

**Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)**

**SUMMARY RECORD OF THE FIRST (1<sup>ST</sup>) MEETING OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The first meeting of the newly constituted Expert Appraisal Committee (EAC) for Industry-I Sector in terms of the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held on 18<sup>th</sup> – 20<sup>th</sup> November, 2015 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

At the outset, Member Secretary welcomed the Chairman, members of the re-constituted Expert Appraisal Committee and Joint Secretary (Impact Assessment Division) and made a presentation about applicability of the provisions of the EIA Notification, 2006 to the Industry-I Sector projects[(metallurgical Industry, Cement Plant, Coke Over Plant, asbestos mining and asbestos based product, leather/skin, hide processing industry and pulp and paper industry], procedure being followed in the Ministry for environmental appraisal of such projects, guidelines to be followed for appraisal of proposals and existing post project compliance monitoring procedure. Shri Manoj Kumar Singh, Joint Secretary also briefed the newly constituted Expert Appraisal Committee on the role and functioning of the Impact Assessment Division, provisions of EIA Notification, 2006 as amended and informed that Ministry has in the recent past, taken several measures to streamline the process of Environment Clearance for making it more transparent without compromising the rigour of the process of Environment Clearance. Once again, the Jt. Secretary welcomed the Chairman and the Committee members and assured them for full cooperation of the Ministry in the functioning of the Committee.

**1.1 Opening remarks of the Chairman:**

The Chairman once again welcomed the committee members and thereafter, requested for self introduction. The Member Secretary had thereafter informed that the Prof. Naresh Pant, Department of Geology, Delhi University and Prof. Arun Pandey, Department of Botany, Delhi University have expressed their inability to attend the meeting due to preoccupation. However, there was no intimation from the representative of IMD for the meeting. Thereafter, discussion on each of the agenda items was taken up seriatim.

## **1.2 Confirmation of the minutes of the last meeting**

The minutes of the last meeting were confirmed, as approved by the earlier Expert Appraisal Committee.

## **1.3 ENVIRONMENTAL CLEARANCE (EC)**

### **1.3.1 Expansion of Coke Oven Plant (Non-recovery type) from 1.6 MTPA to 2.2 MTPA of M/s Tata Steel Ltd, located at Haldia, Purba Medinipur district, West Bengal (EC) [F.No. J-11011/284/2007-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.) gave a detailed presentation on the salient features of the project. The project was earlier prescribed Terms of Reference (TORs) by the Ministry vide letter No. J-11011/284/2007-IA.II(I) dated 25<sup>th</sup> November 2014. The Project Proponent prepared final EIA/EMP report and submitted online application for Environmental Clearance (EC) vide letter dated 19<sup>th</sup> August, 2015 to MoEFCC. 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. The project was earlier accorded Environmental Clearance by the Ministry on 29<sup>th</sup> January, 2008 for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) in the name of M/s Hooghly Met Coke & Power Co. Limited. The EC was subsequently transferred from M/s Hooghly Met Coke & Power Co. Limited to M/s Tata Steel Limited vide letter dated 22<sup>nd</sup> May, 2012.

M/s Tata Steel Ltd. (Hooghly petcoke Division) intends to expand the capacity of existing coke oven plant from 1.6 MTPA to 2.2 MTPA, by installing an additional row of batteries of capacity 0.44 MTPA and enhancement of the existing capacity of each row by 0.04 MTPA (total  $0.04 \times 4 = 0.16$  MTPA) by adopting better operating procedure and debottlenecking the existing constraints. The project is located on the bank of the confluence of Hooghly River and a River in Haldia, Purba Medinipur, West Bengal. The coke making technology for the expansion will be similar to that being adopted for the implementation of the existing plant. The capacity of the power generation facilities, being operated by M/s Tata Power Company Limited, will also be augmented from 120 MW to 165 MW. The Coke Oven project has employed the modern heat recovery coke making technology to produce high quality metallurgical coke for use in the steel plant of Tata Steel works at Jamshedpur. The proposed project would be installed within the available land of the existing plant area of about 180 acres i.e. 72.5 hectare, which is reported as industrial land. No additional land would be required for expansion project. The project site is reported to lie between

22°0'15" N and 22°7' 15" N Latitude and 88°03' 51" E and 88°11' 44" E Longitude, with mean sea level at 26 ft. The existing units as well as proposed units with rated capacity per annum are presented below:

<b>EXISTING &amp; PROPOSED UNITS</b>		
<b>Coke Oven Plant:</b>		
	<b>Existing</b>	<b>Proposed</b>
Capacity	1.6 MTPA	0.6 MTPA**
Batteries	32 x 11 Nos.	8 x 11 Nos.
Product	Met Coke	Met Coke
Size Range	Hard Coke (+25 mm) Nut Coke (10-25 mm) Breeze Coke (0-10 mm)	
<b>Captive Power Plant:</b>		
	<b>Existing</b>	<b>Proposed</b>
Waste Heat Recovery Boiler	16 x 30 TPH	4 x 30 TPH
Turbine Generator	3 (2x45 MW+1x30 MW)	1 (1x45 MW)
Power Generation	120 MW	45 MW
**Note: Out of 0.6 MTPA, 0.44 MTPA by commissioning a new row of Battery and 0.16 by enhancement of the existing capacity.		

It has been reported that there is no National Park, Wildlife Sanctuary and Reserve Forest within 10 km radius of the Project Site.

It has been mentioned that the make-up water requirement for the project will be 5184 KLD (1440 KLD for Coke Oven Plant & 3744 KLD for WHRB based 45 MW Power Plant), which will be sourced from Haldia Development Authority (HDA). The waste water, to be generated in coke quenching will be taken to a sump pit, where the solids will settle and the clear water will be recycled back to the system. The cooling tower blow down and Demineralisation (DM) plant blow down water is reported to be used in the coke quenching process. Toilet waste will be treated/stored at the soak pit/septic tank. The plant would adopt "Zero Discharge Concept". The power requirement for the project is estimated as 3.49 MW (0.74 MW for Coke Oven & 2.75 MW for Power Plant), which will be sourced from WHRB based Captive Power Plant (operated by Tata Power Company Ltd.), utilising waste heat generated from Coke Oven Plant. In order to attenuate air pollution, it is proposed that adequate control measures like installation of Dry Fog Dust Suppression System, and stacks of adequate height at relevant points would be taken. The solid waste, generated from process will be the coke sludge, which is non-hazardous and will be sold (100%) for making low grade coke.

The estimated cost of the project is Rs.769.45 Crores (for both Coke Oven & Power Plant).

The project proponent mentioned that the ambient air quality was monitored at eight (8) locations during the period of 6<sup>th</sup> December, 2014 - 28<sup>th</sup> February, 2015 in and around the project site. The levels of PM<sub>10</sub> (37-124 µg/m<sup>3</sup>), PM<sub>2.5</sub> (16-52 µg/m<sup>3</sup>), SO<sub>2</sub> (5-24 µg/m<sup>3</sup>), NO<sub>x</sub> (14-52 µg/m<sup>3</sup>) and CO (0.37-1.47 mg/m<sup>3</sup>) are within the prescribed limits, except PM<sub>10</sub> on few occasions. AQIP Modelling indicates that due to emission of all the existing and future stacks in the plant, the absolute maximum predicted GLC of SO<sub>2</sub>, NO<sub>x</sub> & PM would be about 24.26 µg/m<sup>3</sup>, 12.60 µg/m<sup>3</sup> and 4.66 µg/m<sup>3</sup> respectively.

The stack emissions mainly constituted of SO<sub>2</sub>, NO<sub>x</sub> & Particulate matters. In the existing plant, there are total 8 (eight) stacks, each stack attached with 2 WHRBs. After the proposed expansion project, there will be 2 (two) additional stacks, similarly each stack attached with 2 new WHRBs. Hence, there will be a total of 10 stacks (8 existing + 2 proposed) after the implementation of the proposed expansion project.

The public hearing is exempted for the project in view of its location in the notified industrial area.

The project proponent has informed that Coke Dry Quenching is not feasible because of its larger break down hours, excess man power requirement, greater power consumption etc.

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

- i. Total water requirement for the project should be reassessed and submitted along with the permission obtained from the competent authorities for withdrawal of water for the project. The water balance calculations should also be prepared and submitted.
- ii. Rainwater harvesting calculations and location demarcated on the layout plan should be submitted.
- iii. A letter from the State Forest Department should be submitted stating that there is no reserve forest, national park, wildlife sanctuary, etc. exist within 10 km radius of the plant.
- iv. The total area required for the storage of the raw material for the existing as well as proposed project should be submitted. Revised layout plan with connecting roads to the plant and internal circulation roads should be submitted along with a clear Google map.

- v. Explore the possibility to achieve a stack emission level  $< 25 \text{ mg/Nm}^3$  and submit the plan to the Ministry. In addition, efforts should also be explored to reduce SO<sub>x</sub> and NO<sub>x</sub> levels from the stacks and the proposed plan should also be submitted.
- vi. Break-up of the land use indicating existing and proposed use should be provided. In addition, layout plan for old facilities vis-a-vis new proposed facilities should be prepared and submitted.
- vii. Comparison of ambient air quality data collected for the project with SPCB data should be submitted.
- viii. Vehicular traffic density in the existing road and increase of the traffic due to proposed expansion should be carried out and proposed mitigation measures to combat vehicular emission should be submitted.
- ix. Green belt implementation plan, as per Compliance report of RO should be submitted.
- x. Focused CSR plan should be prepared based on the need of the villagers. The CSR plan should focus village as a unit in order to improve the livelihood of each family by adopting a few villages falling in the project area. This is expected to bring in economic empowerment of each family which in turn will facilitate environmental and social benefits.
- xi. Explain specific TORs point no 1, 2, 4 and 6.
- xii. Reasons for non-feasibility of CDQ should be provided in detail.
- xiii. A note on non-compliance of stipulated environmental safeguards earlier accorded to this project, if any, should be provided along with the reasons for non-compliance.
- xiv. Details regarding treatment of waste water before using for the coke quenching process.

**1.3.2 Expansion of Crude Steel Production (from 9.7MTPA to 11MTPA) at Tata Steel Works of M/s Tata Steel Ltd., located at Jamshedpur, District East Singhbhum, Jharkhand (EC) [F.No- J-11011/691/2007-IA.II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s M. N. Dastur & Co. (P) Ltd.) gave a detailed presentation on the salient features of the project. The proposal was earlier prescribed Terms of Reference (TORs) by the Ministry vide letter No. J-11011/691/2007-IA.II(I) dated 28<sup>th</sup> April, 2015. The project proponent prepared final EIA/EMP report and submitted to Ministry for Environmental Clearance on 27<sup>th</sup> August, 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. The project was earlier accorded Environmental Clearance by the Ministry on 11<sup>th</sup> May, 2010 for production of 9.7 MTPA Crude Steel.

The proposal is for expansion of Crude Steel Production from 9.7 MTPA to 11.0 MTPA capacity by Tata Steel Limited (TSL) at Jamshedpur Steel Works in East Singhbhum District, Jharkhand. No additional land is required for the proposed expansion. The proposed expansion is within the existing plant boundary of 717 Ha. The project site is reported to lie between 22° 46' 11" - 22° 48' 08" N latitude and 86° 11' 30" - 86° 13' 36" E longitude. No National Park/Wildlife Sanctuaries, Wildlife corridors, Elephant/Tiger Reserve exist within 10 km radius. The Dhan Chatani Reserve Forest (R.F), Kudada R.F, Dimna Jhar Protected Forest (P.F), Nandup P.F. and Dalma pahar P.F. are located in the study area. The manpower required for the project is 2000 persons during construction phase and 200 during operation Phase. The total estimated cost of the project is Rs. 1,877 crore (Project cost - Rs. 1,632 crore, Environment management cost is Rs. 195 crores, Cost towards the component of Enterprise Social Commitment is Rs. 50 crores). The existing capacities and proposed production plan of the project is given below:

	<b>At 9.7 MTPA stage (Existing)</b>	<b>At 11.0 MTPA stage (Proposed)</b>
<b>Intermediate Products</b>		
i. Coke Production (charge)	3.4	3.4
ii. Sinter Production (net)	8	9
iii. Pellet Production (net)	6	8
iv. Calcined Lime	1.2	1.4
v. Hot Metal	10.55	12.5
vi. Crude Steel	9.7 ± 5%	11.0 ± 5%
<b>Captive power (MW)</b>	189.5	267.5
<b>Saleable Products</b>		
i. Long Products	1.24	1.74
ii. Flat Products	5.83	7.00
iii. Semis	2.37	2.06

The raw materials required would be iron ore (lumps & fines), coking coal, limestone, dolomite & anthracite and additives like limestone, dolomite, bentonite, etc. The relative share of iron ore is about 60%, coal about 27% and balances 13% accounts for additives. The overall raw materials consumption rate would be about 3.26 t/t of crude steel. The existing raw materials supply sources of Tata Steel would continue to act as raw materials linkages for meeting the estimated requirements for the 11.0 MTPA expansion stage. The production units and capacities at 11.0 MTPA stage would be as follows:

<b>Production Unit</b>	<b>Facilities at 9.7 MTPA stage</b>	<b>Production at 9.7 MTPA stage</b>	<b>Facilities at 11.0 MTPA stage</b>	<b>Production at 11.0 MTPA stage</b>
Coke Ovens and By-products Recovery Plant	COB # 5-11	3.4 MTPA	COB # 5-11	3.4 MTPA
Sinter Plant	SP#1-4	8.0 MTPA	SP#1-4	9.0 MTPA
Pellet Plant	1 unit	6.0 MTPA	1 unit	8.0 MTPA
Blast Furnace	BF# C,F,G,H ,I	10.55 MTPA Hot Metal	BF# C,D,E,F, G, H , I	12.50 MTPA Hot Metal
Lime/dolo Plant	Kiln#1-9	3600 TPD	Kiln#1-10	4200 TPD
LD Shop	LD#1-3	9.7 MTPA Crude steel	LD#1-3	11.0 MTPA Crude steel
Rolling Mill	New bar Mill – 1 unit	0.6 MTPA	New bar Mill – 1 unit	1.0 MTPA
	Wire Rod Mill -1 unit	0.37 MTPA	Wire Rod Mill -1 unit	0.5 MTPA
	Merchant Mill – 1 unit	0.265 MTPA	Merchant Mill – 1 unit	0.43 MTPA
	Hot Strip Mill -1 unit	3.55 MTPA	Hot Strip Mill -1 unit	4.3 MTPA
	TSCR – 1 unit	2.34 MTPA	TSCR – 1 unit	2.65 MTPA
	Cold Rolling Mill – 1 unit	2.19 MTPA	Cold Rolling Mill – 1 unit	2.19 MTPA
Captive Power	PH # 3 } By- } PH # 4 } product PH # 5 } gas  TRT-BF G,H, I	147.5 MW  42 MW	PH # 3 } By- PH # 4 } product PH # 5 } gas  TRT-BF G,H, I,F CDQ -Battery 5, 6, 7, 10 & 11 Waste heat recovery from Sinter Plant 3 & 4	147.5 MW  47 MW 55 MW  18 MW

Combined capacity of all the products will be < 11.00 MTPA.

It has been envisaged that additional power requirement for the expansion project is 80 MW, which would be met through in-plant generation, Power Grid Corporation of India Limited, Tata Power Company Limited, Industrial Energy Limited, Jojobera Power Plant and Damodar Valley Corporation. The total water requirement for the project is 700 m<sup>3</sup>/hr, which will be met from plant existing water system through recycling.

Baseline monitoring study was carried out for one season (February to May, 2015) with respect to the soil, surface water, ground water, ambient air and noise quality in the study area.

Total Point source Gaseous Emission from the 11 stacks of proposed expansion would be about 19.5 kg/hr of particulate matter, 4.9 kg/hr of SO<sub>2</sub> and 41.1 kg/hr of NO<sub>x</sub>, after installation of adequate Air Pollution Control devices. The vehicular emissions have also been accounted. There would also be fugitive emission from open as well as closed areas of the plant. Air pollution would be mitigated by installation of adequate Air Pollution Devices like ESP, Bag Filter, Scrubbers as per process requirements, technological alterations, adjustment of raw material quality, excess air control, regenerative burners, etc

It is estimated that after the expansion, project would generate solid wastes like slag, sludge, dusts etc. of about 6.1 million tons per year (350 op days), of which around 0.6 MTPA of solid waste need to be kept for storage and further processing. The generation of hazardous wastes would be about 14 TPD, consisting of mainly coal tar sludge and BOD sludge. Both would be recycled to coke making by mixing with coal charge.

The Public Hearing (PH) was exempted for the project in view of its location in the notified industrial estate.

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 emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. The Project Proponent should ensure the compliance of environmental safeguard stipulated in the earlier environment clearance letter dated 11<sup>th</sup> May, 2010 and submit the compliance report to the Ministry and its Regional Office, Ranchi



- iii. On-line ambient air quality monitoring shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, gas cleaning plant, bag filters etc. shall be provided to keep the emission levels below  $50 \text{ mg/Nm}^3$  by installing energy efficient technology. Low NO<sub>x</sub> burners shall be installed to control NO<sub>x</sub> emissions. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit. Efforts shall be made to further reduce PM<sub>10</sub> and PM<sub>2.5</sub> levels in the ambient air and a time bound action plan shall be submitted.
- iv. Existing Electrostatic Precipitator (ESP) shall be upgraded and provided to new units to control gaseous emissions within  $50 \text{ mg/Nm}^3$ . Waste gas from the drying and grinding unit of pellet plant shall be cleaned by bag filters. Adequate provisions shall be made to control NO<sub>x</sub> emissions. Bag house shall be provided to Lime kilns.
- v. Land based fume extraction system shall be provided to coke oven battery to arrest fugitive emissions during charging and pushing operations. The coke oven gas shall be desulphurized by reduction of H<sub>2</sub>S content of coke oven gas in the by-product recovery section to below  $500 \text{ mg/Nm}^3$ . On-line charging with high pressure liquor aspiration (HPLA) for extraction of oven gas, leak proof oven doors, hydraulic door and door frame cleaner, water sealed AP caps and charging & pusher side emission extractor device shall be provided for the coke oven batteries to maintain VOC emissions within permissible limit. Land based fume extraction system for pushing emission control from coke ovens shall be provided.
- vi. All the standards prescribed for the coke oven plants shall be followed as per the latest guidelines. Proper and full utilization of coke oven gases in power plant using heat recovery steam generators shall be ensured and no flue gases shall be discharged into the air. Sulphur shall be recovered from the coke oven gases from new product plant.
- vii. Only dry quenching method in the coke oven in new battery shall be adopted.
- viii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- ix. In-plant control measures for checking fugitive emissions from all the vulnerable sources including bag filters and fume extraction system

shall be provided. Dry fog dust suppression system / water sprinkling system shall be provided in raw material handling areas to control fugitive dust emissions. Fugitive emissions from different sources shall also be controlled by covered conveyors, water sprinkling in open yards and with dry fogging in the closed zones. Further, specific measures like asphaltting of the roads within premises shall be carried out to control fugitive emissions. Fugitive emissions shall be controlled, regularly monitored and records maintained.

- x. 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 shall be followed. New standards issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 shall be followed.
- xi. Traffic decongestion plan shall be implemented in a time bound manner to reduce emissions in the Jamshedpur city and separate budget shall be allocated for implementing the same. Maximum in bound and out bound material movement shall be done by railway wagons only to reduce dust emissions. Measures like covered conveyors for handling of bulk materials, centralized screening of iron ore, rationalization of weighing system, use of higher capacity vehicles etc. shall be adopted to reduce dust emissions. Mechanized vacuum cleaning of arterial roads shall be carried out on regular basis to further reduce dust emissions.
- xii. Vehicular pollution due to transportation of raw materials and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- xiii. All the wastewater from various units shall be treated in the common effluent treatment plant (CETP) for primary, secondary and tertiary treatment and shall be either recycled or used for dust suppression, slag quenching and green belt development etc. within the lease hold area. The phenolic effluent from the by-product recovery section of coke oven battery shall be treated in BOD plant. Wastewater containing suspended solids shall be passed through clariflocculation plant to recover and reuse the clarified water for cooling or cleaning. Mill effluent containing oil and suspended solids shall be passed through oil skimmers and filter press. No treated wastewater shall be released outside the premises and 'Zero' discharge shall be adopted by recycling all the treated waste water in the plant itself including from the existing plant.

- xiv. Efforts shall be made to make use of rain water harvested. 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.
- xv. Continuous monitoring of Total Organic Compounds (TOC) in the wastewater treated in BOD plant from the coke oven plant shall be done at the outlet of ETP (BOD plant). All the treated wastewater shall be monitored for pH, BOD, COD, oil & grease, cyanide, phenolic compounds, Chromium<sup>+6</sup> etc. besides other relevant parameters.
- xvi. Regular monitoring of influent and effluent and surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or prescribed under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Ranchi, Jharkhand, SPCB and CPCB.
- xvii. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization in cement making as per the MOUs signed with various companies including M/s Lafarge, M/s Eco-cement & M/s ACC. LD slag after metal recovery shall be used in sinter plant, blast furnaces and LD convertor, aggregates making, road ballast making, soil conditioning etc. All the flue dust generated shall be recycled within the plant to the maximum extent. Mill scales, LD sludge, lime fines and flue dust shall be recycled back to the sinter plant. The BF gas cleaning plant sludge shall be used for manufacturing briquettes.
- xviii. As proposed, coal tar sludge and BOD sludge shall be recycled for coke making by mixing with the coal charge and used in the coke ovens. Chromium sludge shall be disposed in a HDPE lined secured landfills as per the CPCB guidelines within the complex. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner. Oily waste and spent oil shall be provided to authorized recyclers/reprocessors.
- xix. All the slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Toxic Chromium sludge and other hazardous substances recovered from the slag and output waste shall be disposed off in secured landfill as per CPCB guidelines.

- xx. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Ranchi, Jharkhand SPCB and CPCB.
- xxi. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003. 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 Ranchi.
- xxii. A Risk and Disaster Management Plan alongwith the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Ranchi, Jharkhand SPCB and CPCB within 3 months of issue of environment clearance letter.
- xxiii. As proposed, green belt shall be developed in more than 33 % area within and around the plant premises as per the CPCB guidelines in consultation with DFO.
- xxiv. Prior permission from the State Forest Department shall be taken regarding likely impact of the expansion of the proposed steel plant on the reserve forests. Measures shall be taken to prevent impact of particulate emissions / fugitive emissions, if any from the proposed plant on the surrounding reserve forests viz. Jora Pahar PF, Sand Pcha Rahar PF, Deluse RF located within 10 km radius of the project. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.
- xxv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented
- xxvi. At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details alongwith time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Ranchi. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxvii. The company shall provide housing for 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.

**1.3.3 Expansion of Integrated Iron & Steel Plant of M/s Sova Ispat Limited at J.L. No. 11, Jemua Mouza, Mejia Block, District Bankura, West Bengal (dropping Sinter Plant & Mini BF and Addition of Iron ore Beneficiation Plant & Pellet Plant) (EC) [F.No J-11011/724/2007-IA.II(I)]**

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

**1.4 FURTHER CONSIDERATION**

**1.4.1 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 earlier considered during the 47<sup>th</sup> meeting of Expert Appraisal Committee held on 2<sup>nd</sup> – 3<sup>rd</sup> September, 2015, when the Committee had 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.

The Proponent vide letter No. Nil' dated 3<sup>rd</sup> September, 2015 submitted the 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 shall install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP) (to sinter plant) and dust catcher followed by ventury scrubbers to blast

furnace and bag filters etc. shall be provided to keep the emission levels of particulates below 50 mg/Nm<sup>3</sup> from stacks and also meet level of the 50 mg/Nm<sup>3</sup> in work zone.

- iii. Air Pollution control measures shall include Pulse Jet Bag Filter of Upflow type, pneumatic conveying of dust, transport of materials in closed conveyors, wind screen in yards, DSS in yards.
- iv. 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. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- vi. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- vii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal. These include slag generated during the process of steel making, slag shall be used in construction of slime pond, sludge and bag filter dusts shall be recycled in sinter/pellet plant. All the other solid wastes including broken refractory mass shall be properly disposed off in an environmentally friendly manner.
- viii. 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.
- ix. All the effluents shall be treated and used for plant processes/operations, dust suppression and green belt development. No effluents shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.

- x. Efforts shall further be made to use maximum water from the rain water harvesting sources to reduce intake of water from natural 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.
- xi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluents generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office, SPCB and CPCB.
- xii. Green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiii. The environment wing of the company and for this Plant as well as of the company shall be strengthened with qualified personnel, state-of-art laboratory, infrastructure, etc and regular records of the environmental data including on-line monitoring of emissions shall be maintained.
- xiv. Company shall develop an HSE Policy. All the permanent workers shall be covered under ESI Scheme. The company shall have the provision for treatment of its workers at the local sub-committee 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 regularly conducted amongst the employees of the Company and records maintained thereof.
- xv. A CSR Plan shall be prepared and implemented in consultation with the local villages and administration. Issues raised/covered during public hearing shall be incorporated in the EMP and CSR Plan. During construction phase of the expansion project, an expenditure of about minimum 5% of the capital expenditure shall be earmarked for CSR activity covering the broad areas of education, health, infrastructure, water and power spread over 5 years/period of construction of project. During operation phase of the project, the CSR activity will be funded based on 2% of the profit during operation phase of the project.
- xvi. 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

**1.4.2 Expansion of Sponge Iron Unit of M/s Suvan Steels Pvt. Ltd. (formerly M/s Sajjala Iron & Steel Private Limited), Tehsil & District Bellary, Karnataka. [F.No- J-11011/661/2009-IA.II(I)]**

The proposal was earlier considered during the 27<sup>th</sup> meeting of Expert Appraisal Committee held on 13<sup>th</sup> – 14<sup>th</sup> November, 2014, when the Committee had desired additional information on the following for further consideration of the proposal:

- i. Clarification whether the revalidated AAQ data is for one season (March-May 2014) or for one month (May 2014).
- ii. A detailed CSR Plan for ESR for 5% of total project cost– village wise and activity-wise details (capital and recurring) to be prepared in consultation with Dist. Admn. and village panchayats.

The Project Proponent vide letter No. SSPL/MOEFCC/EC/C-1 dated 14<sup>th</sup> September, 2015 submitted the 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 shall install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to the 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 50 mg/Nm<sup>3</sup> and installing energy efficient technology.
- iii. Secondary emission shall be restricted to less than 100 mg/Nm<sup>3</sup>.
- 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 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.



- v. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- vi. Water sprinkling arrangements as well as dry fog system to control fugitive emission shall be undertaken.
- vii. 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.
- viii. All the effluent shall be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage shall be treated in septic tank followed by soak pit.
- ix. Green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- x. 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.
- xi. Monitoring report on Ambient Air Quality, fugitive dust and noise levels inside the plant shall be submitted along with the 6 monthly compliance report
- 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.

## **1.5 ANY OTHER ITEM**

### **1.5.1 Proposed 5.0 MTPA integrated cement clinkerisation plant, 8.0 MTPA cement grinding unit, 100 MW Captive Power Plant and**

**7.0 MTPA captive lime stone mine with mining lease area of 997.08 ha. at gollapalli village, Mylavaram, Mandalam of Kadappa (YSR) District, Andhra Pradesh by M/s ACC Ltd. regarding Extension of validity of ToR - [F.No-J-11011/265/2012-IA.II(I)]**

The ToRs for the proposal were earlier prescribed by the Ministry vide letter No. J-11011/265/2012-IA.II (I) dated 20<sup>th</sup> February 2013. The Project Proponent had mentioned that due to unforeseen circumstances of law and order situation owing to bifurcation of the State of Andhra Pradesh, the land acquisition process and baseline data collection was delayed and resulted in delay of submission of Draft EIA report to APPCB for public hearing. The Project Proponent mentioned that they have completed baseline data collection during the summer season (March-May, 2013) and also completed various studies as per ToRs including R&R study. The Proponent had requested for extension of validity of ToRs for further period of 1 year i.e up to 19<sup>th</sup> February, 2017.

The matter was considered by the committee. Based on the presentation made and discussions held, the Committee recommended the proposal for extension of validity of ToRs for another period of one year, with effect from 20<sup>th</sup> February, 2016 in accordance with the Office Memorandum No. J-11013/41/2006-IA-II(I)(part) dated 08.10.2014.

**1.5.2 Setting up of Ferro Alloys Manufacturing unit phase-1 (1X5 MVA) and Phase-II 2x9 MVA) at Growth Centre Bobbili, ViZianagaram District, Andhra Pradesh by M/s Sahara Ferro-alloys Ltd. regarding Extension of Validity of EC -[F.No-J-11011/387/2008-IA.II(I)]**

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

**1.5.3 Integrated Project – Cement Plant 4.8 MTPA, Clinker 3 MTPA, Limestone 663.46 Ha. (4.4 MTPA Production) and Thermal Power Plant-48MW at Kotapadu & Kalvatata Villages, Kolimigundla Mandal, Kurnool District, Andhra Pradesh by M/s Prism Cement Ltd. regarding Extension validity of Environmental Clearance [F.No. J-11011/166/2008-IA.II (I)]**

The project was earlier accorded Environment Clearance by the Ministry vide letter No. J-11011/166/2008-IA.II(I) dated 27<sup>th</sup> March 2009. Subsequently, the validity of this Environment Clearance was extended for a

period of two years i.e. upto 25.03.2016 by the Ministry vide letter of even No. dated 11.08.2014.

The Project Proponent has presented the status of the project. It was mentioned that after allocation of land by the Government in February 2012, clearances were received from Town & Country Planning and Gramsabha in April 2013. The Company has constructed the compound wall of the entire project area, site offices for mines as well as cement plant, explosive magazine as approved by Chief Controller of Explosives & Security Towers. The consent to Establish for the integrated plant has already been obtained from APPCB. However, the main construction activity of the Integrated Plant was kept pending due to non-conformity of the vital statutory provision of Rail Linkage to the project site.

The Project Proponent mentioned that now the railway authorities have submitted a positive proposal for rail linkage to this site and the estimated time frame for completion is proposed as 3 to 4 years. Further, the Proponent mentioned that parallel to Rail Linkage, the installation and commissioning of the Integrated Plant would also be completed.

Based on the presentation made and discussions held, the Committee recommended the proposal of extension of validity of EC dated 27<sup>th</sup> March 2009 for further period of 3 years i.e. up to 26<sup>th</sup> March, 2019.

**1.5.4 Expansion of Steel Plant of M/s Drolia Electrosteels (P) Ltd. at Siltara, Block Dharsiwa, Dist. Raipur, Chhattisgarh regarding Extension of validity of EC [F.No J-11011/386/2008-IA.II(I)]**

While introducing the team from the side of proponent and consultants, the Committee observed that neither the company nor their accredited consultant attended the meeting. A representative from the side of proponent was authorized by the proponent to attend the meeting. The Committee took a serious note on the issue and deferred the proposal for further consideration. The Committee advised the proponent to depute senior officer from the side of the proponent to attend the meeting.

**1.5.5 Expansion of Iron Ore Beneficiation Plant (Integrated Steel Plant) at Villages Tandwa & Kundru, Tehsil Tilda, District Raipur, Chhattisgarh by M/s Shri Bajrang Power and Ispat Ltd. regarding Amendment in Environment Clearance [F.No J-11011/394/2009-IA.II(I)]**

The proposal was earlier accorded Environment Clearance by the Ministry vide letter No. J-11011/394/2009-IA.II(I) dated 23<sup>rd</sup> May, 2012.

The expansion project of M/s Shri Bajrang Power & Ispat Ltd. is located at Villages Tandwa & Kundru, Block Tilda, Tehsil Tilda, Dist-Raipur, State of Chhattisgarh.

The Project Proponent has proposed an amendment in the existing Environment Clearance while changing in configuration of Sponge Iron Plant 6,00,000 TPA (4x500 TPD To 3x600 TPD) and Captive Power Plant 125 MW, WHRB (4x10 MW To 3x16 MW) without changing the total production capacity. At present there is no proposal to change in the existing production capacity of iron ore beneficiation plant, rolling mill and pellet plant. Only a Pellet Plant, a coal Gasifier of capacity 3 x 17000 Nm<sup>3</sup>/Hr is going to be installed along with a Fly Ash Brick Plant (1,00,00,000 NPA).

It is proposed to change configuration of the units and accordingly requires amendment in Environment Clearance. However, the production capacity will remain the same as given in the the existing Environmental Clearance.

<b>Existing Production capacity and configuration</b>	<b>Proposed capacity and Change in configuration</b>	<b>Remarks</b>
1. Sponge Iron – 6,00,000 TPA 4 X 500 TPD X 300days	Sponge Iron – 6,00,000 TPA 3 X 600 TPD X 330 days	No change in existing Sponge Iron Production capacity. However, 4 kilns of 500 TPD capacities replaced with 3 kiln of 600 TPD by use of good quality of coal in order to achieve maximum production by process optimization.
2. Power Plant – 125 MW WHRB – 4 X 10 MW Blast F/C – 10 MW Coke Oven – 25 MW AFBC – 50 MW	Power Plant – 125 MW WHRB – 3 X 16 MW Blast F/C – 10 MW Coke Oven – 25 MW AFBC – 42 MW	Change in configuration in terms of WHRB & AFBC boiler, however, the captive power plant capacity remains the same as existing one

3.	Hot Re-Rolling Mill- 2 x 0.20 = 0.40 MTPA	3.	Hot Re-Rolling Mill- 2 x 0.20 = 0.40 MTPA	No change in capacity or configuration, it remains the same with existing EC. . Only at Pellet Plant, 3 x 17000 Nm <sup>3</sup> /hr capa. Coal gasifier will be installed and Paste thickner technology will be adopted in beneficiations plant. Fly Ash Brick Plant of capa. 10000000 NPA will be installed.
4.	Pelletisation Plant- 1.40 MTPA	4.	Pelletisation Plant- 1.40MTPA with Coal Gasifier (3x17000 Nm <sup>3</sup> /Hr)	
5.	Iron ore beneficiation Plant-2.0 MTPA	5.	Iron ore beneficiation Plant- 2.0 MTPA	
6.	Ferro Alloy Plant 36000TPA	6.	Ferro Alloy Plant 36000TPA	
7.	Steel Melting Shop & continuous Casting Machine- 1.0 MTPA	7.	Steel Melting Shop & continuous Casting Machine- 1.0 MTPA	
8.	Coal washery- 2.4 MTPA	8.	Coal washery- 2.4 MTPA	
9.	Coke Oven Battery- 0.5 MTPA	9.	Coke Oven Battery-0.5 MTPA	
10.	Sintering Plant- 0.7 MTPA	10.	Sintering Plant- 0.7 MTPA	
11.	Blast Furnace- 0.55 MTPA	11.	Blast Furnace- 0.55 MTPA	
12.	Oxygen Plant- 500 TPD	12.	Oxygen Plant- 500 TPD	
		13.	Fly Ash Bricks Plant- 10000000 NPA	

The existing cost of the project is 1500 crores and with the proposed cost, the total cost of the project will be 1510 crores for change in configuration of the plant.

Based on the presentation made and discussions held, the Committee recommended the proposal for amendment in the Environment Clearance for the configuration as mentioned above.

**1.5.6 Expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 MW) of M/s JSW Steel Limited located near Village Tornagallu, District Bellary in Karnataka regarding Amendment in EC [F.No-J-11011/489/2009].**

The expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 MW) of M/s JSW Steel Limited located near Village Tornagallu, District Bellary in Karnataka was earlier accorded Environment Clearance by the Ministry vide letter No. J-11011/489/2009 IA.II(I) dated 01<sup>st</sup> October 2015.

The Project Proponent has mentioned that due to changes in the market situation for steel products and to exploit the potential benefits of new technologies developed over the period, it is proposed to slightly alter the process configuration by modernizing some of the existing units and installing larger capacity "state of the art" equipment without any increase in the approved overall crude steel capacity of 16 MTPA.

The changes proposed from the earlier proposal are given below:

- i. Enhance the working volume of Blast furnace -1 from 1250 m<sup>3</sup> to 2300 m<sup>3</sup> and installation of one 5500 m<sup>3</sup> blast furnace (largest in the country) in place of two Blast furnaces of 4019 m<sup>3</sup> to produce six million ton of hot metal
- ii. Enhance the volume of existing BOF converters from 175 tons to 187 tons in SMS - 2; installation of one 150 ton electric arc furnace & two operating BOF converters of 200 tons in SMS - 3 in place of four BOF converters of 180 tons. This will provide flexibility of producing both long and flat products for the construction sector.
- iii. Installing two smaller sinter plants of capacities 2.3 MTPA for BF1 and 7.5 MTPA for proposed BF5 in place of one large sinter plant of capacity 8.05 MTPA.
- iv. Retiring of old coke oven batteries Coke 1&2 of 1.28 MTPA and installation of two coke oven batteries of 1.5 MTPA and 3.0 MTPA, in place of one battery of 3.65 MTPA.
- v. Installation of a hot strip mill of 3.6 MTPA to produce flat products.
- vi. Suitable changes in the auxiliary units to match the needs of the above.

It has been envisaged that the revised capital cost of the project is Rs 17, 500 Crores as against 15,130 Crores for the original proposal. This includes additional expenditure of Rs 800 Crores towards additional EMPs proposed.

The Project Proponent mentioned that there will be no change in plant capacity for crude steel production. There will be a marginal decrease (-1040 m<sup>3</sup>/day) in overall water requirement. Additional raw material is required

due to the modifications. Around 242.6 Gcal/hr of Surplus energy will be available to power plant, which will save about 1000 tonnes of coal per day. Generation of power from TRT, CPP and CDQ will increase with reduction in power requirement by 89 MW. There will be a reduction in pollution load by PM: 98 g/s , SO<sub>2</sub> 1029 g/s and NO<sub>x</sub> 806 g/s in the overall air emissions to the atmosphere, improving surrounding air quality.

During the meeting, the Project Proponent also requested for reduction in the CSR component, which is at present prescribed by the Ministry as 5% of the capital expenditure of the project to 2.5 % of the project cost. Further, it was also requested whether the 25% green area prescribed in the earlier EC of 4 MTPA to 10 MTPA and 33% green area prescribed for the EC of 10 MTPA to 16 MTPA may be combined and implemented as 29% of the total area since there is no area available within the plant premises for additional plantation.

Based on the presentation made and discussions held in detail, the Committee recommended the proposal for amendment in the Environment Clearance for the changes as mentioned above in sub-paras (i)-(vi).

Regarding plantation, the Committee suggested the Project Proponent to plant the trees outside the plant premises in consultation with DFO. For the same, area of plantation alongwith demarcated layout plan should be submitted to the Ministry for consideration for taking a view in the matter.

With regards to reconsideration of CSR budget, the Committee requested Ministry to take a view in the matter.

## **1.6 CASE FOR TERMS OF REFERENCE (TOR)**

### **1.6.1 Installation of 4.0 MTPA Integrated Cement Plant with captive limestone mine, captive thermal power plant, desalination plant and captive jetty at Amreli district, Gujarat by M/s Heidelberg Cement India Ltd. [J-11011/214/2015-IA.II(I)].**

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

M/s Heidelberg Cement India Ltd. has proposed to install a Greenfield cement plant of 4.0 MTPA cement production capacity near village Balana in Jafarabad Taluk, Amreli District of Gujarat. The Project Proponent was informed by the Committee that for the limestone mining project and Jetty and desalination plant the clearances from the concerned sector be obtained. The proposal is therefore, considered only for setting up of a cement plant of 4MTPA cement production capacity.

The land required for the cement plant has to be assessed independently and provided by the Project Proponent. It has been mentioned by the Proponent during the presentation that the cement plant is located at a distance of 3 km. from the sea; therefore, the cement plant project is outside the purview of CRZ Notification.

The nearest railway station is at Rajula City, 25 km from the project site and the nearest airport is at Nagoa, Diu at around 40 km. from the project site. The proposal also includes installation of approx.70 MW thermal captive power plant to cater the power requirements of facilities being proposed, installation of captive jetty with approx. dimension of 300x30 m to handle the incoming and outgoing materials for the cement and power plant respectively, desalination plant of approx. capacity 3500 m<sup>3</sup>/day, to meet the requirements of water for plant and personnel and a housing colony to accommodate approx. 300 to 350 working personnel of cement plant, power plant, captive jetty and desalination plant and their families.

The total water consumption, considering all the systems/ department works out to be 3300 m<sup>3</sup>/ day. The entire water required shall be sourced from sea and treated in the Desalination plant prior to use. About 100 KLD of Ground water will be required for consumption in the housing colony/plant offices. The construction activity will require 300-400 KLD of water during peak construction.

The estimated water requirement for operation phase is proposed as 3300 m<sup>3</sup>/ day, which will be sourced from sea. In addition, about 100 KLD ground water will be required for consumption in the housing colony/plant offices. About 300-400 KLD water will be required for construction phase, which will be sourced through approved tanker services.

Gir National Park and Wildlife Sanctuary is reported to be located at a distance of 45 km from the project site. The jetty proposed falls in CRZ area. Clearance from CRZ authority will be obtained prior to commencement of work in any such area.

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the



generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2:**

- i. The present ToRs are only for conducting EIA/EMP studies for Cement Plant and CPP. For CRZ and Mining, separate application should be made.
- ii. Details regarding imported coal should be provided.
- iii. Total land required for cement plant and captive power plant should be assessed and provided along with break-up of area for various facilities.
- iv. Status of land acquisition and evidence of land acquisition as per the OM of the Ministry dated 7<sup>th</sup> October, 2014 should be provided.
- v. It may be ascertained whether the site is falling in the Asiatic Lion corridor. A document in support of justification should be obtained from the chief wildlife warden and furnished.
- vi. PH to be conducted by Gujarat Pollution Control Board.

**1.6.2 Expansion of Sponge Iron Plant from 195 TPD to 395 TPD and installation of Billet Manufacturing Unit (600 TPD), Rolling Unit 600 TPD along with Captive Power Plant (18 MW) at Village Mahuda, Po-Rukni, West Bengal by M/s. Bravo Sponge Iron Pvt. Ltd. [J-11011/758/2009-IA.II(I)].**

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

Presently the company is having two Nos. of DRI plants 1 x 100TPD & 1 x 95 TPD and producing Sponge Iron. The new management now proposes to install 2 additional 2x100 TPD DRI along with 4x15 T Induction Furnace (600TPD), 600 TPD Rolling Mill & 18 MW Captive Power Plant. The project is located at Village Mahuda, District Purulia, West Bengal-723145. The project site is reported to lies between 23<sup>o</sup> 32' 53.25" N latitude and 86<sup>o</sup> 32' 49.45" E longitude. Following table shows project configuration:

SI No	Facility	Configuration	Capacity	Product	End Use
Existing					
1	DRI kiln	1x100 TPD 1x95 TPD	62,400 TPD	Sponge Iron	IF

Expansion					
2	DRI kiln	2x100 TPD	64,000 TPD	Sponge Iron	IF
3	IF	4x15 T	1,92,000 TPA	Hot Metal	CCM
4	CCM	600 TPD	1,92,000 TPA	Billet	RM
5	Rolling Mill	600 TPD	1,90,000 TPA	TMT Bar/Rod	Sale
6(a)	CPP	WHRB	8.0 MW	Power	Internal Use
6(b)	CPP	AFBC	10.0 MW	Power	Internal Use

The total land required for the project is 40.29 acres, which is reported as industrial land. Water required for the project is estimated as 1,195m<sup>3</sup>/day, which will be obtained from Haral river. The power requirement is estimated as 30 MW. Imported coal is being used for the existing project.

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

- i. Land acquisition details should be provided.
  - ii. Monitoring report for the existing plant conducted by the SPCB and CTO details should be provided.
  - iii. Production detail to be provided.
  - iv. Public Hearing to be conducted by the West Bengal Pollution Control Board.
  - v. Source of the power for remaining 12MW be provided.
- 1.6.3 **Expansion of NALCO, by addition of 5<sup>th</sup> Stream in Alumina Refinery having capacity of 1.0 Million Tonne per Annum and 18.5 MW co-generation Power Plant at Damanjodi Village, Koraput CD Block, Koraput district, Odisha by M/s National Aluminium Company Limited (NALCO) [J-11011/65/2008-IA.II(I)].**

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the

project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s National Aluminium Company Limited (NALCO) was accorded Environment Clearance by the Ministry for existing Alumina Refinery Plant of capacity 2.275 MTPA vide letter No. J-11011/65/2008-IA-II(I) dated 11.05.2010. Now, NALCO is planning to set up the 5<sup>th</sup> Stream of capacity 1.0 MTPA in its existing Alumina Refinery Plant at Damanjodi, Koraput District, Odisha, as a part of its 3<sup>rd</sup> phase expansion programme. After this proposed 5<sup>th</sup> stream expansion, Nalco's total Alumina production capacity will be increased from 2.275 MTPA to 3.275 MTPA. In this expansion 1 No. of 300 TPH Boiler and 1 No. of 18.5 MW Turbo Generator (TG) to be added in existing Steam-cum-Cogeneration Power Plant (SPP). The SPP capacity will be increased from 92.5 MW to 111 MW. It is proposed to adopt medium pressure technology, which is more efficient as compared to existing atmospheric pressure Technology. The Technology is envisaged to be sourced from M/s Rio Tinto Alcan.

The expansion will be carried out in an area of 62 acres, which is within existing plant premises in Nalco's own acquired land having area of 615 acres. The latitude and longitude of the site is 180 46' 20.0" N & 820 55' 01" E respectively. Estimated additional water requirement is 572 m<sup>3</sup>/hr, which will be sourced from Upper Kolab Reservoir (Kerandi river). The Power requirement is 43 MW, sourced from captive generation. Total Employment Generation will be 462 nos. (Supervisory – 362 nos. & Executive – 100 nos.). Estimated capital cost of the project is Rs 4,357.20 Crores (Including Rs. 235 Crores towards Environment Management)

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

- i. Compliance report from the regional office of MoEFCC should be submitted as a part of EIA/EMP report.
- ii. Land details along with ownership details should be submitted.
- iii. Plan for utilization of Red mud should be submitted.
- iv. Details regarding Captive Power Plant and its pollution impacts should be submitted.
- v. Public Hearing to be conducted by Odisha Pollution Control Board.
- vi. Details of reserve forest in the study area should be furnished.

**1.6.4 Expansion of Manufacturing Kraft Paper (From 35 TPD to 185 TPD) form Agro-Based Residues Raw Material & Waste Paper by installation of new Unit-II (150 TPD) at 4.5 K.M. Stone, Ramnagar Road, Kashipur, District Udham Singh Nagar, Uttarakhand by M/s Vishvakarma Paper & Boards Limied, [J-11011/241/2015-IA.II(I)].**

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. 5(i), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. Vishvakarma Paper & Boards Limited is located at Kashipur, District Udham Singh Nagar, Uttarakhand. The existing capacity of Kraft Papers based on Agro based residues and waste paper is 35 TPD and after proposed expansion the capacity of Kraft paper will be 185 TPD, which will achieved by installation of new Unit-II (150 TPD).

<b>Unit</b>	<b>Existing Capacity</b>	<b>Proposed Expansion Capacity</b>	<b>Total Capacity after Proposed Expansion</b>
Kraft Paper	35 TPD	150 TPD	185 TPD
	Agro Based Residues - 20 TPD Waste Paper Based - 15 TPD	Agro Based Residues - 100 TPD Waste Paper Based - 50 TPD	Agro Based Residues - 120 TPD Waste Paper Based - 65 TPD

Total plant area is 10.13 ha (25.03 acres) and no additional land is required for the proposed expansion, as the same will be done within the existing plant premises of the company. Greenbelt/Plantation has been developed in 3.3 ha (8.25 acres) (i.e. approximately 33% of total plant area). The basic raw materials for the project are wheat straw, bagasse and Indian waste paper, which would be available from the nearby areas. The other raw materials required are Caustic Soda, Fortified Rosin and Alum. The fuel required will be Rice Husk (190 MT/Day) which will be sourced from authorized dealer by truck. Existing water requirement for 35 TPD is 950 KLD and after proposed expansion 4700 KLD of water will be required, which will be sourced from groundwater. Existing power requirement is 1.6 MW and after proposed expansion, it will be 3.6 MW, which will be sourced from State Electricity Board & D.G Sets (for emergency). Total estimated cost of

the project is Rs. 34.83 Crores. Capital cost for Environmental Protection Measures will be Rs. 5.0 Crores and Recurring Cost is Rs. 0.5 Crores/Annum. The estimated time for completion will be 3 to 4 years period.

No National Park/ Wild Life Sanctuary/ Biosphere Reserve lies within 10 km radius of plant site except RF/PF (~ 8.0 km in NW direction). Two rivers i.e. Dhela River and Kosi River are flowing at a distance of approximately 3.0 km in NW & 8.5 km in ESE direction respectively.

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

- i. Permission for additional water requirement should be obtained and submitted along with the EIA/EMP report.
- ii. Power requirement should be 33 KV.
- iii. Plan for implementation of Charter issued by CPCB should be submitted.
- iv. Employment details for the existing and proposed plant should be submitted.
- v. Fire emergency plan should be submitted.
- vi. Plan for disposal and treatment of effluent should be submitted.
- vii. Public Hearing to be conducted by Uttarakhand Pollution Control Board.

**1.6.5 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. [J-11011/170/2015-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.

**1.6.6 Expansion of Integrated Steel Plant (Sponge Iron from 2,10,000 TPA to 2,64,000 TPA), (Power Plant from 26 MW (CPP) to 28 MW (CPP), (WHRB -18 MW to 20 MW), SMS (1,29,6000 TPA (by 4 nos. Induction Furnace of 8T each) to 1,29,600 TPA (by 6 Nos. Induction Furnace of 8T each), Ferro Alloys from 14,400 TPA to 19,800 TPA) and new Pellet Plant (0.6 MTPA) in its existing plant located at Village Borjhara, District Raipur, Chhattisgarh by M/s Shri Bajrang Power & Ispat Ltd. [F.No- J-11011/531/2007-IA.II (I)]**

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.

The proposed expansion project of M/s Shri Bajrang Power & Ispat Ltd. is located at Village Borjhara, Tehsil and District Raipur, Chhattisgarh. The project is located within the Urla Industrial Growth Centre.

The project was earlier accorded Environment Clearance by the Ministry vide letter No. J-11011/531/2007-IA II (I) dated 17<sup>th</sup> January, 2008 for sponge iron manufacturing through Iron Ore, Coal and Dolomite. Steel Melting Shop with configuration of 4 x 8T of Induction Furnace. Ferro Alloys with existing capacity of 14,400 TPA (2 x 4 MVA SAF) along with Captive Power plant having capacity of 26 MW capacity in which 18 MW power generated through WHRB and rest of 08 MW generated through bio mass. Further, the company had also taken combined environmental clearance for Coal washery and rolling mill having capacity of 1.2 MTPA and 0.15 MTPA respectively within the same plant premises vide letter No. J-11015/159/2009-IA II (M) dated 28<sup>th</sup> January 2010.

Now, the said proposal for expansion of production capacity with change in configuration of sponge iron from 2,10,000 TPA (2 x 350 TPD x 300 days) to 2,64,000 TPA (2 x 400 TPD x 330 days). Similarly increase in power generation through captive power plant from 26 MW to 28 MW. The expansion of Submerged Arc Furnace involves the enhancement of capacity and modernization with change in configuration. The existing SAF production capacity is 14,400 TPA (2 x 4 MVA SAF) replaced by higher capacity of SAF with increase in production capacity of 19,800 TPA (1 x 5 +1 x 6 MVA SAF). Existing Steel Melting Shop (SMS) production capacity is 1, 29,600 TPA will not be changed. However, two more induction furnaces of same capacity i.e. 8T to be installed to achieve the rated production. At present there is no proposal to change in existing production capacity of Coal washery and rolling mill. Pellet plant (0.6 MTPA) is also proposed.

Following table presents existing and proposed plant configuration:

<b>Existing Production capacity and configuration</b>	<b>Proposed capacity and Change in configuration</b>	<b>Remarks</b>

<p>1. Sponge Iron – 6,00,000 TPA 4 X 500 TPD X 300days</p>	<p>Sponge Iron – 6,00,000 TPA 3 X 600 TPD X 330 days</p>	<p>No change in existing Sponge Iron Production capacity. However, 4 kilns of 500 TPD capacities replaced with 3 kiln of 600 TPD by use of good quality of coal in order to achieve maximum production by process optimization.</p>
<p>2. Power Plant – 125 MW WHRB – 4 X 10 MW Blast F/C – 10 MW Coke Oven – 25 MW AFBC – 50 MW</p>	<p>Power Plant – 125 MW WHRB – 3 X 16 MW Blast F/C – 10 MW Coke Oven – 25 MW AFBC – 42 MW</p>	<p>Change in configuration in terms of WHRB &amp; AFBC boiler, however, the captive power plant capacity remains the same as existing one</p>
<p>3. Hot Re-Rolling Mill- 2 x 0.20 = 0.40 MTPA 4. Pelletisation Plant-1.40 MTPA 5. Iron ore beneficiation Plant-2.0 MTPA 6. Ferro Alloy Plant 36000TPA 7. Steel Melting Shop &amp; continuous Casting Machine- 1.0 MTPA 8. Coal washery- 2.4 MTPA 9. Coke Oven Battery-0.5 MTPA 10. Sintering Plant- 0.7 MTPA 11. Blast Furnace- 0.55 MTPA 12. Oxygen Plant- 500 TPD</p>	<p>3. Hot Re-Rolling Mill- 2 x 0.20 = 0.40 MTPA 4. Pelletisation Plant-1.40MTPA with Coal Gasifier (3x17000 Nm<sup>3</sup>/Hr) 5. Iron ore beneficiation Plant-2.0 MTPA 6. Ferro Alloy Plant 36000TPA 7. Steel Melting Shop &amp; continuous Casting Machine- 1.0 MTPA 8. Coal washery- 2.4 MTPA 9. Coke Oven Battery-0.5 MTPA 10. Sintering Plant-0.7 MTPA 11. Blast Furnace- 0.55 MTPA</p>	<p>No change in capacity or configuration, it remains the same with existing EC. Only at Pellet Plant, 3 x 17000 Nm<sup>3</sup>/hr capa. Coal gasifier will be installed and Paste thickner technology will be adopted in beneficiations plant. Fly Ash Brick Plant of capa. 10000000 NPA will be installed.</p>

	12. Oxygen Plant- 500 TPD 13. Fly Ash Bricks Plant- 10000000 NPA	
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The total water requirement will be about 2,950 m<sup>3</sup>/day which will be sourced from river Kharun. SBPIL has already obtained consent for drawl of water through Kharun River (1, 25,000 m<sup>3</sup>/month) from Water Resources Department, Government of Chhattisgarh.

The power requirement for the project will be sourced from captive power plant. Existing capacity of CPP is 26 MW (WHRB-18MW, Biomass-08MW), total capacity after expansion would be 28 MW (WHRB-20MW, Biomass-08MW).

The existing project is providing employment to about 675 people and on completion of the expansion, there will be addition of 75 people. Total project cost is estimated around Rs.336.09 Cr. (Existing: Rs. 238.31 Cr., Proposed: Rs. 97.78 Cr.).

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

- i. Public hearing to be conducted by Chhattisgarh Pollution Control Board.
- ii. Energy audit to be conducted to increase energy efficiency

**Thursday 19<sup>th</sup> November, 2015 (Indus)**  
**Time : 10:00 AM**

## **1.7 ENVIRONMENTAL CLEARANCE (EC)**

- 1.7.1 **Expansion of existing steel plant from 22,556 TPA (Ingot) to 1,24,800 TPA (Ingot) to produce 96,000 TPA of TMT Bar, Angle & Channel of M/s Kamadhenu Ispat Ltd at A-1112 & 1114, RIICO Industrial Area, Phase 3 Tehsil: Tijara District Alwar, Rajasthan. [F.No-J-11011/378/2014-IA.II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Grass Roots Research & Creation India (P) Ltd) gave a detailed presentation on the



salient features of the project. The project was prescribed TORs Vide letter No. J-11011/378/2014-IA.II(I) dated 11<sup>th</sup> March, 2015. Final EIA/EMP report has been prepared and submitted vide online application dated 5<sup>th</sup> November, 2015 to MoEFCC, for Environmental Clearance. 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.

The steel plant project of M/s Kamadhenu Ispat Ltd is located in plot No. – 1112 & 1114 of RIICO Industrial Area, Phase – III, Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan. The first NOC to the project was granted vide letter No. RPCB/BHD/347 dated 19<sup>th</sup> November, 1994 to produce Hot Rolled Bars, Angles, Rounds etc 30,000 TPA. After that Consent to Establish (CTE) under the provisions of Air and Water Acts was issued vide letter F.12 (2-1255)RPCB/Gr.1/1967 dated 15th October, 2004 to produce 22,556 TPA M.S. Ingots through Induction Furnace. Existing unit is operating on a CTE of October 2004.

The proposal is for enhancement of capacity of steel plant from 22,556 TPA (Ingot) for producing 48,000 TPA TMT Bar, Angle & Channel to 1,24,800 TPA (Ingot) for producing 96,000 TPA of TMT Bar, Angle & Channel. The expansion will be carried out within the existing plant premises of 17,534 m<sup>2</sup>. Out of total area of 17534 m<sup>2</sup>, an area of 2526 m<sup>2</sup> will be developed as green belt inside the plant premises. The PP has proposed to plant the remaining 3260 m<sup>2</sup> area in panchayat area of Harchandpur village and Santhalka village, in the campus of govt schools/colleges. PP mentioned that the existing 8 Ton induction furnace will be dismantled after expansion.

Existing Units:

- i. Induction Furnace (1 x 8 T),
- ii. 1 Reheating Furnace based on coal gas produced from coal gasifier
- iii. Rolling Mill of 48,000 TPA.

The proposed configuration is as under:

- i. Induction Furnace (2 x 13.5 T), (existing 8 Ton induction furnace will be dismantled)
- ii. 1 Continuous Casting Machine (CCM)
- iii. 1 Reheating Furnace based on coal gas produced from coal gasifier (Standby to avoid the mismatch in synchronization)
- iv. Rolling Mill of 96,000 TPA.

Nearest Settlement is Belahari at 1.2 km towards South direction. Nearest Town is Bhiwadi at 3 km in West direction. Patandi Road railway station is at a distance of 19.5 km in NNW direction and the nearest airport is IGI New Delhi Airport 50 km in NNW direction. The approach road is 1.23

km North from NH71B, 3.60 km West from SH25 and 6.50 km in NW from NH8. The existing plant lies at latitude and longitude A: 28°12'3.195"N to 76°51'43.050"E B: 28°12'0.883"N to 76°51'45.733"E, C: 28°11'56.157"N to 76°51'42.432"E, D: 28°11'56.641"N to 76°51'39.067"E. There is no National Park/Wildlife Sanctuary/Tiger Reserve/Elephant Reserve/Core Zone of Biosphere Reserve/ Habitat for migratory birds within 10 km radius from the project boundary. River Sahibi flows at a distance of 10.8 km(W), Indori nala is 5.2km (E) and Sare Khurd Canal is 6km (SE). Gondhan, Banvan, Khori Kalan, Chaupanki Protected Forest and Rangala Reserve Forest are within the 10 km of the study area. Man power required for the existing project is 165. Additional manpower required for the expansion project will be 50. The cost of the project will be about Rs. 18.80 crores. An amount of Rs. 94 lakhs has been earmarked for Health, Education, Agriculture & Agro-based Activities, Skill Development, Sports, Art & Culture as a part of ESC related activities.

The water requirement for the project is 8.5 m<sup>3</sup>/day and the additional water required for the expansion project will be 49.5 m<sup>3</sup>/day. Total domestic water required for the project will be 12 m<sup>3</sup>/day. Ground water to the tune of 70 m<sup>3</sup>/day will be used for the project. Permission for tube-well accorded by RIICO Ltd. Zero liquid discharge concept will be adopted. Therefore, no wastewater will be discharged outside the plant. Pond of size 19m x 18m x 3m has been proposed for rain water harvesting, which will be able to store 10 days of peak rainfall and can be reused in the plant thereby reducing load on ground water extraction.

Public hearing is exempted for the project since the project is located at RIICO Industrial Area, Phase – III, Bhiwadi which is a Notified Industrial Area.

The Committee desired additional information on the following for reconsideration.

- (i) The requirement of water should be revisited and revised requirement submitted.
- (ii) The CSR plan should be revisited based on the discussions and submitted. It would be appropriate to clearly mention the CSR activities as suggested by the committee in the meeting.

**1.7.2 Proposed Expansion of the Ferro Alloy Plant through setting up of 3x9 MVA submerged ARC Furnaces of M/s Modern India Con-Cast Ltd., at Haldia District Purba Medinipur, West Bengal. [F. No. J-11011/326/2013-IA-II (I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (Envirotech East Pvt.

Ltd., Kolkata) gave a detailed presentation on the salient features of the project. The project was prescribed TORs Vide letter No. J-11011/326/2013-IA.II(I) dated 14<sup>th</sup> January, 2014. Final EIA/EMP report has been prepared and submitted online application to MoEFCC for Environmental Clearance. 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. Environmental Clearance for the existing project was accorded by the Ministry vide letter No. F.No. J-11011/1297/2007-IA II (I) dated 25/09/2008.

M/s Modern India Con-cast Ltd. (MICL) is presently operating 6x9 MVA Submerged Arc Furnaces for the manufacture of Ferro Manganese & Silico Manganese. Environmental Clearance for the existing project was granted by the Ministry vide letter No. J-11011/1297/2007-IA II (I) dated 25/09/2008. It has proposed to increase its existing plant capacity by installing 3x9 MVA Submerged Arc Furnaces to produce Silico Manganese & Ferro Silicon. The existing units as well as the proposed units with the rated capacities per annum are presented below:

### Existing & Proposed Units

Unit	Existing Unit	Proposed Unit
Ferro Alloys Plant	6x9 MVA SAFs Ferro Manganese & Silico Manganese (1,10,745 TPA)	3x9 MVA SAFs Silico Manganese & Ferro Silicon (49,200 TPA)

The proposed expansion proposal is located at Haldia, District Purba Medinipur in West Bengal. Proposed project will be installed on the available land within the existing plant area of 39.50 acres. The geographical coordinates are latitude 22°05'37.56"N and longitude 88°10'19.53"E with mean sea level 15 ft. As per an initial estimate, water to the tune of 56.75 cu.m/hr will be required for industrial as well as domestic purpose in the proposed expansion project. The raw water will be supplied by Haldia Development Authority (HDA). The estimated power requirement for the proposed project is 28.65 MW, which will be sourced from West Bengal State Electricity Board (WBSEB). The plant will be designed as a zero discharge plant as far as the process effluents are concerned. The water will be recirculated through cooling and treatment. The entire wastewater after necessary treatment will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Septic tank-Soak pit system. Adequate control measures like installation of bag filters, dust suppression system and stacks of adequate height at relevant points. Slag generated during Silico Manganese production will be used for road construction / land filling / paver block making. Domestic solid waste from the plant and staff

quarters will be disposed of suitably in consultation with the concerned Authority. The manpower required for the project is 69 persons. The estimated cost of the project is Rs. 60 Crores.

Ambient air quality was monitored at eight (8) locations during the period of March, 2014 - May, 2014 in and around the project site. The levels of PM<sub>10</sub> (44-119 µg/m<sup>3</sup>), PM<sub>2.5</sub> (15-52 µg/m<sup>3</sup>), SO<sub>2</sub> (4-26 µg/m<sup>3</sup>) and NO<sub>2</sub> (10-46 µg/m<sup>3</sup>) are within the prescribed limits except PM<sub>10</sub> on few occasions. Stack emissions would be constituted of mainly Particulate matters. There will be continuous emissions from three stacks, attached to 3x9 MVA Submerged Arc Furnaces. Air Quality Dispersion Modelling indicates that due to emission of all the stacks in the proposed project, the absolute maximum predicted GLC of PM would be about 4.96 µg/m<sup>3</sup>.

Public Hearing was conducted on 25<sup>th</sup> February, 2015 at Office Premises of Sub-Divisional Officer Haldia, Districe Purba Medinipur in West Bengal. The major issues raised during the public hearing are air pollution control and development activities in the locality, employment opportunity, toilets / bathrooms of the existing factory needs to be improved, existing road in front of the factory to be improved etc.

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

- i. Letter from forest department that there is no protected area within 10 km radius of the plant.
- ii. TCLP test to be conducted for the raw material and the solid waste generated at the site.
- iii. Monitoring report from Regional Office of MoEFCC should be submitted.
- iv. Revised CSR plan as discussed during the meeting should be submitted. need to be clearly mentioned as suggested by the committee in the meeting
- v. The existing and proposed capacity of Ferro-manganese and silico-manganese should be clearly provided along with the individual capacity of production of silico-manganese and ferro-silicon as proposed.

**1.7.3 Expansion of Steel plant (from 1.0 MTPA to 2.0 MTPA) at Bhugaon Link road, village Barbadi, Bhugaon and Selu kata tehsil Wardha, district Wardha, Maharashtra by M/s Uttam Value Steels Limited (Formerly M/s Lloydsteel Industries Ltd.) [F.No- J-11011/354/2012-IA.II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (Envirotech East Pvt. Ltd., Kolkata) gave a detailed presentation on the salient features of the project. The project was prescribed TORs by the Ministry vide letter No. J-11011/354/2012-IA II(I) dated 24<sup>th</sup> June 2013. Final EIA/EMP report has been prepared and submitted online vide application dated 10<sup>th</sup> October, 2015 to MoEFCC for Environmental Clearance. 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. Environmental Clearance for the existing project was accorded by the Ministry vide letter No. F.No. J-11011/77/2005-IA II (I) dated 21<sup>st</sup> June 2005 and dated 4<sup>th</sup> Oct 2010. The Consent to Operate was issued by the PCB vide letter No.BO/JD/(APC)EIC NO.NG-4669-11/R/CC-503 dated 18<sup>th</sup> October 2011.

The Project Proponent is planning to expand the capacity of steel plant from 1.0 MTPA to 2.0 MTPA. The Project is located at Village(s) Barbadi, Bhugaon and Selukata, Tehsil and District Wardha, Maharashtra. The product includes Hot Rolled Coils, Cold Rolled Coils, Galvanized coils and Sheets, Colour Coated products, Pipes and Long products, along with Up-gradation and Modernization of Existing Facilities. Total plot area available with the project is 220ha. The area under existing plant is 115 ha and the area available for the proposed expansion is 105 ha. The expansion project is being undertaken within the existing plant premises. No Forests land is involved. No National Park / Wildlife Sanctuary / Ecologically sensitive area are located within 10 Km radius. The total project cost for the expansion project estimated to be Rs. 3325.90 Crores. The capital outlay for environmental control measures estimated to be Rs. 290.35 Crores. Following table presents the details of the existing and the proposed project:

Sr. No	Name of Product	Production Capacity in MTPA		
		Existing	Proposed	Total
a.	Hot Rolled Coils/ sheets/ Plates	1.000	0.500	1.500
b.	Long Products	Nil	0.500	0.500
	<b>Total</b>			<b>2.000</b>
<b>Downstream Products</b>				
A	Cold Rolled Products	0.225	0.375	0.600
B	Galvanized Coils & Sheets	0.225	0.375	0.600
<b>Finishing Line</b>				

A	Colour Coating Line	Nil	0.300	0.300
B	Pipes	Nil	0.250	0.250

The total water required for the project including expansion would be estimated as 9970 m<sup>3</sup>/day. Water will be sourced from the Dham river near Pavnar, which is located 10 Km away from the project site. The company has obtained water drawl sanction from the Secretary, Irrigation Division, Mantralaya, Mumbai vide letter dated 28<sup>th</sup> August 1986 for drawl of 3.65 Million cubic meters. Minimum 33% of the proposed area will be used for Greenbelt. Total area proposed for development of green belt for both existing & proposed project would be about 75 ha.

Following are the details of the raw material for the plant:

SI No	Raw Material	Location	Mode of transport
1	Dolomite	Mandla (Madhya Pradesh) Korpana (Maharashtra)	By Road
2	Limestone	Jodhpur (Rajasthan) Wardha (Maharashtra) Katni (Madhya Pradesh)	By Road

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 68.7 µg/m<sup>3</sup>, PM<sub>2.5</sub> between 18.5 to 40.6 µg/m<sup>3</sup>, sulphur dioxide (SO<sub>2</sub>) between 8.7-17.2 µg/m<sup>3</sup>, and oxides of nitrogen (NO<sub>x</sub>) between 14.9-26.3 µg/m<sup>3</sup>. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 3.12 µg/m<sup>3</sup> with respect to the PM10, 16.97 µg/m<sup>3</sup> with respect to the SO<sub>2</sub> and 2.62 µg/m<sup>3</sup> with respect to the NO<sub>x</sub>.

Public Hearing was conducted on dated 24<sup>th</sup> June, 2015 under the chairmanship of Additional District Magistrate, at Zilla Krida Samkul Ground, in front of Police Head Quarter, Near Dr. Babasaheb Ambedkar Statue, Sewagram Road, Wardha. The major issues raised during the public hearing are water drawl from Wana / Vena River at Hinganghat, further development of infrastructure in terms of Roads in the villages, Drinking water, Schools premises and recreation, more employment to qualified and skilled local youth, More medical check-up to local villagers, Water pollution from the industry, Reduction of agriculture yields.

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:

Specific condition

- 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. Concrete floor shall be provided for storage of raw material to avoid leaching. Drainage channels all around the storage area should be constructed and the runoff should be treated in the treatment plant.
- iii. The proponent shall carry out R&D work through an expert agency to further reduce sulphur content in the emissions through stacks and submit report to Ministry and its Regional Office within 40 months.
- iv. Zero discharge, once expansion is commissioned (3 years time for implementation of zero discharge)
- v. Used oil shall not be used for lubrication. The same shall be disposed to the authorized vendor.
- vi. 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>.
- vii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, 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.
- viii. 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.
- ix. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office, CPCB and SPCB.

- x. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.
- xi. 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.
- xii. 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.
- xiii. The Company shall submit their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xiv. 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.
- xv. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.
- xvi. Greenbelt of 20-30 meters in width should be provided all around the periphery of the site. Greenery shall be developed around storage yards, around plants, either side of roads of the industry as per CPCB Guidelines.



- xvii. 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.

## **1.8 FURTHER CONSIDERATION**

### **1.8.1 Expansion of Steel Manufacturing Unit (from 29000 MTA to 84,000 MTA) by M/s Jyoti Industries (Unit-II) at B-57A, Phase-VII, Focal Point, Ludhiana, Punjab [J-11011/408/2012-IA.II(I)]**

It is noted that M/s Jyoti Industries is a Steel manufacturing unit located at Plot No B-57A, Phase-VII, Focal Point, Ludhiana District-Ludhiana, Punjab. The existing capacity of the unit is 29,000 MTA of special steel Ingots. PP now wants to enhance the capacity of their unit by adding Two Induction Furnace of 10 TPH capacity each. After expansion capacity of the unit will be 84,000 MTA of special steel Ingots. The Unit falls in Category B as per schedule; but being situated in the 'Critically Polluted Area' of Ludhiana (Item No. ii of GC), the proposal is appraised at the central level.

The proposal was earlier considered during the 6<sup>th</sup> meeting of Expert Appraisal Committee held on 05.03.2013, when the Committee had recommended the ToRs for the project and exempted the proposal for conduct of Public Hearing. The Committee; however, advised project proponent to submit authentic document in support of location of project in the 'Notified Industrial Area'.

The project proponent vide letter No 'Nil' dated 04.05.2015 submitted the requisite documents after the lapse of approximately 2 years. The Committee verified and approved the information submitted by the project proponent regarding exemption of PH.

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

- i. One month monitoring should be conducted and the data so generated should be compared with the earlier data and submitted to the Ministry

### **1.8.2 Proposed expansion project for Sponge Iron, Steel billets, TMT Bars and Captive Power Plant at Village Somakhilai, District**

**Kutch, Gujarat by M/s Gallantt Ispat Ltd [F.No. J-11011/52/2013- IA.II(I)]**

The proposal was earlier considered during the 41<sup>st</sup> meeting of EAC held on 1<sup>st</sup> – 2<sup>nd</sup> June, 2015, when the Committee recommended to defer the project and requested PP to submit the following information for further consideration of the proposal:

- i. Submit the data for the health record viz audiometric test, respiratory – lung function test, chest x-ray and agronomic data at the time of joining and the latest data.
- ii. Level of heat, dust and noise of the work environment should be submitted
- iii. Justification should be submitted on the compliance report submitted by RO, Bhopal, that, why many of the conditions of the EC are only partly complied.

Based on the additional information/ clarification submitted by the proponent vide letter No. 'Nil' dated 17<sup>th</sup> August 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 shall install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Used oil shall not be reused for lubrication and disposed to the authorized vendor.
- iii. 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>.
- iv. 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.

- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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.
- x. The Company shall submit their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

- 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. 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 should be provided all around the periphery of the site. Greenery shall be developed around storage yards, around plants, either side of roads of the industry as per CPCB Guidelines.
- xiv. 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.

## **1.9 ANY OTHER ITEM**

### **1.9.1 Cement Plant (2.5 MTPA), Captive Power Plant (40 MW) at Villages Risda and Dhandhani, along with limestone mine (3.17 MTPA, 395.05 ha) at Villages Risda and Kukurdih, Tehsil Baloda Bazar, District Baloda Bazar –Bhatapar, Chhattisgarh by M/s Emami Cement Ltd. regarding Amendment in Environment Clearance [F. No- J-11011/372/2007-IA.II(I)]**

The Integrated Cement Plant of M/s. Emami Cement Ltd. was accorded Environment Clearance (EC) by the Ministry vide letter No. J-11011/372/2007-IA II (I) dated 31.10.2011. The project is under construction, for which Consent to Establish (CTE) has been obtained from the Chhattisgarh Environment Conservation Board (CECB) vide letter No. 140/TS/CECB/2012 dated 09.04.2012.

The project proponent has now requested for an amendment in the Environment Clearance with respect to the following:

- i. To outsource clinkers from the nearby cement plants or open market by rail. The clinker will be stored in silos.
- ii. To use Petcoke and agrowaste (rice husk) sourced from reliance refinery and nearby areas respectively. The fuel will be transported via rail as well as roads. The total requirement of fuel is 543 TPD

- and 50 TPD of petcoke and agrowaste respectively. Proper storage facilities will be provided within the plant.
- iii. To change the capacity of CPP. The earlier Environment Clearance was granted for 2X 20 MW (i.e. 40 MW) capacity of CPP, now ECL is proposing an amendment to install a CPP of capacity 1X30 MW. This would reduce the pollution load on the environment as well as fuel and water consumption. 9 MW will be generated from WHRB.

The project proponent has mentioned that no process waste water will be generated due to the proposed amendment. However, domestic wastewater generated from the colony, canteen and office building will be treated in the Sewage Treatment Plant (STP) and effluent from the captive power plant will be treated in the treatment plant. The treated wastewater from STP & treatment plant will be used for plantation/ greenbelt development & dust suppression.

Further, it has been mentioned that no solid waste will be generated due to the proposed amendment. The dust collected in the various pollution control equipments will be recycled back to the process. Fly ash generated from CPP will be utilized in manufacturing cement & brick (coal & petcoke, respectively) and as manure (Rice Husk). STP Sludge will be utilized as manure for greenbelt development/plantation. Used oil & grease from the plant machinery / Gear boxes and DG Set will be sold out to the CPCB authorized recycler.

Based on the presentation made and detailed deliberation held, the Committee recommended the proposal of amendment in the EC for the above mentioned proposal.

**1.9.2 Integrated Steel Plant (0.85 MTPA) along with Captive Power Plant (160 MW) at ADDA Industrial Estate, Village Mondalpur, Jamuria, District Burdwan, West Bengal by M/s Super Smelter Ltd. regarding Extension of validity of Environment Clearance [F. No J-11011/86/2008-IA.II (I)]**

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

**1.9.3 Integrated Cement manufacturing unit of M/s Bhavya Cements Ltd. at Thangeda Village, Dachepally Mandal, Guntur Dist, Andhra Pradesh regarding Extension of Validity of Environmental Clearance. [F.No-J-11011/1186/2007-IA.II (I)]**

The integrated Cement Plant project of M/s Bhavya Cements Ltd. for 4 Million TPA (8500 TPD) Capacity, 15 MW captive power plant and Captive mining located at Thangeda Village, Dachepally Mandal, Guntur District, Andhra Pradesh was accorded Environmental Clearance by the Ministry vide letter No. F. No. J-11011/1186/2007-IA II (I) dated 22.09.2008.

The project proponent had vide letter dated 12.12.2014 requested for extension of validity of Environmental Clearance for further period of 5 years from 22.09.2013 up to 21.09.2018. It was also informed that orders are placed for equipment and civil works are in progress.

The proposal was considered during the 31<sup>st</sup> meeting of the Expert Appraisal Committee held on 8<sup>th</sup> - 9<sup>th</sup> January, 2015. The Committee noted that the Environmental Clearance has been expired on 21.09.2013 and the project proponent had applied for seeking extension on 12.12.2014, i.e. after the expiry of Environmental Clearance. The Committee after deliberations decided that the matter may be referred to the Ministry for a decision.

The matter was examined in the Ministry. Meanwhile vide amendment Notification dated 29<sup>th</sup> April, 2015, the Ministry had extended the period of validity of Environmental Clearance from 5 years to 7 years. Therefore, the Environmental Clearance accorded vide letter dated 22.09.2008, holds valid upto 21.09.2015. The project proponent was accordingly informed vide letter dated 11<sup>th</sup> September, 2015.

The project proponent has therefore, vide letter No. BCL/EC/C/r/2 dated 15<sup>th</sup> September, 2015 submitted an application to Ministry for seeking extension of validity of Environmental clearance for further period of 3 years, as per amendment Notification dated 29.4.2015.

The committee after detailed deliberation recommended the proposal of extension of validity of Environmental Clearance dated 22<sup>nd</sup> September 2008 for further period of 3 years i.e. up to 21<sup>st</sup> September, 2018.

#### **1.9.4 Amendment in EC for capacity enhancement of Blast Furnaces without change in steel production capacity by M/s Jindal Steel & Power Ltd. [F. No-J-11011/799/2008-IA.II(I).**

The Integrated Steel Plant of M/s Jindal Steel & Power Ltd. was accorded environmental clearance by the Ministry vide letter No. J-11011/799/2008-IA-II(I) dated 4<sup>th</sup> November, 2009. Further, an amendment was issued in the environmental clearance by the Ministry vide letter of even No. dated 11<sup>th</sup> March, 2015 for the following:

<b>S.No.</b>	<b>Name of Existing Operational Unit</b>	<b>Existing Capacity</b>	<b>Proposed Capacity Enhancement by</b>
1.	Blast Furnace Unit I	0.42 MTPA	0.42 to 0.525 MTPA (0.105 MTPA increase)
	Blast Furnace Unit II	1.25 MTPA	1.25 to 1.60 MTPA (0.35 MTPA increase)
2.	SMS Unit I	1.25 MTPA	No change
	SMS Unit II (A)	0.75 MTPA	0.75 to 1.10 MTPA (0.35 MTPA increase)
	SMS Unit II (B)	1.25 MTPA	No change
3.	Sinter Plant	2.50 MTPA	2.5 to 2.85 MTPA (0.35 MTPA increase)
4.	DRI Plant I	0.60 MTPA	No change
	DRI Plant II	0.72 MTPA	No change
5.	Coke Oven	0.80 MTPA	No change
6.	Rail & Universal Beam Mill	0.75 MTPA	No change
7.	Plate Mill	1.00 MTPA	No change
8.	Medium & Light Structural Mill	0.70 MTPA	No change
9.	Oxygen Plant	37683 Nm <sup>3</sup> /hr	No change
10.	Lime and Dolome Plant	0.4165 MTPA	No change
11.	Ferroalloy Plant	0.06 MTPA	No change
12.	Producer Gas Plant	79200 Nm <sup>3</sup> /Hr.	No change
13.	Captive Power Plant	353.6 MW	No change

The project proponent has now requested the Ministry to permit enhancement of capacity of existing BF-I and BF-II to 0.8 MTPA and 2.25 MTPA, respectively without change in the total steel production capacity as per the following table:

<b>S.No.</b>	<b>Name of Unit</b>	<b>Existing Capacity</b>	<b>Capacity after enhancement</b>
1.	Blast Furnace I	0.525 MTPA	0.8 MTPA
2.	Blast Furnace	1.6 MTPA	2.25 MTPA

	II		
3.	DRI-I	0.6 MTPA	No change
4.	DRI-II	0.72 MTPA	No change
5.	SMS	3.6 MTPA	No change

The Committee noted that the EC to the plant was accorded vide letter dated date 4<sup>th</sup> November, 2009, and as per amendment notification dated 29<sup>th</sup> April, 2015 the EC is only valid up to 3<sup>rd</sup> Nov, 2016. Therefore PP was advised to apply for extension of validity of EC for further period of 3 years, if required.

The Committee after detailed deliberation recommended the proposal of amendment in the EC for the above mentioned proposal.

**1.9.5 Cement Plant (2.0 MTPA), Clinker Plant (1.5 MTPA) and Captive Power Plant (35 MW) at Majhgawn, Rampur Nalkin, Sidhi, M.P. by M/s Jaiprakash Associates Ltd regarding Amendment of Environment Clearance. [F.No J-11011/51/2007-IA.II (I)]**

M/s Jaiprakash Associates Limited (JAL) is operating a Jaypee Sidhi Cement Plant (JSCP) with production capacity of 1.5 MTPA clinker and 2.0 MTPA cement at Majhgawan Village, Sidhi District, Madhya Pradesh since 2009 (Phase -I). Environmental Clearance was granted vide letter No. J-11011/51/2007-IA.II(I) dated 9<sup>th</sup> August, 2007. Subsequently, a corrigendum was issued by Ministry vide letter No. J-11011/51/2007-IA II (I) dated 17<sup>th</sup> September 2007. JSCP expanded the cement plant capacity (Phase-II) by addition of new line within the existing cement plant premises by capacity enhancement of clinker from 1.5 MTPA to 3.0 MTPA and cement from 2.0 MTPA to 3.5 MTPA respectively after obtaining Environmental Clearance vide letter No. J-11015/546/2010-IA-II(M) dated: 8<sup>th</sup> November 2011.

It has been explained by the project proponent that in the above mentioned EC letters and corrigendum, it was mentioned in clause No-3 that the source of coal as "Central Coal Fields". Whereas Ministry of Coal, subsequently issued the Letter of Assurance (LOA) vide its letter No. SECL/BSP/S&M/COMML/48/JAL CMT (LOA)/1928 dated 11<sup>th</sup> July, 2008 as "South Eastern Coalfields Limited" as the source of coal for the Plant

In view of the above changes, project proponent has requested for amendment in the Environmental Clearance by changing the source of coal from "Central Coal fields" to "South Eastern Coalfields Limited"



The Committee after detailed deliberation recommended the proposal of amendment in the EC letter and corrigendum by changing the the source of coal from "Central Coal fields" to "South Eastern Coalfields Limited".

**1.9.6 Proposed Integrated Steel Plant (0.4 MTPA) with 43MW CPP of M/s Rashi Steel and Power Ltd. located at vill. Paraghat and Beltukri, Tehsil Masturi, Dist. Bialspur, Chhattisgarh (Amendment in EC), Bilaspur, Chhattisgarh [F.No-J-11011/466/2010-IA.II(I)]**

The proposal was earlier considered during the 41<sup>st</sup> meeting of the Expert Appraisal Committee(EAC) held on 1<sup>st</sup>-2<sup>nd</sup> June, 2015 and during the 45<sup>th</sup> meeting of EAC held on 11<sup>th</sup> -12<sup>th</sup> August, 2015.

The Committee noted that the project proponent has proposed to implement the project in phase wise manner in which, it is proposed to implement the Beneficiation Plant (1x1.9 MTPA), Rotary Hearth Furnace-DRI (0.4 MTPA) and Coal Washery (1x0.35 MTPA) in the first phase in the already acquired 77 acres of land and the remaining component in the second phase may be accepted. The PP has proposed the following breakup.

Description of Main Plant		
Total land requirement = 165 Acres		
<b>Phase I</b>		
Beneficiation Plant (1x1.9 MTPA)	Land Procured =	77 Acres
Rotary Hearth Furnace-DRI (0.4 MTPA)		
Coal Washery (1x0.35 MTPA)		
<b>Phase II</b>		
Captive Power Plant (43MW)	Balance under land acquisition=	88 Acres
Pellet Plant (1.324 MTPA)		
SAF(0.243 MTPA ) Pig iron		
Ductile Spun Pipe Plant (0.3 MTPA)		

The Committee after detailed deliberation advised PP to submit the revised application for change in the scope of EC with revised scope of project for the phased manner as mentioned above, under clause 7(ii) of EIA Notification, 2006 as amended indicating the pollution load for consideration of the Ministry.

The project proponent has applied for amendment in EC under clause 7(ii) of EIA Notification, 2006 and made the presentation. However, the Committee observed that there is no technical expert from project side for explaining the process. The Committee; therefore, deferred consideration of

the proposal and requested project proponent to depute a senior officer from proponent's side who will explain the process for further consideration.

**1.9.7 Regularization of existing 6,00,000 TPA Iron Ore Pelletization Plant and expansion by adding 10 Nos. of Coal Gasifier Plant (Fuel Replacement for Pellet Plant) – 27,46 Nm<sup>3</sup>/Hr. and Expansion of Iron Ore Grinding Unit to Iron Ore Grinding & Beneficiation Plant(10,00,000 TPA) by M/s Sarda Energy & Minerals Ltd.-Exemption of PH [J-11011/45/2012-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.

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

**1.10.1 Greenfield cement plant for Clinker Production (2.0 MTPA) and Cement production (3.0 MTPA) by M/s Lok Cement Limited at Kallamalla Village, Yerraguntla Mandal, YSR Kadapa District, Andhra Pradesh [F.No. J-11011/215/2015-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.

**1.10.2 Installation of 3.0 MTPA Integrated Steel Plant by M/s Welspun Steel Ltd., located at Village Versamedi, Tehsil Anjar, District Kutch, Gujarat [F.No. J-11011/136/2015-IA.II (I)]**

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

M/s Welspun Ltd. has proposed to establish 3.0 MTPA Crude Steel plant at Versamedi Village, Anjar Tehsil, Kutch District, Gujarat. About 1.5 MTPA slabs would be used in existing Plate and Coil Mill. This would reduce the import of Slabs. The project site lies between 23<sup>o</sup> 06' 25" to 23<sup>o</sup> 06' 53"

N latitude and 70° 04' 55" to 70° 05' 28" E longitude. Following table shows the details facilities and quantity of production:

<b>Sr. No.</b>	<b>Facilities</b>	<b>No. of Units</b>	<b>Tentative Capacity, MTPA</b>
1.	Coke Oven Batteries with by-products recovery	2 x 58 ovens	1.36
2.	Sinter Plant	1 x 496 sqm	5.1
3.	Calcination Plant	2 units	600 TPD
4.	Blast Furnaces	1 x 4300 cum	3.34
5.	BOF	2 x 165 tons	3.1
6.	LF	2 X 165 tons	3.1
7.	VD	1 X 165 tons	1.1
8.	Slab Caster	1 X 1 strand	1.6
9.	Billet Caster	1 X 6 strand	1.4
10.	Rebar mill	1 unit	1.4
11.	Captive Power Plant	2 x 100 MW	200 MW
12.	Air separation Plant	-	2200 TPD
13.	Cement Grinding Unit	1 unit	1.5

Power requirement for the project is 97 MW form grid and 200 MW Captive power (By product fuel gas based & WHRB). The water of quantity 47,760 KLD will be sourced from Gujarat Water Infrastructure Limited (GWIL). Raw materials/export of products shall be done from Kandla and Mundra Ports.

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

- i. Public hearing to be conducted by Gujarat Pollution Control Board.

**1.10.3 Increase of Clinker Production form 1.0 MTPA to 1.20 MTPA (By modification in Cement Plant) & Increase in Power generation form 15 to 18 MW at Mahankaligudem Village,**

**Nereducherla Mandal, Nalgonda district Telangana by M/s Deccan Cements Ltd. [F.No. J-11011/572/2007-IA.II (I)]**

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

M/s Deccan Cement Limited (DCL) is operating Cement Plant (Units I and II) at Mahankaligudem Village, Neredcherla Mandal, Nalgonda District, Telangana at a capacity of 1.0 MTPA (Clinker) & 1.5 MTPA (Cement). The project was earlier accorded Environment Clearance by the Ministry on 27<sup>th</sup> December 2007. The present proposal is for expansion of clinker plant from 1.00 MTPA to 1.20 MTPA and power generation from 15 to 18 MW by optimizing process operations.

After detailed deliberation the Committee suggested project proponent to apply under clause 7(ii) of EIA Notification, 2006 for expansion proposal since the expansion is only 20% that too with no additional infrastructure.

**1.10.4 Setting up of Unit II in the existing project for production of Clinker 2.0 MTPA, Cement 1.5 MTPA and 35 MW Captive Power Plant at Village Babupur, Tehsil Raghuraj Nagar, Satna District, Madhya Pradesh by M/s Bhilai Jaypee Cement Ltd. [F.No. J-11011/29/2008-IA.II (I)]**

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

M/s Bhilai Jaypee Cement Limited (BJCL) proposes to expand the capacity of cement plant by setting up additional Pyro Processing (Clinker manufacturing) Line (Unit-II) along with a Cement Grinding Mill and Captive Power Plant, within the existing premises, to manufacture additional 2.0 MTPA of Clinker, 1.5 MTPA of Cement and also have 35 MW Captive Power Plant. The complex upon completion of expansion plan, shall have clinker

capacity of 3.3 MTPA, Cement 2.1 MTPA and Captive Power generation capacity of 35 MW. Estimated cost of the expansion project is Rs. 1500 Crores.

The existing Plant has been set up upon grant of Environmental Clearance by MoEFCC vide letter No. J-11011/29/2008-IA-II(I) dated 21<sup>st</sup> July 2009 duly amended for augmentation in clinker production vide letter No. J-11011/29/2008-IA.II(I) dated 10<sup>th</sup> September, 2015.

It has been mentioned that no additional land would be required (within the 101.71 ha including township & railway siding). Water requirement for Unit – II will be 1500 m<sup>3</sup>/day (Cement Plant + CPP). Source of water will be Mine Pit Reservoir & Rain Water Collected through RWH System. Power requirement for the project will be 35 MW proposed to be sourced from proposed CPP and grid supply.

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

- i. Public hearing to be conducted by Madhya Pradesh Pollution Control Board.

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

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

M/s Birla Copper a unit of Hindalco Industries Ltd. is having Copper Smelting and Refining complex at Village(s) Lakhigam and Dahej, Tehsil Vagra, District Bharuch in Gujarat. The unit has proposed to convert the copper cathodes to CC rods to enhance the existing production capacity from 2,40,000 MT/annum to 4,84,000 MT/annum by commissioning a new plant

having annual capacity of 2,44,000 MT/annum. It shall be having additional facility to produce rods with Cu-Alloy and higher rod sizes.

Name of Product	Quantity( MT/Annum		
	I	II	III
	Existing	Proposed CCR Plant (Expansion)	Total After Proposed Expansion
Continuous Cast Copper Rod	2,40,000	2,44,000	4,84,000
Copper Cathode*	5,00,000	NIL	5,00,000
Sulphuric Acid	14,70,000	NIL	14,70,000
Phosphoric Acid	3,60,000	NIL	3,60,000
DAP/NPK Fertilizers	8,00,000	NIL	8,00,000
Precious Metals, Gold	26	NIL	26
Precious Metals, Silver	200	NIL	200
Oxygen Plant	2150	NIL	2150
Power Plant	145.60 MW	NIL	145.60 MW

The proposed CC Rod plant shall be set-up in the existing copper smelter complex located at 21°42'N latitude and 72°33'E longitude near Dahej, about 55 km west of Bharuch city in Gujarat. This site has advantages such as availability of existing infrastructure, like Jetty, utilities, approach roads, colony, canteen, offices etc. The manufacturing process technology supplied by CONTIROD of M/s. SMS-Meer, Germany will be used for new CC rod plant.

The product (20334 TPM) will be copper rods (Dia 8 mm to 26 mm) in the form of coils. The coil ID will be 1650 mm and OD will be of 1000 mm. Coil weight will be 2.0 -5.0 Mt.

Proposed plants shall be set up in existing plant site. The area required for the plant is 4680 m<sup>2</sup>. The total water requirement for CC rod plant including the auxiliary consumption is 400 m<sup>3</sup> /day. The total water requirement for the proposed plant will be met by GIDC supply as per their agreement. The power requirement for the new plant will be 2500 KW which

will be met by our existing captive generation/GEB drawl. The Liquid Natural Gas will be consumed as fuel. Approximately 27000 SCM/day will be consumed. Total numbers of employees will be required 43 including managers, operators and workers.

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

- i. Public hearing is exempted for the proposal
- ii. Compliance report from RO for all ECs granted so far should be submitted.

**1.10.6 Proposed 2x0.4 MTPA Ore Pellet Plant at Village Paraghat, Tehsil Masturi, District Bilaspur, Chhattisgarh by M/s Rashi Steel and Power Ltd. [F.No-J-11011/237/2014-IA.II(I)]**

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

M/s Rashi Steel and Power Limited has set up an Iron Ore Pellet Plant (0.4 MTPA Capacity) at Patwari Halka No. – 38, Village Paraghat, Tehsil – Masturi, District- Bilaspur, Chhattisgarh. Company has obtained Consent to Establish (CTE) on 22.10.2010 from Chhattisgarh Environment Conservation Board Raipur. Consent to Operate was granted for the Period of three months on 26.08.2014 & Commissioning of the 01 x 0.4 MTPA low grade Iron Ore Pellet Plant was attempted till 26.11.2014. Now Company has obtained Consent to Operate (CTO Renewal), till Dated 31.10.2015 from Chhattisgarh Environment Conservation Board Raipur.

However, as per NGT Order dated 27.05.2014 and MoEFCC Letter No. J.11011/12/2014-IA.II (I), Dated 08.09.2014, the existing Pellet Plant falls under Category 'A' and requires Environmental Clearance from Ministry at the Central Level. The total water required for the project is 400 KLD. The source for water is Lilagar river and ground water. The power requirement for the project is 4.0 MW (Sources from Chhattisgarh State Electricity Board

(CSEB), Bilaspur. There are 02 Nos, 500 KVA (on Stand-by basis) DG sets at the plant site. The total man power require for the project is 90 persons.

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

- i. Public Hearing to be conducted by Chhattisgarh Environment Conservation Board, Chhattisgarh

**Friday 20<sup>th</sup> November, 2015 (Narmada)**  
**Time : 10:00 AM**

## **1.11 ENVIRONMENTAL CLEARANCE (EC)**

### **1.11.1 Proposed Cement Plant of M/s Kanodia Infratech Ltd. Located at Village Kuradi, Tehsil Durgawati, District Kaimur(Bhabhua), Bihar [F.No J-11011/329/2014-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) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToR) for the project was prescribed by the Ministry vide letter No. J-11011/329/2014-IA-II(I) dated 31<sup>st</sup> December 2014. Final EIA/EMP report has been prepared and submitted vide online application dated 29.09.2015 to MoEFCC for Environmental Clearance The proposed project activity is listed at S.No. 3(b) in Cement Plant under Category 'A' of the Schedule of EIA Notification 2006.

M/s Kanodia Infratech Private Limited proposes to set up a new 1.2 MTPA Cement Grinding Unit at Village Kurari, Tehsil Durgavati, District Kaimoor, Bihar. The main raw material used for the plant will be clinker, gypsum, fly ash and slag. The company has already identified and acquired land and is in the process of implementation of the project. There are no ecologically sensitive areas such as National Parks, Wildlife Sanctuaries and Biosphere Reserves within a radius of 15 km from the project site. The site is easily accessible from NH-2, which is 3 km away through a metal road. The total land requirement for the project is 3.82 ha. The land is in possession of the Company.

The total clinker requirement of the grinding unit will be 800000 TPA. The required clinker shall be procured from Madhya Pradesh. The clinker will be transported by railway wagons/ roadways to the plant site and unloaded



with the help of wagon tippler. The clinker will be stored in RCC storage silos. The annual requirement of gypsum will be 300000 TPA which will be obtained from gypsum mines in Rajasthan. The waste fly ash generated from thermal power plant at Renukoot will be utilized as raw material for the proposed cement grinding unit. Total fly ash requirement of 100000 TPA for the grinding unit.

The total water requirement for the project activities is 8.5 KLD which will be met from nearby villages through tankers. The project will require a total manpower of 74 including skilled, unskilled and administrative staff. The estimated cost of the project is Rs. 79.50 crores excluding cost of land and other common infrastructure.

The maximum 98 percentile value for PM10 was found in Koritola ( $87.4 \mu\text{g}/\text{m}^3$ ). The highest concentration of PM2.5 was also recorded at Karitola ( $57.3 \mu\text{g}/\text{m}^3$ ). The maximum values of SO<sub>2</sub> and NO<sub>x</sub> were also found near Koritola. The level of CO in the ambient air was found to be much lower than the standard limits prescribed. The level of Hydrocarbon in this area was found to be Below Detectable Level. The highest incremental concentration of SPM as per the mathematical modelling will be  $0.859 \mu\text{g}/\text{m}^3$  and estimated near Bharia village. The maximum concentration of SPM was however, recorded  $0.319 \mu\text{g}/\text{m}^3$  at AAQ7, Khamdaura village.

Public hearing for the project was conducted on 26<sup>th</sup> July, 2015 at Reverse Middle School, Kurari, Block (Tehsil) - Durgavati, District – Kaimur, Bihar under the presence of Senior Deputy Collector and co-in charge Deputy Development Commissioner, Kaimoor District, Bihar. The major issues discussed during the PH are water-logging, employment, dust pollution during operation of the plant, drainage facilities in the area, social development 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 layout plan should be submitted showing the following
  - a) Elevated road
  - b) Connectivity to the highway
  - c) Entry and exit point at the plant site and at the connecting point of the highway
  - d) Peripheral drains and its connection with the local drain/inside
- ii. Submit documents related to NA approval obtained from the revenue department for the land.
- iii. Rainwater harvesting plan should be submitted

- iv. Revised EMP should be submitted based on the discussion in the EAC meeting
- v. Tie up with the local doctor should be submitted in a form of declaration.
- vi. Process flow diagram should be submitted.
- vii. DMP to be revisited and submitted
- viii. Concrete platform for storage of the raw material should be provided
- ix. Traffic management plan and its internal circular plan including parking plan should be submitted
- x. Toilet for drivers in parking
- xi. Selection of plants for green belt for dust trapping
- xii. Serious view on traffic has been taken by the committee. In the present scenario due to poor connectivity of the plant from the highway, the Committee is of the view that the trucks will create problem for locals. Committee advised PP to come-up with solution for connectivity from the highway.
- xiii. Arrangements for the continuous supply of power should be submitted.

**1.11.2 Installation of a 2 MTPA Pellet plant at the Integrated Steel Plant (3 MTPA) of M/s NMDC Limited located at Nagarnar near Jagdalpur, District Bastar, Chhattisgarh [J-11011/300/2013-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 Terms of Reference (ToRs) for the project were prescribed by the Ministry vide letter No. J-11011/300/2013-IA-II(I) dated 5<sup>th</sup> January, 2014 and revised ToRs on 11<sup>th</sup> November, 2014. Final EIA/EMP report has been prepared and submitted vide application dated 16.09.2015 to MoEFCC for Environmental Clearance. The proposed project activity is listed at S.No. 3(b) in Cement Plant under Category 'A' of the Schedule of EIA Notification 2006.

M/s NMDC Limited has proposed for expansion of 3.0 MTPA Integrated Iron and Steel Plant (NISP) at Nagarnar near Jagdalpur, Bastar District, Chhattisgarh by installation of 2 MTPA Pellet plant adjoining the existing plant at villages Kasturi and Chowkawada. The existing Steel plant obtained Environmental Clearance from Ministry vide letter No. J-11011/681/2008-IA.II(I) dated 15.09.2009.

The land required for proposed expansion is 74.19 ha, which was acquired in 2010 and in possession of NMDC. M/s NMDC is providing Rehabilitation benefit to the eligible nominees of land looser(s) in accordance with the State Government Ideal Rehabilitation Policy-2007. The project site

lies between 19°04'52.19" N to 19°05'17.0" N latitude and 82°11'8.67" E to 82°11'55.41" E longitude and falls in SOI Topo sheet No. 65 I/4 (E44E4). No forest land is involved in the project. There are no National parks / Sanctuaries/ Eco-sensitive Zone and Historical places within 10km radius of project site. The Amaguda railway station is located at a distance of 4.2 km from the project site. The Kanger RF and Kakadapasar RF are found at a distance of 2.5 km and 5.3 km respectively from the project site. River Indravathi flows at a distance of 3.4 km from the project site. No court cases / litigation are pending against the project. The total estimated cost of project is Rs.818.00 Crores. The cost provision for the environmental measures proposed in the project is about 15.32 Crores and Rs.100/- lakhs per annum towards recurring cost for undertaking Environmental pollution control measures.

The raw materials required are Iron ore concentrate(20.06 LTPA), Bentonite(0.14 LTPA), Coke breeze(0.36 LTPA), Limestone / Dolomite(0.40 LTPA). The iron ore concentrate required shall be produced in the proposed Beneficiation plant at Bacheli, which will be transported through the slurry pipeline from Bacheli to Nagarnar which will be set up by NMDC. The reclaimed water from filtering the slurry would be 130cu.m/hr, which will be used for process needs. About 65 cu.m/hr of make-up water will be required, which will be met from the Integrated Steel plant complex. The power requirement of 17.22 MVA will be sourced from 33 kv switchboard of 230/33 kv of MRS GIS of NISP, which is approximately 3 km from the site. Furnace Oil / LSHS (42600 KLPA) shall also be used as fuel for process for Indurating the Pellets. The fuel is received by the road through fuel tankers. The process of Pelletisation involves the following major steps:

- Filtration of Iron ore slurry by pressure filters to produce filter cake
- Grinding of additives (limestone, bentonite and coke breeze) in separate mill
- Disc Pelletiser for producing green pellets.
- Travelling Grate Process for induration of Pellets.

It is proposed to install Bag filters / scrubber type dust extraction system for Pellet conveying system. Cyclone separators, wet scrubbers, fabric bag filters, ESP would be installed for Process gas cleaning plant. Dry fog Dust Suppression System would be installed at stockpile area. The stack height of 80m and 30m will be provided for process de-dusting unit and plant de-dusting unit. Waste water discharge from Pellet plant can be divided into two parts, non-contact water discharge and contact water discharge. Due to repeated re-circulation and high temperature concentration of these

salts starts getting built up necessitating bleeding off some part of circulating water. Water is also used for contact cooling eg. spraying, mixing of ores, etc. The treated water will be re-used in the process. Sewerage Treatment Plant will be constructed within site for treatment of domestic effluents generated from Canteen, Toilets, surface run off, etc. The provision of acoustic lagging for the equipments and suction side silencers, selection of low noise equipments, etc would be installed for noise pollution control measures. The total plant area of 25ha will be reserved for afforestation programme, which includes roadside tree plantation, plantation near infrastructure and plantation on all sides of boundary of pellet plant, etc.

The baseline environment quality has been monitored during pre-monsoon season (summer) 2015 at core and buffer zone of the project site. With regard to the air quality in the study area, the concentrations of particulate matter (PM10 and PM2.5), sulphur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NO<sub>x</sub>) and other pollutants levels are within the stipulated standards as per 16<sup>th</sup> November, 2009 Notification. Maximum predicted GLC's for PM, SO<sub>2</sub> and NO<sub>x</sub> likely to be encountered are 1.3 µg/m<sup>3</sup>, 8.8 µg/m<sup>3</sup>, 3.6 µg/m<sup>3</sup> respectively at a distance of about 1.4 km in North East direction.

The proposed expansion project is exempted from Public consultation under clause 7(ii) of EIA Notification 2006 as the public hearing for integrated Steel plant at Nagarnar was conducted on 27.02.2009 as per 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 environment protection:

- (i) The project proponent shall install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- (ii) 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- (iii) The project proponent shall provide for solar light system for all common areas, villages, parking areas around the project site and maintain the same regularly.

- (iv) The project proponent shall provide for LED lights in their office premises and residential areas.
- (v) Natural drainage within the plant area should not be disturbed and proper provision shall be provided for evacuation of run-off from the plant boundary.
- (vi) The PP shall take effective measures to reduce PM levels in the work environment.
- (vii) Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz., bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm<sup>3</sup>.
- (viii) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- (ix) 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.
- (x) Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- (xi) Prior permission shall be obtained from the Competent Authority for water drawl.
- (xii) Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- (xiii) The Project Proponent shall develop green belt in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- (xiv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on earlier Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by

constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.

- (xv) 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.
- (xvi) 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.
- (xvii) 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.

**1.11.3 Expansion of Cement Plant from 1 MTPA to 1.15 MTPA with captive Power Plant by M/s Kalyanpur Cements Ltd. (KCL) at village Kalyanpur, P.O. Banjari, District Rohtas, Bihar [J-11011/366/2011-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 Private Limited) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToRs) to the project were prescribed by the Ministry vide letter No. J-11011/366/2011-IA-II(I) dated 9<sup>th</sup> September, 2011. The public hearing for the project was conducted on 15<sup>th</sup> July 2012. However due to delay in getting NOC and authenticated map from the Chief Wildlife Warden regarding the distance of plant from Kaimur Wildlife Sanctuary, the ToRs had to be extended for two terms from 9<sup>th</sup> September 2013 to 8<sup>th</sup> September 2014 and again till 8<sup>th</sup> September 2015 vide letters of even number dated 28.04.2014 and 27.08.2015 respectively. Final EIA/EMP report has been prepared and submitted vide online application dated 25<sup>th</sup> August, 2015 to MoEFCC for Environmental Clearance. The proposed

project activity is listed at S.No. 3(b) in Cement Plant under Category 'A' of the Schedule of EIA Notification 2006.

M/s Kalyanpur Cements Limited (KCL) has proposed to expand the capacity of its existing cement plant located at Village Kalyanpur, District Rohtas, Bihar from 1.0 MTPA capacity to 1.15 MTPA. In addition, a captive power plant of 15 MW is also being proposed in the same premises. The proposed expansion will be carried out within existing project premises of 100.75 acres. Out of this land, 15.0 acres of land will be acquired by M/s Sone Ojas Limited (SOL) for installation of the Captive Power Plant. In the cement plant, the machinery and infrastructure has enough spare capacity to handle the additional production of 0.15MTPA. No additional land will be acquired for the proposed expansion project.

The project site is well connected by road with NH-2C, located adjacent to the plant. The nearest Railway Station is at Dehri-on-Sone, approximately 35 km from the project site. The River Sone flows near to the project site at a distance of 1.1 km on the eastern side. The total cost of the Project will be Rs.106.74 crores. The plant is located at a distance of 270 meters from Kaimur Wildlife Sanctuary. The total capital cost for environmental pollution control measures will be Rs.10.0 crores and recurring cost will be Rs.0.5 crores per annum. Rs.5.33 crores has been allocated towards CSR activities which will be in no case utilized for any other purpose.

The raw material required for the cement plant includes limestone, gypsum, fly ash and coal. For the captive power plant, the raw material required will be coal. The average total additional water requirement for the proposed expansion project is estimated at about 250 KLD for captive power plant and 20 KLD for domestic, which will be sourced from the mines water reservoir and bore-wells respectively. The power and energy demand of cement plant are 9 MW and 71.71 KWh per annum at the present production level. However after enhancement of the plant capacity to 2200 TPD, the power requirement shall increase to 11.5 MW. Due to very high power cost of BSEB, KCL has proposed to establish a 15 MW Captive Power Plant. At present, the total manpower employed with KCL and its contractors is about 1000. After the proposed expansion and installation of captive power plant, an additional manpower of 39 will be required for operation of the plant.

Considering the potential heat values of the waste flue gases of cement plant process, it is proposed to install the "waste heat recovery boiler". The selected configuration for generation of power would consist of coal and washery coal based thermal power plant having one boiler with MCR 60 TPH and two waste heat recovery boiler (PH & AQC) connected to one turbo generators of 15 MW capacity.

PM10 varies between  $46.8\mu\text{g}/\text{m}^3$  at Nauri village to  $80.5\mu\text{g}/\text{m}^3$  at the project site. PM2.5 was between  $17.9\mu\text{g}/\text{m}^3$  and  $34.5\mu\text{g}/\text{m}^3$ . Concentration of  $\text{SO}_2$  varied between  $16.1\mu\text{g}/\text{m}^3$  and  $28.0\mu\text{g}/\text{m}^3$  with the highest concentration near the plant site. The concentration for  $\text{NO}_x$  varies from  $17.3\mu\text{g}/\text{m}^3$  to  $35.3\mu\text{g}/\text{m}^3$ . The  $\text{NO}_x$  value was found to be a little higher near the cement plant and active mines site mainly due to greater movement of vehicles. Highest incremental concentration of PM10 was predicted to be  $1.2\mu\text{g}/\text{m}^3$ , 2 km in NE, Highest  $\text{SO}_2$  GLC is  $10.09\mu\text{g}/\text{m}^3$ , 3.2 km NE &  $\text{NO}_x$  is  $1.79\mu\text{g}/\text{m}^3$ , 3.2 km NE.

Public hearing for the project was conducted on 15<sup>th</sup> July 2012 at Primary School, Baknaura, District Rohtas, Bihar. The major issues raised during the public hearing are impact of proposed expansion and installation of captive power plant on the nearby agricultural fields, water quality and water use, water pollution, air pollution, CSR activities 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. Prior clearance from the Standing Committee of the National Board for Wildlife shall be obtained due to location of the plant at a distance of 270 meters from Kaimur Wildlife Sanctuary, before commencing any activity relating to the project at site. All the conditions stipulated by the Standing Committee shall be effectively implemented in the project. It shall be noted that this clearance does not necessarily imply that wildlife clearance shall be granted to the project and that the proposal for wildlife clearance shall be considered by the competent authorities on its merit and decision taken accordingly. The investment made in the project, if any based on environmental clearance granted to the project, in anticipation of the clearance from wildlife clearance shall be entirely at the cost and risk of the project proponent and the Ministry of Environment, Forest and Climate Change shall not be responsible in this regard, in any manner.
- ii. The project proponent shall 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  $30\text{ mg}/\text{m}^3$ .
- iii. 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.



- iv. 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.
- v. 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.
- vi. 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.
- vii. 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.
- viii. Storage of material shall be in covered area.
- ix. Rain water harvesting plan shall be prepared and shall supplement the water requirements of the project.
- x. 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
- xi. 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.
- 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. 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.

- xiv. 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.
- xv. The proposed cement plant kiln will provide for a flexible fuel feeding system to enable use of hazardous wastes as per guidelines of CPCB.

## **1.12 FURTHER CONSIDERATION**

### **1.12.1 Expansion from 3,45,000 TPA of Pig Iron Production to 5,00,000 TPA Hot Metal production and 10 MW waste heat recovery power plant of M/s Tata Metaliks Limited at Gokulpur village, PO Samraipur, Tehsil Kharagpur, District Pashchim Medinipur, West Bengal.[ F. No. J-11011/377/2013-IA II (I)]**

The proposal was earlier considered in the 43<sup>rd</sup> meeting of the Expert Appraisal Committee held on 2<sup>nd</sup> – 3<sup>rd</sup> July, 2015, when the Committee saw the compliance report submitted by the Regional Office of the Ministry. The Committee observed that compliance to certain conditions prescribed in the EC letter 24.06.2009 have not been complied with. The Committee desired to seek comments and action plan from the PP for non-compliance and partial compliance of the EC conditions for further consideration of the project.

The project proponent vide letter No. TSLDEL/280/2015 dated 07.08.2015 submitted the comments and action plan for non-compliance and partial compliance of the EC conditions.

After detailed deliberation the committee is of the opinion that the Regional Office of MoEFCC should be requested to verify the compliance status submitted by the project proponent by inspecting the site and provide comments to the Ministry. The matter would be further considered once the comments of Regional Office are received by the Ministry.

**1.12.2 Proposed 4x100TPD Sponge Iron Plant, 2x12T + 1x12T Induction Furnace, 90,000MTPA Rolling Mill and 18MW Power Plant (6MW WHRB, 2MW Coal Char based, 10MW Coal Based) of M/s Jharkhand Ispat Pvt. Ltd., at Hesla, P.O.Argada, Dist. Ramgarh, Jharkhand. [F. No. J-11011/41/2013-IA II (I)]**

The project was earlier considered during the 31<sup>st</sup> meeting of the Expert Appraisal Committee(EAC) held on 8<sup>th</sup> -9<sup>th</sup> January, 2015, when the Committee sought specific clarification on the status of construction and operation of the units (existing as well as proposed) before grant of TORs.

Based on the additional information/ clarification submitted by the proponent vide letter No. JIPL/212/15-16 dated 12.05.2015, the proposal was considered further. The Project Proponent and their consultant made a presentation on the additional information.

The Committee noted that the proposal was already recommended for grant of ToRs by EAC in its 31<sup>st</sup> meeting held on 8<sup>th</sup> -9<sup>th</sup> January, 2015, however the ToRs were not issued since the status on construction and operation of the units were not submitted by the project proponent. The project proponent vide letter dated 12.05.2015 submitted the status of construction and operation of the unit.

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

- i. Letter from SPCB has to be submitted regarding compliance of CTE/CTO conditions
- ii. Public Hearing to be conducted by the Jharkhand Pollution Control Board.

**1.13 ANY OTHER ITEM**

**1.13.1 Expansion of Ferro Alloy Plant (95000 TPA to 145000 TPA) at Balgopalpur Industrial Estate, Balasore, Odisha by**

**M/s Balasore Alloys Ltd. regarding Extension of validity of Environment Clearance [F.No J-11011/245/2008-IA.II(I)]**

The Ferro alloy Plant of M/s Balasore Alloys Ltd. located at Balgopalpur Industrial Estate , Balasore was accorded Environmental Clearance by the Ministry for enhancement in production capacity from 95000TPA to 1,45,000TPA,with increase of Furnace Transformer capacity from 57 MVA to 84 MVA, vide letter No J-11011/245/2008-IAII(I) dated 25<sup>th</sup> August 2008. It has been mentioned that the company could not take up the enhancement programme due to recession in global and domestic market within validity period. Now, with increasing demand of Ferro Alloys both in local as well as international market, the Company has decided to commence the plant operation for enhanced capacity as mentioned above and therefore, as per amendment Notification dated 29.4.2015, an online application dated 20.8.2015 has been submitted to MoEFCC for extension of validity of Environmental clearance.

The committee after detailed deliberation recommended the proposal of extension of validity of EC dated 25<sup>th</sup> August 2008 for further period of 3 years i.e. up to 24<sup>th</sup> August, 2018.

**1.13.2 Expansion of Sponge Iron Steel Plant (0.27 MTPA to 0.585 MTPA) and Steel Plant (0.20 MTPA) along with Captive Power Plant (25 MW) located at village Kamanda in Sundergarh District of Odisha by M/s Rungta Mines Ltd. regarding Extension of validity of Environment Clearance [F.No J-11011/304/2007-IA.II(I)]**

The expansion of Sponge Iron Steel Plant (0.27 MTPA to 0.585 MTPA) and Steel Plant (0.20 MTPA) along with Captive Power Plant (25 MW) of M/s Rungta Mines Ltd. located at village Kamanda in Sundergarh District of Odisha was accorded environmental clearance by the Ministry vide letter No. J-11011/304/2007-IA II (I) dated 12.12.2008. The EC was accorded for setting up of the following units:

<b>S. No</b>	<b>Plant/facility</b>	<b>Product</b>	<b>Capacity</b>
1	DRI Plant (3x350 TPD kilns)	Sponge iron	3,15,000 TPA
2	Mini blast furnace (2x262 m <sup>3</sup> )	Hot metal	3,82,520 TPA
3	Steel melting shop, comprising <ul style="list-style-type: none"> <li>• Induction furnace (4x15 T)</li> <li>• Ladle furnace (2x15 T)</li> <li>• Billet caster (2x2 strand)</li> </ul>	Steel billets	2,00,000 TPA
4	WHR based CPP	Electricity	42 MW

5	Coal based CPP	Electricity	25 MW
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It has been informed that 2,00,000 TPA steel plant and 40 MW (WHRB-20 MW, Coal based – 20 MW) power plant is already commissioned and ready for operation. However, the company has not commissioned the 3,15,000 TPA DRI, 2x15 T LRF, 3,82,520 TPA blast furnace and 27 MW power plants.

It was mentioned that the aforesaid project could not be established within validity period of Environmental Clearance mainly because of the following reasons:

- (i) Delay in finalization of technical consultants.
- (ii) Delay in finalization of contractors.
- (iii) Delay in installation of current plant due to contractor's problems.
- (iv) Steel Market fluctuation.

The proposal was earlier placed before the Reconstituted Expert Appraisal Committee (Industry) during its 10<sup>th</sup> meeting held on 29<sup>th</sup> -31<sup>st</sup> July, 2013. After detailed deliberations, the Committee recommended for the extension of validity of EC by a period of five years with effect from 11.12.2013 subject to environmental safeguards.

In the meantime an amendment in the EIA Notification, 2006 was issued by the Ministry vide Notification No. S.O. 1141(E) dated 29<sup>th</sup> April, 2015, extending the period of validity of Environment Clearance from 5 years to 7 years. Therefore, the EC accorded to the Project vide letter of even No. 12.12.2008 stands valid upto 11.12.2015. The same was conveyed to the PP vide letter No. J-11011/304/2007-IA.II(I) dated 6<sup>th</sup> August, 2015.

It was requested by the project proponent to extend the validity of EC for further period of 3 years up to 11.12.2018.

The committee after detailed deliberation recommended the proposal of extension of validity of environmental clearance dated 12.12.2008 for further period of 3 years i.e. upto 11.12.2018.

**1.13.3 Industry consisting of 262 m<sup>3</sup> blast furnace with 2,00,000 TPA capacity, 33 m<sup>2</sup> sinter plant (3,31,000 TPA) and 6 MW blast furnace off gas based power plant 0.3 MTPA steel plant, 0.32 MTPA Rolling Mill, 0.12 MTPA coke oven plant, 9 MW coke oven off gas based power plant, 120 TPD oxygen plant 10 TPH Pulverised Coal Injection (PCI) plant and 15,000 Nm<sup>3</sup>/hr Producer Gas Plant at Sy No. 633, 646, 643 & others**

**of M/s SLR Metaliks Ltd. located in village Narayanadeverakere, Taluka Hagaribommanahalli District Bellary, Karnataka regarding Amendment in EC [F.No-J-11011/257/2013-IA.II(I)].**

The proposal of M/s SLR Metaliks Ltd. located in village Narayanadeverakere, Taluka Hagaribommanahalli District Bellary, Karnataka was accorded Environmental Clearance by the Ministry vide letter No. J-11011/766/2008-IA II (I) dated 30<sup>th</sup> August 2010 and J-11011/257/2013-IA II (I) dated 31<sup>st</sup> March 2015.

M/s SLR Metaliks Ltd. has established and operating an iron making industry consisting of 262 m<sup>3</sup> blast furnace with 2,00,000 TPA capacity, 33 m<sup>2</sup> sinter plant (3,31,000 TPA) and 6 MW Blast Furnace off gas based power plant. Presently, the pig iron produced in the industry is sold to other industries for use in steel making and foundries. Sinter produced is completely utilized as a captive source of blast furnace raw material. Power generated from captive source is completely utilized in the industry it-self.

All the existing units are fully operational. M/s SLR Metaliks Ltd. is establishing expansion projects to improve viability of the plant by value addition to the existing hot metal production by installing additional and balancing facilities to produce more valuable downstream products. Towards this objective, the company is establishing 3.0 Lakh TPA Steel Plant, 3.2 Lakh TPA Rolling Mill, 1.2 Lakh TPA Coke Oven Plant, 9.0 MW Coke Oven Off Gas Based Power Plant, 120 TPD Oxygen Plant, 10 TPH Pulverized Coal Injection and 15000 NM<sup>3</sup>/hr Producer Gas Plant, for which Environmental Clearance from Ministry and CFE from KSPCB is obtained. Now to improve the economics & effective resource utilization, following modifications are proposed.

- i. Change of fuel in 1x6MW captive power plant from BF gas to imported coal
- ii. Change of fuel in reheating furnace of 0.32 MTPA Rolling Mill from furnace oil to blast furnace gas
- iii. Reduction of 15,000 Nm<sup>3</sup>/Hr Producer Gas Plant to 5500 Nm<sup>3</sup>/hr capacity.

It has been mentioned that with the above changes the air pollution load will be reduced by approximately 1.3% and solid waste generation will be reduced by approximately 38.4 % to the earlier configuration.

The Committee after detailed deliberation recommended the proposal for above mentioned changes.

**1.13.4 Coke Oven Plant 1,68,000 TPA) and Captive Power Plant (WHRB-12 MW) at Sy No. 341, 365, 367, 368, 371-380, village Getnamallee, Taluk Gummidipoondi, district Thiruvallur in Tamil Nadu by M/s Bhatia International Ltd. Installation of 25 TPH Boiler within existing coke oven plant & WHRB Power Plant regarding Amendment in Environment Clearance.**

Environmental clearance to the project of Low Ash Metallurgical hard Coke of capacity 1,68,000 TPA and by product – Coke Breeze of capacity of 5,280 TPA was granted by the Ministry vide letter No. J-11011/392/2007-IA-II(I) dated 8<sup>th</sup> July, 2008 to M/s Bhatia International Ltd. subsequently the EC was transferred to M/s Bhatia Coke & Energy Ltd vide letter No. J-11011/392/2007-IA.II(I) dated 4<sup>th</sup> February, 2015. A similar project of same capacity got clearance by SEIAA, Tamilnadu vide letter No. SEIAA/TN/EC/4(b)/002/F-17/2008 dated 9<sup>th</sup> February, 2011 by M/s M/s Bhatia Coke & Energy Ltd

The present proposal is for installation of one additional coal fired boiler of 25 TPH to generate additional steam. PP mentioned that at the time of conceiving the project it was envisaged that the total flue gas generation from all the 4 coke ovens would be able to generate 24 MW power and hence 2 turbines of 12 MW were installed. It was explained that now, upon operation, the PP is able to generate only 17-19 MW where as the turbine generator capacity is 2 Nos of 12 MW each.

Therefore, in order to supplement steam generation, it has been proposed to install an additional coal fired boiler of 25 TPH to enable additional generation of 5 MW power and utilization of the total turbine capacity.

The committee noted that initially the proposal was accorded EC by the Ministry to a 'B' category project in absence of SEIAA, TN to M/s Bhatia International Ltd. Further M/s Bhatia Coke & Energy Ltd obtained EC for similar capacity project from SEIAA, TN. Subsequently the EC No. J-11011/392/2007-IA-II(I) dated 8<sup>th</sup> July, 2008 was transferred to M/s Bhatia Coke & Energy Ltd. Now, since the capacity of both the plants put together exceeds 2,50,000 TPA, the PP has approached at the central level for amendment in the EC.

After detailed deliberation, the Committee opined that since both the units are separate and has got the clearances separately, the capacities of the plant cannot be combined. In view of this, the PP has to apply at the state level for amendment in the EC.

**1.13.5 Enhancement in production capacity of Sponge Iron Plant from 4,95,000 TPA to 6,50,000 TPA by M/s Hira Godawari Power & Ispat, located at Plot No. 428/2, Phase-I, Industrial Area, Siltara, Raipur-493111, Chhattisgarh - Amendment of Environment Clearance. [F.No J-11011/326/2005-IA.II (I)]**

The expansion of Sponge Iron, Steel Melting, Ferro Alloys, Captive power Generation project of M/s Hira Godawari Power & Ispat was accorded Environmental Clearance by the Ministry vide letter No. J-11011/326/2005-IA II(I) dated 02/03/2006. Following table shows the unit wise capacity of the plant:

Sl.No.	Name of the Unit	Capacities Phase-I	Capacities Phase-II	Total Capacity	Post-Approval Capacity
1	Sponge Iron	2,35,000	2,60,000	4,95,000	Proposed - 6,50,000
2	Steel Billet	2,00,000	2,00,000	4,00,000	4,00,000
3	Power	28 MW	25 MW	53 MW	53 MW
4	Ferro Alloys	16,500	-	16,500	16,500
5	Pig Iron	33,000	-	33,000	33,000
6	H.B. Wire	1,00,000	-	1,00,000	1,00,000
7	Oxygen Plant		12,00,000 NM <sup>3</sup>	12,00,000 NM <sup>3</sup>	12,00,000 NM <sup>3</sup>
8	Nitrogen Plant		45,00,000 NM <sup>3</sup>	45,00,000 NM <sup>3</sup>	45,00,000 NM <sup>3</sup>
9	Fly Ash Brick Plant		1,65,00,000 Nos.	1,65,00,000 Nos.	1,65,00,000 Nos.

The company is operating 4 Rotary Kilns with a total capacity of 4.95 lac TPA of Sponge Iron with raw material mix of conventional sized iron ore, indigenous coal and dolomite.

The company now proposes to increase the production capacity of Sponge Iron from 4.95 lac TPA to 6.50 lac TPA with minor modification in the system, by change of raw material mix as well as operating parameters. Instead of using conventional sized iron ore and indigenous coal, the project proponent now proposes to feed iron ore pellets and mix of indigenous and imported coal.



It has been mentioned that there will be no change in the manufacturing process and process flow except change in feed material. The proposed raw materials mix is iron ore pellets, mix of Indigenous & imported coal and dolomite instead of iron ore lumps, coal and dolomite. It has been mentioned that since the company proposes to increase the production capacity of its Sponge Iron Plant without any modification in the plant and machinery, no additional land is required.

Following table shows the material balance for the production of 1 ton of Sponge Iron for existing 0.495 MTPA iron ore and proposed 0.650 MTPA pellets.

### Existing 0.495 MTPA

<b>Input Raw Materials</b>	<b>Quantity (Ton)</b>	<b>Total Quantity (TPA)</b>	<b>Output from Kiln</b>	<b>Quantity (Ton)</b>	<b>Total Quantity (TPA)</b>
Iron Ore	1.60	7,92,000	Sponge Iron	1.00	4,95,000
Coal	1.20	5,94,000	Char & Dolochar	0.28	1,38,600
Dolomite	0.03	14,850	Dust from Settling Chamber	0.10	49,500
			ESP Dust	0.10	49,500
			Carbon & Oxide Losses to Atmosphere	1.35	6,68,250
	<b>2.83</b>	<b>14,00,850</b>		<b>2.83</b>	<b>14,00,850</b>

### PROPOSED - 0.650 MTPA

<b>Input Raw Materials</b>	<b>Quantity (Ton)</b>		<b>Output from Kiln</b>	<b>Quantity (Ton)</b>	<b>Total Quantity (TPA)</b>
Pellet	1.45	9,42,500	Sponge Iron	1.00	6,50,000
Coal	1.00	6,50,000	Char & Dolochar	0.20	1,30,000
Dolomite	0.03	19,500	Dust from Settling Chamber	0.07	45,500

			ESP Dust	0.07	45,500
			Carbon & Oxide Losses to Atmosphere	1.14	7,41,000
	<b>2.48</b>	<b>16,12,000</b>		<b>2.48</b>	<b>16,12,000</b>

The Committee after detailed deliberation recommended the proposal for above mentioned changes, under the provisions of para 7(ii) of the EIA Notification, 2006.

**1.13.6 Expansion of Coper Smelter Plant (Phase - II) at SIPCOT Industrial Complex, Madurai Bypass Road, Tuticorin, Tamil Nadu by M/s Sesa Sterlite Industries (India) Limited- Extension of Validity of EC regarding [F.N- J-11011/431/2008-IA.II(I)]**

M/s Sterlite Industries (India) Limited has obtained Environmental Clearance for expansion of its Copper Smelter at SIPCOT Industrial Complex, Madurai Bypass Road, Tuticorin, Tamil Nadu, from the Ministry of Environment and Forests vide letter No. J-11011/431/2008-IA II (I) dated 01.01.2009. In view of the location of the project in the notified SIPCOT Industrial area, the public hearing was exempted for the project, as per the section (iii), Stage (3), Para (i) (b) of the EIA Notification dated 14.09.2006.

The above said EC was challenged before the Hon'ble Madras High Court vide W.P. No. 13810/2009 mainly on the ground that PH has not been conducted before granting environment clearance to the project. The matter is still sub-judice.

The project proponent vide letter dated 26.12.2013 applied for extension of validity of environment clearance along with up dated Form-I. The matter was considered by the Expert Appraisal Committee(Industry) during its meeting held on 28<sup>th</sup> - 30<sup>th</sup> April, 2014, and desired that the EIA-EMP Report be updated with details regarding (i) One season baseline data, (ii) Conduct of PH, (iii) Details of episodal SO<sub>2</sub> stack emissions, (iv) Changes in land use of SIPCOT Industrial Area, (v) Status of compliance of CTO for existing unit, and (vi) Status of disposal of HW in existing unit

During this period, the Ministry had issued an OM No.J-11013/36/2014-IA.I dated 10.12.2014 clarifying that "the exemption from public consultation, as provided for under para 7(i) III. Stage(3)(i)(b) of EIA Notification, 2006 is available to the projects or activities or units located within the Industrial Estates or Park, which were notified prior to 14.09.2006, i.e. the EIA Notification, 2006 coming in to force". Keeping in view this OM, the project proponent submitted the updated EIA-EMP Report to the Ministry on 23.01.2015, with a request that PH is not required to be

conducted for present expansion project since the entire land was allotted for the project by SIPCOT in 2005 and the land was falling within the SIPCOT Industrial area.

The matter was considered by the Expert Appraisal Committee (Industry) during its 35<sup>th</sup> meeting held on 26<sup>th</sup> - 27<sup>th</sup> March, 2015. The Committee deliberated on the request made by project proponent and also on the exemption of Public Hearing as prescribed, when an application was made for extension of Validity of EC. The Committee decided that since the matter regarding conduct of Public Hearing is already sub-judice, the issue can only be resolved on the final outcome of the court order. As far as extension of validity of EC is concerned, the Committee recommended the extension of validity of the EC for a period of 5 years from 01.01.2014 subject to the final outcome of the court case.

In the meantime an amendment in the EIA Notification, 2006 was issued by the Ministry vide Notification S.O. No.1141(E) dated 29<sup>th</sup> April, 2015, extending the period of validity of Environment Clearance from 5 years to 7 years. Therefore, the EC accorded to the project vide letter of even number dated 01.01.2009 stands valid upto 31.12.2015. The same was conveyed to the PP vide letter No. J-11011/431/2008-IA.II(I) dated 23<sup>rd</sup> July, 2015.

The project proponent made a request to extend the validity of EC for further period of 3 years, i.e. up to 31<sup>st</sup> December, 2018.

The committee after detailed deliberation recommended the proposal of extension of validity of EC dated 01.01.2009 for further period of 3 years i.e. upto 31<sup>st</sup> December, 2018.

**1.13.7 Expansion of the existing (24 000 TPA Pig Iron, 45000 TPA sponge Iron and 100000 TPA ore briquetting Plant) unit located in the village Borpali, Post Kesramal, Tehsil Rajgangpur, Dist. Sundargarh (Orissa) by M/s Suraj Product Ltd[F.N- J-11011/226/2007-IA.II(I)]-Amendment in ToRs.**

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

**1.13.8 Expansion of 6 MTPA integrated steel plant & 1000 MW captive power plant at Angul, Orissa by M/s Jindal Steel and Power Limited- amendment in EC for permission for wet quenching system at Coke Oven Plant [No- J-11011/365/2006-IA.II(I)].**

The integrated steel plant (6 MTPA capacity) and captive Power Plant (1000MW) project of M/s Jindal Steel and Power Limited, located at Angul, Odisha was accorded Environment Clearance by the Ministry vide letter No J-11013/365/2006-IA.II(I) dated 22.02.2007.

The present proposal is for permission for wet quenching system at Coke Oven Plant.

It is noted by the committee that, previously, an application for amendment in the EC was moved vide letter dated 11.03.2013. A request was made for bifurcation of 6MTPA Steel Melting based on CONARC type furnace to 3 MTPA Electric Arc Furnace and 3 MTPA CONVERTER (Basic Oxygen Furnace) type furnaces at integrated steel plant, Angul, Orissa.

Earlier, complaints were filed by the Wildlife Society of Orissa, Cuttack on 22.10.2010 & 04.09.2012 informing the Ministry about various violations committed by the PP. Subsequently a Show Cause Notice was issued to the PP. An inspection was also carried out as directed by the Ministry by Regional Office, Bhubaneswar on 08-09.01.2013. Therefore, consideration of amendment application was put on hold by the Ministry.

Member Secretary informed the Committee that the matter is still under consideration of the Ministry and no decision on violation aspect has been taken by the Ministry.

The Committee after detailed deliberation deferred the proposal and mentioned that the matter will be further considered, once a decision is taken in the matter by the Ministry.

#### **1.14. CASEs FOR TERMS OF REFERENCE (TOR)**

**1.14.1 Establishment of Iron Ore Beneficiation Plant(0.75 MTPA capacity), Manganese Ore Beneficiation Plant(0.1 MTPA capacity) and Coal Beneficiation (Dry) Plant (0.65 MTPA capacity) by M/s Choudhary Iron & Steel Industries, located at Raichhapal, PO Kumjharia, Tehsil Kuarmunda, District Sundargarh, Odisha [J-11011/213/2015-IA.II(I)].**

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

S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. Choudhary Iron & Steel Industries has proposed for establishment of 0.75 MTPA capacity Iron Ore Beneficiation Plant (Wet Process), 0.10 MTPA capacity Manganese Ore Beneficiation Plant (Wet Process) and 0.65 MTPA capacity Coal Beneficiation Plant (Dry Process) at village Raichhapal, Post Khumjharia, Dist. Sundergarh in Odisha State. Kuarmunda Tehsil in Sundargarh district of Odisha State. The total land requirement is of 9.81 Ac. The total land has already been acquired and is owned by the project proponent. It is located at the left side of NH-143 which is running from Banarpal to Ranchi. Project is about 14 kms from Vedavyas Square on way to Biramitrapur. The nearby villages are Kharlabud, Kumjharia, Ratakhand, etc. Nearest railway station Biramitrapur under S.E railway is about 10km from project site.

The proposed project will produce 4.5 Lakh TPA of High Grade Iron Ore (Calibrated and Lumps), 3.0 Lakh TPA of saleable Iron Ore Fines and Tailings, 0.65 Lakh TPA of High Grade Manganese Ore, 0.35 Lakh TPA of saleable Manganese Ore fines and Tailings and 4.35 Lakh TPA of Beneficiated coal & 2.15 Lakh TPA of saleable Coal fines and Rejects.

The raw material required for the project is Low grade Iron Ore, Manganese Ore and High as content ROM Coal. The quantity is 7.5 Lakh TPA of Iron Ore, 1.0 Lakh TPA of Manganese Ore and 6.5 Lakh TPA of Coal. Iron Ore and Manganese Ore will be sourced from mines located in Keonjhar and Sundergarh district. The coal for the project will be sourced from the Coal Mines of Mahanadi Coalfields Limited (MCL) located in Sambalpur/Sundargarh district.

The total power requirement will be 1.1 MVA. It will be taken from the Odisha State Electricity Board (OSEB) subsidiary known as WESCO. Power back up is being provided by one 500 KVA silent type Diesel Generator set. The gross water requirement for all the three beneficiation process and other potable purpose is 233 cum/day. The water will be sourced from Sundar Nallah, which is a small tributary of river Sankha, which ultimately meets river Brahmani at Vedavyas. The drinking water will be sourced from Groundwater through deep bore well.

The project cost is budgeted at Rs.11.00 Crores (Rupees Eleven Crores). The total number of manpower for the proposed project is 30 during operational period.

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

- i. Public hearing to be conducted by Odisha Pollution Control Board.

**1.14.2 Expansion of Clinker Grinding Unit (1.5 to 2.5 Million TPA) along with installation of Captive Power Plant (10 MW) near Village Khukhrana, P.O Assankalan, District Panipat (Haryana) by M/s Shree Cement Unit-Panipat (A Unit of Shree Cement Ltd.)[No.J-11011/212/2015-IA.II(I)].**

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 proposal is for expansion of existing 1.5 MTPA Clinker Grinding Unit to 2.5 MTPA capacity. The Committee noted that the proposed project activity is listed at S.No. 3(b), under category 'B' of the Schedule of EIA Notification, 2006 and also SEIAA, Haryana is constituted and functional, therefore the case should be transferred to SEIA, Haryana for further necessary action.

**1.14.3 Proposed expansion of existing 2 X 100 TPD Sponge Iron Plant by installing 08 MW Captive Power Plant based on 2 X 11 TPH Boiler (Waste Gases ) and 30 TPH AFBC Boiler (Firing Mixed Fuel) at Tuidungri, Chowka Panchyat, Chandil Tehsil, Saraikela Kharsawan District Jharkhand of M/s Emaar Alloys Pvt. Ltd. [ F.No. J-110011/220/2015-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.

**1.14.4 Proposed installation of four Induction Furnaces of 15 MT each in existing plant premises of M/s J.B. Rolling Mills Limited located at Trilokpur Road Kala Amb, village Johran, Tehsil Nehan and Dist. Sirmaur, Himachal Pradesh by M/s J.B Rolling Mills Ltd. [J-11011/218/2015-IA.II(I)]**

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

S.No. 3(a), under category 'B' of the Schedule of EIA Notification, 2006. However, due to interstate boundary of Haryana within 10 Km (About 0.80 KM) the project is appraised at the central level.

M/s J.B. Rolling Mills Limited located at Trilokpur Road, Kala Amb, Village Johran, Tehsil Nahan and Dist. Sirmaur, Himachal Pradesh with total plot Area: 53.05Bighas / 5.96 Ha., this rolling mill plant manufactures TMT Bars, Angles, Channels, Flats and Beams (Girders) at present. M/s J.B. Rolling Mills Limited. Unit (II) is an existing composite Rolling Mills unit which plans to install four Induction furnaces each with capacity of 15 MT in addition to one induction furnace with production capacity of 28,800 MT/Annum (in single shift) at Trilokpur Road, Kala Amb, Village Johran, Tehsil Nahan and Dist Sirmaur, H.P. making the total capacity 2,34,000MT/annum of Billets/Ingot.

Water for construction and domestic purpose will be drawn from Department of Industries and Commerce (DIC). Approximately 28 KLD water will be used for during operational phase. Existing Power load of 19,475 KW will be used to run the additional plant & machinery during Construction and Operation Phase. Expected source for power is Himachal Pradesh State Electricity Board (HPSEB).

Domestic waste water will be generated as liquid effluent which will be further sent to the Soak Pit/ Septic tank. About 10-15 % of the total raw material used will get converted into slag which is a hazardous waste. Slag, Dust from cyclones and Bag filters are hazardous materials generated on site, which will be managed as per Hazardous Waste Management Handling and Trans-Boundary Movement Rules, 2008 & amended thereof. The generated slag & APCD dust will be disposed of in the authorized TSDF site, Shivalik Solid Waste management Limited located at Nalagarh (H.P). Total Project Cost will be Rs. 11,977.00 Lacs.

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

- i. Public hearing to be conducted by Himachal Pradesh Pollution Control Board.

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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 acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora-fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

## ANNEXURE –I

### **GENERIC TERMS OF REFERENCE (TOR) IN RESPECT OF INDUSTRY SECTOR**

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

### 3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. 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 *I*existing operation of the project from SPCB shall be attached with the EIA-EMP report.
  - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

### 4. Site Details

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

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)

- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

## 6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are

found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

- xi. Socio-economic status of the study area.

## 7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for 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 conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of

species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

## 8. Occupational health

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

## 9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement /

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

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.

- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 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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ANNEXURE-2

**ADDITIONAL TORS FOR INTEGRATED STEEL PLANT**

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact



3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM(PM<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.
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

ANNEXURE-3

### **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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ANNEXURE-4

#### **ADDITIONAL TORs FOR CEMENT INDUSTRY**

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines

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

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

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**LEATHER/SKIN/HIDE PROCESSING INDUSTRY**

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

### **COKE OVEN PLANT**

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, *etc* within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.

**ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS**

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from techno-environmental angle should be furnished
3. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
4. Technology adopted, flow chart, process description and layout marking areas of potential environmental impacts
5. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
6. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environmental status.
7. In case of expansion project asbestos fibre to be measured at slack emission and work zone area, besides base line air quality.
8. In case of green field project asbestos fibre to be measured at ambient air.

**INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE**

1. Details of proposed layout clearly demarcating various units within the plant.
2. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
3. Details on design and manufacturing process for all the units.
4. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
5. Details on requirement of raw materials, its source and storage at the plant.
6. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content (TCLP), composition and end use of chrome slag. Details on the recovery of the Ferro chrome from the slag and its proper disposal.



**METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)**

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Emission from sulphuric acid plant and sulphur muck management.
3. Details on installation of Continuous Emission Monitoring System with recording with proper calibration system
4. Details on toxic metals including fluoride emissions
5. Details on stack height.
6. Details on ash disposal and management
7. Complete process flow diagram describing process of lead/zinc/copper/aluminium, *etc.*
8. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
9. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
10. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
11. Trace metals in waste material especially slag.
12. Plan for trace metal recovery
13. Trace metals in water

**LIST OF PARTICIPANTS OF EAC (I) IN 1<sup>st</sup> MEETING OF EAC  
(INDUSTRY-I) HELD ON 18<sup>th</sup> – 20<sup>th</sup> November, 2015**

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

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