level representation before the committee who can give the commitments regarding schedule of the completion. The committee desired following information for further consideration of the proposal:

i. Details of activity wise progress made both in terms of physical and financial.

ii. Activity wise schedule of completion of balance work

iii. Exact reasons for delay in implementation of the project along with substantiating justification

**18.16 Expansion of cement plant by enhancing the cement production capacity (1.5 MTPA to 1.86 MTPA) of existing standalone grinding unit by process optimisation located at village Navagraon, P.O.Jajra, Tehsil Nalagarh, District Solan, Himachal Pradesh of M/s Ambuja Cement Limited. [Proposal No. IA/HP/IND/60625/2016, F.No. J-11011/173/2008-IA-II-(I)]- (Amendment of ToR for expansion proposal)**

1.0 The proponent has made online application vide proposal no. **IA/HP/IND/60625/2016** dated 5th April 2017 seeking amendments in the Terms of Reference issued by the ministry on 27.03.2017 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 **M/s. Ambuja Cements Limited** (Unit: Nalagarh) has an existing stand-alone Cement Grinding Unit of 1.5 MTPA capacity commissioned in 2010 at Village - Navagraon, P.O. - Jajhra, Tehsil - Nalagarh, District - Solan of Himachal Pradesh. Environmental clearance for the existing grinding unit was granted vide their letter no. J-11011/173/2008-IA II (I) dated 22nd August 2008.

3.0 M/s ACL has proposed for expansion of cement production capacity from 1.50 to 1.86 MTPA and the proposal was considered by the Expert Appraisal Committee (Industry-I) during its 14th meeting held on 22nd – 23rd December 2016 and ministry has prescribed the ToRs vide letter no. J-11011/173/2008-IA. II (I) dated 27 March 2017 for undertaking detailed EIA and EMP study.

4.0 Now, it is proposed to further increase the cement production capacity (from 1.50 to 2.20 MTPA in place of 1.86 MTPA) in existing Grinding Unit by Process Optimisation by considering present & future demand of cement in the region. The details of amendments sought as follows:

| S. No. | Particular | As per ToR dated 27th March, 2017 | Proposed Amendment |
|---|---|---|---|
| 1. | Cement Production Capacity | 1.5 to 1.86 MTPA | 1.5 to 2.2 MTPA |

5.0 It was informed that there is no litigation pending against the project and/or any direction / order passed by any Court of Law against the project and/or land in which the project is existing and the unit has not received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts.

6.0 The detailed presentation was made by PP. The committee noted that the proposed expansion involves improvement in capacity utilization and process performance.

7.0 After detailed deliberations, the committee recommended for amendment in the Terms of Reference for production capacity as 1.5 MTPA to 2.2 MTPA.

**18.17 Proposed Mill Expansion Plan (MEP) of unit 2, installation of Paper Machine, Pulp Mill, Chemical Recovery Island and augmentation of Co-generation Plant utilities at M/s Tamil Nadu Newsprint and Papers Limited (TNPL) at Mondipatti village, Manaparai Taluk, Trichy District. [Proposal No. IA/TN/IND/63497/2017, F.No. IA-J-11011/172/2017-IA-II(I)] - (ToR)**

1.0 The proponent has made online application vide proposal no. **IA/TN/IND/63497/2017** dated 27th March 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 & paper industry excluding manufacturing of paper from waste, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s. Tamil Nadu Newsprint and Papers Limited (TNPL) operating a board manufacturing facility Mondipatti Village, Manapparai Taluk, Tiruchirappalli District, Tamil Nadu. The existing facility was accorded Environmental Clearance vide letter no. SEIAA-TN/F.No.1203/2013/5(i)&1(d)/EC-11/2014 dated 06.02.2014 for the installation of Multi-layer Double coated paper Board plant with 30 MW Captive Power Plant at Mondipatti village, Manaparai Taluk, Trichy District. The facility was commissioned and put into commercial operation in May 2016. The industry has obtained Consent to Operate dated 08.01.2016.

3.0 TNPL is proposed to expand the operations by adding a P&W paper machine along with a new chemical hard wood pulp mill, chemical recovery, power plant and utilities. The project will consist of facilities include: (i) A paper machine of capacity 1,65,000 TPA for the manufacture of wood free printing and writing paper; (ii) ECF-chemical pulp mill of capacity 1,40,000 TPA; (iii) chemical recovery section; (iv) augmentation of Co-generation Power Plant by installing 130 TPH coal fired boiler and two TGs with total 50 MW; and (v) Augmentation of Effluent Treatment Plant. The details of proposed expansion as follows:

| Description | Unit | Existing capacity | Proposed expansion | Capacity after expansion | Remarks |
|---|---|---|---|---|---|
| PAPER MACHINES | | | | | |
| Board Production | TPA | 200000 | -- | 200000 | No change |
| P&W paper production | TPA | -- | 165000 | 165000 | New Proposal |
| ECF Chemical wood pulp mill | BD TPA | -- | 140000 | 140000 | New proposal |
| Recovery plant | TPD of black liquor solids | -- | 1100 | 1100 | New proposal |
| Lime kiln | TPD of lime | -- | 250 | 250 | New proposal |
| POWER BOILERS | | | | | |
| Power Boilers | TPH of steam | 2x90=180 | 130 | 310 | Expansion |
| Turbo Generators | MW of Power | 30 | 50 | 80 | Expansion |

4.0 The existing facility situated in an area of 303.35 Acres for the main plant (Mill). The existing mill is in operation and proposed project will be within the existing plant.874.46 acres of land has already been acquired for the plant, colony and green development/ plantation at Mondipatti Village, Manapparai, Tiruchirappalli and part of it will be used for the proposed project.

5.0 Additional power requirement will be 50 MW met from captive generation; additional Coal is 140000 TPA (imported from Indonesia); and furnace oil is 5,600 KLPA. The details of Raw material required for the proposed expansion is given below:

| S.No | Description | Unit | Existing | MEP | Post MEP | Source |
|---|---|---|---|---|---|---|
| 1 | Wood | TPA | -- | 5,70,000 | 5,70,000 | TAFCON and Captive plantations, Farm forestry, Imported wood chips |
| 2 | Total Electrical Energy Demand | MW | 30 | 50 | 80 | Captive Power Plant |
| 3 | Steam requirement | tph | 180 | 130 | 310 | |
| 4 | Coal requirement | tpa | 1,70,000 | 1,40,000 | 3,10,000 | Import from Indonesia |
| 5 | Water allocation | $m^3$/day | 23,100 | 23,100 | 23,100 | No Change in quantity |
| 6 | Water requirement | $m^3$/day | 12,500 | 8,200 | 20,700 | Within the existing permitted value |
| 7 | Specific water | $m^3$/t | 20.8 | 16.4 | 18.8 | |

6.0 Additional water requirement for the proposed expansion will be 13000 $m^3$/day in addition to existing requirement of 7700 $m^3$/day. Total water demand in the facility during the post project facility will be maintained within the existing permitted quantity of 23100 $m^3$/day. Necessary infrastructure for drawl of fresh water from river Cauvery collection wells is already in place. Due to adoption of water reuse and recycling fresh water consumption will be maintained less than 25 $m^3$/t of paper. Air cooled condenser will be used to minimise make-up water. ETP capacity will be eenhanced from 9,000 to 27,000 $m^3$/day.

7.0 Pulping process chemicals will be recovered in a dedicated chemical recovery plant and will be reused for the same process application. Sludge from ETP to the tune of 3.0 TPD will be reused as supporting fuel in the co-generation plant boiler/disposed to card board manufacturer. Secondary clarifier 10 TPD sludge will be used as manure in the green cover and plantation area.

8.0 The project will provide scope for additional employment during construction stage for 1000 and during operation for about 400 direct employment.

9.0 Total cost of the project is Rs. 2100 Cr. About Rs. 200 Cr. is demarcated for implementing various environmental management plans under the proposed mill expansion program.

10.0 The PP has made detailed presentation along with EIA Consultant on the proposal. It is noted that the greenbelt was established in 103.35 out of 303.35 Ha of plant area

11.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. EIA/EMP shall address the cumulative impact of existing project and the proposed expansion

ii. Comprehensive plan shall be prepared involving agronomy experts for irrigation of the area with treated discharge

iii. Assessment of AoX levels in the areas irrigated with treated effluent and same shall be provided in the EIA Report.

iv. The existing green belt shall not be disturbed and in addition to the existing plantation, additional green belt on 30 aceres of land shall be planned as a part of expansion proposal.

v. Detailed plan for management of black liquor and ordour control shall be provided in the EIA/EMP report

vi. The project proponent shall undertake every year, bio-accumulation study on the soils of surrounding agricultural fields with a view to ascertaining the build-up of toxic chemicals in these fields.

vii. Public Hearing shall be conducted by the concerned State Pollution Control Board.

viii. 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.

ix. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.18 Establishment of silver refining plant for production of refined silver production - 500 TPA at plot No.2, sector -14, Integrated Industrial Estate (IIE), Pantnagar, Uttarakhand by M/s Hindusthan Zinc Ltd., [Proposal No. IA/UK/IND/63964/2010, F.No. IA-J-11011/170/2017-IA-II-(I)] – (Expansion under section 7(ii) of EIA Notification 2006)**

1.0 The proponent has made online application vide proposal no. **IA/UK/IND/63964/2010** dated 13th April 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report and Environment Management plan for expansion under clause 7(ii) of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'B' of the Schedule of EIA Notification, 2006. Since the SEAC is not yet constituted, the proposal was appraised at the Central level.

2.0 Hindustan Zinc Limited (HZL) is currently operating silver plant of 500 TPA capacity located at State Industrial Development Corporation Limited (SIDCUL), Pantnagar village, Kichha tehsil, Udham Singh Nagar District, Uttarakhand State. The project site is part of the Notified Industrial Area administered by SIDCUL, Department of Industries, Government of Uttarakhand.

3.0 The existing project of M/s HZL obtained environment clearance for 500 TPA refined silver production vide letter no. EC- 51/10/265 dated 16.03.2010. The existing project was earlier appraised by SEAC Uttarakhand as Category B as per the EIA Notification dated 14th September 2006.

4.0 Now, M/s HZL proposes to enhance the production capacity of the existing plant from 500 TPA to 600 TPA (20% increase) owing to the increased percentage of silver content in raw material. The manufacturing process consists of pyro-metallurgical refining of anode slime in furnaces and hydro-metallurgical refining in electrolysis section. This plant shall treat the "anode slime" & high grade metal (HGM) produced as a by-product in the HZL lead smelters in Rajasthan to recover the silver. The existing plant is having all the necessary utilities and auxiliary support system like power distribution, fuel oil storage & distribution, compressed air, water treatment system etc.

5.0 Site is located at the intersection of latitude 29°20'7" N and longitude 79°24'01" E. The plant is in an area of 10 ha. There will not be any additional acquisition for this proposed expansion project.

6.0 Existing plant water requirement is 325 $m^3$/day, which is being met from bore wells for which necessary permission has already been obtained. No additional water is required for the expansion. It is reported that zero liquid discharge is being maintained and the same will be continued.

7.0 No additional power required for this proposed expansion project. Existing power of 2 MW required for the plant is being met from Uttarakhand State Power Corporation Limited (UPCL).

8.0 There will not be any additional manpower deployment as the existing resources will be utilized in this expansion.

9.0 It is reported that extensive green belt has been developed in & around the plant premises in consultation with DFO (around 10,391 local saplings have been planted) which is around 38% of total area. Plantation is being done annually along with gap filling and ensuring good survival rate of saplings.

10.0 It was informed that the increase in silver production from the same quantity of raw material which is rich in silver content will not have any additional adverse impact on environment, socio-economics and natural resources.

11.0 For the existing project, public hearing was not conducted as the project is located in notified industrial area of SIDCUL.

12.0 The certified compliance of earlier EC was obtained from the Regional Office of MoEF&CC vide letter no. VII/ENV/SCLUTR/Ind-63/2010/142 dated 3rd May, 2017.

13.0 After detailed deliberation, the committee recommended for expansion of silver production from 500 TPA to 600 TPA subject to following conditions.

i. The proposed gap planting to achieve 33% of the green belt with local and broad leaved species shall be carried in the first year.

ii. The enhancement of production from 500 TPA to 600 TPA shall achieve owing to the increased percentage of silver content in raw material No additional machinery shall be established.

iii. No change in the scope of the project.

**18.19 Expansion through addition of another colour Coated Line (capacity 150,000 TPA) to enhance production of Painted coils (300,000 TPA) of M/s Tata BlueScope Steel limited, at Bara, PO-Agrico, Jamshedpur, District- East Singhbhum (JHK) of M/s Tata Blue Scope Steel Limited. (Proposal No. IA/JH/IND/63696/2017, F.No. J-11011/271/2007-IA-II(I)]- (ToR for expansion)**

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/63696/2017** dated 3rd April 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 The project is for expansion through addition of another Colour Coated Line (capacity 150,000 TPA) to enhance production of Painted coils (300,000 TPA) of M/s Tata BlueScope Steel limited, at Bara, PO-Agrico, Jamshedpur, District- East Singhbhum Jharkhand. The existing project was accorded environmental clearance vide letter no. J-11011/271/2007- IA II (I) dated 24th August 2007. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide letter no. PC/JSR/Air/T-64/11/45922 dated 28/12/2015 and valid up to 31.12.2019.

3.0 The project is for expansion through addition of another Colour Coated Line (capacity 150,000 TPA) to enhance production of Painted coils (300,000 TPA). The details of proposed expansion as given below:

| Sl. No. | Name of the product, by-products and intermediate products | Quantity (TPA) as per existing EC | Proposed Expansion Quantity (TPA) | Final Product Mix Quantity (TPA) | Remarks |
|---|---|---|---|---|---|
| I | Main Products | | | | Existing metal coated coil shall be used in colour coated line for |
| | **1.** Metal Coated coils | 1,00,000 | - | 1,00,000 | |

| | | | | | |
|---|---|---|---|---|---|
| | 2. Painted Coils | 1,50,000 | 1,50,000 | 3,00,000 | value addition. Balance metal coated coils will be purchased from TATA Steel/ External |
| II | By-products:<br>1) Zinc/Aluminium dross | 850 | - | 850 | No change |
| III | Intermediate Products:<br>1) Metal Coated Coil | 2,50,000 | - | 2,50,000 | No change |

4.0 Total land in possession is 24.78 ha which is in industrial use. 1.72 ha. land within the existing plant will be required for expansion phase. As such, no additional land is required to be acquired. No forestland involved. Out of total land area 33% of the area (7.20 ha) will be developed for Greenbelt. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project. It is reported that Suwarnrekha River is at 400 m in North; Kharkai River is at 6.8 km in SW; Dimna lake is at 5.2 km in North; and Sitarampur Reservoir is at 14.4 km in SW of plant.

5.0 The main raw material required for the proposed expansion unit will be cold rolled steel strips as feed stock which will be sourced from Tata Steel Plant. Fuel consumption will be Propane gas. It is estimated that nearly 50 TPD propane would be required.

6.0 The process requires de-mineralized water for strip rinsing and quenching operation. The clarified industrial water supply from the water supply network of Jamshedpur Utilities & services Company Ltd (JUSCO) is made available to TBSL. The coating lines would require around 90 $m^3$/h of industrial water for which a provision of 100 $m^3$/h of water supply from JUSCO is arranged. JUSCO receives water from the existing river water intake pump houses. Of total requirement of 90 $m^3$/h industrial water, the DM plant of coating lines would require around 40 $m^3$/h for various process operations. Total water consumption for the project is 2360 KLD (2160 KLD for existing + 300 KLD for proposed). The wastewater generated is from cooling tower blow down which is treated in ETP and is being used for secondary use & horticulture development

7.0 The total power requirement for the existing project is 20 MVA. Additional 3 MVA power will be required for the proposed expansion project which will be sourced from existing Tata Steel Network.

8.0 The proposed expansion will create the direct employment of 50 people in addition to the existing manpower of 637 ha.

9.0 Solid waste such as dross is generated in the metal coating line about 15 TPM, this is being sold to authorize vendors and same practice shall be continue in future metal scrap generation from the process is 110 TPM.

10.0 Total project cost is approx. Rs.300 Crore.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 The proponent has applied earlier vide proposal no. IA/JH/IND/62555/2017 on 16th February 2017 and the proposal was considered in the 16th EAC [Industry-I] held during 6th – 7th March 2017. After detailed deliberations and presentation by PP, it was noted that the details of existing plant production, various components involved and proposed expansion etc. are not clearly indicated and explained. Thus, the Committee deferred the proposal for issue of ToR and asked PP to resubmit the fresh application with matching figures of existing and proposed capacities.

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. The PP shall plant required green belt (20000 plants) on 8 Ha of land in the first year of commencement of work for expansion.

ii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iii. The project proponent shall plan for LED lights in their offices and residential areas.

iv. Public Hearing shall be conducted by the State Pollution Control Board.

v. 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.

vi. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.20 Proposed steel plant DRI Kiln (2,40,000 TPA), Induction Furnace (2,70,000 TPA), Rolling Mill (2,40,000 TPA) Power generation 40 MW [20 MW through Waste Heat Recovery Boiler (WHRB) and 20 MW through Fluidised bed combustion (FBC) Boiler] in phased manner at village Khamaria, Tehsil Tilda, District Raipur, Chattisgarh of M/s Rama Power and Steel Limited. [Proposal No. IA/CG/IND/63723/2017, F.No. IA-J-11011/168/2017-IA-II(I)] - (ToR)**

1.0 The proponent has made online application vide proposal no**. IA/CG/IND/63723/2017** dated 4th April 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Rama Power and Steel Limited has proposed to setup Steel Plant in phased manner at village Khamaria, Tehsil Tilda, District Raipur, Chattisgarh. The proposed project will be bounded between Latitude 21°28'19.40"N - 21°28'35.20"N & Longitude 81°49'4.30"E - 81°49'21.91"E. The entire project area will fall in the Survey of India topo sheet no. 64 G/15.

3.0 The production capacity of the proposed plant will be 210000 TPA Sponge Iron; 270000 TPA MS Billets; 240000 TPA Structural Steel & Rolled products; 20 MW Power Plant based on WHRB; and 20 MW Power Plant based on FBC. The details of proposed project are given below:

| Sl | Unit | | Phase-I | Phase-II | Total |
|---|---|---|---|---|---|
| 1 | DRI Kilns (Sponge Iron) | | 1 x 350 TPD (1,05,000 TPA) | 1 x 350 TPD (1,05,000 TPA) | 2 x 350 TPD (2,10,000 TPA) |
| 2 | Induction Furnace with Concast (MS Billets) | | 3 x 15 T (1,35,000 TPA) | 3 x 15 T (1,35,000 TPA) | 6 x 15 T (2,70,000 TPA) |
| 3 | Rolling Mill (Structural Steel & Rolled products) | | 1 x 400 TPD (1,20,000 TPA) | 1 x 400 TPD (1,20,000 TPA) | 2 x 400 TPD (2,40,000 TPA) |
| 4 | Power Plant | WHRB | 10 MW | 10 MW | 20 MW |
| | | FBC | 10 MW | 10 MW | 20 MW |

4.0 Total land envisaged for the proposed project is 23.906 Ha (59.073 acres). Out of total land 33 % of land is earmarked for greenbelt. The remaining area is utilized for plant facilities, internal roads, storage areas, etc.

5.0 The principal raw materials are Iron ore, Coal and Dolamite. The major raw material, limestone will be transported through rail/road.

6.0 Water required for the proposed project will be 1030 KLD and will be sourced from Ground Water source. There will be no effluent generation in the DRI plant, SMS, Rolling Mill as closed circuit cooling system will be adopted. Effluent from power plant will be treated and after ensuring compliance with CECB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development.

7.0 Power requirement for the proposed project will be met from Chhattisgarh State Electricity Board during construction phase. Power required for proposed project will be met from proposed WHRB and FBC based power plant during operation. Surplus power available after meeting the plant required will be exported to the grid.

8.0 The estimated manpower requirement for the proposed project is 200 numbers; the total manpower requirement for the entire plant is 200 numbers inclusive of staff and security. They will comprise of 20 % of skilled labors, 40% of semi- skilled labors and 40 % of unskilled labors.

9.0 Entire Dolochar generated from DRI will be utilized in the FBC boiler. Slag generated during the manufacturing of the Billets is crushed and after recovery of iron the inert material will be used as landfill and Road construction. Mill scales from Rolling mill will be reused in SMS. Ash generated will be given to Cement / Brick manufacturers.

10.0 The estimated cost for the proposed project for will be Rs. 195 Crores.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project for prescribing following specific ToRs

for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2 and 3.</u>**

i. The PP shall study the carrying capacity of the village road proposed for transportation of raw material and product; plan for expansion to cater the needs of the proposed project and same shall be included in the executive summary placed in the public hearing for awareness of public.

ii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iii. The project proponent shall plan for LED lights in their offices and residential areas.

iv. The project proponent shall develop green belt on 10 ha of land, and plant local broad-leaved tree species for the purpose.

v. Public Hearing shall be conducted by the State Pollution Control Board.

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

vii. The project proponent should carry out social impact assessment of the project 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.21 Proposed expansion of Ferro Alloy Plant [Ferro Chrome from 15,660 TPA to 91,374 TPA; along with a zigging plant (20 TPH), Briquetting Plant (35 TPH) and installation of Chrome Ore Beneficiation Plant (1,98,000 TPA)] at Nizigarh, Sukinda Tehsil, Jajpur district, Odisha of M/s Balasore Alloys Ltd. [Proposal No. IA/OR/IND/63817/2017, F.No. IA-J-11011/167/2017-IA-II(I)]- (ToR for Expansion).**

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/63817/2017** dated 8th April 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report and Environment Management plan for expansion under clause 7(ii) of 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Balasore Alloys Limited proposed for expansion of existing manufacturing unit from 1x9 MVA SAF to 2x18 MVA SAF along with Upgradation of existing 9 MVA unit to 12 MVA for Ferro-Chrome at Nizigarh, Sukinda Tehsil, Jajpur district, Odisha. The project area along with buffer zone covered under Survey of India Topo Sheet No.73-H/13 and 73-G/16. The existing project was operating under Consent to Operate accorded by Odisha State Pollution Control Board vide Consent Order No. 83/RO-SPCB/KALINGANNAGAR (APC &WPC) dated 25.03.2017 validity of CTO is up to 31.03.2022.

3.0 M/s Balasore Alloys Limited proposed expansion of Ferro Alloy Plant from 15,660 TPA to 91,374 TPA Ferro Chrome (by installing 2X18 MVA SAF in addition to capacity enhancement of the existing 9 MVA to 12 MVA SAF) along with a zigging plant of capacity 20 TPH, Briquetting Plant of Capacity 35 TPH and installation of 1,98,000 TPA (30 TPH) Chrome

Ore Beneficiation Plant. It is proposed to set up the plant for Ferro-Chrome Production based on SAF technology. The proposed capacity for different products for new site area as below:

| Name of unit | No. of units | Capacity of each unit | Production Capacity |
|---|---|---|---|
| Submerged-Arc Furnace | 03 | 2X18 MVA<br>1X12 MVA | 68522 TPA<br>17130 TPA |
| Chrome Ore Beneficiation Plant | 01 | 30 TPH | 198000 TPA |
| Briquetting Plant | 01 | 35 TPH | 162450.58 |
| Zigging Plant | 01 | 20 TPH | |

4.0 The land area acquired for the proposed plant is 27.41 ha out of which 6.96 ha is an agricultural land and 20.45 ha is others (13.24 ha Government Land). No /forestland involved. The entire land required (27.41 ha) for expansion is under acquisition. Out of the total area of 6.87. Ha (33%) land will be used for green belt development. No National Park / Wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. are reported in the core and buffer zone of the project.

5.0 Proposed raw material and fuel requirement for project are Chrome Ore; Reductant (Coal & Coke); Fluxes (Quartzite, Dolomite); and Electrodes Paste. Requirement would be fulfilled by captive mines and outside sources. The targeted production capacity of the Ferro-Chrome is 0.09 Million TPA. The ore for the plant would be procured from captive mines and outsource (linkages Kaliapani Chromite Mines). The ore transportation will be done through Road.

6.0 Water Consumption for the proposed project will be 587.75 KLD. The existing plant and proposed plant will use ground water and for the use of additional ground water the proponent has got necessary permissions from competent authorities. Waste water generation will be 18.8 KLD (Domestic waste water), treated in Septic tank & soak pit and industrial waste water generated will be treated at settling pond and tailing pond will be reused at COB plant, zigging plant & MRP.

7.0 The power requirement for the project is 46.0 MW, will be procured from OPTCL Grid.

8.0 Total project cost is approx Rs. 218.41 Crore. Proposed employment generation from proposed project will be 226 (direct) and 774 (indirect) employments.

9.0 Solid waste such as Smelting Furnace Flue Dust (1736 TPA) will be reused in briquetting plant; slag (109649 TPA) utilized for land filling. Out of the total solid waste generation from Ferro Alloy Plant Tailings will be stored in a designated tailing pond and rest of the solid waste will be either recycled or reused as given above

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

11.0 After detailed presentation by the PP, the committee noted that the proposed land i.e. 27.41 ha may not be sufficient for the plant activities and the tailings. Then the PP submitted detailed land requirement considering the tailing management plan vide PP's letter no. BAL/4252 dated 5.5.2017. As per the revised requirement the total land will be 37.45 Ha (92.50 Acs).

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

ii. The project proponent shall plan for LED lights in their offices and residential areas.

iii. Solid Waste Management for the proposed colony if any as per the SWM Rules, 2016 shall be included in the EIA Report

iv. Public Hearing shall be conducted by the State Pollution Control Board.

v. 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.

vi. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**Date: 5th May, 2017 Friday**

**18.22 Cement Plant of 3500 TPD by M/s Trumboo Cement Pvt Ltd. located at Village Khrew, District Pulwama Srinagar, Jammu and Kashmir.** J-11011/5/2013-IA-II(I) **[Proposal No. IA/JK/IND/4412/2009 Date of Submission 5th December, 2016] - (Considered 13th EAC but PP Absent) – Validity Extension of ToR**

**&**

**18.23 Cement plant of 3500 TPD at village Khrew, District Pulwama Srinagar, J&K by M/s Trumboo Cement Pvt. Ltd [Proposal No. IA/JK/IND/5359/2012, F.No. J-11011/5/2013-IA-II(I)] – (Exemption of Public hearing)**

1.0 The proponent has made online application vide proposal no. **IA/JK/IND/4412/2009** dated 5th December 2016 for seeking validity extension of ToR for the proposed cement plant of production capacity 35000 TPD at village Khrew, Jammu & Kashmir of M/s Trumboo Cement private limited vide F.No. J-11011/5/2013-IA-II(I), dated 25.04.2013.

2.0 The proponent has also made online application vide proposal no. **IA/JK/IND/5359/2012** dated 20th April 2017 for exemption of the public hearing for the proposed cement plant of production capacity 35000 TPD at village Khrew, Jammu & Kashmir of M/s Trumboo Cement Private Limited.

3.0 It was informed that EIA studies were conducted and report was submitted to SPCB for conduct of Public hearing and it was scheduled on 15.01.2015. However, local fringe elements interrupted the proceedings of public hearing and did not allowed starting the public hearing. Further, PH could not be conducted due to heavy floods and law & order problem in the state. Therefore, the proponent has requested for extension of validity for further period of one year and Ministry accorded the extension up to 24th April 2017.

4.0 Now, the proponent has made an application under extension of validity of ToR and requested for exemption in public hearing due to law and order problem in the valley.

5.0 A representation from the Auqaf-I-Islamia Khrew vide Lr. No. AIK/381/2017-3 dated 8th April 2017 is also received to Member Secretary of EAC stating that pollution levels are very high and further establishment of any more cement plants, mining activity is not possible in the area as pollution levels are already touched the threshold limits and no more carrying capacity of the area available.

6.0 Deputy Commissioner vide his letter no. DCP/PA/17/55-59, dated 10th April 2017 requested the collector to reschedule proposed Public Hearing on 15.04.2017 and may be taken up any other convenient date.

7.0 It was informed by the PP that the application for conduct of Public Hearing along with Draft EIA/EMP report based on ToR was submitted in 2014 to the J&K State Pollution Control Board and the Public Hearing was scheduled on 15.01.2015. However, the Public Hearing could not be conducted due to prevailing law and order situation and further Public Hearing could not be conducted due to heavy floods & law and order situation. Then the proponent has obtained extension of validity of ToR and again approached the J&K SPCB in January 2017. In spite of scheduled on 15.04.2017, the Public Hearing could not be conducted due to non-availability of district administration authorities due to scheduled elections.

8.0 The Committee also noted that the PP had timely completed the EIA/EMP report and timely submitted to the J&K SPCB for conducting Public Hearing. The Public Hearing was scheduled twice by the competent authority, which could not materialise due to prevailing situations, which were beyond the control of PP. The delay in Public Hearing has led to the expiry of the ToR validity period which, also, cannot be attributed to any shortcoming on behalf of the PP.

9.0 Further, during the presentation, the PP made a submission that in another similarly placed case of the same district (M/s. Dawar Cements Pvt. Ltd), the company was granted exemption from Public Hearing on the grounds of disturbed Law and Order situation as reported by Additional District Magistrate of the District. The PP has requested that his case being similar, should also be treated in similar manner in the interest of natural justice.

10.0 After detailed deliberations, the committee was of unanimous and strong opinion for recommending the following:

a. In view of the extraordinary conditions prevailing in Kashmir region of J&K State and also in view of the inability of the local competent authorities to conduct PH in spite of timely submission of EIA/EMP report by the PP, the Ministry may consider extension of validity period of the ToR beyond the stipulated time limit as a special case to take care of extraordinary ground conditions.

b. In view of the committed and timely efforts of the PP to get the PH conducted, the committee decided to recommend to the Ministry to write to the local district administration seeking information on the possibility of now carrying out the Public Hearing in the instant case for consideration of the request of the PP for exemption of Public Hearing.

**18.24 Proposed Enhancement in Cement Production Capacity (2.0 MTPA to 2.3 MTPA) of Existing Stand-alone Grinding Unit by installation of New Slag Grinder at JL No. 80, Village & Mouza: Panchgarha, PS: Chanditala, District: Hooghly (West Bengal) by M/s Dankuni Cement Works (A Unit of M/s. Ultra Tech Cement Ltd.) [Proposal No. IA/WB/IND/62209/2017, F. No. J-11011/638/2008-IA.II(I)] -(ToR)**

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

**18.25 Proposed Enhancement in Clinker Production Capacity (1.6 to 1.94 MTPA) by Process Optimization at Villages - Bhawaliya & Mangrol, Tehsil - Nimbahera, District Chittorgarh (Rajasthan) by M/s. Lafarge India Ltd. Proposal No. IA/RJ/IND/62841/2017 F.No J-11011/113/2011-IA.II(I) -(ToR)**

1.0 The proponent has made online application vide proposal no**. IA/RJ/IND/62841/2017** dated 28th February 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s. Lafarge India Limited (LIL) has an existing Integrated Cement Plant - Clinker (1.6 MTPA), Cement (2.6 MTPA), CPP (25 MW), D.G. Set (5 MW) at Villages - Bhawaliya & Mangrol, Tehsil - Nimbahera, District - Chittorgarh (Rajasthan). Environmental Clearance for the existing cement plant was obtained vide their letter no. J-11011/1097/2007-IA II (I) dated 23rd December 2008 and J-11011/113/2011-IA.II(I) dated 21th June 2012.

3.0 Lafarge India Limited (LIL) has found that the clinker production capacity could be enhanced by 0.34 MTPA by process optimization. In this regard, LIL is now proposing 21% enhancement in clinker production capacity from 1.6 MTPA to 1.94 MTPA by Process Optimization in existing plant. The details of proposed project are given below:

| Sl | Product | Existing Capacity | Proposed Capacity | Total capacity after expansion |
|---|---|---|---|---|
| 1 | Clinker | 1.6 MTPA | 0.34 MTPA | 1.94 MTPA |
| 2 | Cement (MTPA) | 2.6 MTPA | -- | 2.6 MTPA |
| 3 | CPP | 25 MW | -- | 25 MW |
| 4 | DG Set | 5 MW | -- | 5 MW |

4.0 As the proposed enhancement in clinker production capacity will be done through process optimization, the PP requested for issue of the EC under the 7(ii) Clause of the EIA Notification, 2006.

5.0 Existing plant area is 182.87 ha since the proposed enhancement in clinker production capacity will be done within the existing plant premises through process optimisation, thus, no additional land is required.

6.0 The principal raw materials are Limestone, Red Pet Coke Ochre, Coal, and Fuel Oil. Limestone is being transported to Cement Plant from Captive Limestone Mines through Covered

Conveyor Belts. The crushed limestone is transported to limestone yard through series of belt conveyors and store in a pile through automatic stacker machine.

7.0 Existing water requirement is 2380 KLD and no additional water will be required for proposed enhancement in Clinker production capacity by process optimization. Thus, the total water requirement after enhancement will remain same as existing. Water requirement is met from ground water and mine sump water.

8.0 Existing power requirement is 40 MW, and no additional power is required for proposed enhancement project.

9.0 The manpower in the excising project is 200 numbers. Since there is a minor enhancement by process optimization, there will not be any generation of new employment opportunities. The total manpower requirement after the proposed enhancement project will remain same (i.e. 200 persons).

10.0 Dust collected from the APCEs is being / will be totally recycled back into the process. There will not be any other solid wastes.

11.0 The estimated cost for the proposed project will be Rs. 4.28 Crores.

12.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

13.0 After the presentation by PP along with EIA Consultant, the committee noted that the application was made for prescribing ToR and requesting for issue of the Environmental Clearance and certified compliance certificate on earlier EC conditions from the Regional office of MoEF&CC also not obtained.

13.0 After detailed deliberation the committee not recommended for issue of EC under 7(ii) with the present application.

**18.26 Proposed expansion of Steel Plant –Enhancement in production of Sponge Iron Plant from 60,000 TPA to 90,000 TPA along with 2 MW WHRB Power plant in the existing plant premises at village Parsada, Post Sarora, Tehsil Tilda, District Raipur, Chattisgarh of M/s Hi-Tech Power & Steel Limited. [Proposal No. IA/CG/IND/63422/2017, F.No. IA-J-11011/171/2017-IA-II(I)] -(ToR)**

1.0 The proponent has made online application vide proposal no**. IA/CG/IND/63422/2017** dated 27th March 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Hi-Tech Power & Steel Ltd., is an existing Steel Plant located at located at Village: Parsada, Post: Sarora, Tehsil: Tilda, District: Raipur, Chhattisgarh. Chhattisgarh Environment Conservation Board (CECB) has granted Consents under Water and Air act respectively vide Boards letter no. 2907/TS/CECB/2003 Raipur dated 07.08.2003 and 2909/TS/CECB/2003 Raipur dated 07.08.2003 for 1st 1 x 100 TPD DRI Kiln and then subsequently for 2nd 1 x 100 DRI Kiln along with 10 MW Power Plant (WHRB – 4 MW & FBC 0 6 MW), Ingots / Billets

capacity 48,000 TPA and Fly ash brick plant 99,00,000 Nos./year vide Boards letter no. 4781/TS/CECB/2005, Raipur Dt. 07/10/2005. Subsequently, M/s Hi-Tech Power & Steel Ltd. has obtained Environmental Clearance from CECB vide letter no 1253/SEIAA-CG/EC/Ind/Roll RYP/343 dated 12.12.2013 for installation of Induction Furnace Unit (3 x 10 MT) 90,000 TPA, Electric Arc Furnace (3 x 3 MVA) 12,000 TPA and Rolling Mill (1x500 TPD) 1,50,000 TPA.

3.0 Now, as part of expansion, company proposed to expand the existing plant as mentioned below:

| Sl | Units | | Existing CFE awarded | | Proposed expansion | Production after expansion |
|---|---|---|---|---|---|---|
| | | | Implemented | To be implemented | | |
| 1 | Sponge Iron Kilns | | 2 x 100 TPD (60,000 TPA) | -- | 1 x 100 TPD (30,000 TPA) | 2 x 100 TPD & 1 x 100 TPD (90,000 TPA) |
| 2 | Induction Furnaces | | 2 x 8 MT & 1 x 10 MT | 2 x 10 MT | -- | 2 x 8 MT & 3 x 10 MT (1,38,000 TPA) |
| 3 | Electric Arc Furnaces (EAFs) | | -- | 3 x 3 MVA | -- | 3 x 3 MVA (12000 TPA) |
| 4 | Rolling Mill | | 1 x 500 TPD (1,50,000 TPA) | -- | -- | 1 x 500 TPD (1,50,000 TPA) |
| 5 | Power Plant | WHRB | 4 MW | -- | 2 MW | 6 MW |
| | | FBC | 6 MW | -- | -- | 6 MW |

4.0 Existing plant is located in the 71.8 acres of land. The proposed expansion will be taken up in the existing plant only. Out of total land 33 % of land is earmarked for greenbelt.

5.0 The principal raw materials are Iron Ore, Coal and Dolamite. The major raw material, limestone will be transported through rail/road.

6.0 Water required for the proposed expansion project will be 100 KLD and same will be sourced from Ground Water source. There will be no effluent generation in the DRI plant, SMS, Rolling Mill as closed circuit cooling system will be adopted.

7.0 Power requirement for the existing plant is being met from Chhattisgarh State Electricity Board. Power required for expansion will be met from proposed WHRB based power plant. Surplus power available after meeting the plant required will be exported to the grid.

8.0 The estimated manpower requirement for the proposed project is 50 numbers; the total manpower requirement for the entire plant is 50 numbers inclusive of staff and security. They will comprise of 20% of skilled labours, 40% of semi- skilled labours and 40% of unskilled labours.

9.0 Entire Dolochar generated from DRI will be utilized in the FBC boiler. Ash generated will be given to Cement / Brick manufacturers.

10.0 The estimated cost for the proposed expansion project will be Rs. 18 Crores.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2 and 3.</u>**

i. Public Hearing shall be conducted by the 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.27 Proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha [Proposal No. IA/OR/IND/64028/2017, F.No. IA-J-11011/753/2007-IA-II(I)]- (ToR for Expansion)**

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/64028/2017** dated 20th April 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report and Environment Management plan for expansion under clause 7(ii) of 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s. Utkal Alumina International Limited was obtained Environmental Clearance for 1.0 MTPA Alumina Refinery and 50 MW CPP located at Doraguda Village, Kashipur Tehasil, Rayagada District, Odisha State vide letter no. J-11011/76/94-IA.II (I) dated 27th September 1995. The project activities were started in August 2000. Subsequently, the M/s UAIL obtained environmental clearance for the expansion of capacity of production of alumina from 1.5 MTPA to 3.0 MTPA based on Bayer's technology along with Co- generation Power Plant from 50 MW to 90 MW vide lr.no. J- 11011/753/2007- IA.II (I) dated 29.01.2008. However, the company constructed and commissioned only 1.5 MTPA Alumina Refinery and 90 MW Co-generation Power Plant and the balance 1.5 MTPA Alumina Refinery could not be implemented due to local disturbance and subsequent recession in market. Consent to Operate was accorded by Odisha State Pollution Control Board vide lr.no. 15.05.2013 & validity of CTO is up to 31.03.2021.

3.0 Now it is proposed for enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW). The ore for the plant will be sourced from captive Bauxite Mines. The ore transportation will be done through fully covered LDC (Long Distance Conveyor). The proposed capacity for different products for new site area as below:

| SL | Unit | Existing Capacity | Proposed enhancement | Final capacity after | Remarks |
|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | expansion | |
| 1 | Refinery | Line-I | 0.75 MTPA | 0.25 MTPA | 1.00 MTPA | Total 3.00 MTPA |
| | | Line-II | 0.75 MTPA | 0.25 MTPA | 1.00 MTPA | |
| | | Line-III | -- | 1.00 MTPA | 1.00 MTPA | |
| 2 | CPP | | 90 MW | 60 MW | 150 MW | |

4.0 The required forestland (104.335 Ha) was already completed as a part of existing project and no additional forestland is required. The entire land has been acquired for the project. Out of the total acquired land of 1069.51 Ha so far, 33% (353 Ha) land is earmarked for green belt development.

5.0 It was informed that infrastructure required for 3.0 MMTPA Alumina Refinery already in place such as 100% land acquired; completed R&R (183 families); red mud pond, ash pond, raw water intake and reservoir; rail linkage with associated infrastructure; water allocation and water conveying pipe line; Long Distance Conveyor (LDC) for transportation of Bauxite from mines; residential township etc.

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 or Schedule-I fauna.

7.0 Proposed raw material and fuel requirement for project are Bauxite ore (8500000 MT of 9% w/w moisture), Coal (1.4 MTPA of 3600 Kcal/Kg GCV), Lime (780000 MT of 70% CaO), Caustic Soda and Fuel Oil. Requirement of Bauxite ore will be fulfilled from existing Captive Bauxite Mines, Coal from domestic and imported sources, Lime from domestic sources in Rajasthan & Madhya Pradesh, Caustic Soda from domestic suppliers and imported sources. Fuel consumption will be mainly coal and HFO. HFO will be sourced from domestic oil companies like HPCL & IOCL. Pipe conveyer for coal transportation from Wagon Tippler to Coal Storage Yard is in place.

8.0 Water requirement will be 22,330 $m^3$/day which will be met from San River (Upstream of Indravati Reservoir). The approval for the same is available. No usage of ground water at any stage of project. Waste water generation will be 8000 $m^3$/day. Domestic waste water will be treated in STP and the treated water will be used for sprinkling & horticulture. Industrial waste water generated will be recycled and reused fully.

9.0 Total project cost is approx. Rs 5432 Crores. Proposed employment generation from proposed project will be 1100 direct and 3500 indirect employment. The electricity load of 150 MW will be met from CPP.

10.0 Present Red Mud Pond (RMP) and Ash Pond will be used for disposal of Red mud and Fly Ash. Sewage Treatment Plant (STP) has been provided for treatment of domestic waste water.

11.0 The proponent has mentioned that there is a court case (W.P. No. 5697 of 2007, Prafulla Samantray Vs. Union of India & Others) pending before the Hon'ble High Court of Odisha. It was informed that no order / direction of the court as on today with respect to W.P. No. 5697 of 2007. There is no violation under EIA Notification to the project or related activity.

12.0 The details of the Baseline data collected from March 2017 was presented by the PP and requested for permission to use the baseline data collected already.

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.** The committee also agreed to use of Baseline data collected from March 2017

i. The TCLP test report of the slag shall be submitted in the EIA/EMP report

ii. The terrain of the area shall be considered in the AAQ modelling

iii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iv. The project proponent plan for LED lights in their offices and residential areas.

v. The proponent shall submit plan for solid waste management as per the provisions of SWM Rules, 2016 for their residential colony as a part of the EIA EMP report.

vi. 10-15 m wide green belt should be developed all along the boundary of the plant and in all 33% of the area should be developed green by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.

vii. Public Hearing shall be conducted by the State Pollution Control Board.

viii. 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.

ix. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.28 Expansion cum modification of existing 0.07 MTPA billets, 0.0048 MTPA sections & 0.027 MTPA Ferro alloy plant to 0.054 MTPA TMT bars, 0.020 MTPA GI pipes, 0.040 MTPA sections & 0.046 MTPA Ferro alloy plant of M/s Shivam Iron & Steel Co. Ltd, at Dhukhia Mahadev Temple Road, Jambad, P.O. Udnabad, Giridih District, Jharkhand. [Proposal No. IA/JH/IND/63840/2017, F.No. J-11011/365/2009-IA-II(I)] -(ToR)**

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/63840/2017** dated 10th April 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' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s Shivam Iron & Steel Company Limited is currently operating TMT rod and ferro alloy producing unit at Jambad village in Giridh District of Jharkhand. The unit at Jambad is

having i) SMS & TMT division producing 170 TPD (54,400 TPA) Billets; ii) Induction Furnace and Re-rolling division is having Induction Furnace producing 50T/day MS ingots; and a re-rolling mill of capacity 15T/day, 3x6 MVA Ferro alloy Plants producing Ferroalloys namely Fe-Mn and Si-Mn. The project coordinates are latitude 24° 09' 34.18" N and longitude 86º 21' 02.33'' E with an altitude of 307 m AMSL. Environmental Clearance for the existing plant was accorded vide letter no. J-11011/365/2009-IA.II(I), dated 29.10.10. CTO for MS Billet 170 T/day was obtained vide D-175(C) dated 27.1.2015 renewed up to 30.9.2017 and CTO for 2x6 MVA Ferroalloys vide N-12, dated 2.08.2003 and renewed up to 30.12.17.

3.0 The proposed expansion in SMS & TMT division is to setup matching CCM for 2x12 IFs and a rolling mill of capacity 54,000 TPA instead of re-rolling mill for which CTE has already been taken and convert billets to TMT bars and rods. The proposed expansion in Induction Furnace and Re-rolling division are to setup i) 2x12 T IF; ii) 2x6 MVA Ferro alloy plant to produce Fe-Cr/ Fe-Mn/Si-Mn; iii) Crude Gas generating station (coal gasifier) to produce CO & $H_2$ mixture for reheating billets in reheating Furnace; iv) Section Re-Rolling mill to produce angles and channels; v) Re-Rolling mill to produce plates and roll to manufacture MS pipes; vi) Galvanizing plant to galvanize pipes so that both MS and GI pipes can be manufactured as per demand; vii) Coal crusher; and viii)Jigging plant for recovery of residual Fe-Cr from Fe-Cr slag.

4.0. After expansion, the total project configuration will be i) 4x12T IF; ii) 5x6 MVA submerged arc Furnace; iii) a hot rolling mill; iv) a plate Re-mill; v) a section Re-rolling mill; vi) Coal gasifier to produce fuel for reheating Furnaces; and vii) Galvanizing iron plant to give zinc coating over MS pipe made from rolled plates. The details of proposed expansion as given below:

| Sl | Plant Facilities | Existing Configuration | Existing Capacity | Proposed Configuration | Proposed Capacity | Final Configuration | Production after expansion |
|---|---|---|---|---|---|---|---|
| 1 | Induction Furnace with Billet caster (Billets) | 2x12 T | 57,500 TPA | 2x12T | 57,500 TPA | 4x12T | 1,15,000 TPA |
| 2 | C C M | Nil | - | 2 strand to be set up | | | |
| 2 | Rolling mill (TMT Rods) | CTE for 27,000 TPA Re-rolling mill to be modified to rolling mill | - | 1x160 TPD | 54,000 TPA | 1x160 TPD | 54,000 TPA |
| 3 | SAF (Fe-Mn, Si-Mn & Fe-Cr) | 3x6 MVA | 12,000 TPA | 2x6 MVA | 8,000 TPA | 5x6 MVA | 20,000 TPA |
| 4 | Re-Rolling mill (Metal sheets) | Nil | - | 1x60 TPD | 20,000 TPA | 1x60 TPD | 20,000 TPA |
| 5 | Coal gasifier (Fuel gas for reheating furnace) | Nil | - | 7,000-8,000 Nm3/hr | 7,000-8,000 Nm3/hr | 7,000-8,000 Nm3/hr | 7,000-8,000 Nm3/hr |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | Section Re-mill (Channels angles ) | 15 TPD | 4,800 TPA | 1x120 TPD | 40,000 TPA | 1x120 TPD | 40,000 TPA |

4.0 The total land acquired by M/s Shivam Iron & Steel Co. ltd is 379.87 Ac. (153.69 ha). Out of which 12.3 ha for existing facility; 25.00 ha for proposed facility; 56.3 Ha for greenbelt development; remaining land for other facilities including vacant land. The total greenbelt development will be planned about 33% of land.

5.0 The principal raw materials are Sponge iron (110000 TPA); Pig iron (12000 TPA); Scrap (6000 TPA); Mn Ore (56000 TPA); Chromites ore (36750 TPA); Coke (22000 TPA); Dolomite (12200 TPA); and Coal (6000 TPA). The material will be transported by trucks.

6.0 Total water requirement for the project is estimated to be approximately 810 $m^3$/day. Water consumption has been reduced by waste water settling, treatment and reuse in the process. Raw water will be drawn from river Usri which is about 800 m away from project site. There will be rain water harvesting and storage to use during lean period of the river. No polluted water will be discharged outside project boundary and Zero Liquid Discharge (ZLD) will be adhered.

7.0 The total power requirement of the plant including domestic requirement is estimated to be about 33 MW.

8.0 There will be direct employment for various activities of the project is estimated 400 for manager, supervisor and worker levels and besides this about 1200 people will be engaged as contract labours.

9.0 The details of solid waste generation and utilization in the proposed project is as follows:

| Sl. | Solid waste | Quantity in TPA | Utilization Measures |
|---|---|---|---|
| 1 | Fe-Mn slag | 25000 | Use in Si-Mn production |
| 2 | Si-Mn Slag | 9500 | To be sold to cement plant for production of alkali activated cement. |
| 3 | Fe-Cr slag | 23000 | After recovery of Fe-Cr in Jigging Plant the slag will be used as river sand substitute/construction work. |
| 4 | IF slag | 16000 | River sand substitute, land fill |
| 5 | Dust & scrap | -- | To be fully consumed in plant |

10.0 The cost of the project is estimated to be around Rs. 307 Crores. As land has already been acquired and infrastructure already exists, the capital Cost requirement will be for the equipments of 2x6 MVA Submerged Arc Furnace, 2x12 T IFs, Rolling mills, Galvanizing Iron Plant and coal gasifier.

11.0 There is no litigation pending against the project and/or land in which the project is proposed to be set up.

12.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. The TCLP test report of the slag shall be submitted in the EIA/EMP report

ii. The project proponent shall plan for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iii. The project proponent shall plan for LED lights in their offices and residential areas.

iv. 10-15 m wide green belt should be developed all along the boundary of the plant and in all 33% of the area should be developed green by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.

v. Public Hearing shall be conducted by the State Pollution Control Board.

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

vii. The project proponent should carry out social impact assessment of the project 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.29 Resubmission of application for installation of Induction Furnace, Rolling Mill and Submerged Arc Furnaces and Captive Power Plant 33 MW including 8 MW (WHRB) of M/s Grace Industries Limited. [Proposal No. IA/MH/IND/64026/2017, F. No. J-11011/206/2016-IA. II(I)]- (Violation)**

1.0 The proponent has made online application vide proposal no **IA/MH/IND/64026/2017** dated 18th April 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report under the provisions of SO 804(E) dated 14th March 2017. The proposal involves violation under EIA Notification, 2006 due to commencement of installation of 25 MW CPP within the existing premises without obtaining prior environmental clearance. As per EIA Notification 2006 the proposed Ferro Alloy and Secondary Steel Plant falls under Schedule in Serial No. 3 (a) - Metallurgical Industry (ferrous & non-ferrous) and the project is categorized as Category "A".

2.0 M/s. Grace Industries Limited is operating 4 x100 sponge iron kilns to manufacture 12000 MT/month Sponge Iron Plant at Plot No. A-23, MIDC, Tadali Industrial Area, Village - Tadali, Taluka& Dist. -Chandrapur. A CPP of 25 MW is under construction (after receiving Consent to Establish from MPCB dated 18th November 2006) and 8 MW (WHRB) is in operation.

3.0 M/s. Grace Industries Limited is fully taken over by new management i.e. M/s. Sanvijay Rolling & Engineering Limited in the year 2008. Soon after taken over new management applied for Environmental Clearance for 25 MW CPP dated 15.01.2009 in SEAC and same has been considered and recommended by the Committee in the 19th SEAC Meeting held on 18.11.2009. However, memorandum was imposed by the ministry for environmental clearance of new/expansion proposals located in 43 critically polluted area including Chandrapur vide F. No. J-11013/5/2010-IA.II (I) in 2010. As per this moratorium, there was no scope for any expansion modernization or value addition to Sponge Iron Plant and CPP. The moratorium has lifted by the ministry on 20th May 2016.

4.0 Subsequently, M/s. Grace Industries Limited applied vide proposal no. IA/MH/IND/56327/2016 dated 17th June 2016 for Installation of Induction Furnace, Rolling Mill and Ferro Alloys (SAF) Captive Power Plan 33 MW including 8 MW (WHRB) vide online proposal no. IA/MH/IND/56327/2016 dated 17th June 2016 and same has been considered in the 9th EAC (Industry - I) Meeting held on 27th to 29th July 2016 for prescribing ToR for detailed EIA/EMP study. However, the proposal is treated as violation under EIA Notification, 2006 as the construction activity for 25 MW CPP was started without prior Environmental clearance and same was intimated by ministry vide letter no. F. No. J- 11011/206/2016.IA.II (I) dated 13th January 2017.

5.0 Now, M/s. Grace Industries Limited has made an application under the provisions of S.O. 804 (E) dated 14th March 2017 for prescribing ToRs for the proposed installation of Induction Furnace to manufacture Ingots, Billets etc.-18000 MT/month; Rolling Mill for hot rolled long products 18000 MT/month; SAF to produce Ferro Alloys and Pig Iron – 6000 MT/month; and Captive Power Plant 25 MW (already under construction) adjacent plots to the existing factory premises of GIL and the land is covered in Survey of India 56M-1, 56M-5, 55P-4 & 55P-8. A sponge Iron Plant of 100 TPD x 4 no. and 8 MW WHRB based power plant is in operation. The proposed capacity for different products are as follows

| **Name of Unit** | **No. of Unit** | **Capacity of Each Unit** | **Production capacity** |
|---|---|---|---|
| Induction Furnace | 4 | 15 TPH | 18000 MT/ Month |
| SAF | 2 or 3 | 9 MVA x 2 OR 6 MVA x 3 | 6000MT/ Month |
| Rolling Mill | 2 rolling lines | 18000 MT/Month | 18000 MT/Month Hot Rolled long Product |
| CPP | 1 | 25 MW | 25 MW |

6.0 The existing project was accorded environmental clearance vide letter no. ENV(NOC)2005/79/CR.6/D.I dated 18th January 2006. Consent to Operate was accorded by Maharashtra State Pollution Control Board vide letter No. BO/CAC-CELL/RO Chandrapur/CAC-0206 and valid of up to 31.05.2021.

7.0 The land leased out by MIDC for the proposed plant is 69.76 Ha which is in industrial use. No forestland involved. 33% land will be used for green belt development. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project.

8.0 Total project cost is Rs. 250 Crores. The employment generation from existing and proposed project will be 1100 direct and indirect employment.

9.0 The electricity needs will be fulfilled from this own CPP and State Electricity Board. The proposed raw material and fuel requirement for project include: Manganese and other Ores @ 7000 MT/month; DRI @ 12000 MT/month; Scrap 8000 MT/month; Billets @18000MT/month; and Coal and Dolochar as fuel.

10.0 Water Consumption for the proposed project will be 1100 $m^3$/day. Domestic waste water of entire plant will be treated in packaged type STP and reused for gardening.

11.0 Slag generated will be utilized for the construction of the roads and balance quantity will be disposed off by landfill. Fly ash and bottom ash generated from the plants will used for brick manufacturing.

12.0 The proponent has mentioned that there is no court case on the project or related activity.

13.0 After detailed deliberations, the Committee recommended the ToR for undertaking detailed EIA/EMP study and recommended the project 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 and 3.**

i. Assessment of damage shall be carried with respect to air, water, land, ecology and other environmental attributes. The collection and analysis of data for assessment of ecological damage shall be done by an environmental laboratory duly notified under E(P) Act, 1986 / accredited by NABL/CSIR.

ii. The remediation plan and natural and community resource augmentation plan shall be prepared corresponding to the ecological damage assessed and economic benefit derived due to violation.

iii. The plan shall be prepared as an independent chapter in the EIA report by the accredited consultants.

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

v. 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.

vi. 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 CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

**18.30 Environmental Clearance for modernisation of Rourkela Steel Plant of M/s SAIL by adding new 125 TPD Sulphuric Acid Plant in place of old 60 TPD plant within the premises of Rourkela Steel Plant at village Rourkela, District Sundergarh, State Odisha. [Proposal No. IA/OR/IND/63491/2017, F.No. J-11011/757/2007-IA II (I)] - (Violation)**

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/63491/2017** dated 27th March 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report under the provisions of SO 804(E) dated 14th March 2017. The proposal involves violation under EIA Notification, 2006 due to installation of a new 125 TPD Sulphuric Acid Plant within the existing premises without obtaining prior environmental clearance in December 2015.

2.0 M/s Rourkela Steel Plant (SAIL-RSP) of M/s Steel Authority of India Limited has been granted Environmental Clearance (EC) for expansion cum modernization of Integrated Steel Plant from 1.9 MTPA to 4.2 MTPA vide letter no. J-11011/757/2007- IA II(I) dated 29/01/2008. Further, as a part of further Modernization of Steel Plant (4.2 MTPA), M/s SAIL has proposed to add 3 MTPA Hot Strip Mill, 3.3 MTPA Beneficiation and 2 MTPA Pellet Plant and Special Plate Plant (3,000 TPA to 15,000 TPA) within the premises of Rourkela Steel Plant. The proposal was considered in the 9th EAC[Industry-I] meeting held during 27th to 29th July 2016, the proposal was recommended and EC was accorded on 15th December 2016 for Modernization of Rourkela Steel Plant.

3.0 M/s RSP was having 60 TPD Sulphuric Acid Plant, when the plant production capacity was 1.9 MTPA of crude steel. A new 125 TPD Sulphuric Acid plant with State of the Art technologies was installed within the existing premises during the "1.9 MTPA to 4.2 MPTA Expansion phase" with Consent to Establishment form the Odisha State Pollution Control Board vide Consent No. 8428/IND-II-NOC-5621 dated 7/5/2013. However, OSPCB had asked RSP to get clarification about applicability of EC for the Sulphuric Acid Plant from MoEF&CC. Therefore, the project attracted the provisions of EIS Notification, 2006 due to installation of said plant without prior environmental clearance.

4.0 It was envisaged to procure sulphuric acid from market at the time of RSP's 4.2 MT expansion in 2007-08. As such, new sulphuric acid plant was not considered during expansion. However, reliable and consistent supply of sulphuric acid from open market was not available; therefore, to meet the requirement of steel plant, a new 125 TPD sulphuric acid plant in place of existing old 60 TPD plant was conceived in 2012.

5.0 The proponent has made an application to the ministry for the proposed Modernisation of Rourkela Steel Plant of M/s SAIL by adding new 125 TPD Sulphuric Acid Plant in place of old 60 TPD plant within the premises of Rourkela Steel Plant of M/s Steel Authority of India Limited (SAIL) at Village - Rourkela, Tehsil - Rourkela, District - Sundargarh, State – Odisha RSP has installed a new 125 TPD Sulphuric Acid Plant. The proposal was considered in the 10th meeting of EAC (Industry-I) held during 29th to 31st August 2016. The Committee after ascertaining the facts from the project proponent as also the stipulation laid down in the EC letter dated 29.01.2008 opined that the PP has already established the plant; therefore, it is a case of violation. However, the Committee suggested that the PP should produce the data in support of their claim that there will not be any increase in the pollution load and submit the details of the clean technology to be adopted for reducing the overall pollution load from the steel plant. The proponent should also produce a letter approaching SPCB in 2012 and their advice for consideration. The Committee may take a view in the matter on submission of the above information

6.0 Accordingly, the PP has submitted the information along with Form-I and Environment Appraisal Report prepared by M/s MECON Limited, NABET accredited Consultant through online on 03/01/2017. However, The PP has submitted a fresh application along with Form-I and PFR as per the provisions of SO 804€ dated, 14th March 2017 on 2th March 2017.

7.0 The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Lr.No.101-320/EPE, dated 24/02/2015.

8.0 The requirement of Sulphuric Acid Plant is given below:

| S. No | Sulphuric Acid Plant is required for the following | Quantity |
|---|---|---|
| 1 | Recovery of Ammonia from Coke Oven gas and making Ammonium Sulphate | 65.5 T/day |
| 2 | Acid Pickling in Cold Rolling Mills | 25.0 T/day |
| 3 | Water Treatment units | 2.0 T/day |
| 4 | Total Acid required | 92.5 T/day |
| 5 | Capacity of Plant considering 330 working days | 116.0 T/ day<br>and 90% efficiency |
| 6 | The capacity of the Sulphuric Acid Plant for which EC sought | 120 TPD |

9.0 The land occupied by the sulfuric acid plant was 2.03 Ha within industrial land under RSP's premises. No forest land involved. The entire land has been acquired way back in late 50's for Rourkela Steel Plant. No River passes through the project area. It has been reported that no water body exists around the project and modification /diversion in the existing natural drainage pattern at any stage has not been proposed.

10.0 The topography of the plant area is flat and reported to lie between 22°12' 0.91"N to 22° 13' 40.59"N Latitude and 84°50' 0.89"E to 84°54'11.46" E Longitude in Survey of India topo sheet No. F45G16 at an elevation of 202 m AMSL. The ground water table reported to ranges between 2-7 m below the land surface during the post-monsoon season and 2-10 m below the land surface during the pre-monsoon season. No ground water is utilized in project site/core zone.

11.0 No national park/wild life 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.

12.0 Double conversion Double absorption Process for manufacturing sulphuric acid, commonly known as DCDA process, has been adopted for the production of Sulphuric acid for the present project.

13.0 The water requirement of the project is estimated as 408 m3/day. No fresh water will be drawn from river/ground water table. The total water requirement will be met from the available water grid of RSP.

14.0 The power requirement of the project is estimated as 0.35 MW, which will be obtained from, CPP-1 of Rourkela Steel Plant.

15.0 It has been reported that a total of 650 TPA of waste (Sulphur Muck) & 1250 L of Catalyst waste will be generated due to the project. Waste will be disposed in secured land fill facility which was developed as per CPCB guidelines within plant premises.

16.0 Recently Public hearing was conducted on 16$^{th}$ June 2016 for RSP's new project i.e. for production of 3 MTPA Hot Strip Mill; 3.3 MTPA Beneficiation and 2 MTPA Pellet Plant and Special Plate Plant (3000 TPA to 15000 TPA).

17.0 The capital cost of the project is Rs 20.08 Crores and the capital cost for environmental protection measures is proposed as Rs 200 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 20 Lakhs.

18.0 Greenbelt already developed in 1037.26 Ha and as directed by 9$^{th}$ EAC, green belt over 910 ha will be developed so that the total green is about 33% of the total acquired area. Total 8,04,000 saplings will be planted and nurtured in next 7 years.

19.0 The proponent has mentioned that there is no court case to the project or related activity.

20.0 After detailed deliberations, the Committee recommended the ToR for undertaking EIA/EMP study and recommended the project for prescribing following specific ToRs for undertaking detailed EIA and EMP study.

Assessment of damage shall be carried with respect to air, water, land, ecology and other environmental attributes. The collection and analysis of data for assessment of ecological damage shall be done by an environmental laboratory duly notified under E(P) Act, 1986 / accredited by NABL/CSIR.

The remediation plan and natural and community resource augmentation plan shall be prepared corresponding to the ecological damage assessed and economic benefit derived due to violation.

The plan shall be prepared as an independent chapter in the EIA report of Sulphuric acid plant by the accredited consultants.

An addendum EIA/EMP for the expansion of 60 TPD to 150 TPD as per the generic structure specified in EIA Notification, 2006

**18.31 Expansion of Integrated Steel Plant (1 MTPA to 1.3 MTPA) of M/s JSW Steel Ltd., located at Mecheri, Taluk Mettur, District Salem, Tamil Nadu [No.J-11011/281/2016IA.II(I)] Proposal No. IA/TN/IND/26508/2015.) – Further consideration based on ADS submitted on 28/03/2017.**

1.0 The proponent has made online application vide proposal no. IA/TN/IND/26508/2015, dated 28th October 2106 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3 (a) metallurgical (Ferrous and Non-Ferrous) under Category "A" EIA Notification 2006.

2.0 The proposed expansion of 1.0 to 1.3 MTPA Special Alloy Steel of M/s JSW Salem Works was initially received in the Ministry 16.01.2015 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-I) [EAC(I)] during its meeting held on 11.02.2015 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry had prescribed ToRs to the project on 12.06.2015 vide letter No. J-11011/281/2016IA.II (I). Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 28.10.2016. The proposal was placed in the 15th meeting of Appraisal Committee (Industry-I) [EAC(I)] held during 2nd – 3rd February 2017. The committee sought additional information and the PP submitted reply on 28.03.2017.

3.0 M/s. JSW Salem Works operating 1.0 MTPA Integrated Steel Plant located at M. Kallipatti and Pottaneri Village, Mettur Tehsil, Salem District, Tamil Nadu for which environmental clearance was granted vide lr. No. J-11011/281/2016IA.II(I). Certified compliance status of existing plant was obtained vide lr. No. EP/12.1/2016-17/20/TN/0162, dated 31.01.2017.

4.0 Now, it is proposed to expand the capacity from 1.0 MTPA to 1.3 MTPA. The details of existing and the proposed capacities are given below:

| Sl. No. | Manufacturing Facilities | Existing Capacity | Proposed Expansion | Total Capacity after Expansion |
|---|---|---|---|---|
| 1 | Coke Oven Plant – 1 (Non-Recovery type) | 0.5 | - | 0.5 |

| | | | | |
|---|---|---|---|---|
| 2 | Sinter plant – 1 (20 $m^2$) | 0.175 | - | 0 |
| 3 | Sinter plant – 2 (90 $m^2$) | 1.06 | - | 1.06 |
| 4 | Sinter plant – 3 (90 $m^2$) | - | 1.06 | 1.06 |
| 5 | Blast Furnace – 1 (402 to 650 $m^3$) | 0.367 | 0.316 | 0.683 |
| 6 | Blast Furnace – 2 (550 to 650 $m^3$) | 0.578 | 0.105 | 0.683 |
| 7 | Energy Optimizing Furnace - 1 (45 to 65 T) | 0.41 | 0.23 | 0.64 |
| 8 | Energy Optimising Furnace-2 (45 T) | 0.62 | - | 0.62 |
| 9 | Ladle Furnace – 1 (45 to 65 T) | 45 T/heat | 20 T/heat | 65 T/heat |
| 10 | Ladle Furnace – 2 (65 T) | 65 T/heat | - | 65 T/heat |
| 11 | Ladle Furnace – 3 (65 T) | 65 T/heat | - | 65 T/heat |
| 12 | Ladle Furnace – 4 (65 T) | 65 T/heat | - | 65 T/heat |
| 13 | Continuous Casting Machine - 1 | 0.35 | - | 0.35 |
| 14 | Continuous Casting Machine - 2 | 0.5 | - | 0.5 |
| 15 | Continuous Casting Machine - 3 | - | 0.45 | 0.45 |
| 16 | Bar & Rod Mill augmentation | 0.4 | 0.08 | 0.48 |
| 17 | Blooming Mill augmentation | 0.36 | 0.12 | 0.48 |
| 18 | Pickling and Annealing steel unit | - | 0.06 | 0.06 |
| 19 | Peeled and ground | - | 0.04 | 0.04 |
| 20 | Air separation plant – 1 (150 T/day) | 150 T/day | - | 150 T/day |
| 21 | Air separation plant – 2 (390 T/day) | 390 T/day | - | 390 T/day |
| 22 | Air separation plant – 3 (250 T/day) | - | 250 T/day | 250 T/day |
| 23 | Captive power plant – 1 | 7 MW | - | 7 MW |
| 24 | Captive power plant – 2 | 2 X 30 MW | - | 2 X 30 MW |
| 25 | Captive power plant – 3 | - | 30 MW | 30 MW |

5.0 The total available plant site is 237.28 ha and township is 30.80 ha. The land required for the proposed expansion project is 11.74 ha, out of total plant site and township area, scrub land is 37.89 ha, vegetation area is 47.83 ha, open scrub is 27.19, built-up area is 69.27 ha, water bodies like rainwater harvesting pond, guard pond etc is 5.34 ha, open land is 62.50 ha, stock yard is 3.82 ha, roads 9.57 ha and rocky terrain 4.711 ha. No forest land is involved. The entire land has been already acquired for the project. No river/stream passes through the project area. It has been reported that no water body exist around the project and no modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

6.0 The topography of the area is slightly undulating and reported to lie between $11^0$ 48' 16" to $11^0$ 49' 2" N latitude and $77^0$ 0' 54" to $77^0$ 55' 43" E longitude in Survey of India topo sheet No. 58 E/13, 58 E/14, 58 I/1 and 58 I/2, at an elevation of 339 to 368 m AMSL. The ground water table is reported to range between 1.0 to 31.23 m below the land surface during March to May 2015. Based on hydro-geological studies, it has been reported that the radius of influence of pumped out water will be 60 m. Further, the stage of groundwater development is reported to be 0% and 100% in core and buffer zone respectively and thereby these are designated as critically exploited areas.

7.0 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.

8.0 The raw material requirement for the project are listed below:

| Sl. No. | Raw material | Present Quantity (MTPA) | Post Exp. Quantity( MTPA) | Source |
|---|---|---|---|---|
| 1 | Iron ore fines | 0.845 | 1.47 | Indigenous/Imported |
| 2 | Iron ore pellets | NA | 0.5 | Indigenous source |
| 3 | Lump ore | 0.806 | 0.705 | Indigenous/Imported |
| 4 | Coking coal | 0.585 | 0.585 | Imported |
| 5 | Non-coking coal for COP | 0.147 | 0.147 | Imported |
| 6 | Non-coking coal for PCI | 0.147 | 0.215 | Imported |
| 7 | Power plant coal | 0.172 | 0.172 | Indigenous/Imported |
| 8 | Coke breeze for SP | 0.023 | 0.023 | In house |
| 9 | Limestone | 0.08 | 0.135 | Imported/indigenous |
| 10 | Dolomite | 0.091 | 0.147 | Indigenous |
| 11 | Quartzite | 0.030 | 0.039 | Indigenous |
| 12 | Dunite | 0.030 | 0.039 | Indigenous |
| 13 | Lime powder | 0.0585 | 0.0945 | Imported/indigenous |
| 14 | Mill scale | 0.097 | 0.158 | Indigenous |
| 15 | Purchase coke | 0 | 0.156 | Imported |
| 16 | Anthracite | 0.039 | 0.095 | Imported |

9.0 The proposed expansion of 0.3 MTPA Integrated Steel Plant (ISP) has been contemplated to adopt conventional BF (Blast Furnace) - EOF (Energy Optimizing Furnace) - CC (Continuous Casting) and RM (Rolling Mill) route**.** In expansion, additional 1 X 30 MW using the WHR boilers of COP and BF gas is planned.

10.0 The targeted production capacity of the proposed expansion is 1.3 million TPA. The ore for the plant would be procured from imported. The ore transportation will be done through rail.

11.0 An agreement exists between PWD and JSW to utilize 5 MGD of raw water from downstream of river Cauvery. The present requirement is about 3.17 MGD of raw water, which is met from the intake well located at downstream of Mettur dam which meets the 1 MTPA capacity of steel plant and captive power plant of 67 MW. Total fresh water requirement after expansion will be to the tune of about 4.4 MGD.

12.0 The average power demand of the plant after expansion is estimated to be about 90 MW. It is expected that the power to the tune of 97 MW will be generated from the steel plant facilities after expansion. It is proposed to meet the entire energy requirement from the captive sources taking the support of state electricity grid for stability. Provision will be made to sell out the surplus power if any, through the grid.

13.0 Ambient air quality monitoring has been carried out at 8 locations during March to May 2015 and the data submitted indicated: $PM_{10}$ (23.28 $\mu g/m^3$ to 76.0 $\mu g/m^3$), $PM_{2.5}$ (8.90 to 34.83 $\mu g/m^3$), $SO_2$ (1.21 to 9.50 $\mu g/m^3$) and $NO_x$ (11.41 to 60.76 $\mu g/m^3$). The results of the modeling study indicates that the maximum increase of GLC for the proposed expansion project is 83.0 $\mu g/m^3$ with respect to the $PM_{10}$, 10.6 $\mu g/m^3$ with respect to the $SO_2$, 20.5 $\mu g/m^3$ with respect to the $NO_x$. There is no habitant in the core zone of the project. No R&R is involved.

14.0 Samples of ground (8) and surface (4) water samples were collected during monitoring season. The results indicate that most of parameters are within the prescribed norms of groundwater except for total hardness, calcium and TDS. The reason could be attributable to mixing of surface water. The area is encountered by hard rock overlained by sedimentary rock which may contain calcium and magnesium and leads to increase in hardness. Whereas, the surface water parameters are meeting the norms.

15.0 It has been reported that a total of 80 TPD of scrap waste will be generated due to the expansion project from CCM and rolling mill, and the entire waste will be dumped in the earmarked dump yard. It has been already developed that an area of 78.9 ha 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 The Public hearing for the project was held on 12.08.2016 for production of 1.0 to 1.3 million TPA of Special Alloy Steels, in the existing premises under the chairmanship of District Collector, Salem. The issues raised during the public hearing were employment to the local people; pollution due to the project; water scarcity; etc.

17.0 The capital cost of the project is Rs. 1025 Crores and the capital cost for environmental protection measures is proposed as Rs. 50.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 8.05 Crores. The project is scheduled to be completed in a period of 36 months.

18.0 The manpower working in existing project are 5041 including 4000 contractual employees. It has been planned to retain the existing man power for the proposed expansion programme.

19.0 The proponent has mentioned that there is no court case to the project or related activity. There is no violation under EIA Notification, 2016.

20.0 The proposal was considered in the 15$^{th}$ Meeting of 15$^{th}$ meeting of Appraisal Committee (Industry-I) [EAC(I)] held during 2$^{nd}$ – 3$^{rd}$ February 2017. Based on the presentation made and discussions held, the Committee desired additional information on the following for further consideration of the proposal:

i. A list of raw materials along with the source of the raw material and tie-up with the supplier agency should be provided.

ii. A detailed design of the ETP to cater to the design load should be submitted along with the layout plan. The ETP should be designed to cater Cynide, phenol and other standards as prescribed in the notification. The treated water can only be recycled.
iii. Revised table on the cost component for environmental pollution control measures to be submitted
iv. Safety devise details to be submitted
v. Analyse the data collected for occupational health and submit.
vi. Cost breakup for the ESC component along with the time line to implement the project should be submitted. The ESC component should be based on the issues raised in the public hearing.

21.0 The project proponent has submitted reply on 28.03.2017. The revised list of raw material along with the source of the raw material given as follows:

| Sl. No. | Raw material | Present Quantity (MTPA) | Post Exp. Quantity( MTPA) | Source |
|---|---|---|---|---|
| 1 | Iron ore fines | 0.845 | 1.47 | Jharkhand |
| 2 | Iron ore pellets | NA | 0.5 | Karnataka |
| 3 | Lump ore | 0.806 | 0.705 | Monitoring committee, Karnataka |
| 4 | Coking coal | 0.585 | 0.585 | Australia/Russia |
| 5 | Non-coking coal for COP | 0.147 | 0.147 | Australia/Russia |
| 6 | Non-coking coal for PCI | 0.147 | 0.215 | Australia/Russia |
| 7 | Power plant coal | 0.172 | 0.172 | Australia/Russia |
| 8 | Coke breeze for SP | 0.023 | 0.023 | In-house |
| 9 | Limestone | 0.08 | 0.135 | Oman |
| 10 | Dolomite | 0.091 | 0.147 | Tamil Nadu |
| 11 | Quartzite | 0.030 | 0.039 | Tamil Nadu, Andhra Pradesh |
| 12 | Dunite | 0.030 | 0.039 | South Africa |
| 13 | Lime powder | 0.0585 | 0.0945 | Malaysia |
| 14 | Mill scale | 0.097 | 0.158 | Tamil Nadu |
| 15 | Purchase coke | 0 | 0.156 | Tamil Nadu |
| 16 | Anthracite | 0.039 | 0.095 | Australia/Russia |

22.0 It was informed that the iron ore lumps purchase through "Monitoring committee of Karnataka", Auction No: 107 for a quantity of about 20000 MT. The iron ore fines quantity of about 150000 MT is being purchased from M/s. Rungta mines, Jharkhand.

23.0 The Effluent Treatment Plant (ETP) is designed for 920 $m^3$/hr capacity with inlet suspended solids level of 2500 ppm and Outlet suspended solid level of 50 ppm.

24.0 The revised table on the cost component for environmental pollution control measures is given below:

| Sl. No | Item | Capital Cost (Rs in Crores) | Recurring cost per annum (Rs in Crores) |
|---|---|---|---|
| 1 | Air Pollution Control | 30 | 4 |
| 2 | Water Pollution Control | 1 | 0.2 |
| 3 | Solid Waste Management | 10 | 1 |
| 4 | Noise Pollution Control | 2 | 0.2 |

| | | | |
|---|---|---|---|
| 5 | Occupational health | 3 | 0.3 |
| 6 | Environmental survey and sampling | 5 | 0.5 |
| | Total | 51 | 6.2 |

24.0 The cost break up for the ESC component along with the time line to implement is given below:

| Sl.No | Activity wise fund Allocation in Rs in Crores. | | Commitment period (Year) | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Description of activities | Numbers | I | II | III | IV | V | |
| 1 | Toilets | 2000 | 0.5 | 0.75 | 0.75 | 0.5 | 0.5 | 3 |
| 2 | Health centre | 1 | 0.25 | 0.25 | 0.25 | 0.25 | | 1 |
| 3 | Community hall | 2 | | 0.5 | 0.5 | | | 1 |
| 4 | Hospital | 1 | 0.5 | 0.5 | 0.5 | 0.25 | 0.25 | 2 |
| 5 | Modern school New with GYM and Play ground | 1 | | | 1 | 0.5 | 0.5 | 2 |
| 6 | Water shed program | 1 | | 0.25 | 0.25 | 0.25 | 0.25 | 1 |
| 7 | Water body strengthening /Drinking water bore well drilling | | | 0.25 | 0.25 | 0.25 | 0.25 | 1 |
| 8 | Drainage | | 0.25 | 0.25 | 0.25 | 0.25 | | 1 |
| 9 | Government school improvement | 1 | | 0.25 | 0.25 | 0.25 | 0.25 | 1 |
| 10 | Total | | 1.5 | 3 | 4 | 2.5 | 2 | 13 |

- As per community requirement

25.0 Based on the reply submitted the proposal was placed on 18th meeting of Expert Appraisal Committee (Industry-I) held during 3rd - 5th May 2017. After detailed deliberations, the committee recommended the project for Environmental Clearance with following stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance by the ministry.

i. The occupational health survey of the active workmen involved shall be carried as per the ILO guidelines and all the employees shall cover in every 5 years @ 20% every year.

ii. The amount allocated for ESC shall be provided as CAPEX and the ESC shall be treated as project and monitored annually and the report of same shall be submitted to Regional office of MoEF&CC.

iii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

iv. The project proponent shall provide for LED lights in their offices and residential areas.

ANNEXURE –I

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

1. Executive Summary
2. Introduction
   i. Details of the EIA Consultant including NABET accreditation
   ii. Information about the project proponent
   iii. Importance and benefits of the project

3. Project Description
   i. Cost of project and time of completion.
   ii. Products with capacities for the proposed project.
   iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   iv. List of raw materials required and their source along with mode of transportation.
   v. Other chemicals and materials required with quantities and storage capacities
   vi. Details of Emission, effluents, hazardous waste generation and their management.
   vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
   ix. Process description along with major equipments 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 Cahnge as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
      b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

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

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

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

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

6. **Environmental Status**

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
ii. AAQ data (except monsoon) at 8 locations for $PM_{10}$, $PM_{2.5}$, $SO_2$, $NO_X$, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
iv. Surface water quality of nearby River (60 m 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 analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
iii. Annual report of heath 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).

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

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

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

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

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

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

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

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

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

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

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ANNEXURE-2

## ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

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## ADDITIONAL ToRS FOR PELLET PLANT

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

9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

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## ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

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## ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

i. A note on pulp washing system capable of handling wood pulp shall be included.

ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln

iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.

iv. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.

v. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.

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## LEATHER/SKIN/HIDE PROCESSING INDUSTRY

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.)*.
2. Details regarding complete leather/ skin/ hide processing including the usage of sulfides, 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 gaseousemission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capitalcost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest, eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora-fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

ANNEXURE-3

**Air Pollution**

| **Plant /Unit** | **Pollutants** | **Qty generated** | **Method used to Control/ and specifications/attach Separate Sheet to furnish Details** | **Number of units planned & Capacity** | **Budget** | **Estimated Post Control Qty of Pollutant** | |
|---|---|---|---|---|---|---|---|
| | | | | | | Per Unit | Per Day |
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**LIST OF PARTICIPANTS OF EAC (I) IN 18th MEETING OF EAC (INDUSTRY-I) HELD ON 3rd– 5th May, 2017**

| S. No | Name and Address | Position | Attendance | | | Signature |
|---|---|---|---|---|---|---|
| | | | 3rd | 4th | 5th | |
| 1 | Dr.Chhavi Nath Pandey, IFS(Retired) | Chairman | P | P | P | |
| **Members** | | | | | | |
| 2. | Dr. Rita Tanton Central Pulp and Paper Research Institute | Member | A | P | A | |
| 3. | Dr. S.Panwar Central Pulp and Paper Research Institute | Member | A | P | A | |
| 4. | Director, Central Leather Research Institute | Member | A | A | A | |
| 5. | Dr. Sidd, Representative of Indian Meteorological Department | Member | P | A | A | |
| 6. | Representative of Central Ground Water Board | Member | A | A | A | |
| 7. | Dr. G. Bhaskar Raju | Member | P | P | P | |
| 8. | Prof. Naresh Chandra Pant | Member | A | A | A | |
| 9. | Dr. Jagdish Kishwan, IFS(Retired) | Member | P | P | P | |
| 10. | Dr. G.V.Subrahmanyam | Member | P | P | P | |
| 11. | Prof. Arun Pandey | Member | A | A | P | |
| 12. | Shri Santosh Raghunath Gondhalekar | Member | A | A | A | |
| 13. | Shri Ashok Upadhyay | Member | P | P | P | |
| 15. | Shri Sharath Kumar Pallerla, Scientist 'F' / Director, MoEF&CC | Member Secretary | P | P | P | |
| 16 | Shri Rajasekhar Ratti, Scientist 'C', MoEF&CC | Dy. Director | P | P | P | |

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