

SUMMARY RECORD OF THE TWELFTH (12th) MEETING OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006 HELD ON 27th – 28th OCTOBER, 2016.

The Twelfth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector in terms of the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held on 27th– 28th October, 2016 in the Ministry of Environment, Forest and Climate Change. Representative from Central Pulp and Paper Research Institute, Member of EAC has expressed his inability to attend the meeting due to prior engagements. The list of participants is annexed.

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

Confirmation of the minutes of the 11th Meeting

The minutes of the 11th meeting, as circulated were confirmed subject to following modifications:

Item No. 11.7.1

Expansion of integrated steel plant of M/s Sunflag Iron & Steel Co. Ltd. located at Village Eklari, Taluka Mohdi, District Bhandara, Maharashtra. [F.No-J-11011/355/2004-IA.II(I)].

For	Read
The targeted production capacity of steel plant is 1.0 million TPA. The ore for the plant would be procured from NMDC Kironpur (Bailadila, C.G.), Hospet (Dist. Ballari, Karnataka), Barbil (Odisha) and Katni, Jabalpur (Madhya Pradesh)	The targeted production capacity of steel plant is 1.0 million TPA. The ore for the plant would be procured from NMDC Kironpur (Bailadila, C.G.), Hospet (Dist. Ballari, Karnataka), Barbil (Odisha) and Katni, Jabalpur (Madhya Pradesh) and any other source, as and where available.
It is estimated that the capital cost of the expansion project is Rs. 1510 Crores and the capital cost for environmental protection measures is Rs. 33.9 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10.6 crores.	It is estimated that the capital cost of the expansion project is Rs. 1510 Crores and the capital cost for environmental protection measures is Rs. 33.9 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10.6 crores. However, the actual capital cost on pollution control equipment and recurring cost will be in proportion to the cost of executed project.
Specific Condition No. (x): All internal roads shall be black topped.	All internal roads shall be black topped/Concretized/Paver blocked or shall be any other type of pucca road

Item No. 10.10.3

Expansion of Continuous Cast Copper Rod Plant capacity from 2, 40,000 TPA to 4, 84,000 TPA by setting up of a new CCR plant of 2,44,000 TPA capacity by M/s Hindalco Industries Ltd. located at Village(s) Lakhigam and Dahej, Tehsil Vagra, District Bharuch in Gujarat [F.No-J-11011/927/2008-IA.II(I)].

For	Read
The power requirement of the project is estimated as 25 MW which will be sourced from the existing Captive Power Plants.	The power requirement of the project is estimated as 2.5 MW which will be sourced from the existing Captive Power Plants.

10.6.4

Expansion of Cement Plant production capacity from 0.594 MTPA to 0.990 MTPA (no increase in clinker production) at Lumshnong, Khliehriat, District: East Jaintia Hills (Meghalaya) by M/s Star Cement Ltd. (formerly Cement Manufacturing Company Ltd.) [F.No-J-11011/214/2016-IA.II(I)].

For	Read
Specific Condition No. (v) The PP shall install eight additional bag filters in addition to 36 existing bag filters. The bags of the existing bag filters should be replaced with better quality bags with finer mesh.	The PP shall install eight additional bag filters in addition to 36 existing bag filters. The bags of the existing bag filters should be replaced with better quality bags having PTFE Lamination.
Page No. 5, Point No. (vi) An amount of Rs. 113 lakhs will be set aside by the Project Proponent as its Enterprise Social Commitment (ESC) to be expended over a period of 5 years, including Rs. 15 lakh on implementing a wildlife conservation plan.	An amount of Rs. 113 lakhs will be set aside by the Project Proponent as its Enterprise Social Commitment (ESC) to be expended over a period of 5 years, including Rs. 98 lakhs towards Plan for Conservation of Flora & Fauna and Green Belt Development and Rs. 15 lakh on implementing a wildlife conservation plan.

ENVIRONMENTAL CLEARANCE (EC)

12.3.1 Aswan Silica Sand Beneficiation Plant of M/s Mangalore Minerals Pvt. Ltd., located at Village Chhattara, Tehsil Bara, District Allahabad, Uttar Pradesh. [J-11015/188/2011-IA.II(M)]

The proposal was considered by the Expert Appraisal Committee. The project proponent and their EIA-EMP consultant (M/s Perfect Enviro Solution Pvt. Ltd., New Delhi) gave a detailed presentation on the salient features of the project. The proposed Silica Sand beneficiation plant project of M/s Mangalore Minerals Private Limited is located at Village Aswan (near Village Chhatahra), Tehsil Bara, District Allahabad, U.P.

The project was initially submitted to the Non-Coal Mining sector on 11.05.2011 and case was appraised during the 17th meeting of Expert Appraisal Committee (Non-Coal Mining sector) held on 20.07.2011 for grant of TOR. The consideration of the proposal was deferred and the proponent was asked to submit separate proposals for Mine and Mineral Beneficiation plant. Thereafter, the separate application for beneficiation plant was submitted on 01.08.2011 to the Non-Coal Mining sector and was prescribed Terms of Reference (ToRs) *vide* letter No. J-11015/188/2011-IA. II(M) dated 21st September, 2011.

Based on the ToRs, the baselinestudy was conducted (September-December, 2011). Public consultation was held on 08.07.2013. The Project Proponent submitted the EIA report to the Non-Coal Mining Sector on 26.12.2013. Based on the appraisal of the project on 21.3.2014, the proponent was directed to resubmit the EIA report along with one month revalidated baseline data. Revised EIA report was submitted to MoEFCC for appraisal on 27.6.2014. The project was re-appraised by the Expert Appraisal Committee (Non-Coal Mining) during its meeting held on 26th – 27th, August 2014. The Committee recommend the project subject to submission of Conservation Plan for Schedule-1 species(*Pavocristatus*). The duly approved conservation plan was submitted by the proponent on 21.9.2015. The proponent was advised by the Ministry *vide* letter No. J-11015/188/2011-IA.II (M) dated 20.11.2015 to seek the approval of Chief Wild Life Warden (CWLW). Finally, the proponent after obtaining the approval of CWLW *vide* letter No. 2124/26-11(Mangalore Minerals PVT) Lucknow dated 26.2.2016 submitted approved conservation plan to the Ministry on 26.2.2016 for issuance of Environmental Clearance.

The matter was examined in the Ministry and it was decided that since the proposal is for standalone beneficiation plant, the proposal has to be appraised by the Expert Appraisal Committee (Industry-I). Hence, the proposal is placed in the instant meeting of the EAC for Industry-I sector.

The proposal is for setting up a new Silica Sand Beneficiation Plant with throughput capacity of 0.6 MTPA (6 Lakh TPA) mineral silica sand. The total land required for the project is 10 ha. The land is barren land and devoid of any tree or bushes. The proponent has acquired the entire land from the private land owners. It is proposed to establish the plant on 6.91 ha. area and in the balance area of 3.09 ha., is earmarked for green belt. No river or water body passes through the project area. The distance of Yamuna river from the Project site varies from 5 to 6.6km NW. It is reported that Baghla lake is at a distance of about 9.5km SW.

No nationalpark/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to belocated in the core and buffer zone of the project. In buffer zone, presence of *Pavocristatus*(Peafowl), schedule I species is reported. Approved Conservation plan for Schedule I species has been provided.

The targeted throughput capacity of the plant is 0.6 million TPA. The silica sand will be sourced primarily from the nearby silica sand mine of M/s. Hari Mandir Mineral Traders located at about 1km from the plant and other nearby mines. The entire ROM transportation will be done by trucks.

The topography of the area is undulating and lies between 25 ° 17' 30" N to 25 ° 17' 47" N latitude and 81° 40' 14" E to 81° 40' 31" E longitude and is at an elevation of 112.8m above mean sea level. The ground water table in area varies from 5.25 m - 19.60 m (pre-monsoon) and

3.60 m - 18.30 m (post monsoon). Ground water development in the area is 54.99%, hence it has been categorized as safe category.

Total quantity of water required at any time in the system for washing the sand is estimated at 207 KLD. Besides 26 KLD of water will be needed for sprinkling and horticulture. Fresh water requirement will be 180 KLD, which will be drawn from ground water for which approval has already been obtained from CGWA. About 90 to 94 % water will be re-circulated in the system during the beneficiation process. The power requirement of the project is estimated to be 2000 KVA, which will be obtained from the Uttar Pradesh Power Corporation.

Ambient air quality monitoring (revalidated one month baseline) was carried out at 8 locations during 15th April 2014 to 15th May 2014 and the data submitted indicated that mean values of PM₁₀ ranges from 100.25 µg/m³ to 147.9 µg/m³, PM_{2.5} ranges from 46.35 µg/m³ to 63.05 µg/m³, SO₂ ranges from 8.0 to 10.15 µg/m³ and NO_x ranges from 11.25 to 15.4 µg/m³. The results show that the maximum level of impact on PM will be at about 400 m (30 to 50 µg/m³) and at about 400 m to 1 km (10 – 30 µg/m³). The Committee has observed that the ambient air quality is exceeding the prescribed limits. Air dispersion model was run to ascertain impact of PM on surrounding areas due to plant activities. For mitigation of impacts of air pollution from DG sets, stack height of 30 m above roof level for D.G. sets is proposed to be provided. There is no habitat in the core zone, therefore, no R&R is envisaged.

It is estimated that 60,000 TPA of waste in the form of clay, over size and under size will be generated at optimum capacity. Out of which 36,000 TPA will be utilized as aggregate and 24,000 TPA will be dumped in the earmarked dump yard. This material after drying will be used as landfill etc. It has been envisaged that an area of 3.09 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

The public hearing for the project was held on 08.07.2013. The issues raised during the public hearing *inter-alia* include employment for the locals, pollution in nearby area, employment opportunity, demarcation of plant boundary, water meter, implementation of rain water harvesting, monitoring of ground water through Piezometer etc.

The capital cost of the project is Rs 2,000 Lakhs. The capital cost on environmental protection measures is proposed as Rs 114.5 Lakhs. The annual recurring cost towards the environmental protection measures is proposed at Rs. 39.55 Lakhs. It has been mentioned that there is no court case or litigation regarding the project.

Based on the presentation made and discussions held, the Committee desired following information for further consideration of the project.

- i. Revised layout plan along with the proper indexing, showing green belt, waste disposal area etc should be submitted.
- ii. Detailed intermediate and final plan for disposal of waste generated in the form of clay, should be submitted.
- iii. Revised water balance should be submitted.
- iv. In view of higher PM in the ambient air, a plan to control ambient air quality should be submitted along with suggested mitigative measures.
- v. Risk Analysis Report should be submitted.

- vi. Detailed Comprehensive Environment Management Plan along with timelines and budget should be submitted.
- vii. In respect of SPM, Particulate size analysis of <75 micron particles should also be provided
- viii. Measures to control dust emissions in part of the plant which is below ground level, should be elaborated.
- ix. Flow of the nallah located near the plant shall not be obstructed.

12.4 FURTHER CONSIDERATION

12.4.1 Expansion of coke oven plant (Non recovery type) from 1.6 MTPA to 2.2 MTPA of M/s Tata Steel Ltd., located at Haldia, District Purba Medinipur, West Bengal.[J-11011/284/2007-IA.II(I)].

The proposal was earlier considered during the 1st meeting of the Expert Appraisal Committee (Industry-I) held on 18th – 20th November, 2015, when the Committee desired additional information on various issues.

The proponent submitted the requisite information vide letter No. HMC/HAL/GM/MOEFCC-001 dated 12.09.2016. The Committee deliberated on the additional information as presented by the project proponent. The Committee verified the details submitted by the project proponent including the compliance of the earlier EC and satisfied with the submissions made by the project proponent.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The ETP for coke oven by-product should be designed to meet EPA notified standards especially the cyanide and phenol.
- iii. Coke oven plant should meet visible emission standards notified by the MoEFCC.
- iv. All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged outside the premises via drains and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.
- v. Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The waste oil shall be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2016.
- vi. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.

- vii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points. Bag filters shall be provided to hoods and dust collectors. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- viii. The Standards issued by the Ministry vide G.S.R. 277(E) dated 31st March, 2012 shall be strictly adhered to and the Standards prescribed for the Coke Oven plant shall be monitored and the report should be submitted along with the six monthly compliance report
- ix. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office, CPCB and SPCB.
- x. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.
- xi. A statement on carbon budgeting including the quantum of equivalent CO₂ being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year.
- xii. For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc
- xiii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board /described under the E(P) Act. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional office, SPCB and CPCB.

- xiv. Risk Assessment and Disaster Management Plan for the project focussing on Disaster Prevention shall be prepared and implemented in conjunction with District Disaster Management Plan.
- xv. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- xvi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants and Coke Oven Plants shall be implemented.
- xvii. Green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xviii. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xix. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and Time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included.
- xx. The Company shall submit their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxi. All the commitments made to the public during the Public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separate budget for

implementing the same shall be allocated and information submitted to the Ministry's Regional Office.

- xxii. Haulage roads shall be sprinkled with water at regular intervals for which water tankers with sprinkler arrangement are deployed. Regular sweeping of roads shall be practiced with vacuum sweeping machine or water flushing to minimize dust.
- xxiii. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.
- xxiv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

12.4.2 Integrated Steel Plant (Sinter plant: 18,50,000 TPA, blast furnace: 10,05,000 TPA, DRI plant: 6,50,000, SMS:10,00,000 TPA, Rolling Mill:7,25,000 TPA, CPP:75 MW, Supporting utilities like RMH yard, Oxygen Plant, DM Plant, Lab, HVAC, Air compressor, DG sets of M/s Jindal Saw Ltd., located near village Pur, Tehsil and District Bhilwara, Rajasthan. [J-11011/293/2014-IA II (I)].

The proposal was earlier considered during the 8th meeting of the Expert Appraisal Committee (Industry-I) held on 27th – 28th June, 2016 when the Committee desired additional information on various issues.

The proponent submitted the requisite information vide letter No. Nil dated 19.08.2016. The Committee deliberated on the additional information as presented by the project proponent.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.
- ii. The ETP for Blast furnace effluent should be designed to meet Cyanide standards as notified by the MoEFCC.
- iii. No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.
- iv. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided.
- v. In-plant control measures and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be

provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.

- vi. The emission standards specified in the Environmental (Protection) Amendment Rules, 2015 issued by vide SO -3305 (E) dated 7th December, 2015 for the Thermal Power Plant shall be strictly adhered to.
- vii. The Standards issued by the Ministry vide G.S.R. 277(E) dated 31st March, 2012 shall be strictly adhered to.
- viii. Hot gases from DRI Kiln should be passed through dust settling chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in Waste Heat Recovery Boiler (WHRB). The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emission from WHRB.
- ix. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement.
- x. A statement on carbon budgeting including the quantum of equivalent CO₂ being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year.
- xi. For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc
- xii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiii. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Flue dust from sinter plant and SMS and sludge from BF shall be re-used in sinter plant. Coke breeze from coke oven plant shall be used in sinter and pellet plant. SMS Slag shall be given for metal recovery and properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

- xiv. Green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO. Intervening space between the planted trees should be used for growing fodder and grass species.
 - xv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants and Coke Oven Plants shall be implemented.
 - xvi. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
 - xvii. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and Time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included.
 - xviii. All the commitments made to the public during the Public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.
 - xix. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 12.4.3 **500 TPD clinker (Rotary Kiln) unit and 500 TPD Cement grinding (closed circuit) of M/s K. R. Associates, located at Dag 144, 145, 146, 147 & 151 of K.P. Patta No. 19, 21, 42 & 9, Village-Ambher, 12th Mile, Jorabat, Mouza Sonapur, District Kamrup, Assam [F. No. J-11011/139/2015-IA II (I)].**

Consideration of the proposal was deferred on the request of the Project Proponent.

12.4.4 Expansion of Continuous Cast Copper Rod Plant (2,40,000 TPA to 4,84,000 TPA) by setting up of a new CCR plant of 2,44,000 TPA capacity by M/s Hindalco Industries Ltd., located at Village(s) Lakhigam and Dahej, Tehsil Vagra, District Bharuch in Gujarat [F.No-J-11011/927/2008-IA.II(I)].

The proposal was earlier considered during the 10th meeting of the Expert Appraisal Committee (Industry-I) held on 29th– 31st August, 2016 when the Committee observed that the project proponent has not provided compliance report of the existing plant from the Regional Office of the Ministry, which is one of the mandatory requirements for decision. The Committee, therefore, deferred further consideration of the project and advised the project proponent to expedite submission of compliance report from the Regional Office.

The compliance report was submitted by Regional Office, Bhopal *vide* letter No. 5-10/1995 (ENV)/368 dated 14th October, 2016. The project proponent provided the same *vide* letter dated 15th October, 2016.

It was noted that the project was earlier accorded environmental clearances by the Ministry *vide* letter No. J-11011/7/1994 dated 14.03.1995, J-11011/81/2000-IA.II(I) dated 8.01.2002, J-11011/85/2002-IA.II(I) dated 10.02.2004, J-11011/220/2004-IA.II(I) dated 18.03.2005 and J-11011/927/2008-IA.II(I) dated 11.02.2009.

The project proponent presented the compliance status of all the projects. The Committee verified the compliance of the environment clearance conditions and satisfied with the compliance status of the project. However, the Committee noted that there are 2 EC conditions which are partially complied and requested the PP to submit the undertaking that those EC conditions will be complied with. The PP submitted undertaking for complying the partly complied specific conditions.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- iii. The National Ambient Air Quality Emission Standards issued by the Ministry *vide* G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. The PP shall install scrubber or upgrade the existing scrubbers within one year to reduce SO_x emission which will be verified by the regional office.
- v. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

- vi. A statement on carbon budgeting including the quantum of equivalent CO₂ being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year.
- vii. For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc
- viii. The internal roads should be designed such that the fire tenders should reach upto 10 meters of any unit.
- ix. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- x. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act.
- xi. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- xii. A time bound action plan shall be submitted for reduction in solid waste, its proper utilization and disposal.
- xiii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.
- xiv. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xx. Green belt shall be developed all along the periphery of the plant boundary in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xv. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. An amount of at least Rs. 4.25 crores will be set aside by the Project Proponent with a detailed plan for the ESC activities to be carried out in next 4 years.
- xvi. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and Time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included.
- xvii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xviii. 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.
- xix. The project proponent shall provide for LED lights in their offices and residential areas.
- xx. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

12.5 ANY OTHER ITEM

- 12.5.1 **Enhancement of Clinker capacity (2 MTPA to 2.5 MTPA) and change in product mix from 4.8 MTPA (1.1 MTPA OPC & 3.7 MTPA of PSC) to 4.8 MTPA of OPC/PSC/GGBS of M/s JSW Cement Ltd., located at Village Bilakalagudur, Mandal Gadivemula, District Kurnool, Andhra Pradesh.-Amendment in EC for use of Pet Coke in cement kiln and CPP.[J-11011/889/2007-IA.II(I)].**

The proposal was earlier considered during the 10th meeting of the Expert Appraisal Committee (Industry-I) held on 29th– 31st August, 2016 and the Committee recommended the amendment in environmental clearance subject to following conditions:

- (i) The proponent shall ensure that the use of pet coke shall not be beyond 70%.
- (ii) The proponent shall ensure that the use of limestone (Calcium Carbonate) shall not be less than 70%.

Subsequently, the project proponent *vide* online application No. IA/AP/IND/6703/2008 dated 30th September, 2016 requested for permission to use 100% pet coke/coal, or in combination, in Cement kiln and power plant boiler.

The Committee deliberated on the request made by the project proponent and recommended the amendments in environmental clearance with a permission to use 100% pet coke/coal, or in combination, in Cement kiln and power plant boiler.

12.5.2 Expansion of steel plant by installation of Iron Ore Beneficiation Plant (1 MTPA) along with Rolling Mill (0.3 MTPA), ARC Furnace (5,000 TPA) and Biomass Based Power Plant (20 MW) of M/s Godawari Power & Ispat Limited– Extension of validity of Environment Clearance. [J-11011/179/2009-IA.II(I)].

The environmental clearance to the project was accorded by the Ministry *vide* letter No J-11011/179/2009-IA.II (I) dated 25th August, 2009 for the implementation of the following components and an amendment to the EC was accorded by the Ministry *vide* letter dated 17th August, 2015.

- i. Iron Ore Beneficiation Plant - 10,00,000 TPA,
- ii. Rolling Mill - 3,00,000 TPA,
- iii. Arc Furnace - 5,000 TPA
- iv. Biomass based Power Plant - 20 MW

For the above facilities, PP has obtained the Consent to Establish from the Chhattisgarh Environment Conservation Board, Raipur. PP mentioned that out of the above four facilities, the Biomass Based Power Plant of 20 MW has been operational since September, 2010.

The amendment obtained for the project was to increase the production capacity of Rolling Mill from 3,00,000 TPA to 4,00,000 TPA *vide* letter dated 17th August, 2015. PP mentioned that orders were placed for all critical items and 50% of structural work has already been completed.

The Iron Ore Beneficiation plant 1 module of 5,00,000 TPA is in the process of establishment. However, due to slump in the iron and steel industry from 2012 and severe financial constraints, were unable to complete the projects of Rolling Mill and Iron Ore Beneficiation plant.

The PP has submitted the certified compliance report issued by the Regional Office, MoEFCC, Bhopal *vide* letter dated 02/06/2015.

The PP has requested to extend the validity of EC for further period of 3 years upto 24.08.2019.

It has been noted that the EC was accorded by the Ministry on 25.08.2009 and the application for seeking the extension of validity of EC was received on 24th September, 2016 i.e. after the lapse of 30 days. As per amendment Notification dated 29th April, 2015, the cases which were received within one month after the validity of EC would be referred to concerned EAC and based on their recommendations, the delay shall be condoned at the level of Joint Secretary in the Ministry. If the delay is by more than one month after the validity period of EC but less than three months after such validity period, then based on the recommendations of EAC, the delay would be condoned with the approval of the Minister in charge of MoEFCC. Provided that no condonation for delay would be granted for any application for extension filed 90 days after the validity period of EC.

The Committee recommended the proposal for extension of validity of EC for the period of 3 years up to 24th August, 2016, subject to condonation of delay by the Ministry as mentioned above. The project proponent shall submit a time schedule of completion of the remaining work within the extended time period.

12.6 CASE FOR TERMS OF REFERENCE (TOR)

12.6.1 Expansion of Cement Plant with increase in production of Clinker from 1.5 MTPA to 4.0 MTPA & Cement from 2.0 MTPA to 4.6 MTPA of **M/s. Penna Cement Industries Ltd** at Village Boyareddypalli, Kamalapadu Panchayath, Yadiki Mandal, District Anantapur, Andhra Pradesh- **J-11011/351/2016-IA.II(I) (Old file – J-11011/351/2006-IA-II(I)) [Proposal No. IA/AP/IND/59430/2016, Date of Submission 4th October, 2016]**

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s.Penna Cement Industries Ltd (PCIL) propose to increase clinker production capacity from 1.50 to 4.0 MTPA and cement production from 2.00 to 4.6 MTPA by enhancing the Unit-I production capacity from 1.5 to 1.65 MTPA and by installing a new line of 2.35 MTPA. Earlier clearance provided vide letter dated J-11011/351/2006-IA.II(I). The proposed unit will be located at Boyareddypalli Village, Yadiki Mandal, Anantapur District, Andhra Pradesh. PCIL complex is located in an area of 60 Ha out of which 19 Ha (16 Ha already developed) land will be used for green belt development. The new unit will be located within the existing cement plant. Total capital cost of expansion is Rs. 800 crores. Proposed employment generation from expansion will be 100 persons. The capacity of the cement plant before and after expansion is given below :

Unit		Present approved Capacity as per MoEF EC (MTPA)		Proposed enhancement (MTPA)		Capacity after proposed expansion (MTPA)	
		Clinker	Cement	Clinker	Cement	Clinker	Cement
Cement Plant	Unit –I	1.5	2.0	0.15	-	1.65	2.0
	Unit –II (new unit)	-	-	2.35	2.6	2.35	2.6

	Total	1.5	2.0	2.50	2.6	4.00	4.6
Waste Heat Recovery based Power Plant, MW		10		10		20	

The peak power consumption in the PCIL Cement plant complex including mine is 25 MW. Power requirement is met from grid. An additional power of 35 MW is required for the proposed expansion project, totaling to 60 MW. Internal Power generation from WHR will be 20MW (10 MW already installed).

With increase of clinker production capacity, the limestone requirement increases from 2.30 to 5.30 MTPA. PCIL proposes to meet the additional limestone requirement from same captive limestone mining lease. Fuel consumption is mainly coal / petcoke sourced from Singareni Collieries Company Ltd/ Imported Coal/Petcoke from USA.

The present water requirement of the plant is 930 m³/day and is sourced from borewells & mine pit within the plant site. Additional Water requirement for the proposal is 500 m³/day which will be met from mine pit. Domestic wastewater is treated in full-fledged sewage treatment plant (250 m³/day). Treated domestic wastewater is reused for greenbelt development within PCIL cement plant complex.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Andhra Pradesh 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.
- iv. Compliance report issued by the Regional Office of the Ministry should be submitted along with the EIA report and the compliance status should be presented before the Committee.
- v. Project proponent will optimise the consumption of water and energy, and reduce use of water and electricity per unit of production.

12.6.2 Proposed 300 TPD Stand alone Cement Grinding unit of M/s Lakshmanan Cements Pvt Ltd at 69-3, 69-4, Pachanapalli Village, Chittoor Mandal, Chittoor District, Andhra Pradesh. J-11011/231/2016-IA.II(I) [Proposal No. IA/AP/IND/59397/2016, Date of Submission 3rd October, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining

Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'B' of the Schedule of EIA Notification, 2006, however, the project attracts general condition of EIA notification, as the site located within 5 km (i.e 2.5 km) of interstate boundary of Andhra Pradesh and Tamil Nadu. Therefore, the proposal is appraised at the Central level.

M/s. Lakshmanan Cements Pvt Ltd proposes to establish a standalone cement grinding unit of 300 TPD capacity based on in-house technology. The proposed unit located at survey number 69-3, 69-4, Pachanapalli Village, Chittoor Mandal and District, Andhra Pradesh. The land area owned by proponent for the project plant is 1.4 ha out of which 0.46 ha land will be used for green belt development. Total project cost is Rs. 135 Lakhs. Proposed employment generation from the project is 22 direct employment and 15 indirect employment. The capacity of the plant is shown in the following table.

S.No	Name of Product	Manufacturing Capacity (TPD)
1	Cement (OPC/PPC)	300

The electricity load of 800 HP will be procured from APTRANSCO, Company proposes to install 1 x 125 KVA DG Set to be used during load shutdown by APTRANSCO.

Proposed raw material and fuel requirement for project are clinker, gypsum and Flyash. The required raw materials would be drawn from Suppliers within 180 km. Fuel consumption will be for DG Set only. Water Consumption for the proposed project will be 5.0 KLD and Domestic waste water generation will be 0.8 KLD from domestic usage. Domestic waste water shall be sent to septic tank followed by soak pit. No industrial waste water is generated from this project.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Andhra Pradesh 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.
- iv. Permission should be obtained from the Forest Department, under relevant Laws, for cutting of trees on the site.
- v. Plantation should be carried out for 5 times the number of trees cut from the site and a plan for the same should be presented before the Committee.
- vi. The natural drainage present at the site should not be disturbed and should be protected from any discharge or diversion.
- vii. Project proponent will optimise the consumption of water and energy, and reduce use of water and electricity per unit of production."

- 12.6.3 Expansion of cement plant with clinker 1.485 MTPA to 3.485 MTPA and Cement 1.65 MTPA to 5.00 MTPA by installation of new unit –II for additional clinker production of 2.0 MTPA and Cement of 3.35 MTPA of **M/s The India** at Village Chilamkur, Yerrakuntla Mandal, District YSR Kadapa, Andhra Pradesh. J-11011/126/2011-IA-II(I) [**Proposal No. IA/AP/IND/59343/2016, Date of Submission 30th September, 2016**]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category ‘A’ of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s.The India cements (ICL) proposes to increase Clinker Production from 1.485 MTPA to 3.485 MTPA and Cement Production from 1.65 MTPA to 5.00 MTPA by installation of new line within the existing Cement Plant located near Chilamkur village in Yerraguntla Mandal, Y.S.R. Kadapa district of Andhra Pradesh. Cement plant is located in an area of 234.76 Ha outofwhich 98.64 Halandis developed under greenbeltdevelopment. Total projectcostof expansion is Rs640 Crores.About 500 persons will be provided employment in the expansion.The proposed capacity of the cement plant before and after expansion is given below:

Unit		Present approved capacity as per MoEF EC (MTPA)		Proposed enhancement (MTPA)		Capacity after proposed expansion (MTPA)	
		Clinker	Cement	Clinker	Cement	Clinker	Cement
Cement Plant	Unit –I	1.485	1.65	-		1.485	1.65
	Unit –II (new unit)	-	-	2.00	3.35	2.00	3.35
	Total	1.485	1.65	2.00	3.35	3.485	5.00

The peak power consumption in the ICL Cement plant complex including mine is 22.5 MW. Power requirement is met from Grid, APGPCL, IEX, TATA power etc. An additional power of 30 MW is required for the expansion project.

A new mining lease is proposed for meeting the limestone requirement of expansion. The proposal was submitted to MoEFCC separately for necessary Environmental Clearances.The coal is sourced from Singareni Collieries.Coal is brought to the plant by rail through ICLs existing railway siding.

The present water requirement for the plant is 2300 m³/day and is sourced from Penneru River. Additional Water requirement for the new line is 1000 m³/day and will be met from Penneru River and Mine Pit .

Wastewater generated is only from domestic use at cement plant and residential colony. A full-fledged sewage treatment plant (STP) is in operation designed for a maximum load of 400 m³/day. Treated domestic wastewater is reused for greenbelt development within ICL cement plant complex.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Andhra Pradesh 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.
- iv. Compliance report issued by the Regional Office of the Ministry should be submitted along with the EIA report and the compliance status should be presented before the Committee.
- v. Project proponent will optimise the consumption of water and energy, and reduce use of water and electricity per unit of production.

12.6.4 Proposed expansion of MS Billets/ MS Ingots production capacity from 1,00,000 to 1,45,000 TPA, TMT Bars / Structural steel production capacity from 1,00,000 TPA to 3,00,000 TPA & Producer Gas plant (Gasifier) capacity from 6000 m³/hr to 18,000 m³/hr in existing plant premises of **M/s Hindupur Steel & Alloys Pvt Ltd.**, at Plot No. 29, APIIC Industrial Park (Phase-3), Gollapuram Village Gollapuram, Hindupur Mandal, District Ananthapur-, Andhra Pradesh-515211.[J-11011/250/2012-IA-II(I)][**ProposalNo. IA/AP/IND/59465/2016,Date of Submission 5th October, 2016**]

Consideration of the proposal was deferred on the request of the Project Proponent.

12.6.5 Proposed Enhancement of existing recycle paper production capacity of different grades and additional CPP of 15 MW capacity of **M/s N.R. Agarwal Industries Ltd.**, at Village Sarigam & Angam, Taluka Umbergaon, District Valsad, Gujrat- 396155. [J 13012/45/2011-IA.II(T)][**ProposalNo. IA/GJ/IND/58570/2016,Date of Submission 17th September, 2016**]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report.

M/s. N. R. Agarwal Industries Ltd has proposed to enhance the existing recycle paper production capacity of different grades and addition of CPP of 15 MW capacity. The proposed unit is located at Survey No. 69/1/p3, 69/1/p3/p1, 72/p3, 72/p4, 73/p1, 74/p2, 74/p3, 76/2p1, 75/1p4, 83/p1, 84/p1, 86/6/p1, 88/9/p1, 92/p2, 93/p2, 94/p1, 94/p2; Village: Sarigam & Angam , Taluka:

Umbergaon, District: Valsad, State: Gujarat. The land area required for the proposed project is 362719.74 m² (No additional land will be required due to proposed expansion) and out of which 12100 m² of land will be used for green belt development. Total project cost is approx. 337.93 Crores rupees. Proposed employment generation from proposed expansion will be 120 nos. direct employment and 30 nos. indirect employment. The proposed capacity for different products are as below:

S.No.	Product	Existing Quantity	Proposed Quantity	Total Quantity
1.	Writing Printing & Newsprint Paper	1,08,000 MTPA	-	1,08,000 MTPA
2.	News Print Paper	-	1,00,000 MTPA	1,00,000 MTPA
	AND/OR			
3.	Printing & Writing Coated & Uncoated Paper	-	1,20,000 MTPA	1,20,000 MTPA
	AND/OR			
4.	Paper & Paper Board Coated & Uncoated Duplex And Kraft / Test Liner Paper	-	1,50,000 MTPA	1,50,000 MTPA
	AND/OR			
5.	Tissue Paper	-	32,000 MTPA	32,000 MTPA
	Maximum Quantity (2+3+4+5)			2,40,000 MTPA
	Total Production = 2,40,000 MTPA + 1,08,000 MTPA			3,48,000 MTPA
6.	Captive Power Plant	15 MW	15 MW	30 MW

The additional electricity load of 15 MW will be procured from CPP. Fuel requirement for the proposed project is 600 TPD (Imported Coal). Additional Water Consumption for the proposed expansion will be 2515 KLD and waste water generation will be 1010 KLD. Domestic waste water will be treated in STP and will be reused in gardening and industrial waste water generated will be treated in ETP with capacity of 360m³/hr. It shall be partially reused in process and partially (i.e. 1MLD) will be discharged to CETP.

It was noted by the Committee that the existing paper plant was established in 1993 and the plant was operating on CTE/CTO. The present proposal is for enhancement of existing recycle paper production capacity from 1,08,000 MTPA to 3,48,000 MTPA (maximum) of different grades and additional CPP of 15 MW capacity. The Committee noted that the project falls under item 5(i) 'Pulp manufacturing from waste paper and paper manufacturing from waste paper pulp and other ready pulp' and falls under Category 'B' of the schedule of EIA Notification, 2016. Therefore it was decided that the project should be transferred to SEIAA, Gujarat, for further consideration of proposal.

12.6.6 Steel/sponge Iron Manufacturing plant of (3x60 TPD) 54000 MTPA in existing steel Manufacturing unit having capacity 72 TPD of steel Ingots of M/s Eden Steel Alloys at Village Mullanpur Kalan Ambey Majra Road Mandigobindgarh, Tehsil Sirhind,

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'B' of the Schedule of EIA Notification, 2006, however, due to the location of the project within Critically Polluted Area, the project become category 'A' and appraised at the Central level.

M/S Eden Steel Alloys proposes to add 3 tunnel furnaces for Sponge Iron Manufacturing. After expansion the production details will be as under:

EXISTING:

Product: Steel Ingot = 23760 MTPA

ADDITION:

Product: Sponge Iron = 54, 000 MTPA

By product: Char = 600 MTPA

The proposed unit will be located at Ambey Majra-Mullanpur Road, Village Mullanpur Kalan, Taluka Sirhind-Mandi Gobindgarh, District Fatehgarh Sahib, State Punjab. The land area acquired for the steel plant is 2.187 acres out of which 30% of total project land will be developed as green belt. Total project cost is approx Rs 3.10 Crores (after addition of proposed machinery). Proposed employment generation from proposed project will be around 90 persons out of which 40 Persons direct employment and approx 50 persons indirect employment. The electricity load of 3000KW will be procured from Punjab State Power Corporation Limited, Punjab.

Proposed raw material and fuel requirement for project are Iron Ore/ mill scale Fines, Coal / Coke Fines, Bentonite, Lime. Requirement would be fulfilled from Local market, Fuel consumption will be of various types of coal. Water Consumption for the proposed project will be 4.5 KLD; proposed project is based on zero discharge. 2KLD waste water will be generated and treated in septic tank.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Punjab 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.

12.6.7 Proposed 1x 50 TPH AFBC Boiler and Enhancement of Cold Rolling Mill (CRM) Production capacity from 0.8 MTPA to 1.0 MTPA within the existing premises of Integrated Stainless Steel Plant (1.6 MTPA) at Kalinga Nagar Industrial Complex, Danagadi, Tehsil Duburi, District Jajpur, Odisha by **M/s Jindal Stainless Ltd. [J-11011/281/2007-IA.II(I)] [Proposal No. IA/OR/IND/59679/2016, Date of Submission 15th October, 2016]**

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006.

M/s Jindal Stainless Limited, proposes to set up 1 X 50 TPH AFBC Boiler and enhancement of production capacity of CRM (Cold Rolling Mill) from 0.8 MTPA to 1.0 MTPA. The proposed proposal are additional auxiliary installations without changing the final production capacity of 1.6 MTPA capacity SMS based on in house technology. The proposed project will be installed within the existing premises of Integrated Stainless Steel Plant (1.6 MTPA) at Kalinga Nagar Industrial Complex, Taluka: Danagadi, District : Jajpur, State: Odisha.

The land area already acquired for the project is 526.09 Ha, out of which 177 Ha (33.65 or say 34%) land is under green belt coverage with suitable plant species which have been planted all along the internal road, raw material storage & handling, ash/dust prone areas. It is planned to plant further saplings considering the parameters as type, height, leaf area, crown area, survival rate, water requirement etc.

Total proposed project cost is Rs.320 Crores. Employment generation from proposed project will be 300 including contractual employment.

The proposed capacity for different products are as follows.

Name of Unit	No of Units	Capacity of each Unit	Production Capacity
AFBC Boiler	1	50 TPH	50 TPH
CRM (Cold Rolling Mill)	1	1.0 MTPA	1.0 MTPA

The power requirement for the proposed installation is 17 MW which will be procured from own CPP/State Electricity Grid. Company has also installed adequate capacity DG set to take care during emergency situation.

The raw material and fuel requirement for the proposed 1 X 50 TPH AFBC boiler is 500 TPD of Coal/Clean Fuel (Bagasse & other biomass based fuel). And the basic raw material feed to CRM is Black Coil from HSM @1.05 ton per Ton of product.

Fuel consumption will be mainly 15 KLD of LDO for startup in proposed 50 TPH AFBC Boiler as secondary fuel. And 20 to 25 kg of COG/LPG per ton of CRM product.

Water Consumption for the proposed project will be approximately 1750 m³/day. Out of which 1150 m³/day water shall be required for operation of 1 x 50 TPH AFBC Boiler plant and rest 600 m³/day raw water shall be required for proposed additional project of CRM. Source of water will be the RO treated effluent water and the shortfall amount will be sourced from existing Raw Water Reservoir of JSL. The waste water generation will be about 400 to 450 m³/day. Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reuse completely for in-house Non Potable use leading to Zero Discharge.

The Committee members during the meeting informed that an email was received from an unknown person mentioning that “the 50 TPH boiler is already installed in their plant premises without getting any clearance from MOEFCC which is a violation”.

In view of above, the Committee decided to refer the matter to the Ministry for taking further necessary action in the matter.

28th October, 2016 (Friday)

12.7 FURTHER CONSIDERATION

12.7.1 Expansion of Pellet Plant from 1.2 MTPA to 2.2 MTPA within the existing 1.75 MTPA integrated steel plant situated at Village Naharpali, Tehsil Kharsia, Distt Raigarh, Chhattisgarh by **M/s Monnet Ispat & Energy Ltd.**[J-11011/196/2007-IA.II(I)][**Proposal No. IA/CG/IND/3242/2007, Date of Submission 20th September, 2016**]

The project was earlier appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 2-3 July, 2015 and desired the submission of the following information:

- i. Analysis of data for emission of all the stacks for the past 1 year.
- ii. Ambient air quality monitoring for one month and submit the information to the Ministry.
- iii. Detailed note on production of pellet to the capacity of 2.2 MTPA.
- iv. Additional pollution load due to increase in production of pellet.

The Project Proponent has submitted the above information vide letter No. MIEL/HO/BD/CG-16 dated 7th December, 2015 and based on the information the proposal was reconsidered by the Committee and desired additional information on the following to further consider the project under clause 7 (ii) of EIA Notification, 2006:

- (i) As there is an increase of about 80% in the production over the rated capacity of pellet plant, the Regional Office of the Ministry should inspect the project site and verify that no additional equipments are being installed to increase the rated production capacity of pellet plant from 1.2 MTPA to 2.2 MTPA.
- (ii) Since the earlier Environment Clearance was accorded for integrated steel plant on 26.12.2007, the Committee has desired that the cumulative impact of various facilities within the integrated steel plant vis-a-vis the proposed capacity enhancement of pellet plant should be assessed and a report submitted by the project proponent.

- (iii) The project proponent should provide specific information along with facts about the incremental pollution load due to the proposed expansion which should be duly certified by the State Pollution Control Board.

The PP submitted the requisite information vide letter No.MIEL/HO/BD/CG-16 dated 13th September, 2016

After detailed deliberations, the committee opined that although there is an addition of 3 component in the overall plant, however, there is no increase in the overall production of the steel plant. Moreover there is addition of pollution control equipments to achieve the same.

In view of above,, the Committee recommended the proposal for environmental clearance under clause 7(ii) of EIA Notification, 2006 with the following condition:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.
- ii. All conditions stipulated in the earlier ECs granted to the project should be strictly adhered to.
- iii. Total quantum of dust release and pollution which is being released today has to be maintained even after increase in the the pellet plant capacity. Total quantum of dust released and pollution load should not exceed the present level even after increase in the capacity of the pellet plant.

The Committee also directed the PP to submit the undertaking for the above, which the PP has submitted.

12.7.2 Enhancement of production capacity of 2x27 MVA Ferro-Alloys Plant to produce HC Ferro Chrome/Charge Chrome from 76000 TPA to 96000 TPA without changing furnace capacity by **M/s Indian Metals & Ferro Alloys Ltd** located at Kapaleswar, Choudwar, Cuttack, Odisha. [J-11011/1236/2007-IA.II(I)

The proposal was considered by the Expert Appraisal Committee (Industry-I) [EAC(I)] during its 5th meetings held on 30th – 31st March, 2016 the Committee, after detailed deliberation, noted that as the capacity of the plant is proposed to be increased from 76,000 TPA to 96,000 TPA; therefore, this is not a case of amendment in the Environmental Clearance. It is an expansion project. The committee noted that since the increase in the capacity is marginal; the proponent may apply ab initio under clause 7(ii) of EIA Notification, 2006 for expansion project. The project proponent also has to submit the compliance status of the existing environmental clearance and implementation status of the plant along with the application.

The PP has now applied to the Ministry for expansion of the plant under clause 7(ii) of the EIA Notification, 2006. PP explained that there will be change in the furnace lining. Now by thinner lining, the volume will be increased. Therefore the capacity will be increased.The PP vide letter No. Nil dated 15.10.2016 submitted the requisite information. The RO, Bhubaneswar conducted the site visit and submitted the compliance report vide letter No. 101-367/EPE/1792 dated 4.10.2016. The Compliance report was discussed during the EAC meeting and the Committee was satisfied with the compliance status of the project.

The Committee, after detailed deliberations, recommended the proposal for environmental clearance under clause 7(ii) of EIA Notification, 2006 with the following condition:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.
- ii. All conditions stipulated in the earlier ECs granted to the project should be strictly adhered to.
- iii. Project proponent shall install a facility for treatment and recycling of kitchen waste.

12.7.3 Expansion of Steel Manufacturing Unit (from 29000 MTA to 84,000 MTA) by M/s Jyoti Industries (Unit-II) at B-57A, Phase-VII, Focal Point, Ludhiana, Punjab [F. No. J-11011/408/2012-IA.II(I)].

The proposal was considered in the 10th meeting of EAC (Industry-I) held on 29th – 31st August, 2016. Based on the presentation made and discussions held, the Committee had deferred the consideration of the proposal on the following grounds:

- i. The power requirement for the existing plant and the proposed plant should be re-estimated and submitted.
- ii. The existing capacity of the plant and the proposed plant capacity along with the units should be presented in a tabular format.
- iii. Comfort letter should be obtained from the electricity board for the supply of power for the required capacity.
- iv. Revise the data presented in the EIA report with the presentation as there is mismatch in the data.
- v. AAQM data collected during the monitoring should be compared with the SPCB data.
- vi. Compliance report for CTO from SPCB should be submitted.

The PP submitted the requisite information vide letter No. Nil dated 28.09.2016

The Committee deliberated in the information submitted by the PP. The Committee also deliberated on the compliance status of the project. Compliance of the CTO was found to be satisfactory by the committee.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided. Submerged arc furnace PM level should be restricted to 50 mg/Nm³.
- iii. The project proponent should provide for Scrubber to reduce SO_x emission before it is going to ESP.

- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- vi. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- vii. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- ix. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- x. A time bound action plan shall be submitted for reduction in solid waste, its proper utilization and disposal.
- xi. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.
- xii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiii. Tree plantation should be carried out in the premises at the available place. An area equivalent to 33% of the plot area of the plant should be planted with trees on the road side or near any government school. The photographs of the plantation efforts should be submitted along with the 6 monthly compliance report.
- xiv. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details

along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.

- xvi. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xvii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xviii. 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.
- xix. The project proponent shall provide for LED lights in their offices and residential areas.
- xx. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

12.7.4 Mini Steel Plant (1.5 LTPA), Sponge Iron Plant (1.2 LTPA), Iron Ore Pelletisation Plant (6.0 LTPA) and Captive Power Plant (25 MW) at Village Yerrabanahalli, Taluka Sandur, District Bellary, Karnataka by M/s KMMI Steel Pvt. Ltd. – Expansion proposal under clause 7(ii) [J-11011/1166/2007-IA.II(I)]

The proposal was considered in the 6th meeting of EAC (Industry-I) held on 3rd -4th May, 2016. Based on the presentation made and discussions held, the Committee desired that the project proponent should submit the latest compliance report for the existing Environment Clearance from the Regional Office, for further consideration of the project by the Committee. A comparative statement depicting the environmental status for the older and the new capacity should be presented.

The PP presented the compliance status of the earlier EC. It was noted during the discussion that the PP has sourced groundwater with the permission of the State Government; however, specific condition mentioned the source as Krishna River.

The Committee decided to refer the matter to the Ministry for taking decision in the matter.

12.7.5 Expansion of Sponge Iron Plant (3, 00, 000 TPA to 6, 00, 000 TPA) and Ferro Alloy Plant (72, 000 TPA) by M/s Rashmi Cement Ltd, locate at Village Jitusole (J.L No 702 & 703. Jitusole Junglokhas J.L. No. 731 and Baghmudi J.L No. 928), District Paschim Medinipur, West Bengal. [J-11011/604/2008-IA.II(I)]

The proposal was considered in the 10th meeting of EAC (Industry-I) held on 29th – 31st August, 2016. Based on the presentation made and discussions held, the Committee asked the proponent to prepare EIA and EMP report to substantiate their claim that there is no increase in pollution load. The EIA and EMP report so prepared will be further considered by the Committee. Under Section 7 (ii) of EIA Notification as it is a case of change in product mix with no increase in pollution load.

PP has presented scenario in which he has explained the existing pollution load due to Ferro Alloy Plant (FeMn, FeSi, SiMn) vis-a-vis the anticipated pollution load due to change in product mix after add on /inclusion of Ferro Chrome (FeCr).

PP explained that the process for all the activities will remain the same as submerged are furnace and the plant configuration will also remain the same. The water requirement and the waste water generated will also remain same. The release of pollutants on any hazardous, toxic or noxious substances in the air was presented before the committee and there is no abrupt change in the values of the pollutants emitting into the atmosphere. The PP explained that they have provided sufficient air pollution control equipments to meet the requirement.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.
- ii. All conditions stipulated in the earlier ECs granted to the project should be strictly adhered to.
- iii. TCLP test should be conducted for the Ferro-Chrome slag and report should be submitted along with the 6 monthly compliance report.

12.8 ANY OTHER ITEM

12.8.1 Expansion of the existing (24 000 TPA Pig Iron, 45000 TPA sponge Iron and 100000 TPA ore briquetting Plant) unit located in the village Borpali, Post Kesramal, Tehsil Rajgangpur, Dist. Sundargarh (Orissa) by M/s Suraj Product Ltd. [J-11011/226/2007-IA.II(I)] [Proposal No. IA/OR/IND/26728/2015, Date of Submission 4th October, 2016]

Consideration of the proposal was deferred on the request of the Project Proponent.

12.8.2 Technology up gradation (Soderberg process to prebake process) without change in augmented capacity of 65000 TPA under clause 7(ii) of EIA Notification, 2006 in

theAluminium Plant at Mettur Dam, Salem, Tamil Nadu by M/s Vedanta Ltd. [J-11011/481/2006-IA.II(I)]

Environmental Clearance to the project was granted by the Ministry vide letter No. J-13011/5/98 – IA II (T), dated 09th September 1998. Further EC for the expansion proposal was accorded vide F.No. J-11011/481/2006 – IA II (I) dated 24th March 2008.

PP has now applied for technology up gradation (Soderberg process to prebake process) without change in augmented capacity of 65000 TPA under clause 7(ii) of EIA Notification, 2006. PP provided the following status of implementation of the project:

Details of project	Existing	After Augmentation	Current Status
Alumina Refinery [TPA]	48,000	1,50,000*	* Project expansion not done due to non availability of ore and older [Soderberg] technology.
Aluminium Smelter [TPA]	24,000	65,000*	
Anode Paste [TPA]	13,800	45,000*	
Power [MW]	75	130	Completed. Is in operation.

PP mentioned that out of above components, only power plant of 75 MW has been implemented and the other components could not be implemented due to non availability of ore and older [Soderberg] technology.

It has been noted by the Committee that the EC was earlier accorded by the Ministry on 24th March, 2008. Since the PP has not implemented the project except 75 MW power plant, the implementation of the other component cannot be done as the EC for the project has expired on 23rd March, 2015.

In view of above, the Committee, after detailed deliberation, advised PP to apply afresh for obtaining ToRs for the above project.

12.8.3 Amendment of EC for use of pet coke as fuel in 2.318 MTPA clinker, 3.8 MTPA Cement & 40 MW Boiler of captive power plant at Plot No. 1, Ghugus Industrial Area (MIDC), Taluka and District Chandrapur Maharashtra by M/s ACC Ltd. – Chanda Cement Works. [J-11011/166/2009-IA.II(I)] [Proposal No. IA/MH/IND/2993/2009 Date of Submission 13th October, 2016]

ACC Ltd is operating Chanda Cement Works (CCW) at Chanda Cement Works Plot No.1, Ghugus Industrial area (MIDC), Chandrapur Taluka and District, Maharashtra. The environmental clearance for the project was granted by the Ministry vide letter No. J-11011/166/2009-IA II(I) dated 14th July, 2009 for the following capacity.

Cement Plant – 3.8 MTPA
Clinker – 2.318 MTPA

Captive Power Plant– 40 MW (15+25 MW)

PP has requested for amendment in the Environmental clearance for the following:

- a. Use of Pet Coke, Biomass in addition to Coal in Cement Plant.
- b. Use of Pet Coke and Biomass in addition to Coal in Captive Power Plant

PP further informed that the limestone mines at Chanda is having pyritic sulphur >0.5% in the limestone. PP presented NCBM analysis of Chanda limestone which depicts pyritic sulphur is >0.5% (Sample 1 - 0.51% and Sample 2 - 0.64%).

The Committee recommended the proposal for the above amendment in the EC under clause 7(ii) of EIA Notification 2006 with the following conditions:

- i. The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.
- ii. Use of pet coke is allowed only in the CFBC boiler with a capacity not exceeding 50 MW. The proponent shall ensure that the SO_x and NO_x emissions should meet the standards prescribed by the Ministry.
- iii. CEMS system should be installed which have interlock with the ESD system of plant.
- iv. PP shall install and/or replace the existing filter bags (As applicable) with PTFE dipped PPS felt filter bags, or the like, which are designed to cater for 150% of the air discharge volume.

12.8.4 Amendment of EC for use of pet coke, Lignite as fuel in 1.5 MTPA Cement Plant and 1x25 MW Boiler of Captive Power Plant at M/s ACC Ltd, Lakheri Village, Indragarh Tehsil, Bundi District, Rajasthan. – Lakheri Cement Works. [J-11011/250/2003-IA.II(I)] [Proposal No. IA/RJ/IND/3709/2004 Date of Submission 14th October, 2016]

ACC Ltd is operating Lakheri Cement Works (LCW) at Lakheri, Bundi District, Rajasthan.

The environmental clearance for the project was granted by the Ministry letter no. J-11011/250/2003 - IA. II (I) dated 5th, January 2005 for Expansion of cement plant from 0.4MTPA to 1.5MTPA & Setting up Captive Power Plant of 25 MW capacity & Cement Plant. 25 MW Captive Power Plant was commissioned in 2007. The capacity of the plant is as under:

Cement Plant – 1.5 MTPA
Captive Power Plant– 25.0 MW

Amendments required in Environmental clearance is “Use of of Pet coke, lignite, biomass in addition to coal in kiln of cement plant and boiler of captive power plant”.

The Committee recommended the proposal for the above amendment in the EC under clause 7(ii) of EIA Notification 2006 with the following conditions:

- i. The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016

regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.

- ii. Use of pet coke is allowed only in the CFBC boiler with a capacity not exceeding 50 MW. The proponent shall ensure that the SO_x and NO_x emissions should meet the standards prescribed by the Ministry.

12.9 CASE FOR TERMS OF REFERENCE (TOR)

12.9.1 Proposed Karakhendra Steel Plant (0.10 MTPA) over 13.2 acres at Village Karakhendra in Keonjhar District of Odisha M/s Rungta Mines Ltd. - [J-11011/230/2016-IA.II(D)] [Proposal No. IA/OR/IND/59265/2016, date of Submission 28th September, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'B' of the Schedule of EIA Notification, 2006 however, due to proximity to interstate boundary of Odisha-Jharkhand (1.7 km) the project is appraised at the Central level.

The project is for proposed Karakhendra Steel Plant (0.10 MTPA) at village Karakhendra of District Keonjhar, Odisha of M/s Rungta Mines Ltd. The total project area will be 13.20 acres. No forest land is involved. No national park/ sanctuary is located within 15 Km. No displacement is involved.

Forest present in the study area are Uliburu R.F(1.2 km), Pandrasali PF(2.0 km), Thakurani RF (1.8 km), Baitarni RF (11.2 km), Siddhamath RF(9.6 km), Karo RF(7.3 km), Tabiba PF(6.9 km), Tabiba PF(4.9 km), Gua PF(6.8 km), Jampani PF(12.1 km) Kurti PF (7.1 km), Noamundi PF (4.8 km), Gundijora PF (9.3 km), Kumirta PF(10.2km), Kuchibera PF(11.8 km), Nuia PF(2.6 km), Ghatkuri RF(5.2 km), Karapada RF(6.8 km), Kodolibad RF(13.8 km), Sonapi PF(13.6 km), Jojogutu PF(12.6 km), Baraiburu PF(10.4 km) and Raika PF(10.6 km).

Betlata Nala (2.8 km), Karo river (5.2 km), Limtur nala(5.3 km), Koina river (12.7 km), Kumirta nala (12.0 km), Barnal Lor nala(10.6 km), Kantorla nala(9.7 km), Mahadiba nala (5.7 km), Kundra nala (10.4 km), Baitarni river (14.4 km), Gamale nala (14.0 km), Katro Gara nala (7.2 km) are present within study area. Nearest city is Keonjhar at a distance of 59 km by road. The site falls in Seismic zone-II.

Proposed manufacturing facilities are given below:

Sl. No.	Facilities	Production Capacity
1	Steel Melting Shop comprising: Induction Furnace (2X15 T) with CCM (2 strand)	105,600 TPA
2	Billet / Bloom/ Slab caster	103,488 TPA
3	TMT/ Flat/Round/Wire Rod/ Structural Mill	101,418 TPA

The main proposed raw material required for the units will be Sponge which will be sourced from own DRI plant at a distance of 0.50 km in village Karakolha district Keonjhar Odisha and Pig and scrap shall be purchase from out site

The proposed project will generate direct employment for 250 people. Total estimated water requirement for the proposed units will be 31.25 cum/hr. The water will be sourced from Bore well, Karo river and Rain water harvesting. The total power requirement will be 15 MW. The power will meet the proposed power plant within existing premises of Sponge iron plant of the company at village Karakolha at a distance of 0.50 km from proposed Karakhendra Steel Plant. Total cost of the proposed project will be Rs. 83 Crores.

During construction, emissions are fugitive in nature due to excavation, soil handling, leveling and similar activities. The content of the emissions will be predominantly SPM, for which dust mask shall be provided to the workers. Water sprinkling will be done on roads, excavation sites and soil dump yards to reduce fugitive emissions.

During operation, air pollution control equipment such as bag filters will be provided and the emission of pollutant will be restricted within standards. Used oil and oil from oil traps will be sold to the authorized recycling vendors. IF slag are planned to be dumped in an environmental friendly manner in separate designated area.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Odisha 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.
- iv. Ore linkage for the project should be presented in the EIA/EMP report.

12.9.2 Environmental Clearance for 20 MW Power plant within existing Sponge Iron Plant at village Karakolha in Keonjhar District of Odisha of M/s Rungta Mines Ltd. [J-11011/229/2016-IA.II(I)] [Proposal No. IA/OR/IND/59204/2016, date of Submission 28th September, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

The project is for proposed 20 MW Power Plant (8 MW WHRB + 12 MW AFBC, air cooled) within Existing premises of Sponge Iron plant (5X100 TPD) at village Karakolha of District Keonjhar, Odisha of M/s Rungta Mines Ltd (Sponge Iron Division) along with Form-I and Feasibility Report. The existing DRI kiln is operational after obtaining Consent to operate prior 2006. The presentation of TOR will be held on 28.10.2016. The total project area will be 25.149 acres. No forest land is involved. No national park/ sanctuary is located within 15 Km. No displacement is involved.

Forest present in the study area are Uliburu R.F(1.8 km), Pandrasali PF (2.3 km), Thakurani RF (0.8 km), Baitarni RF (10.0 km), Siddhamath RF (9.2 km), Karo RF(7.5 km), Tabiba PF (7.5 km), Tabiba PF (5.8 km), Gua PF (7.7 km), Jampani PF (11.6 km), Kurti PF (6.4 km), Noamundi PF (4.3 km), Gundijora PF (9.3 km), Kumirta PF (10.4 km), Kuchibera PF (11.7km), Nuia PF (3.4 km), Ghatkuri RF (6.0 km), Karapada RF (7.2 km), Kodolibad RF (14.3km), Sonapi PF (14.2 km), Jojogutu PF (13.4 km), Baraiburu PF (11.2 km) and Raika PF (11.3 km).

Betlata Nala (2.0 km), Karo River (5.1 km), Limtur Nala (5.5 km), Koina River (13.5 km), Kumirta Nala (12.6 km), Barnal Lor nala (10.1 km), Kantorla Nala (10.4 km), Mahadeba Nala (4.5 km), Kundra Nala (9.3 km), Baitarni River (13.2 km), Gamale Nala (13.7 km) and Katro Gara nala (7.5 km) are present within study area. Nearest city is Keonjhar at a distance of 59 km by road. The site falls in Seismic zone-II.

The main Existing and proposed raw material required for the existing DRI units is iron ore from own mine, Coal from South Africa, dolomite from open market while for the proposed AFBC char will be sourced from own DRI plant and additional coal will be sourced from MCL. WHRB will be based on waste heat recovery from DRI kiln flue gas.

The existing manpower in sponge plant is 207 and proposed power plant will require 105 persons. Total estimated water requirement for the existing as well as proposed units will be 28.54 cum/hr (685 cum/day). The water will be sourced from existing bore well permission and from rain water harvesting in proposed pond within premises. The power generated from the proposed power plant will meet the power demand of the existing DRI kilns (1.5 MW), of self & auxiliaries (2MW), others (0.5 MW) as well as a proposed interlinked SMS, casting & Rolling mill project (15 MW) and loses (1.0 MW) at a distance of 0.50 km. Total cost of the proposed power plant project will be Rs. 90 Crores.

During construction, emissions are fugitive in nature due to excavation, soil handling, leveling and similar activities. The content of the emissions will be predominantly SPM, for which dust mask shall be provided to the workers. Water sprinkling will be done on roads, excavation sites and soil dump yards to reduce fugitive emissions.

During operation, air pollution control equipment such as ESP and bag filters will be provided in the power plant and the emission of pollutant will be restricted within standards. A neutralization pit is proposed for boiler blow down & cooling tower blow down. The water is thereafter reutilized for cooling in DRI, sprinkling & horticulture. The dolochar from the existing DRI kilns will get utilized in the proposed AFBC, thus reutilising the waste from existing plant. Fly ash will be generated which will be used in brick making, given to cement manufacturers and filling of low lying areas.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Odisha 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.
- iv. Compliance report issued by the SPCB for CTE/CTO should be submitted along with the EIA report and the compliance status should be presented before the Committee.
- v. Project proponent shall follow the provisions of the Electricity Act for transfer of power outside the boundaries of the plant."

12.9.3 Integrated Steel Plant expansion from 6 MTPA to 8 MTPA capacity Crude Steel and 9 MTPA Finished Steel of M/s Tata Steel Ltd. located at Kalinganagar, Insuarial Complex, Duburi, District Jajpur, Orissa regardin validity extension of existing environment clearance. [J-11011/7/2006-IA.II(I)] [Proposal No. IA/OR/IND/53158/2016, date of Submission 21stSeptember, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Tata Steel Kalinganagar (TSK) unit is located in Kalinganagar Industrial Complex (KNIC) at Duburi, Tehsil Sukinda, District Jajpur, State Odisha. KNIC will be falling under recently approved National Investment Manufacturing Zone (NIMZ) in Kalinganagar area.

The environmental clearance for 6.0 MTPA crude steel production was granted by the Ministry vide letter number J-11011/7/2006-IA-II (I) dated 7th Nov 2006. TSK has started commercial production in June 2016 by making operational the phase-1 facilities of its 6 MTPA steel plant. However, Phase –II of the project is under implementation. TSK proposes to expand its Integrated Steel plant capacity for production up to 8.0 MTPA crude steel through BF-BOF route by modifying phase-2 facilities. The details of the implemented phase and the unimplemented portion of the work along with the proposed expansion are indicated in the following table:

Sl.	Production Facilities	6.0 MTPA as per existing EC	Proposed changes in 8.0	Final Configuration at 8.0 MTPA
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		Phase 1 (Operational)	Phase 2 (Balance)	MTPA w.r.t. 6 MTPA	
1	Coke Ovens & Byproducts Recovery Plant (COBP)	2 X 88 ovens, 5 m tall	2 X 88 ovens, 5 m tall	In place of (2x88 Ovens, 5 m tall batteries), 2 x 62 ovens, 6.25 m tall Addition: 1X 62 ovens, 6.25 m tall	<ul style="list-style-type: none"> • 2 X 88 ovens, 5 m tall, • 3 X 62 ovens, 6.25 m tall
2	Sinter/Pellet Plant	1 No. Sinter Plant (496 m2)	1 No. Pellet Plant	1 No. Pellet Plant of 744 m2	<ul style="list-style-type: none"> • 1 no. Sinter Plant (496m2) • 1 no. Pellet Plant (744m2)
3	Blast Furnace	1 No x 4300 m3	1 No x 4300 m3	<ul style="list-style-type: none"> • Augmentation of existing BF from 4300 to 4330 m3 • In place of 4300 m³, bigger BF of capacity 5870 m³ 	• Two BF Volume (1x4330m3 & 1x5870m3)
4	Lime Calcining Plant (LCP)	2 x 600 TPD Vertical Shaft Kiln	1 x 600 TPD vertical shaft kiln	Addition: 1 x 600 TPD vertical shaft kiln	• 4x 600 TPD vertical shaft kiln
5	Steel Melt Shop (SMS)	2x300 Nos. of Convertors 1x310 t CAS-OB, 1X twin Strand Slab caster	1 x 300 t Converter 1x 310 t twin RH, 1X twin Strand Slab caster	<ul style="list-style-type: none"> • Upgrade 2 converters from 300 to 310 t • In place of 1x300 t converter , 1x310 t Addition: <ul style="list-style-type: none"> • 2x 310 t LF • 1 Multi Strand Billet Caster 	<ul style="list-style-type: none"> • 3x 310 t BOF converters, • 1x310 t CAS-OB, • 1x310 t twin RH, • 2x310 tons LF • 2x twin Strand Slab caster, • 1 Multi Strand Billet Caster
6	Mills	Hot Strip Mill 5.5 MTPA-1 No	Cold Rolling- 1 No 2.2 MTPA	Upgrade Hot Strip to 7.0 MTPA Addition: LP Mills - 2.0 MTPA	<ul style="list-style-type: none"> • Hot Strip -1 No. 7 MTPA • Cold Rolling- 1 No. 2.2 MTPA • LP Mill - 2.0 MTPA

7	Captive Power Plant	2 x 67.5 MW by-product gas based	1 X 67.5 MW byproduct gas based	Addition: 1 x 67.5 MW by-product gas - cum-coal tar firing	<ul style="list-style-type: none"> • 3x 67.5 MW by product gas based. • 1 x 67.5 MW by-product gas -cum-coal tar firing
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The land area acquired for the integrated steel plant is about 1250 ha. Expansion will be carried out in already acquired area. No additional area will be acquired. About 412 ha land will be used for green belt development in and around steel plant. Total project cost for expansion is approx. Rupees 21,000 Crore. The proposed expansion project will involve both direct and indirect deployment of local manpower. Direct opportunities would facilitate employment of about 5000 contract labourers at the 8.0 MTPA crude steel production stage. Besides, there will indirect employment due to the project.

The overall power requirement for the plant after implementation of the proposed project is estimated to be about 664 MW, which will be met by Captive power generation units as well as the Grid power supply. TSK is already having emergency DG sets.

Raw material and fuel requirement for production at 8.0 MTPA crude steel stage will be about 27 MTPA. Requirement would be fulfilled by indigenous sources as well as through import.

Water Consumption for the proposed project will be 5500 cum/hr and industrial wastewater generation will be 850 cum/hr. Industrial wastewater will be treated at Central Effluent Treatment Plant (CETP) and reused as make-up water. Domestic waste water will be treated in Sewage Treatment Plant (STP).

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- v. Public Hearing to be conducted by the Odisha 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.
- viii. Compliance report issued by the Regional Office of the Ministry should be submitted along with the EIA report and the compliance status should be presented before the Committee.

12.9.4 **Proposed Integrated Cement Plant, capacity Rotary Kiln 4.0 Million TPA Clinker & 5.5 Million TPA Cement, VSK of 100 TPD Clinker & 165 TPD Cement, Captive Power Plant 30 MW, Waste Heat Recovery Power Generation 30 MW, Synthetic Gypsum 1560 TPD, 2000 KVA DG sets (Size, 1000 I 500 I 250 I 125 KVA) & Residential Colony (505 Units) located Mandal Jainath & District Adilabad, Telangana by M /s Adilabad Alloys & Associated Industries Limited.**

[J-11011/228/2016-IA.II(I)] [Proposal No. IA/TG/IND/59081/2016, date of Submission 21stSeptember, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Adilabad Alloys & Associated Industries Limited is proposing Rotary Kiln of 4.0 Million TPA Clinker & 5.5 Million TPA Cement, VSK of 100 TPD Clinker & 165 TPD Cement, Captive Power Plant - 30 MW, Waste Heat Recovery Power Generation - 30 MW, Synthetic Gypsum - 1560 TPD, DG Sets - 2000 KVA (Size, 1000 / 500 / 250 / 125 KVA) & Residential Colony - 505 Units. The total project area is 381.58 Acre (154.42 ha); out of which approx. 126 acres (50.99 ha) (i.e. 33 % of the total project area) will be developed under greenbelt/ plantation. Total cost of the project is Rs. 1350 Crores. Proposed employment generation from Proposed Integrated Cement Project is 413 persons. Project Description is given in the table below:

S. No	Units	Proposed Capacity
1	Rotary Kiln	
	Clinker (MTPA)	4.0
	Cement (MTPA)	5.5
2	VERTICAL SHAFT KILN (VSK)	
	Clinker ((TPD)	100
	Cement (TPD)	165
3	Captive Power Plant (MW)	30
	WHRs(MW)	30
4	Synthetic Gypsum Unit (TPD)	1560
5	DG Sets (KVA)	2000 (1000/ 500/ 250/ 125)
6	Residential Colony	505 Units

Total power required for proposed project will be 51 MW which will be sourced from Proposed CPP, Grid & DG Sets.

Proposed raw material requirement are Limestone which will be sourced from Limestone Mine of M/s Adilabad Alloys & Associated Industries Ltd., village Pipalgaon, Mandal Jainath & District Adilabad (Telangana) and local market; Iron ore/ Laterite from Nagpur Butibori based Sponge Iron Plant & other nearby sources; Bauxite from Kalahandi (Odisha), Bilaspur (Chhattisgarh) & other nearby sources; Indian, Imported, Gypsum from Oman & Iran via Vizagport, Synthetic gypsum plant, Chemical gypsum & other nearby sources; Fly Ash from SCCL-Singareni TPP, Jaipur, Adilabad, TPGCL-Ramagundam TPS, Ramagundam, Karimnagar, NTPC Ramagundam, Ramagundam, NTPC-Telangana Super TPP, Ramagundam, Karimnagar &

other nearby sources; Slag from Uttam Galva Steels Ltd, Bhugaon, Maharashtra, Sunflag Iron & Steel Co. Ltd, Bhandara, Maharashtra & other nearby sources.

Total water requirement for the proposed Integrated Cement Project will be 2200 KLD, source of which is Ground Water and waste water generation will be 633 KLD. Domestic waste water will be treated in STP and industrial waste water generated will be used in synthetic gypsum manufacturing, ash quenching and mill spray.

Based on the presentation made and discussions held, the Committee desired additional information on the following for further consideration of the proposal:

- i. At least 3 alternate sites should be evaluated based on environmental parameters and details should be submitted.
- ii. For the existing site a revised layout should be submitted. The high flood line on both the side of the nala should be demarcated and duly authenticated with the irrigation department or the concerned department. The layout should be prepared on the balance part of the land on both the side and should be submitted.

12.9.5 Proposed Cement Plant (Dalmia DSP Unit) - Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (10 MW) and D.G. Set (1000 KVA) by M/s. OCL India Limited located at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha) [J-11011/232/2016-IA.II(D)] [Proposal No. IA/OR/IND/59484/2016, date of Submission 7th October, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. OCL India Limited is proposing Cement Plant (Dalmia DSP Unit) - Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA) at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha). The total project area is 97.06 acres; out of which approx. 32.02 acres (i.e. 33 % of the total project area) will be developed under greenbelt/plantation. Total cost of the project is Rs. 1874 Crores. Proposed employment generation from Proposed Integrated Cement Project is 365 persons. Project Description is given in the table below:

Units	Proposed Capacity
Clinker (MTPA)	3.0
Cement (MTPA)	2.25
WHRS (MW)	15
DG Sets (KVA)	1000

Total power required for proposed project will be 45 MW which will be procured from State Electricity Board / Grid & DG Sets (in case of emergency).

Proposed raw material requirements are Limestone which will be sourced from Lanjiberna Limestone Mine; Morrum from Uparbahal; Clay / Shale Stone, Non-Magnetic Char, Cinder and Sandstone from Rajgangpur; Fly Ash from Rajgangpur, OISL Jampali, Rourkela Steel Plants, Jindal Steel Angul, HINDALCO Hirakud, IB Thermal Baharpali, Aditya Alumina Lapanga; Granulated Slag from Raurkela Steel Plant; Bhushan Steel & Power Ltd. Lapanga; Nilanchal Ispat Nigam, Dubari; SAIL-Bhilai Steel Plant; Tata Steel -Jamshedpur; Tata Steel-Kalinganagar; Jindal Steel & Power, Angul; RINL Vizag; Chemical Gypsum from Coromondal Fertilizer Ltd., Vizag; TATA Chemical Ltd., Haldia; Paradeep Phosphates Ltd. Paradeep); Mineral Gypsum from FCI, Jodhpur & Imported OMAN/IRAN; Coal- Indigenous from MCL; Coal- Imported from South Africa/ Indonesia; Petcoke from Saudi/US/India.

Total water requirement for the proposed Integrated Cement Project will be 1200 KLD which will be sourced from Nakti Nallah

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Odisha 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.
 - iv. Compliance report issued by the Regional Office of the Ministry should be submitted along with the EIA report and the compliance status should be presented before the Committee.
- 12.9.6 **Proposed cement plant with production capacity 2.00 MTPA at Villages Kotda & Bhatakda, Taluka Mahuva, District Bhavnagar, Gujarat by M/s Ultra Tech Cement Limited (Mahua Cement Project).[F. No. J-11011/227/2016-IA II (I) Proposal No. IA/GJ/IND/58937/2016 Date of Submission 12th September, 2016. Considered 11th Meeting (Absent)**

Consideration of the proposal was deferred on the request of the Project Proponent.

- 12.9.7 **Proposed expansion Ferro alloy in the existing plant site premises of M/s Shri Girija Alloy & Power (I) Private Limited at Sy. Nos. 149 p,149 p,151,152 p, 153 p,162p,164,355 p,397 p,400 p, 429p, Peddapuram Village & Mandal, East Godavari, AndhraPradesh).[F.No.J-11011/679/2009-IAII (I)] [Proposal No. IA / AP /IND /59604/2016 Date of Submission 12thOctober, 2016]**

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

Shri Girija Alloy & Power (I) Pvt Ltd, is located at Sy. No. 148 P, 149 P, 151, 152 P, 153 P, 162 P, 164, 355 P, 397 P, 400 P, 428 P Peddapuram Village, Peddapuram Mandal, East Godavari District, Andhra Pradesh. The Company has obtained Environmental Clearance for the existing unit vide order no. J – 11011 / 679 / 2009 – IA II (I) dated 24-12-2010. The following are production capacities as per the Environmental clearance issued

S.No	Name of the Product	Production Capacity
1.	Silico Manganese	72000 TPA
2.	Ferro Manganese	36000 TPA
3.	Power generation	108 MW

Now the PP has proposed to enhance the production capacity of existing Ferro alloy products and also produce new ferro alloy products, noble alloys and Calcium Aluminate based Synthetic slag. The following are proposed production capacities of ferro alloy, noble ferro alloys and synthetic slag after proposed expansion

S.No	Unit	Existing Production capacity (Unit)	Proposed Peak Production capacity (Unit)	Production Capacity After proposed expansion
1	Ferro Manganese (High carbon / medium carbon / low carbon)	36,000 TPA (120 TPD)	1,20,000 TPA (364 TPD)	1,56,000 TPA (484 TPD)
2	Silico Manganese (High carbon / medium carbon / low carbon)	72,000 TPA (240 TPD)	85,000 TPA (258 TPD)	1,57,000 TPA (498 TPD)
3	Ferro Chrome (High carbon / medium carbon / low carbon)	--	85,000 TPA (258 TPD)	85,000 TPA (258 TPD)
4	Ferro Silicon (High carbon / medium carbon / low carbon)	--	25,000 TPA (75 TPD)	25,000 TPA (75 TPD)
5	Low carbon Ferro chrome	--	3,600 TPA (12 TPD)	3,600 TPA (12 TPD)
6	Ferro Molybdenum	--	3,600 TPA (12 TPD)	3,600 TPA (12 TPD)
7	Ferro Titanium	--	3,600 TPA (12 TPD)	3,600 TPA (12 TPD)
8	Ferro Vanadium	--	3,600 TPA (12 TPD)	3,600 TPA (12 TPD)

S.No	Unit	Existing Production capacity (Unit)	Proposed Peak Production capacity (Unit)	Production Capacity After proposed expansion
9	Calcium Aluminate based Synthetic slag	--	15,000 TPA (50 TPD)	15,000 TPA (50 TPD)
10	Power generation	108 MW	--	108 MW

Water requirement after proposed expansion of the project will be 1400 KLD and same will be sourced from Samalkot canal. Waste water generation is mainly from Clarifier, MGF, UF, RO plant, Softener and blowdowns from Boiler and cooling tower. Effluent from power plant is being treated and after ensuring compliance with APCCB norms, it is being utilized for dust suppression, ash conditioning and for greenbelt development.

Sanitary waste water will be treated in septic tank followed by sub-surface dispersion trench. The emissions from EAF will be passed through Fume extraction system containing cyclones and Bag filters and will be discharged through a chimney of 36 m height. Ferro manganese slag generated will be reused in manufacture of Silico Manganese as it contains high MnO₂ and Silicon. Silico manganese slag & ferro silicon slag generated will be used in road construction or land filled. Ferro Chrome Slag and Slag from Noble ferro alloys will be stored separately without ground contamination.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. Public Hearing to be conducted by the Andhra Pradesh 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.
- iv. Compliance report issued by the Regional Office of the Ministry should be submitted along with the EIA report and the compliance status should be presented before the Committee.

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

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. Process description along with major equipments and machineries, process flow sheet (Quantative) from raw material to products to be provided
 - ix. Hazard identification and details of proposed safety systems.
 - x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests 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 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. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, 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 NAQPM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be

included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. Enterprise Social Commitment (ESC)
 - i. Adequate funds (Atleast 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. 'A tabular chart with index for point wise compliance of above TORs.
14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF 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 vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA

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

ADDITIONAL TORS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM(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. Post process control system for control of SO_x
12. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
13. Trace metals in waste material especially slag.
14. Trace metals in water

ADDITIONAL TORS FOR PELLET PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. PM(PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.
5. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
6. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

ADDITIONAL TORs FOR CEMENT INDUSTRY

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

ADDITIONAL TORs FOR PULP AND PAPER INDUSTRY

- i. A note on pulp washing system capable of handling wood pulp shall be included.
- ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
- iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.
- iv. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
- v. A commitment that no extra chlorine basebleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.

LEATHER/SKIN/HIDE PROCESSING INDUSTRY

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.*).
2. Details regarding complete leather/ skin/ hide processing including the usage of 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.

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.

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.

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.

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 aluminum, 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

LIST OF PARTICIPANTS OF EAC (I) IN 12th MEETING OF EAC (INDUSTRY-I)
HELD ON 27th – 28th October, 2016

S.No	Name and Address	Position	Attendance		Signature
			27 th October, 2016	28 th October, 2016	
1	Dr.Chhavi Nath Pandey, IFS(Retired)	Chairman	P	P	
Members					
2.	Director, Central Pulp and Paper Research Institute	Member	A	A	
3.	Director, Central Leather Research Institute	Member	A	A	
4.	Representative of Indian Meteorological Department	Member	A	A	
5.	Representative of Central Ground Water Board	Member	A	A	
6.	Dr. G. Bhaskar Raju	Member	P	P	
7.	Prof. Naresh Chandra Pant	Member			
8.	Dr. Jagdish Kishwan, IFS(Retired)	Member	P	P	
9.	Dr.G. V.Subrahmanyam	Member	P	P	
10.	Prof. Arun Pandey	Member	P	A	
11.	Shri Santosh Raghunath Gondhalekar	Member	P	P	
12.	Shri Ashok Upadhyay	Member	P	P	
13.	Shri Vijay Prakash Saha	Member	P	P	
14.	Dr.Satish C.Garkoti, Scientist 'F', MoEFCC	Member Secretary	P	P	
15.	Shri Amardeep Raju, Scientist 'D', MoEFCC	MoEFCC	P	P	
