

**SUMMARY RECORDS OF 47<sup>TH</sup> MEETING OF THE EXPERT APPRAISAL  
COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY – 1  
PROJECT CONSTITUTED UNDER THE EIA NOTIFICATION, 2006  
HELD ON 3<sup>RD</sup> – 4<sup>TH</sup> SEPTEMBER, 2015**

The 47<sup>th</sup> meeting of the Expert Appraisal Committee for environmental appraisal of Industry-I projects of the Ministry of Environment, Forest and climate Change was held on 3<sup>rd</sup> – 4<sup>th</sup> September, 2015. List of participants annexed.

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

**Confirmation of the minutes of the 45<sup>th</sup> Meeting**

The minutes of the last meeting was confirmed as circulated.

**47.3 ENVIRONMENTAL CLEARANCE (EC)**

**47.3.1 Green field Steel plant of M/s Nachiketa Power and Steel Private Limited located in Silpahari notified Industrial Area, Village Silpahari, Tehsil & District Bilaspur, Chhattisgarh [F. No. J-11011/141/2013-IA-II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Visiontek Consultancy Services Pvt Ltd) gave a detailed presentation on the salient features of the project. The project was prescribed TORs Vide letter No.J-11011/141/2013-IA-II (I) dated 10<sup>th</sup> September 2013. However, due to Techno-economic considerations, further action on the project had not been taken. The project proponent had modified the project configuration and submitted revised proposal for consideration and approval of ToRs. The revised proposal was considered in the 23<sup>rd</sup> meeting of EAC held on 18<sup>th</sup> – 19<sup>th</sup> September, 2014 and ToRs were prescribed on 7<sup>th</sup> November, 2014. Final EIA/EMP report has been prepared and submitted to MoEFCC, New Delhi for Environmental Clearance on dated 17.07.2015. The proposed project activity is listed at S.No. 3(a) in Metallurgical industries (ferrous & non ferrous) under Category ‘A’ of the Schedule of EIA Notification 2006.

M/s Nachiketa Power and Steel Pvt. Ltd (NPSPL) has proposed to setup 2 X 2,25,000 TPA DRI Plant; 3,10,000 TPA Steel Melt Shop; 19,800 TPA Oxygen Plant & 2 X 8 MW WHRB Power Plant at Silpahari Industrial Area (Notified IDA), Tehsil & District- Bilaspur, Chhattisgarh. The latitude & longitude for the proposed project site is 22°01’0.33’’N & 82°11’16.08’’E respectively. No National Park/wild life sanctuary is located within 10 km radius of the project site. The site is about 4.8 km away from nearest city Bilaspur. Nearest railway station is Bilaspur about 4.8 km from the project site. Nearest airport is Chakrabhata about 8 km away from the project site. Total proposed project area is of 57.62 Acres (23.32 Ha). Total cost of the project is Rs. 75600.00 Lakhs. Out of the total, an amount of Rs. 2794.00 Lakhs and Rs.285.0 Lakhs will be earmarked towards capital cost and recurring cost for environmental pollution control measures. A budget of Rs. 3780 Lakhs has been envisaged for CSR activities. The total manpower required for the project during construction phase is 400 People and during operation phase is 300 People

Following table shows salient features of the project:

Sl. No.	Proposed Units	Proposed Capacity	Quantity in MTPA	Saleable Quantity in TPA
1	Production of DRI	2 X 700 TPD	2 X 2,25, 000 TPA	2,76,000 TPA- In-house 1,74,000 TPA Saleable
2	Steel Melt Shop	940 TPD	3,10,000 TPA	3,10,000 TPA- Saleable
3	Oxygen Plant	60 TPD	19,800 TPA	In- house
4	Waste heat recovery Boiler	2 X 8 MW	--	In- house

Iron Ore concentrate (Dry basis), Coal (dry basis), Dolomite, Bentonite, are the major raw materials used in the plant process. The unit's saleable product will be DRI & Billets.

Total water requirement for the proposed project is of 107.29 Cum/hr. Waste water from RWTP in form of Back Wash will be treated in settling pond and reused in dust suppression, plantation etc. The hot water from different units after cooling will be taken through oil/grease traps for removal of oil and grease. Then the treated water will be routed to equipment cooling towers. After cooling, the same water will be recycled to corresponding units with necessary makeup. Domestic wastewater will be treated in septic tank and discharged to soak pit. Zero discharge norms will be maintained in the proposed plant.

Solid waste i.e waste gas dust and grate dust will be mixed with water and collected for reuse. In plant dust will be collected and circulated in system through pneumatic conveying. Green belt will be developed in 24.72 Acres (42.90%) of the total plant area. Ear muffs/ear plugs will be provided to workers working in high noise prone areas.

One season Baseline data around 10 km radius of the project site has been collected from 20th October, 2014 to 19th January, 2015. With regard to the air quality in the study area, the concentrations of particulate matter PM<sub>10</sub> ranges between 26.8 µg/m<sup>3</sup> to 72.8 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 13.9 to 37.5 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between <4 to 16.5 µg/m<sup>3</sup>, and oxides of nitrogen (NOx) between <9 to 21.5 µg/m<sup>3</sup>. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 2.50 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>, 1.88 µg/m<sup>3</sup> with respect to the SO<sub>2</sub> 13.72 µg/m<sup>3</sup> with respect to the NOx.

Gaseous emission will be controlled by installing air pollution control equipments. Dust suppression will be done by water sprinkling to control fugitive emissions due to transportation activities. Bag Filter will be installed for fugitive dust to be generated from material handling like Iron ore, coal, and lime stone & at product screening point. STP is proposed to treat the domestic waste water. Water sprinkling will be done along the roads to control dust arising from vehicular movement.

Public Hearing was conducted on dated 15<sup>th</sup> June 2015 at Open area of Silpahari Industrial Area, Dist-Bilaspur, Chhattisgarh under the chairmanship of Sub-Collector and Additional District

Magistrate, Bilaspur. The major issues raised during the public hearing *inter alia* include peripheral village development, employment, CSR activities, medical facilities, electricity, education, etc.

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

- i. Revised estimate for the quantity of waste generation and its disposal plan should be submitted.
- ii. MoU for sale of char along with the quantity should be submitted.

**47.3.2 Replacement of Electric Arc Furnace (EAFs) of Steel Making Plant by Basic Oxygen Furnaces (BOFs) project of M/s Essar Steel India Ltd., located in Hazira Facility of at Hazira Notified industrial area, Village Hazira, Tehsil Choryasi, District Surat, Gujarat [J-11011/44/2004-IA.II (I) & J-11011/381/2014-IA II].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant made a presentation on the salient features of the project.

It has been observed by the Committee that the report submitted by the PP does not have information which the PP has shown at the time of presentation. The report does not provide information regarding existing configuration for which earlier ECs were accorded vis a vis proposed configuration and the status of implementation of the existing projects.

The report also lacks information related to ETP details established/proposed for the existing/proposed Coke oven and Blast Furnace to meet the cyanide standards, Stack emission details, data on monitoring parameters for coke oven plant, Waste disposal plan along with the disposal site details and MoUs with the concerned agencies/plants, land details for the existing and the proposed plant, raw material details, waste generation including liquid waste and its management plan, health details, land requirement, etc.

Based on the presentation made and discussions held, the Committee advised PP to submit the revised EIA/EMP report incorporating the changes discussed during the meeting. The proposal will be appraised afresh based on the revised report.

**47.3.3 Structure angle, channel, girder TMT bars(1,75,200 TPA) and ERW & GL/EP Pipes(79,200TPA) manufacturing project of M/s J.D. Metalloys Limited at Plot No. SP-234, RIICO Industrial Area, Phase-II, Abu Road, District-Sirohi, Rajasthan [J-11011/325/2012-IA II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s ENKAY Enviro Services Pvt. Ltd) gave a detailed presentation on the salient features of the project. The TORs to the project were prescribed vide letter No F. No. J-11011/325/2012-IA-II (I) dated 18<sup>th</sup> March, 2013. Final EIA/EMP report has been prepared and submitted to MoEFCC for Environmental Clearance on dated 21.08.2015. The proposed unit is categorized under Category B 3(a) (ii) of EIA Notification, 2006. However, due to the presence of Inter-State boundary at 0.8 Km west from the site boundary

and Balaram Ambaji Wildlife Sanctuary at 2.7 km towards SW to SE and Jessore Sloth Bear Sanctuary at 9.5 Km towards NW, the proposal is treated as category 'A' and appraised at the central level. The Committee opined that since the project falls under category B, the report prepared by a 'B' category consultant for the respective sector is acceptable.

M/s J.D. Metalloys Ltd. has proposed to setup a new secondary metallurgical processing unit for manufacturing T.M.T. Bars/ Angle/Channels/Girder with production capacity of 1,75,200 TPA and E.R.W. & G.I. /E.P. Pipes for the production of 79,200 TPA. For manufacturing the proposed capacity the unit will install two no. of 40 ton induction furnace, one zinc pot furnace of 45 ton, rolling mill for manufacturing and galvanizing plant. The proposed project will use the steel scrap, ferro alloys and sponge iron as raw material to manufacture billets. These billets are an intermediate product, which will be directly fed to rolling mill to finally manufacture TMT bars and Angles and for manufacturing the ERW/GI pipes. The unit will use raw material like HR Coil, Zinc, HCl solution, Chromate solution and NH<sub>4</sub>Cl solution. The total capital investment required for the proposed project is 7535.39 Lakh. About Rs. 160 lakhs are earmarked for the environment protection program. Cost towards CSR activities is Rs 1.48 crore, and Rs.1 lakh will be recurring cost. Total Manpower requirement for the project is 200 persons. The present project will provide direct employment to skilled workforce and indirect employment (transport, services deliveries etc.) to semi-skilled and unskilled workers.

The nearest highway is NH-14 at 0.70 km towards-N connecting Beawar in Rajasthan with Radhanpur in Gujarat. The nearest railway station is Mawal Railway Station (0.9 km away from site towards NNE). Nearest air port is Dabok,Udaipur at 120 km ENE. The nearest habitation is Mawal at 1.73 km .The Suket Nadi is 0.3 km NE, Sewaran River-2.1 Km NE, Banas Nadi-2.2 Km N, Teliya Nadi-6.3 km ESE, Kaleri Nadi-3.8, Gomti Nadi-8.3 NW. There is fairly dense mixed jungle, which is about 4.93 km towards SE from the site. Keleta Hill is about 7.5 km towards SW, Rewda Hill, which is about 2.6 km towards N. The open Mixed Jungle is about 7.5 km towards SSW and Dense Mixed Jungle is about 9.2 km towards SSW from the site. No Rehabilitation/Resettlement required for the project. No archaeological monument and defense installation within study area. Following table shows the quantity of raw material utilized and the quantity of final products:

#### Material Balance for Billets

INPUTS			OUTPUT	
S. No.	Items	Quantity (TPA)	Item	Quantity(TPA)
1.	Sponge Iron	1,54,556	Billets	1,58,000
2	Ferro manganese	10,080		
3	Ferro silicon	3,364	Slag	10,000
	TOTAL	1,68,000		1,68,000

#### Material Balance for TMT/Angle/ Channels/Girder

INPUTS			OUTPUT	
S.	Items	Quantity	Item	Quantity(TP

No		(TPA)		A)
1	In house/ Outsource Billets	1,79,000	TMT/Angle/ Channels/Girder	1,75,200
			Mill Scales	3800
			Total	1,79,000

The following table shows the raw material requirement for the project:

<b>Requirement for Billet</b>		
S.No.	Raw Material	Requirement (TPA)
1	Sponge/Scrap Iron	1,54,556
2	Ferro manganese	10,080
3	Ferro silicon	3,364
TOTAL		1,68,000
<b>Total Requirement for TMT Bars &amp; Structures</b>		
1	Billets (In-house)	1,58,000
2	Billets (Outsourced)	21,000
TOTAL		1,79,000
<b>Requirement for E.R.W./G.I. Pipes</b>		
1	HR Coil	40,000 TPA
2	Zinc	450 TPA
3	HCL solution	400 KLA
4	Chromate solution	5 KLA
5	NH <sub>4</sub> Cl solution	500 KLA
Source : from local /foreign markets / both		

The proposed project will have a connected load of 35 MWA, which will be met through RSEB. The company will set up its own substation of 132/33 KV and 132 KV switchyard and 132 KV single circuit transmission line and a D.G. set of 1000 kVA will be installed for power back up. Fuel (HSD) required for D.G. set will be to the tune of 162.7 ltrs/hr. One time water demand will be 500 KL (fresh water demand – 176 KLD, recycled water – 324 KLD), out of which 233 KL will be used for quenching/cooling, 220 KL for the cooling tower and 27 KLD for galvanization plan will be industrial water demand and 20 KL for domestic water demand.

The baseline study for ambient air quality, surface, ground water quality, noise, ecology and soil quality was carried out during October, November, 2011 and February 2013. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO at seven locations, including the project site with the observed values ranging between 42.8 -69.3 µg/m<sup>3</sup>, 22.6-38.1 µg/m<sup>3</sup>, 5.1 -7.0 µg/m<sup>3</sup>, 15.1-18.9 µg/m<sup>3</sup> and 108-172 µg/m<sup>3</sup> respectively.

Proposed project is located in the Industrial Area. Therefore, public hearing is exempted, in view of clause 7 III stage (3) sub clause(b) of the EIA Notification 2006.

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, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm<sup>3</sup>.
- iii. 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, coal handling plant etc. 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.
- iv. 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.
- v. 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.
- vi. 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.
- vii. 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.
- viii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on 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 accordingly in a time bound manner.

- ix. The Company shall submit 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.
- x. 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.
- xi. 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.
- xii. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.
- xiii. Greenbelt of 20-30 meters in width and greenery shall be developed around storage yards, around plants, either side of roads and around the periphery of the industry as per CPCB Guidelines.

**47.3.4 New primary Metallurgical SSI Unit of M/s Tirupati Metals & Minerals, Buti Bori Industrial Area, Dist. Nagpur, Maharashtra [J-11011/288/2014-IA-II-(I)] and [J-11011/334/2013-IA-II(I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Asian Consulting Engineers Pvt Ltd, New Delhi) gave a detailed presentation on the salient features of the project. The TORs to the project were prescribed vide letter No F. No. J-11011/288/2014-IA-II (I) dated 5<sup>th</sup> November, 2014. Final EIA/EMP report has been prepared and submitted to MoEFCC, New Delhi for Environmental Clearance on dated 3<sup>rd</sup> July, 2015. The proposed project activity is listed at S.No. 3(a) in Metallurgical industries (ferrous & non ferrous) under Category 'A' of the Schedule of EIA notification 2006.

M/s Tirupati Minerals & Metals is registered as a Small Scale Industry and has proposed a new primary metallurgical SSI unit for production of ferro alloy, manganese oxide and beneficiation of manganese ore for the capacity 17,520 MTPA at Buti Bori MIDC industrial area, District Nagpur, Maharashtra. The geographical coordinates of the site are latitude 20° 55' 47" N and longitude 78° 57' 18" E. The size of the plot is 1 acre (4,046 m<sup>2</sup>) allotted by MIDC. The site is well connected by road and is approximately 32 km (north-northeast) from Nagpur city. No National Park/Wildlife Sanctuaries, Wildlife corridors, Elephant/Tiger Reserve exist within 10 km radius. Two reserved forests namely Bir Sukli and Junapani Reserved Forest are present

within the 10 km project study area. The manpower required for the project is 18 persons during construction phase and 33 during operation Phase. The capital cost of the project is Rs. 138.26 Lakh. A total capital and recurring cost provision of about INR 35 Lakhs has been kept in the project cost towards the environmental protection, control and mitigation measures and implementation of the EMP. Following table shows the type of the products and the quantity proposed:

Sl. No.	Product	Proposed Capacity (MT/ Month)
1	Low Carbon Ferro Titanium	50
2	Low Carbon Ferro Chrome	50
3	Low Carbon Ferro Molybdenum	50
4	Low Carbon Ferro Vanadium	10
5	Medium Carbon Ferro Manganese	200
6	Low Carbon Ferro Manganese	200
7	Manganese Oxide	500
8	Grinding of Manganese Ore	400
Total		1,460

Combined capacity of all the products will be 17,520 MTPA.

Total power requirement for the project is 100 KW. The power will be sourced from Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL). D.G. set of capacity 40 KVA is proposed to meet emergency power requirement. The total water requirement for the project is 4 m<sup>3</sup>/day. An application is already made to MIDC to get permission to use the required quantity of water for industrial and other uses.

Baseline monitoring study carried out for one season (September to December, 2014) with regard to the air quality in the study area. The concentrations of particulate matter PM<sub>10</sub> ranges between 79.81 – 117.72 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 49.23 – 79.99 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between 3.37 – 14.93 µg/m<sup>3</sup>, and oxides of nitrogen (NOx) between 8.02 – 23.37 µg/m<sup>3</sup>.

In view of the location of project within Buti Bori MIDC Industrial Area, district Nagpur, Maharashtra, the Public Hearing is exempted as per the MOEFCC's Office Memorandum No. J-11013/36/2014-IA-I, dated 10th December, 2014.

During the presentation, the proponent explained the process for three products and could not explain the process details of other products. The Committee, therefore recommended the project for production of Medium Carbon Ferro Manganese, Low Carbon Ferro Manganese, Manganese Oxide, Grinding of Manganese Ore and its beneficiation only 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, as provided by CPCB and submit report to Ministry and its Regional Office.

- ii. Bag filter to be installed to reduce the emission of Particulate Matter (PM). PM emission should not exceed  $100 \text{ mg/m}^3$ . Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB should also be followed.
- iii. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- iv. Neurological Evaluation of workers exposed to Manganese should be monitored annually and the report should be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office (WCZ), Nagpur.
- v. Measures shall be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided. In addition, sufficient air pollution control devices viz. bag house, bag filters etc. should be provided.
- vi. Dust extraction system comprising of pulse jet type bag filter, centrifugal fan and motor, duct work including suction hoods, duct supports, stack, duct hopper, rotary air lock valves etc. should be installed to control the primary and secondary emission.
- vii. Water sprinkling arrangements as well as dry fog system to control fugitive emission shall be undertaken. Water sprinkling should be carried out at the raw material stockyard to control fugitive dust emissions.
- viii. Efforts should 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. Water requirement should be modified accordingly.
- ix. All the ferro alloy slag shall be used in the preparation of building materials.
- x. 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.

- xi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should prepare a detailed CSR plan in this regard incorporating the annual capital and revenue expenditure on various activities. A copy of the same should be submitted to the Ministry and its Regional Office, Nagpur. 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.
- xii. 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.

#### **47.4 FURTHER CONSIDERATION**

##### **47.4.1 Slabs, Pig iron, Billets and Rebars manufacturing plant project of M/s Welspun Iron & Steel Pvt. Ltd. Located at Kutch, Gujarat [ J-11011/136/2015-IA-II(I)].**

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested by the PP.

##### **47.4.2 Installation of Bleached Chemical Thermo Mechanical Pulp (BCTMP) Unit in existing Mill PSPD Bhadrachalam Unit of ITC-BCM of M/s ITC Ltd., located in Village Sarapaka, Mandal Burgampahad, District Khammam, Telangana [J-11011/574/2009-IA-II(I)-Pt].**

The project was earlier considered in the 43<sup>rd</sup> EAC meeting held in July, 2015, when the Committee had asked additional information on various issues.

Based on the additional information/ clarification submitted by the proponent vide letter No. 'Nil' dated 27<sup>th</sup> July, 2015, the proposal was considered further. The Project Proponent and their consultant made a presentation on the additional information.

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 and submit report to Ministry and its Regional Office.
- ii. Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Government shall be ensured and regular reports submitted to the Ministry and its Regional Office.
- iii. The project authority shall install multi cyclones, wet scrubbers to the boilers to achieve the particulate emission below 50 mg/Nm<sup>3</sup>. The emissions from chemical recovery section shall be controlled through primary and secondary venturi scrubbers.

- iv. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- v. Treated effluent from the plant should be used for irrigation purpose for maximum extent possible.
- vi. Periodic ground water quality study in and around the project area shall be conducted and report submitted to Ministry's Regional Office, SPCB and CPCB.
- vii. The company shall submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.
- viii. The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008.
- ix. The company shall develop green belt in 33% of the total land as per the CPCB guidelines to mitigate the effect of fugitive emissions.
- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- xii. 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.
- xiii. 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.
- xiv. At least 5% of the total cost of the project shall be earmarked towards Enterprise Social Commitment (ESC) based on locals' needs and the activity-wise details and village-wise details along with time-schedule for implementation shall be prepared in consultation with village panchayats and district administration and submitted to the Ministry's Regional Office. Implementation of such programme shall be ensured accordingly in a time-bound manner.

**47.4.3 Expansion in Clinker Production Capacity (4.42 to 4.8 MTPA) by process Optimization of M/s Ambuja Cements Ltd. (Unit: Bhatapara), (Existing Capacity: 2.72 MTPA Clinker Production (Line - II) and Existing Total Plant Area: 238.97 ha) at Village Rawan, Tehsil & Dist. Balodabazar-Bhatapara, Chhattisgarh- Application under clause 7(ii) of EIA Notification, 2006.**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s J.M. Enviro Net Pvt. Ltd.) gave a detailed presentation. The project was accorded Environmental clearance for clinker production capacity of 2.72 MTPA (Line - II) by the Ministry vide letter No. J-11011/355/2005-IA-II (I) dated 13<sup>th</sup> April, 2007. The Bhatapara unit is presently having clinker production capacity of 4.42 MTPA & cement production capacity of 3.5 MTPA; CPP of 63 MW (2 x 15 MW & 1 x 33) capacity & D.G. set having capacity of 14 MW. The proponent intends to optimize the clinker production capacity of existing Line - II (i.e. 2.72 MTPA) by process optimization. Following table shows the proposed expansion:

	Units	Existing Capacity	Proposed Expansion Capacity (Line II)	Total Capacity After Expansion
Project Proposal	Clinker (MTPA)	4.42 (Line I - 1.70 & Line II - 2.72)	Line I - Nil & Line II - 0.38*	4.8 (Line I - 1.70 & Line II- 3.1)
	Cement (MTPA)	3.5	Nil	3.5
	Captive Power Plant (MW)	63 {2 x 15 & 1 x 33}	Nil	63
	D.G. Set (MW)	14	Nil	14
Screening Category	As per EIA Notification dated 14 <sup>th</sup> Sept., 2006, as amended from time to time; the project falls under Category "A", Project or Activity '3(b)'.			

The PP mentioned that the additional Limestone requirement (0.56 MTPA) will be catered from existing captive mines; for which EC has already been obtained from MoEF, New Delhi. Optimization of various Variable Frequency Drives of Pre -heater Fan, Raw Mill Fan and Cooler Fans, which have margins and are underutilized presently, would be identified to achieve desired flow and pressure for better efficiency. It is proposed to run Kiln with Expert Optimizer (an automatic tool) like Fuzzy Logic System, which increases efficiency and decreases the human intervention. Increasing the thermal loading to 5.73 Mkal/hr/m<sup>2</sup> is well below the norms of 6.0 Mkal/hr/m<sup>2</sup>, running the kiln at Volumetric loading of 6.47 TPD/M<sup>3</sup> from 5.872 TPD/M<sup>3</sup>, modification of control software logic to increase the stroke frequency of both grates of cooler by 1 stroke/min, increasing the flow of Cooler Hydraulic Pump for increasing the grate speed and frequency.

The proponent mentioned that there is no additional land required for the proposed expansion project, as the same will be done within the existing plant premises by optimization. No additional manpower requirement. No additional capital cost is required for proposed expansion. Existing APCEs have adequate potential for proposed marginal expansion capacity.

The matter was considered in the 27<sup>th</sup> meeting of EAC held on 13<sup>th</sup> – 14<sup>th</sup> November, 2014 and the Committee after deliberations decided that although the proposal was listed for the grant of ToR for the expansion project, since the expansion is only for Clinker Production Capacity from existing 2.72 MTPA to 3.1 MTPA, the Committee decided to consider the case as an amendment of EC since the expansion is only to the extent of 14%. The Committee also recommended for withdrawal of earlier TOR application dated 21.07.2014 sought by the PP.

The proponent vide letter dated 27<sup>th</sup> January, 2015 formally requested for withdrawal of earlier TOR application dated 21.07.2014 and requested to consider the proposal as an amendment proposal.

The matter was further examined in the Ministry and it was decided that the PP has to apply afresh for the amendment in the EC under clause 7(ii) of EIA Notification, 2006.

The proponent vide letter No. ACL/Bhatapara/Line-II/01 dated 13<sup>th</sup> August, 2015 applied for amendment in the EC No. J-11011/355/2005-IA-II (I) dated 13<sup>th</sup> April, 2007.

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 devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The expansion project shall comply with the new MOEFCC Standards vide GSR 612 (E) dated 25.08.2014 with respect to particulate matter, SO<sub>2</sub>, NO<sub>x</sub> for Cement sector.

#### **47.5 ANY OTHER ITEM**

##### **47.5.1 Expansion of production capacity (from 70 TPD to 150 TPD by using 100 TPD agro pulp and 50 TPD recycled waste paper) project of M/s Rama Shyma Papers Ltd., Bareilly, U.P.-[F. No.-J-11011/51/2012-IA II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Epsilon Projects Pvt. Ltd) gave a detailed presentation on the salient features of the project. The project was prescribed TORs by the Ministry vide letter No. F. No. J-11011/51/2012-IA-II (I) dated 26<sup>th</sup> April, 2012. The validity of ToRs was extended for a period of 1 year i.e. upto 24<sup>th</sup> April, 2015, vide letter of even no. dated 5<sup>th</sup> November, 2014. Final EIA/EMP report has been prepared and submitted online to MoEFCC for Environmental Clearance on 1<sup>st</sup> April, 2015. The project activity is listed at S.No. 5(i) in Pulp & paper industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEFCC.

M/s Rama Shyma Papers Ltd., commissioned in the year 1999, is an existing paper mill of 70 TPD capacity producing semi-kraft varieties of papers utilizing agro residues, viz. wheat straw, bagasse, sarkanda and waste papers as raw materials. The unit is an integrated Pulp & Paper Mill having one paper machine with a capacity of producing 23,100 tons per annum (70

TPD) of different varieties of kraft papers. The pulp furnish comprises of 9,900 TPA (30 TPD) of agro residue, pulp manufacturing blended with recycled waste paper pulp. It is proposed to expand the unit to 150 tons per day (49,500 TPA) with 100 tons per day (33,000 TPA) of agro pulping. The plant is located 700 meter on the link road to Village Rajau Paraspur/Bahadurpur Karod, 12-13 km from Bareilly on NH 24 leading to Lucknow. The unit is a public limited company managed by its Board of Directors. The expansion project would be implemented in the existing mill area of 20.3 acres, in which a green belt covering 32% area (26,000 m<sup>2</sup>) is being developed. No additional land is to be procured for the expansion project. The estimated total capital outlay for the proposed expansion project is about Rs. 33.36 crores, which includes a capital outlay of Rs. 2.80 Crores for environmental protection. The Unit is presently not in operation. During the presentation, it was noted that Hon'ble NGT has passed an order with regard to this project.

A new paddy husk fired 40 TPH capacity AFBC boiler is proposed in the MEP for meeting the steam requirements of the process. For air pollution control, a high efficiency Electrostatic Precipitator (ESP), to be attached to the existing 35 M high stack, is proposed to minimize the adverse impact of particulate matter emission on the environment. The fuel used, mainly paddy husk and bagasse, are annually renewable carbon-neutral fuels with lowest carbon foot print. The process of manufacturing unbleached semi-kraft papers uses commonly used non-toxic chemicals like, Caustic Soda, Alum and Rosin. There is no use of Chlorine. Hence, the solid wastes and effluents are non-toxic in nature.

The fresh water requirement would be increased from the present 1,060 CuM/Day (15.1 CuM/T) to 2,500 CuM/Day (16.6 CuM/T) (below the norm of 75 CuM/T), which will be drawn from the present two bore wells. The Central Ground Water Board has granted approval for the same.

The electric power requirement will be increased from the present 2,300 KVA to 3,500 KVA and the additional 1,200 KVA power requirement for the expansion project will be drawn from the State UPPCL grid. The quantum of waste water generation after expansion is estimated as 1,130 CuM/Day and that for the treated effluent, after part reuse in the process, going to plantation/drain at about 750 CuM/Day.

One season Baseline data around 10 km radius of the project site has been collected from October, 2012 to December, 2012. With regard to the air quality in the study area, the concentrations of particulate matter PM<sub>10</sub> ranges between 37.95 µg/m<sup>3</sup> to 64.15 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 24.4 to 39.25 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between 9.75 –14.75 µg/m<sup>3</sup>, and oxides of nitrogen (NO<sub>x</sub>) between 11.34-17.8 µg/m<sup>3</sup>. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 2.16 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>, 1.44 µg/m<sup>3</sup> with respect to the NO<sub>x</sub>.

Public Hearing was held on 11th March 2014 at Bareilly, U.P. under the chairmanship of the ADM (Admin), Bareilly, U.P. the major issues raised during the public hearing *inter alia* include water requirement and liquid waste management plan, odour generated due to effluent discharge, etc.

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

- i. Water to be used for irrigation and the farmers should be agreeable. A plan for the disposal of the treated effluent should be submitted.
- ii. Central Pollution Control Board and the joint inspection team shall submit a report in relation to the environmental compensation payable for the past pollution caused by the industry as well, as directed by NGT
- iii. The industry would get their remediation plan for reclamation of soil below the low lying area prepared by the IIT, Roorkee falling within the concerned jurisdiction, as directed by NGT
- iv. Details regarding wastewater characteristic, quantity and its use should be submitted.
- v. Detail about ETP as per Ganga Action Plan.

**47.5.2 DRI TK Pelletisation Plant(0.15 MTPA) & Iron ore Beneficiation Plant(0.30 MTPA) project of M/s KEJ Minerals Pvt. Ltd., located at Sy. No. 25, 26, 27,28 Taranagar, Sandur Taluka & Bellary District, Karnataka - Amendment of iron ore beneficiation to mineral beneficiation in EC [J-11011/427/2010-IA.II(I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent gave a detailed presentation on the proposed amendment in the Environment Clearance accorded to M/s KEJ Minerals Pvt. Ltd.

The proposal for establishment of DRI TK Pellet Plant (0.15 MTPA) & Iron Ore Beneficiation (0.30 MTPA) at Village Taranagar, Taluka Sandur, District Bellary in Karnataka by M/s Kej Minerals Pvt. Ltd was accorded Environment Clearance by the Ministry vide letter No. J-11011/427/2010-IA.II(I) dated 17<sup>th</sup> March, 2011. The PP mentioned that at the time of making application to MOEFCC for obtaining environmental clearance, by mistake, the application was made seeking EC for 'iron ore beneficiation' instead of 'mineral beneficiation'. However, since availability of iron ore was more in the locality and company was expected to get required quantity of low grade iron ore for beneficiation, continued with the process of iron ore beneficiation.

It was further mentioned by the PP that the availability of low grade iron ore has come down and the quantity, quality and character of material does not suit to the requirement and hence, unit is not operating at optimum level.

It has been proposed by the PP to beneficiate other minerals which are available locally and they are economical to process. PP mentioned that to take up the activity of beneficiating other minerals, company need an amendment in the EC dated 17<sup>th</sup> March 2011 by substituting "iron ore beneficiation" with "mineral beneficiation" to enable the company to process other available minerals without depending only on iron ore beneficiation.

After detailed deliberation the Committee recommended the proposal for amendment in the Environmental Clearance letter No. J-11011/427/2010-IA.II(I) dated 17<sup>th</sup> March, 2011 under Clause 7(ii) of EIA Notification, 2006, for beneficiation of additional ores of Manganese and Laterite along with Iron Ore.

**47.5.3 Change the product profile by reducing the number of Submerged Electric Arc Furnaces (SEAF) from 4 no's to 2 no's and add Induction furnace based rerolling mill at Sy. No. 191 and 192, Sancham Village, Ranastalam Mandal, Srikakulam District, Andhra Pradesh by M/s. Refulgent Alloys N Steels Limited [J-11011/42/2011-IA-II (I)]**

M/s. Refulgent Alloys N Steels Limited., proposes to reduce the production capacity of Ferro Silicon (Fe Si)\* from 27264 TPA to 13632 TPA, Silico Manganese (Si Mn)\* from 57400 TPA to 28700 TPA, Ferro Manganese (Fe Mn)\* from 77890 TPA to 38945 TPA (\* Ferro alloys are manufactured on campaign basis) and addition of MS Billets of capacity 100000 TPA and TMT Bars of capacity 100000 TPA in existing area of 11.42 acres. The capital cost for expansion is Rs. 58 crores, towards installation of 4 x 9 MVA to 2x 9 MVA SEAF, induction furnace and rolling mill to produce TMT bars and or MS billets at Sy. No. 191 and 192, Sancham Village, Ranastalam Mandal, Srikakulam District, Andhra Pradesh.

The matter was earlier considered in the 29<sup>th</sup> meeting of EAC held on 11<sup>th</sup> – 12<sup>th</sup> September, 2014. The Committee recommended the proposal for amendment of EC as mentioned above subject to the following:

- i. Proponent may submit a revised layout plan showing the existing units and the proposed plant in the same map with different colour combination.
- ii. Report on the pollution load for air, water and solid wastes for the existing clearance given Vs the proposed amendment should be submitted.

Based on the information submitted by the PP online on 4<sup>th</sup> August, 2015 the proposal was considered further. The Project Proponent and their consultant made a presentation on the additional information.

The Committee mentioned that the report submitted by the PP is acceptable and recommended the proposal for amendment.

**47.6 CASE FOR TERMS OF REFERENCE (TOR)**

**47.6.1 Manufacturing of Manganese Oxide, Manganese Dioxide and Ferro Alloys unit at B-16/9, B-16/10 MIDC, Butibori, District Nagpur, Maharashtra by M/s Raghav Minerals.**

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested by the PP.

**47.6.2 Manufacture and process of Manganese oxide, Manganese Dioxide and various Ferro Alloys at Plot No. C/156, MIDC Butibori, District Nagpur, (M.S.) M/s. Singh Ferro Alloys.**

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested by the PP.

**47.6.3 Expansion of Cement Plant by installing additional Plant to produce 2.50 MTPA Clinker and 1.50 MTPA Cement at Baga village, Arki Tehsil, Solan District, HP of M/s Jaypee Himachal Cement Plant (a unit of Jaiprakash Associates Limited).**

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.

Jaypee Himachal Cement Plant, a unit of M/s Jaiprakash Associates Limited (JAL) had set up an integrated Cement Plant (HP-I) to produce 2.05 MTPA clinker and 2.54 MTPA cement at village Baga, Tehsil Arki, Solan District, Himachal Pradesh, after receiving Environmental Clearance vide letter No. J-11011/26/2006-IA II (I) dated 18<sup>th</sup> May, 2006. Subsequently, the Environmental Clearance was amended for augmentation in Clinker production capacity from 2.05 MTPA to 2.97 MTPA vide letter No. J-11011/1216/2007-IA (I) dated 24<sup>th</sup> December, 2013.

An application for grant of ToRs for further increase in clinker manufacturing capacity from 2.97 MTPA to 3.5 MTPA clinker unit-I was submitted to MoEFCC. The project was prescribed ToRs for preparation of EIA/EMP vide letter No. J-11011/1216/2007-IA II (I) dated 15<sup>th</sup> July 2015.

It has now been proposed to expand the cement plant by installing additional plant (Line-II) to produce 2.50 MTPA Clinker and 1.50 MTPA Cement, within the existing cement plant premises. Line-II will increase the total clinker production from 3.50 MTPA to 6.0 MTPA and cement production capacity from 2.54 MTPA to 4.04 MTPA. Estimated cost of the project is Rs. 1585 Crores.

The proponent mentioned that the Limestone minable reserves in the existing mine and additional mining area allocation gross up to 355.701 MT, reserve sufficient for 40 years of operation of 6.0 MTPA clinker capacity.

It was noted that Bandli Wild life Sanctuary is located at a distance of 9.9 km towards N, Majhathal Wild life sanctuary is located at a distance of 5.5 km towards ESE and Darla wild life sanctuary is located at a distance of 12.2 km towards S. In this regard the PP informed that the proposal was recommended in the 31<sup>st</sup> meeting of Standing Committee of NBWL, held on 12<sup>th</sup> – 13<sup>th</sup> August, 2014.

The water required for the project is 1000 m<sup>3</sup>/day from existing water allocation. Existing sanction of 3500 m<sup>3</sup>/day is available from two nallas (Treda & Padiyar) near their confluence

with Satlaj river (2.5 km from plant site). Approximately 25 MW additional power is required which will be met from 132 KV Grid line.

The Committee is of the view that since ToRs for increase in clinker manufacturing capacity from 2.97 MTPA to 3.5 MTPA clinker unit-I had already been issued by MoEFCC vide letter No. J-11011/1216/2007-IA II (I) dated 15<sup>th</sup> July 2015, the EIA/EMP should be prepared for the combined capacities i.e expansion from 2.97 MTPA to 6 MTPA clinker production and expansion from 2.54 MTPA to 4.04 MTPA cement production.

After detailed deliberations, the Committee prescribed following additional specific TORs for undertaking detailed combined EIA-EMP study in addition to the TORs granted vide letter No. J-11011/1216/2007-IA II (I) dated 15<sup>th</sup> July 2015:

- i. Combined P.H. should be conducted for expansion proposal (line – I and line - II) by the Himachal Pradesh Pollution Control Board and final EIA/EMP report should be prepared for expansion from 2.97 MTPA to 6 MTPA clinker production and expansion from 2.54 MTPA to 4.04 MTPA cement production.
- ii. Plan for decongestion of road should be submitted.
- iii. Traffic study for the present traffic and incremental traffic increase due to implementation of expansion project should be analysed and submitted.

**FRIDAY, 4<sup>th</sup> September, 2015**

#### **47.7 ENVIRONMENTAL CLEARANCE (EC)**

##### **47.7.1 Expansion of existing Sponge Iron Plant and CPP by Installation of 2x9 MVA submerged Arc Furnaces by M/s Bhagwati Sponge Pvt. Ltd. at village(s) Ikra, Jamuria, Jamuria Industrial Estate, District Burdwan in West Bengal [F. No. J-11011/313/2008-IA.II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Envirotech East Pvt. Ltd., Kolkata) gave a detailed presentation on the salient features of the project. The project was prescribed TORs vide letter No F. No. J-11011/223/2012-IA-II (I) dated 26th April, 2012. Subsequently due to the prevailing market scenario, the Company decided to revise the project configuration with the installation of proposed Sponge Iron Plant, Induction Furnaces, Ferro Alloys Plant, Rolling Mills along with the Captive Power Plant in the existing plant area. Accordingly, revised Form 1 along with other necessary documents was submitted online to MoEFCC on 25<sup>th</sup> August, 2014. Accordingly, presentation for amendment of ToR was made at 23<sup>rd</sup> Reconstituted EAC Committee (Industry-I) meeting held during 18-19<sup>th</sup> September, 2014. During the meeting, the committee observed that the proposal should not be treated as amendment for the existing TORs, already issued by MoEFCC. Instead, the Project Proponent should apply for the fresh TORs, as some new units have been included along with those units, for which TORs have been issued. As advised by the EAC, Form 1 along with other necessary documents were submitted online to MoEFCC on 30<sup>th</sup> September, 2014 for the issue of fresh ToRs. MoEFCC issued fresh

ToRs to the project vide letter No. J-11011/313/2008-IA.II(I) dated 5<sup>th</sup> January, 2015. Final EIA Report along with other documents were submitted online to MoEFCC on 13<sup>th</sup> July, 2015. The Project was exempted from the requirement of Public Hearing, as it is located within the Notified Jamuria Industrial Estate.

M/s Bhagwati Sponge Pvt. Limited has intends to expand its existing Steel Plant at Village Ikra, Jamuria, Jamuria Industrial Estate, a notified industrial area in district Burdwan, West Bengal by expansion of existing Sponge Iron Plant and CPP and installation of 2x9 MVA submerged Arc Furnaces for production of ferro-alloys from 60,000TPA to 1,65,000TPA. The geographical coordinates are Latitude 23°41'33.10" N and Longitude 87°06'45.18"E with mean sea level 350 ft. The proposed project will be installed on the total 29.8 acres of land (already acquired), within the existing plant area. The estimated cost of the project is Rs. 324 Crores. The total manpower required for the project is 500 persons. The existing units as well as proposed units with rated capacity per annum are presented below:

### EXISTING UNITS

Unit	Capacity	Product
Sponge Iron Plant (2x100 TPD)	60,000 TPA	Sponge Iron
Captive Power Plant (12 MW) (under construction)	4 MW (WHRB Based)	Power
	8 MW (AFBC Based)	

### PROPOSED UNITS

Unit	Capacity	Product
Sponge Iron Plant (1x200 TPD+1x350 TPD)	1,65,000 TPA	Sponge Iron
Induction Furnaces (4x15 T) (with matching LRF & CCM)	1,80,000 TPA	Billets
Rolling Mill	2,00,000 TPA	Structural Steel, TMT Bars, Angles, Channels, Wire Rod.
Ferro Alloys Plant (2x9 MVA SAFs)	20,460 TPA	Ferro Manganese or
	14,850 TPA	Silico Manganese or
	6,600 TPA	Ferro Silicon or
	24,750 TPA	Pig Iron
Captive Power Plant	18 MW (10 MW WHRB)	Power

	based & 8 MW AFBC based)	
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As per an initial estimate, water to the tune of 503 m<sup>3</sup>/day will be required for the proposed project. The raw water will be supplied by Asansol Durgapur development Authority (ADDA) from Ajay River. Requirement of power for the proposed project is around 54.5 MW, which will be sourced from Captive Power Plant and Damodar Valley Corporation (DVC) supply.

Dolochar from DRI Plant will be used in AFBC Boiler for captive power generation. Slag from IF furnaces and Slag generated during Silico Manganese production will be used for road construction / land filling/paver block making. Generated slag from the process of Ferro Manganese will be used in Silico Manganese manufacturing. No slag will be produced during Ferro Silicon production. Scrap / Mill scale will be reused in the IF. Fly ash from CPP will be used in brick making / cement plant

The plant will be designed as a zero discharge plant. The water will be recirculated through cooling and treatment. The entire wastewater will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Septic tank - Soak pit system.

Ambient air quality was monitored at eight (8) locations for the period of 1<sup>st</sup> March, 2015 to 31<sup>st</sup> May, 2015 in and around the project site. The levels of PM<sub>10</sub> (52-102 ug/m<sup>3</sup>), PM<sub>2.5</sub> (18-45 ug/m<sup>3</sup>), SO<sub>2</sub> (6-18 ug/m<sup>3</sup>), NO<sub>2</sub> (14-38 ug/m<sup>3</sup>) and CO (0.30-1.09 mg/m<sup>3</sup>) are within the prescribed limits. Adequate control measures like installation of Electrostatic Precipitator (ESP), bag filters, dust suppression system and stacks of adequate height at relevant points.

Stack emissions would be constituted of mainly SO<sub>2</sub>, NO<sub>x</sub> & Particulate matters. There will be continuous emissions from 8 (eight) stacks, two attached to Sponge Iron unit, two attached to Induction Furnaces, two stacks to Submerged Arc Furnaces, one stack to AFBC Boiler and rest one stack to Rolling Mill. AQIP Modelling indicates that GLCs of SO<sub>2</sub>, NO<sub>x</sub> and PM will be 11.50 µg/m<sup>3</sup>, 3.15 µg/m<sup>3</sup> & 4.51 µg/m<sup>3</sup> respectively.

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 devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Stack of adequate height & diameter with 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 50mg/Nm<sup>3</sup> and installing energy efficient technologies in the Plant.
- iii. 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 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

- iv. Waste heat recovery boiler based on the heat recovered from the entire plant (existing and proposed) should be installed.
- v. AFBC boiler should be installed to use the whole char and coal for power generation
- vi. Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
- vii. Rainwater harvesting scheme shall be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains shall be de-silted and regular supervision of the areas shall be carried out so that blocking of drains may be avoided for quick discharge of rainwater. 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.
- viii. Greenbelt of approximately 15-20 meter width consisting of a 3-tier of trees consisting of species with thick canopy shall be developed all along the periphery of the plant, roads, vacant spaces, transfer points, etc as part of 33% of total plant area.
- ix. All the effluents shall be treated and reused for dust suppression/green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted.
- x. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2010. 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 Bhubaneswar.
- xi. Hazardous materials required during construction phase and in plant operations shall be stored properly as per the regulations and reused/recycled as per the E(P)A Rules.
- xii. Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.
- xiii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and implemented.
- xiv. All the commitments made to the public during public hearing/public consultation shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv. All the permanent workers shall be covered under ESI Scheme. The company shall have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. shall be conducted amongst the employees of the Company and records thereof maintained.

xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent shall prepare a detailed CSR Plan for every 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, at Bhubaneswar. 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.

**47.7.2 Greenfield Cement plant (Clinker – 2.50 MTPA; Cement - 2.50 MTPA) along with Waste Heat Recovery Power Plant project of M/s My Home Industries Limited, located at Village Gamalapadu, Dachehalli Mandal, District Guntur, Andhra Pradesh [F. No. J-11011/61/2013-IA-II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s B .S. Envi-Tech Pvt. Ltd) gave a detailed presentation on the salient features of the project. The project was prescribed TORs vide letter No F. No. J-11011/61/2013-IA-II (I) dated 13<sup>th</sup> January, 2014. Final EIA/EMP report was submitted to MoEFCC for Environmental Clearance vide letter dated 15<sup>th</sup> July, 2015. The proposed project activity is listed at S.No. 3(b) under Category ‘A’ of the Schedule of EIA Notification 2006.

M/s My Home Industries Ltd (MHIL) has proposed to setup a Greenfield Cement project for the production of 2.5 MTPA clinker and 2.5 MTPA cement, at Gamalapadu village of Dachehalli Mandal of Guntur district, Andhra Pradesh. The site is located between 16<sup>o</sup> 37’ 28.90” N to 16<sup>o</sup> 38’ 10.82” N latitude and 79<sup>o</sup> 41’ 16.57”E to 79<sup>o</sup> 37’ 28.90”E longitude in an area of 121.408 ha and is completely owned by MHIL. The limestone requirement will be met from Captive Limestone mine spread over an area of 374.58 ha, at a distance of 0.5 km from Plant Site. The limestone reserve is adequate to meet the limestone requirement for more than 58 years. The Project cost is estimated to be about Rs. 1420 crores. MHIL has a budget of Rs. 120 Crores towards environmental management plan and an amount of Rs. 5.00 Crores annually for implementation of Environmental Management Plan. It was mentioned that 5 % of the total project cost (Cement plant and Mine) i.e Rs 71 crores is earmarked towards the Enterprise Social Commitment to meet the CSR activities. The manpower required for the project is 550 people (150 direct and 400 indirect). Following table shows the details of raw material required for the plant:

S.No	Material	Quantity (MTPA)	Source Locality	Approx. distance from plant ( km)	Mode of transport
1	Limestone	4.0	Captive mine, Gamalapadu village	0.5-1.0	Conveyor

2.	Laterite	0.75	Rajahmundry surroundings	300	By road
3.	Gypsum	0.125	Visakhapatnam	500	By road
4.	Fly Ash	0.75	Vijayawada Thermal Power Station, ( VTPS) Ibrahimpatnam	150	By road
5.	Fuel ( coal)	0.45	Singareni	300	By rail

Water requirement of the plant is 800 m<sup>3</sup>/day and will be met from Ground water and Naguleru Vagu. The requirement of power is estimated to 35 MW, which will be availed from APCPDCL nearest sub-station, which is located at a distance of 9/10 kms. Residential colony with about 150 houses was proposed near to the Plant Site. A full-fledged water supply and drainage system will be provided and the wastewater generated from the colony will be treated in the sewage treatment plant to meet the standards. The treated sewage will be used for greenbelt development within plant and colony.

MHIL will provide one Bag House, three Bag filters and one ESP for main process units. Apart from installation of above Bag houses, Bag filters and ESP to control the dust emissions from dropping/transfer points of the belt and bucket conveyors will be installed. All the flue gas outlets will be provided with state of art air pollution control equipment to maintain the particulate emission level below 30 mg/Nm<sup>3</sup>. The cement dust collected in the pollution control devices is recycled back to the cement manufacturing process. The plant is designed with a provision to fire hazardous waste.

One season baseline data around 10 km radius of the project site has been collected from March to May, 2014. With regard to the air quality in the study area, the concentrations of particulate matter PM<sub>10</sub> ranges between 49.1 µg/m<sup>3</sup> to 59.7 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 18.5 to 27.7 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between 9.5 to 12.3 µg/m<sup>3</sup>, and oxides of nitrogen (NOx) between 9.8 – 13.4 µg/m<sup>3</sup>. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 2.86 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>, 1.58 µg/m<sup>3</sup> with respect to the SO<sub>2</sub>, 21.49 µg/m<sup>3</sup> with respect to the NOx.

The Public Hearing for the project was held at project site (mine lease area), Gamalapadu, Dachepalli, Guntur Dist, AP on 24<sup>th</sup> April, 2015. The major issued raised during the PH are employment to unemployed persons, to establish a skill development centre, school with free education and financial support, Infrastructure development, Industrial corridor, Educational Institutions, etc.

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, as provided by CPCB and submit report to Ministry and its Regional Office. Emission for particulate matter should be restricted to 30 mg/m<sup>3</sup>.

- ii. The expansion project shall comply with the new MOEF&CC Standards notified vide GSR 612 (E) dated 25.08.2014 with respect to Cement sector.
- iii. All the pollution control devices/equipment in the grinding unit shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.
- iv. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.
- v. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.
- vi. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.
- vii. Storage of material should be in covered area.
- viii. Rain water harvesting plan shall be prepared and shall supplement the water requirements of the project.
- ix. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent
- x. Green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xi. 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.
- xii. At least 5 % of the total cost of the project 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 prepared and submitted to the Ministry's Regional Office at Chandigarh. The proponent shall prepare a detailed ESC Plan for every 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 ESC 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 ESC 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, Chandigarh. The details of the ESC Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

- xiii. 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, Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- xiv. Provision for Hazardous Waste utilization

**47.7.3 Capacity enhancement of writing and printing paper grades of paper from 90 TPD to 140 TPD of M/s Naini Papers Ltd., located at 7<sup>th</sup> K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand [J-11011/360/2008-IA-II(I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s J.M. EnviroNet Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The project was prescribed TORs vide letter No . J-11011/360/2008-IA-II (I) dated 17<sup>th</sup> November, 2014. Final EIA/EMP report has been prepared and submitted to MoEFCC for Environmental Clearance on dated 21<sup>st</sup> August, 2015. The proposed project activity is listed at S.No. 5(i) under Category 'A' of the Schedule of EIA Notification 2006.

The Environment Clearance for the existing plant was accorded by the Ministry vide letter No. J-11011/360/2008-IA-II (I) dated 17<sup>th</sup> March, 2009. The proposal is for enhancement of capacity from 90 TPD to 140 TPD of writing & printing Paper. M/s Naini Papers Ltd and M/s Naini Tissues are different companies with same management with different Board. Total plant area is 19.63 ha and no additional land is required for the proposed enhancement, as the same will be done within the existing plant premises. Greenbelt has been developed in 6.47 ha (i.e. 33% of total plant area). The project is reported to lie between the latitude 29°11'56.33"N, Longitude 78°53'36.42"E; latitude 29°12'6.23"N, longitude 78°53'42.14"E; latitude 29°12'4.20"N, longitude 78°53'49.21"E and latitude 29°11'50.80"N and longitude 78°53'40.21"E. There is no National Park/Wild Life Sanctuary/ Biosphere Reserve/Tiger / Elephant Reserve/Wildlife Corridor/Reserved Forest (RF) / Protected Forest (PF) etc. within 10 km radius. Only two rivers, viz., Dhandi Nallah & Dhela River lie within 10 km radius. Total estimated cost of the project is Rs. 6.65 Crores. Capital cost for Environmental Protection Measures will be Rs. 3.284 Crores and Recurring Cost is Rs. 18 Lacs / annum. The estimated time for completion will be 1 year. A total of Rs. 35 Lacs has been earmarked by the company for ESC activities aiming at overall development of the area in respect of the infrastructure, educational, health facilities etc.

The raw materials for the production of writing & printing Paper are bagasse/wheat straw-OD depithed/dusted (253.7 MT/Day) and imported soft wood pulp (4.7 MT/Day), which are being/will be obtained from local farmers/ suppliers & imported from USA, Netherlands, Australia respectively. The fuel required is rice husk (117 TPD) and bagasse pith (78 TPD), which is being/will be sourced from nearby areas. Details of raw materials for existing and after proposed capacity enhancement has been given below:

S. No.	Particular	Requirements				Source of the Raw Material & Mode of Transportation
		Existing		Total After Proposed Capacity enhancement		
		MT/day	Per MT of paper	MT/day	Per MT of Paper	
1.	Bagasse/Wheat Straw	164	1.82	253.7	1.82	Local Farmers/ Suppliers By Trucks
	Imp. Soft wood pulp	3.4	0.03	4.7	0.03	Imported from USA & Canada
	Soap stone powder	12.6	0.14	22.4	0.16	Rajasthan by Road
2.	Chemicals	Quantity (kg/MT per day)				Chemicals suppliers
	Caustic soda	21.78 MT	242 Kg	36.6 MT	261 Kg	
	Chlorine	2.34 MT	26 Kg	2.82 MT	20 Kg	
	Lime	720 Kg	8.0Kg	846 Kg	6.0 Kg	
	AKD	0.99 MT	11 Kg	1.54 MT	11 Kg	
	OBA	135 Kg	1.5 Kg	210 Kg	1.5 Kg	
	PAC	315 Kg	3.5 Kg	490 Kg	3.5 Kg	
	Starch	450 Kg	5.0 Kg	700 Kg	5.0 Kg	
DSR	315 Kg	3.5 Kg	490 Kg	3.5 Kg		

Water requirement after proposed capacity enhancement will be 7595 m<sup>3</sup>/day. Power requirement after proposed capacity enhancement will be 137200 KWH and the same will be sourced from UPCL (Hydel) & D.G sets (for emergency).

Exposure to fugitive dust, noise, and emission/spillage etc. from storage & handling are the types of hazards which may be identified at Naini Papers Limited. To deal with them, Emergency Plan has been prepared and proper safety measures are being/will be taken by providing Personal Protective Equipment (PPEs) to the workers.

ESP will be installed after proposed capacity enhancement to control the particulate and gaseous emissions. Better maintenance of existing APCEs like Treema cyclone & wet scrubber will be done after proposed capacity enhancement. ETP treated effluent will be used for

gardening, floor cleaning, wet washing of raw materials, etc. A soda recovery unit has been installed for processing of black liquor to valuable soda ash which is saleable to detergent & glass industries. Domestic waste water generated from the plant is being/will be disposed off to soak pit via septic tank.

Public Hearing was conducted at plant premises at 7<sup>th</sup> K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand on 21<sup>st</sup> May, 2015 under the chairmanship of Additional District Magistrate. The issues raised during the PH are treatment of increased quantity of effluent, emissions from chimneys/stacks, benefits to the local people from nearby areas, employment opportunities for the local people, measures for preventing traffic near main gate during morning hours.

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

- i. Information with respect to treated effluent use in irrigation, horticulture and green belt development to the maximum extent in consultation with local farmers, *vis a vis* compliance of Charter of Central Pollution Control Board, 2015.
- ii. Monitoring for the quality of water at the confluence point of drain meeting Ram-Ganga and Ram-Ganga meeting with river Ganga should be conducted and a report should be submitted.

**47.7.4 Integrated Cement Plant (3.0 MTPA), Clinker Unit (1.4 MTPA), Coal Washery (0.96 MTPA) along with 2x20 MW Captive Power Plant project of M/s SKS Cement Limited (A subsidiary of SKS Ispat and Power Limited), located at Village Pataidih (Semradih Panchayat), Tehsil Masturi, District Bilaspur in Chhattisgarh [F. No. J-11011/252/2011-IA-II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Vimta Labs Ltd.) gave a detailed presentation on the salient features of the project. The project was prescribed TORs vide letter No F. No. J-11011/252/2011-IA-II (I) dated 12<sup>th</sup> August, 2011. The validity of ToRs was extended vide letter of even No. dated 13<sup>th</sup> November, 2013 for 1 year and again on 25<sup>th</sup> August, 2015 for further period upto 11.08.2015. Final EIA/EMP report has been prepared and submitted to MoEFCC for Environmental Clearance on dated 10<sup>th</sup> March, 2015. The proposed project activity is listed at S.No. 3(b) under Category 'A' of the Schedule of EIA Notification 2006.

M/s SKS Cement Limited (SKSCL) is a subsidiary of SKS Ispat & Power Limited and is proposing a new integrated cement plant production capacity of 3.0 MTPA, clinkering capacity of 1.4 MTPA, coal washery capacity of 0.96 MTPA and a captive power plant of capacity 40 MW (2x20 MW) at Village Pataidih (Semradih Panchayat), Tehsil Masturi, District Bilaspur, Chhattisgarh. The total land required for the proposed ICP including cement plant, captive power plant, coal washery, infrastructure and township is 100.1 ha. The proponent has filed an application for land acquisition with State Government and is under process. It has been informed that the present land use of the proposed plant area comprises no Government land and the entire land of 100.1 ha is private land. The State Government has given in principle approval

vide letter dated 26.07.2011 for acquisition of 98.151 ha land. The State is to acquire the land through Department of Industries. The project site is geographically lies between 21°48'4.51" N to 21°48'50.83" N latitude and 82°16'42.72" E to 82°16'4.38" E longitude. The nearest water bodies are Sheonnath river(5.1 km towards south)and Lilagarh River(7.6 km, NE). There are no notified protected areas as per Wildlife (Protection) Act. The total manpower required for the plant is 513 persons. The total cost of the proposed ICP is about Rs. 700 Crores, including the environment protection measures cost about Rs. 70 Crores. Provision of Rs. 35 Crores towards CSR has been included in the capital cost of the project.

Following table shows the requirement of raw material for the plant along with the source:

Sr. No.	Name of the Raw Material	Requirement ( MTPA )	Source	Mode of Transportation
1	Lime Stone	2.25	Chilhati Limestone Mine	By closed conveyer belt
2	Clinker	2.10	SKS Clinker Plant and outside purchase	Road
3	Iron Ore	0.03	Purchase from market	Road
4	Coal for Clinkerization	0.06	SECL	Road / Rail
5	Coal for CPP	0.30	SECL	Road / Rail
6	Fly ash	0.74	Captive CPP & SKS 1200 MW IPP at Raigarh	Road / Rail
7	Slag	1.00	SKS Steel plant	Road / Rail
8	Gypsum	0.15	Purchase	Road / Rail

Water requirement for the plant is 2950 m<sup>3</sup>/day, which will be met from Sheonnath River. The Water Resource Department, Chhattisgarh has allocated 1.1 MCM water from Sheonnath river.

The baseline Environmental monitoring has been conducted from 1<sup>st</sup> March 2015 to 31<sup>st</sup> May 2015. With regard to the air quality in the study area, the concentrations of particulate matter PM<sub>10</sub> ranges between 27.6 µg/m<sup>3</sup> to 49.3 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 18.0 to 24.5 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between 8.0 to 14.6 µg/m<sup>3</sup>, and oxides of nitrogen (NO<sub>x</sub>) between 9.6 – 15.8 µg/m<sup>3</sup>. The results reveals that the maximum short term 24 hourly incremental ground level concentrations for PM, SO<sub>2</sub> and NO<sub>x</sub> during normal operations of the Integrated Cement Plant are likely to be 1.13 µg/m<sup>3</sup>, 1.02 µg/m<sup>3</sup> and 0.76 µg/m<sup>3</sup> respectively occurring at a distance of 1.4 km in the E during pre-monsoon season.

Public Hearing was conducted on 25.07.2014 at Pataidih village, District Bilaspur by Chhattisgarh Environment Conservation Board (CECB). The major issues raised are present purchased land details with the land cost, development of basic amenities in the affected villages like electricity, water, health, road, education, compensation of land to the affected farmers, plantation, construction of ITI at villages, employment and occupational partnership, etc.

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

- i. The State is to acquire the land through Department of Industries. The details of land acquisition should be provided.
- ii. Consent of land owners to give their land for the project should be provided.

#### **47.8 FURTHER CONSIDERATION**

##### **47.8.1 Expansion of Cement Plant(200 TPD to 2,500 TPD) (Phase I- 300 TPD and Phase II- 2,000 TPD) project of M/s Cemtac Cement Pvt. Ltd. located at village Khrew, Tehsil Pampore, District Pulwama, J &K [J-11011/226/2012-I AII(I)].**

The matter was earlier considered in the 43<sup>rd</sup> meeting of the EAC held in July, 2015. Based on the presentation made and discussions held, the Committee desired additional information on the following for further consideration of the proposal:

- i. EC for mine to be obtained.
- ii. 1 month baseline data should be collected and submitted.

The PP vide letter dated 13<sup>th</sup> August, 2015 submitted the additional information as desired by the Committee. It has been mentioned that they have yet to apply for environment clearance for the mining project. However, they have already conducted PH for both mine and cement project. As per OM dated 24<sup>th</sup> December 2010, PH conducted for both the activities should be permissible. The Committee agreed to the point mentioned by the PP.

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, as provided by CPCB and submit report to Ministry and its Regional Office. Emission for particulate matter should be restricted to 30 mg/m<sup>3</sup>.
- ii. The expansion project shall comply with the new MOEF&CC Standards notified vide GSR 612 (E) dated 25.08.2014 with respect to Cement sector.

- iii. All the pollution control devices/equipment in the grinding unit shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.
- iv. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.
- v. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.
- vi. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.
- vii. Storage of material should be in covered area.
- viii. Rain water harvesting plan shall be prepared and shall supplement the water requirements of the project.
- ix. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent
- x. Green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xi. 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.
- xii. At least 5 % of the total cost of the project 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 prepared and submitted to the Ministry's Regional Office at Chandigarh. The proponent shall prepare a detailed ESC Plan for every 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 ESC 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 ESC 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, Chandigarh. The details of the ESC Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

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

**47.8.2 Durgapur Steel Plant project of M/s Steel Authority of India Ltd. for the proposed changes in the plant configuration including expansion / change in product mix of the two units viz wheel & Axle Plant and Merchant Mill, located at Faridpur, Burdwan, Durgapur, West Bengal - application under clause 7(ii) of EIA Notification, 2006 [J-11011/492/2007-IA II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent gave a detailed presentation on the salient features of the project. The Expansion-cum-Modernization plant of Durgapur Steel Plant (2.088 MTPA to 3.5 MTPA, Gross Hot Metal) and Captive Power Plant (40 MW) of M/s Steel Authority of India Ltd. located at Faridpur, Burdwan, Durgapur, West Bengal was accorded environment clearance by the Ministry on 10<sup>th</sup> September, 2007. Extension of validity of the EC for further period of 5 years was granted by the Ministry on 5<sup>th</sup> July, 2013 till 9<sup>th</sup> September, 2017.

The project proponent mentioned that completion of some of the units for the extended EC may spill beyond the extended validity period i.e up to 9<sup>th</sup> September, 2017. It was also requested for marginal augmentation of capacity at few units like New Merchant Mill and Wheel & Axle Plant and drop some of the units from the EC. It was stated that since the validity of EC cannot be extended further, a fresh EC may be provided for the requisite amendment.

The Committee after detailed deliberation advised PP to submit two separate applications for the proposed changes. One application for seeking amendment of the EC dated 10<sup>th</sup> September, 2007 with regard to change in the plant configuration, wherein PP has proposed to take out/drop certain units from the earlier environment clearance. Second application for the units which are spilling over beyond the extended validity and the PP wants to commission such units, a fresh application for seeking ToR should be submitted.

The matter was considered in the 41<sup>st</sup> EAC meeting held on 1<sup>st</sup> – 2<sup>nd</sup> June, 2015. The Committee during the meeting suggested to PP to apply under clause 7(ii) of the EIA Notification, 2006, since the project is related to modernization of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to the notification through change in process and or technology or involving a change in the product-mix. The PP should apply afresh with fresh Form I, which shall be considered by the Expert Appraisal Committee. A comparative statement of the inputs and emissions in respect of units as per earlier EC and now proposed should also be provided.

The project proponent vide letter No. ECD/02/10/217 dated 21<sup>st</sup> August, 2015 submitted the requisite information along with the Form – I under clause 7(ii) of EIA Notification, 2006.

Following table present the change in the plant configuration:

S. N.	Facilities	As per the EC Granted	EC amendment proposed	Remarks
1	Gross Hot Metal	3.5 MTPA	2.45 MTPA	Reduction in Capacity
2	Crude Steel	3 MTPA	2.2 MTPA	Reduction in capacity
3	Finished Steel	2.83 MTPA	2.29 MTPA	Reduction in Capacity
4	Existing Skelp Mill	To Produce 0.22 MTPA	Phased out	Old, energy intensive . Stopped due to depleted market scenario (Commissioned - 1967)
5	New Medium Structural Mill	To Produce 1 MTPA	To Produce 1 MTPA	No change
6	New Wire Rod Mill	A new Mill of capacity 0.5 MTPA	Shall not be installed	Due to changed market requirement.
7	Existing Merchant Mill	To Produce 0.3067 MTPA	To Produce 0.33 MTPA	Diversion of input materials.
8	New Merchant Mill	A new mill of capacity 0.7 MTPA	A new mill of capacity 0.8 MTPA	(Input material for the phased out units has been diverted without increasing total input.)
9	Wheel & Axle Plant (New +Old)	To Produce 0.1058 MTPA	To Produce 0.16 MTPA	
10	Gross Coke Production	1.7 MTPA (5 batteries )	1.7 MTPA ( 6 batteries)	No Change
11	Power Plant	<ul style="list-style-type: none"> <li>• New 40 MW plant OPP</li> <li>• 3 gas based boilers</li> <li>• To phase out 4 old mixed fuel based boilers</li> </ul>	<ul style="list-style-type: none"> <li>• New 40 MW plant not being installed</li> </ul> OPP <ul style="list-style-type: none"> <li>• 3 gas Based boilers</li> <li>• 3 mixed fuel based boilers</li> </ul>	Out of 4 mixed fuel based boilers , only one shall be phased out.
12	Sinter Plant	4.739 MTPA	3.009 MTPA	Reduction in capacity . New SP# 3 is not being installed.
13	Blast Furnace	4 BFs in operation (BF 1, 2 ,3 & 4)	3 BFs in operation (BF # 2,3 & 4)	Reduction in capacity BF # 1 not being re

		BF # 1 shall operate after reconstruction		constructed
14	Steel Melting Shop	BOF with 3/3 converters in operation	BOF with 2/3 converters in operation	No up-gradation of the existing facilities for 3/3 converter operation.

Following table shows existing provisions of the EC vis-a-vis changed scenario:

S.No	Parameters	Existing EC Provision	Changed Scenario
1	Raw Material Consumption (tons/yr.)	91,13,800	75,32,100
2	Water Consumption (m <sup>3</sup> /hr)	4,369	3,566
3	Gas Consumption (Gcal/hr)	953.33	653.42
4	Power Consumption (MVA)	286	204

After detailed deliberation the Committee recommended the proposal for grant of environment clearance under clause 7(ii) of EIA Notification, 2006 for product mix of the two units viz. wheel & Axle Plant and Merchant Mill as mentioned above, as there is reduction in the overall pollution load. All conditions stipulated in the EC letter of even No. dated 10<sup>th</sup> September, 2007, relevant to above facilities should be adhered to, along with the following specific conditions:

- 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 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.

#### 47.9 ANY OTHER ITEM

47.9.1 **Establishment of a Mini Integrated Steel Plant of M/s Raipur Power and Steel Ltd. located at Plot No. 75 & 76 (P), Borai Industrial Area, Village Borai, Tehsil and District Durg, Chhattisgarh - Letter dated 22.05.2014 seeking Amendment of EC No. J-11011/1304/2007 dated 26.03.2008 and its amendment dated 03.07.2009 for change of fuel in place of coal/Furnace Oil with Producer Gas-Correction regarding.**

The proposal was considered by the Expert Appraisal Committee and the project proponent gave a detailed presentation on the salient features of the project. PP mentioned that earlier, vide letter dated 22.05.2014 PP has sought amendment of EC No. J-11011/1304/2007 dated 26.03.2008 for change of fuel in place of coal/Furnace Oil with Producer Gas. The above proposal was considered in the 23<sup>rd</sup> meeting of the EAC held on 18<sup>th</sup> – 19<sup>th</sup> September 2014. The Committee recommended the proposal. Based on the recommendation of the Committee the Ministry vide letter dated 4<sup>th</sup> February, 2015 issued amendment in the Environment Clearance for the following components:

- a) To use producer gas (which is environmentally better fuel) in RHF instead of Furnace Oil.
- b) To produce HB wire product (re rolled product) of same capacity i.e. 90,000 TPA. At any given point of time either Rolled products or HB wire will be produced.
- c) To install gasifier to produce producer gas.

However, vide above amendment letter, Ministry also requested PP to apply for fresh ToRs for certain additional components.

PP vide email dated 8<sup>th</sup> May, 2015 mentioned that they are not proposing any new unit. The amendment is only for change of fuel in the same manufacturing facility for which the company have already obtained Environmental Clearance. PP therefore requested the following:

- (i) To re-word the amendment as following:
  - a) To convert 3 nos. of existing 100 TPD coal based DRI kilns (as per EC accorded in 2008) to 3 nos. of 100 TPD Producer gas based DRI kilns by establishing 3 nos. of gasifiers.
  - b) Conversion of 90,000 TPA Furnace oil based Rolling Mill to Producer gas based Rolling Mill
  - c) Permission to produce HB wire in the Rolling Mill of same capacity i.e 90,000 TPA
  - d) Permission to use Producer Gas (through Gasifier) in the submerged electric arc furnace to produce 28,500 TPA of ferro Alloys
- (ii) To delete para 7.0 in the amendment letter issued by the Ministry vide letter No J-11011/1304/2007/IA-II(I) dated 4<sup>th</sup> February, 2015, wherein it was mentioned that “for the additional units proposed, the Committee decided that a separate TOR application shall be submitted by the proponent”.

The Committee after detailed deliberation recommended the proposal for the amendment mentioned at point no (i) a, b and c above and deletion of para 7.0 in the amendment issued by the Ministry vide letter No J-11011/1304/2007/IA-II(I) dated 4<sup>th</sup> February, 2015. The Committee however, didnot agreed for the permission to use Producer Gas (through Gasifier) in the submerged electric arc furnace to produce 28,500 TPA of ferro Alloys.

**47.9.2 Re-assignment of captive power plants (CPP) within the Avantha Group, from Avantha Power & Infrastructure Ltd. to M/s BILT Graphic Paper Products Limited (BGPPL) as part of internal group restructuring. [J-11011/99/2008-IA-II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent gave a detailed presentation on the salient features of the project.

Environment Clearance was granted dated 19.08.2008 to M/s Ballarpur Industries Ltd for expansion of Paper Production capacity from 1,56,000 TPA to 3,21,000TPA and for installation of New co-generation power plant (40 MW) at dist. Chandrapur, Maharashtra.

Thereafter, PP vide letter dated 15.11.2010 sought transfer of EC, for expansion of Paper Production capacity from 1,56,000 TPA to 3,21,000TPA, from M/s Ballarpur Industries Ltd to M/s BILT Graphic Paper Products Ltd. (BGPPL) and for installation of New co-generation power plant (40 MW) from M/s Ballarpur Industries Ltd to M/s Avantha Power & Infrastructure Limited (APIL).

Ministry vide letter no. J-11011/99/2008-IA-II(I) dated 7.06.2012 transferred the EC relating to Paper and Pulp Unit to M/s BILT Graphic Paper Products Ltd. (BGPPL) and the Power Project to M/s Avantha Power & Infrastructure Limited (APIL).

The Ministry received another proposal from PP seeking transfer of the EC of 40 MW Captive Power Plant from M/s Avantha Power & Infrastructure Limited (APIL) to M/s BILT Graphic Paper Products Limited (BGPPL). Further, it was also informed that such reassignment will not affect the ownership of captive power plant which will remain with the Avantha Group itself.

The Committee after detailed deliberation requested PP to provide clear request alongwith self explanatory note explaining the matter to the Ministry for further consideration.

**47.9.3 Amendment in Environmental clearance for increase of Clinker Grinding Capacity of Cement Plant from 1.50 to 3.00 MTPA and use of Pet Coke in addition to coal in the new plant of 3.00 MTPA capacity at Jamul Cement Works, Jamul, Durg Tehsil and District' Chhattisgarh by M/s ACC Limited [J-11011/251/2008 - IA. II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (B .S. Envi – Tech Pvt. Ltd, Sec.) gave a detailed presentation on the salient features of the project. It was mentioned that Jamul Cement Works (JCW) for production of Clinker(2.0 MTPA), Cement(4.33 MTPA) and CPP(50 MW) was accorded environment clearance vide letter No. J-11011/251/2008-IA.II(I) dated 13<sup>th</sup> May, 2009. An amendment to the EC for enhancement of production of Clinker to 3.00 Million Tonnes Per Annum (MTPA) and reduction of Cement output to 1.5 MTPA and Captive Power from 50 to 25 MW was granted vide Ministry's letter No. J-11011/251/2008 - IA. II (I) dated 11<sup>th</sup> January 2013. The implementation status of the project is given below:

S.No	Activity	% age project job completed	Tentative commissioning Schedule
1	Clinkering	92%	Oct'15 to Dec '15
2	Cement Grinding	71%	Jan'16 to Feb '16

The present proposal is to increase the cement grinding capacity from 1.5 to 3.0 MTPA (PSC/PPC/OPC), continue to operate the six existing cement mills, and use of Petcoke to the maximum extent possible in place of coal in the Kiln for conservation of fossil fuels and enable use of low grade limestone. ACC proposes to obtain amendment in EC for increase of Cement grinding capacity from 1.5 to 3.0 MTPA for the production of Cement (PPC/PSC/OPC) as shown in the below table

**PRODUCTION CAPACITY**

	<b>PRESENTLY OPERATING</b>	<b>EC GRANTED</b>	<b>EC AMENDMENT REQUESTED</b>	<b>Remarks</b>
Clinker production , MTPA	0.76 (existing plant)	3.00 (new plant)	3.00	No Change
Cement production (PSC/PPC/OPC), MTPA	1.58 (existing plant)	1.50 (new plant)	3.00	Continue Operation of existing cement mills of Old plant
Captive Power Plant, MW	25	25 (operating)	25	No Change

The Committee noted that the EC was accorded to the project on 13<sup>th</sup> May, 2009. PP has not applied for extension of validity of EC within the validity period of 5 years which was ended on 12<sup>th</sup> May, 2014 as per EIA Notification, 2006. Now, since the Ministry has increased the validity of EC for further period of 2 years vide its amendment notification dated 29<sup>th</sup> April, 2015, the EC is valid till 12<sup>th</sup> May, 2016. The PP therefore requested for amendment in the EC.

The Committee after detailed deliberation recommended the project for amendment in the EC as requested by the PP in the above table with following additional conditions:

- i. The transportation of raw material and slag should be done through closed containers. The route through boria gate, main gate, Khursipar gate, Transport nagar Crossing, Industrial area, ACC chawk should be followed.
- ii. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.

**47.9.4 Expansion of Steel Plant (semi-finished steel/Pig Iron 21,000 TPA to 100, 000 TPA) Re-rolled Steel product 15,750TPA to 95,000 TPA Sintered Bircks/Briquetted Sintered Minerals or Lime or Activated Minerals 55,000 TPA; DG set (6MW) of M/s Indus Smelter Ltd. at 436-B, 453, and 454-B, Sector-C Urla Industrial Growth Centre Raipur, Chhattisgarh – Extension of validity of EC, Change of Name. [J-11011/503/2007-IA-II(I)]**

The proposal is for extension of validity of Environment Clearance and transfer of Environment Clearance from M/s Indus Smelter Ltd. to M/s Balaji Loha Ltd. (TMT Division). Approval of Hon'ble Minister was obtained for the above proposals. Subsequent to that it was noted that the application for extension of validity of Environment Clearance was filed after lapse of the validity period.

It was noted that the original Environmental Clearance was issued in the name of M/s Indus Smelter Ltd. on 09.06.2008. The Company has been transferred to M/s Balaji Loha Ltd (TMT Division) on 02.04.2013. The application for extension of validity and transfer of Environment Clearance has been filed by M/s Balaji Loha Ltd. on 22.09.2014, though that was

beyond the validity period of 5 years. But, now with the Notification dated 29.04.2015, the validity of Environmental Clearance has been extended from 5 to 7 years. So, in this case the validity of Environment Clearance now is till 08.06.2015.

Keeping the above in view as the original application for extension of validity was filed on 22.09.2014 for 5 years, it was decided that the project proponent has to file another modification application, requesting for extension of E.C. for another 3 years.

The matter was considered by the committee and the committee recommended the proposal for extension of validity of environment clearance for a period of 3 years, with effect from 8<sup>th</sup> June, 2015.

**47.9.5 Amendment of EC for change of product mix with no change in overall production – 4.6 MTPA Standalone Grinding Unit at Rahargora, Jamshedpur Dist, Jharkhand by M/s Lafarge India Pvt Ltd. – Amendment in EC.**

The matter was earlier considered in the 35<sup>th</sup> EAC meeting held on 26<sup>th</sup> – 27<sup>th</sup> March 2015. The Committee after deliberation desired to see the compliance of earlier stipulated safeguards, before recommending the amendment.

PP mentioned that a certified compliance report of the earlier compliance dated 24-01-2014 was submitted with LIPL updated compliance status. PP requested to issue amendment for EC for change in cement product mix as shown below:

	<b>MTPA</b>	
	<b>Present Production</b>	<b>Proposed change of Product mix</b>
PSC	3.2	4.0 (max)
PPC	1.4	1.0 (max)
Total	4.6	Over all production will not cross 4.6 MTPA

After detailed deliberation the Committee recommended the proposal for amendment in the Environmental Clearance as mentioned above.

**47.10 CASE FOR TERMS OF REFERENCE (TOR)**

**47.10.1 Proposed expansion of Integrated Steel Plant, MS Billet (from 216000 MTPA to 264000 MTPA), Captive power (from 24 MW to 43 MW), Sponge Iron (from 198000 MTPA to 264000 MTPA) and Pellet plant (from 99000 MTPA to 294000 MTPA ) at AL-5 Sector 23 GIDA Industrial Area, Sahjanwa, District - Gorakhpur Uttar Pradesh of M/s Gallantt Ispat Limited. [F. No. J-11011/229/2008-IA-II(I) – Pt]**

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested by the PP.

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## Executive Summary

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

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2-3 km.) water body, population, 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 30<sup>th</sup> 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 PM 10, PM2.5, SO<sub>2</sub>, NO<sub>X</sub>, 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 modeling 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 conveyer-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 ( at least 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 4<sup>th</sup> 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.

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**ADDITIONAL TORS FOR INTEGRATED STEEL PLANT**

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

**ADDITIONAL TORS FOR PELLET PLANT**

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

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

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

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**LEATHER/SKIN/HIDE PROCESSING INDUSTRY**

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.*).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulfides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, *etc.*, along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.

### **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 charging, 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 47<sup>th</sup> MEETING OF EAC (INDUSTRY-I)**  
**HELD ON 2<sup>nd</sup> – 3<sup>rd</sup> September, 2015**

S.N.	Name		Attendance	Signature
1	Shri M. Raman	Chairman	A	
2	Shri R.K. Garg	Vice-Chairman	P	
3	Prof. R.C. Gupta	Member	A	
4	Dr. Prem Shankar Dubey	Member	P	
5	Dr. R.M. Mathur	Member	P	
6	Dr. S. K. Dave	Member	P	
7	Dr. B. Sengupta	Member	P	
8	Shri Rajat Roy Choudhary	Member	A	
9	Dr. S.D. Attri	Member	P	
10.	Dr. Antony Gnanamuthu	Member	A	
11.	Prof. C. S. Dubey	Member	P	
12.	Shri Niranjan Raghunath Raje	Member	P	
<b>MOEF Representatives</b>				
13.	Dr.Satish C. Garkoti	Scientist F & MS (Industry-I)		
14.	Shri Amardeep Raju	Scientist D		

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