

**SUMMARY RECORDS OF 45<sup>TH</sup> MEETING OF THE EXPERT APPRAISAL  
COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY – 1  
PROJECT CONSTITUTED UNDER THE EIA NOTIFICATION, 2006  
HELD ON 11<sup>TH</sup> – 12<sup>TH</sup> August, 2015**

The 45th meeting of the Expert Appraisal Committee for environmental appraisal of Industry-I projects of the Ministry of Environment, Forest and climate Change was held on 11<sup>th</sup> - 12<sup>th</sup> August, 2015. List of participants annexed.

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

**Confirmation of the minutes of the 43<sup>rd</sup> Meeting**

The minutes of 43<sup>rd</sup> meeting were confirmed as circulated.

**45.3 ENVIRONMENTAL CLEARANCE (EC)**

**45.3.1 Proposed expansion of Aluminum melting from 20,000TPA to 30,000TPA, Propane storage from 50MT to 100 MT and power back up from 4.9 MW to 37.3 MW located at plot no SPL-1, Tapukara Industrial Area, Tehsil Tijara, District Alwar, Rajasthan by M/s Honda Cars India Ltd.[J-11011/64/2013-IA II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s EQMS India Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToRs) to this project were recommended during the 6<sup>th</sup> Meeting of Reconstituted Expert Appraisal Committee held during 5<sup>th</sup> – 7<sup>th</sup> March, 2013 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter No. F. No.J-11011/64/2013-IA-II(I) dated 25<sup>th</sup> April, 2013 for the preparation of EIA-EMP report. The PP submitted the final EIA report online dated 23<sup>rd</sup> April, 2015. The proposed project falls in Schedule 3(a) & 6(b), Category “B” of EIA Notification 2006 as amended. However, since the Haryana State Boundary is located about 5 km from the project site, the project is treated as Category “A” and appraised at the Central level.

M/s Honda Cars India Ltd.(HCIL) has proposed to expand their production capacity at the Tapukara premises along with indigenisation of various car parts to reduce the cost of car. HCIL has proposed to install additional 50 MT Propane Storage, additional backup power facility of 32.4 MW capacity and Allov melting Furnace facility close to their existing plant located at Tapukara Industrial area, District Alwar, Rajasthan. The proposal is for enhancement of Aluminum melting from 20,000TPA to 30,000TPA, Propane storage from 50MT to 100 MT and power back up from 4.9 MW to 37.3 MW. The total land area available with HCIL is about 1,768,972 Sq. m. There is enough space within the HCIL land for the proposed expansion project. The project location is reported to lay at 28<sup>0</sup> 06' 24'' N latitude and 76<sup>0</sup> 50' 06'' E Longitude. The site is very well connected with NH-8. Nearest Railway station is Bhiwadi, about 35 km from the project site. The Haryana border is about 5 km NW. Nearest airport is IGI Airport, approximately 47 km away from project site (aerial distance). The total project investment will be about Rs. 1577 Crores.

About ten key materials will be required for SPC furnace and few will be stored in storages. In addition Propane, fuel for the SPC furnace will be stored in 50 MT storage bullet with all desired precautions and safety measures. The materials will be transported mainly by road. Water requirement for the project will be mainly for industrial processes, washing, cooling, flushing, gardening and sanitary purposes. About 56 KLD of fresh will be required for the proposed project. The treated ETP/STP water will be recycled in the plant and also used in green belt development. It has been envisaged that there will “Zero Effluent Discharge”.

HCIL existing plants has been drawing power from Jainur Vidut Vitran Nigam Limited (JVVNL). However HCIL proposes to set up a 32.4 MW power units (DG sets of various capacities) as power back up. Propane will be used as a fuel in SPC Furnace. It has been proposed that only during grid power failure low sulphur HSD will be used in DG sets.

Ambient air quality was monitored for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and PAH at 8 locations within the study area in summer season. The highest PM<sub>10</sub> level was at Karoli i.e. 100 µg/m<sup>3</sup> and lowest level was at Tapukara i.e. 47 µg/m<sup>3</sup>. The highest PM<sub>2.5</sub> level was at Karoli i.e. 33 µg/m<sup>3</sup> and lowest level was at Tapukara i.e. 26 µg/m<sup>3</sup>. NAAQMS level is 60 µg/m<sup>3</sup>. The highest SO<sub>2</sub> level at Mithiwas village was 15 µg/m<sup>3</sup> and lowest SO<sub>2</sub> level at Nasopur village was 5 µg/m<sup>3</sup>. The NAAQMS level 80 µg/m<sup>3</sup>. Adequate and effective environment protection measures will be planned and designed to minimize the impacts due to activities related to pre-construction (preparatory phase) of the project, machinery installation and commissioning stages and end with the induction of manpower and start up.

DG sets are provided with stack of suitable height. Regular maintenance of valves, pumps and other equipment to prevent leakage and thus minimizing the fugitive emissions of VOCs have been proposed. Regular monitoring of VOCs shall be conducted in the areas prone to fugitive emissions. The monitoring at working environment would be carried out and recorded in the prescribed form of the Factories Act. Greenbelt and green area will be developed in the periphery of the plant by planting tall trees having broad leaves for control of air pollution.

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

- i. Net energy consumption for the plant and the energy balance should be submitted and details regarding Heat recovery system from the exhaust gas and other plant operations should be submitted.
- ii. Details of Paint sludge disposal should be submitted.
- iii. VOC emission data for the plant should be monitored and submitted.
- iv. Data analysis regarding increase in VOC after expansion should be submitted.
- v. TDS management and calculations should be submitted for the effluent.
- vi. Audiometry, Spirometry, Musculoskeletal Disorder and chest X-Ray of the workers should be submitted.
- vii. Water balance for the plant operation should be submitted.
- viii. Non-methane Hydro-Carbons in ambient air to be rechecked.
- ix. Notification for industrial area should be submitted.

It was decided that the proposal will be reconsidered on receipt of response / information on the above-mentioned points.

**45.3.2 Proposed Integrated Steel Plant of 0.6 MTPA and 130 MW Power Plant of M/s RBSSN -Ferrous Industries Private Limited [RBSSN FIPL] located near Village Hampaptna, Taluk Hagaribommanahalli, District Bellary, Karnataka [J-11011/496/2011-IA.II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Environment and Power Technologies Private Limited, Bangalore) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToRs) to this project were recommended during the 2<sup>nd</sup> Meeting of Reconstituted Expert Appraisal Committee held during 29<sup>th</sup> – 31<sup>st</sup> October, 2012 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter No. F. No.J-11011/496/2011-IA-II(I) dated 18<sup>th</sup> December, 2012 for the preparation of EIA-EMP report. The Project Proponent earlier submitted the draft EIA report on 13.10.2014 to KSPCB for the conduct of Public Hearing. The KSPCB has notified the date for conducting PH on 20<sup>th</sup> December 2014. Since the ToR was only valid up to 17<sup>th</sup> December, 2014, PP had requested for extension of validity of TORs by four months. PP had mentioned that there is no change in the earlier Form I application filed on 24.09.2011 for obtaining TOR. The matter was considered in the 29<sup>th</sup> EAC meeting held on 11<sup>th</sup> – 12<sup>th</sup> December, 2014. After deliberations, the committee recommended extension of validity of ToR for a period of 4 months, with effect from 18<sup>th</sup> December, 2014. Ministry issued ToR validity letter on 17<sup>th</sup> December, 2014. The proposed project activity is listed at S.No. 3(a) in Metallurgical industries (ferrous & non ferrous) under Category ‘A’ of the Schedule of EIA Notification 2006.

M/s RBSSN Ferrous Industries Private Limited ( RBSSN FIPL) has proposed to establish a 0.6 MTPA Integrated Steel Plant [ISP] having manufacturing processes of Beneficiation Plant, Pellet Plant , DRI Plant , Electric steelmaking , Billet caster, and 130MW Power Plant in the survey Nos. of Village(s) Hampapatnam, Vyasapura, Varadapura, and Morabbihal, Taluk Hagaribommanahalli, District Bellary, Karnataka. The total land required for the proposed project is 531.22 acres, out of which 436.44 acres is already procured and the land is in possession of the proponent and remaining 94.78 acres of land is under negotiation. No Forest land is involved in the project site; however, Nandibanda Reserve Forest land is located adjacent to the project site. No National Park or Wild Life Sanctuary is located within 10 Km radius of the project site. No Gramatana land is part of the project land. Nearest Hampapatna Village is located at a distance of 1 Km. A new Railway Line from Kittur to Harihara has been laid and yet to be commissioned. The said railway line is adjacent to the project site. The total cost of the project is 1887.60 Crores. Following table shows the proposed configuration of plant Facilities:

	<b>Manufacturing Facilities</b>	<b>Unit</b>	<b>Production Capacity</b>
1	Beneficiation plant	Mt/yr	1.22
2	Pellet Plant	Mt/yr	1.20
3	DR Plant	Mt/yr	0.45
4	Electric steelmaking	Mt/yr	0.66
5	Billet caster	Mt/yr	0.63

6	Power plant	WHRB : 35 MW	130
		CFBC : 95 MW	
7	Calcining Plant	t/d	135
8	Dolomite Kiln	t/d	50

The requirement of raw material for the project is as follows

S.No	Main Raw materials	Requirement in T/ yr.
1	Low grade iron ore fines	2,430,000
2	Non coking coal	7,18,000
3	Bentonite	9600
4	Lime stone	111,000
5	Dolomite	41000
6	Steel scrap	328,000

Iron ore will be procured through e-Action process. M/s Adani Enterprises Limited has entered into an agreement and MoU with the proponent to supply African/Australia coal having 0.6% Sulphur and 15-20% Ash. Supply of Non Coking Coal of 7,18,000 t/yr with calorific value of 6150 Kcal/kg. The limestone & Dolomite will be sourced from Bagalkot and Dhone & Bentonite from Gujarat. Power requirement will be met from Captive Power Plant. The main raw materials and finished products will be transported by railway. The nearest railway station from project site is 1.5 Km away. The project proponent will have private railway sidings in his factory premises.

The makeup water requirement for the plant is 750 m<sup>3</sup>/hr. The Karnataka State Government has permitted the proponent to draw 18 MLD of Tungabhadra river water from d/s of Tungabhadra dam. Effluent from the each process units will be treated & recycled in the same process. However the leakage from the various units will be collected & treated to meet the KSPCB norms & used for Dust Emission Control by sprinkling on roads & development of green belt in an area of 170.80 acres [69.14 ha]. Sewage generated from the factory premises will be treated and used for gardening. Rain Water harvesting system is also proposed. The industry will implement Zero discharge Norms.

Ambient Air Quality Monitoring has been carried out at 8 locations during January to March, 2013. The data submitted show that PM 10 (maximum 65 , Minimum 50 µg/m<sup>3</sup>), PM 2.5 (maximum 14 , Minimum 10 µg/m<sup>3</sup>), SO<sub>2</sub> (maximum 9.9, Minimum 6.7 µg/m<sup>3</sup>), NO<sub>2</sub> (maximum 14.5 , Minimum 10.4 µg/m<sup>3</sup>). Ambient Air quality Modelling study for the point source emission indicated that the Max Incremental GLC for TPM is 5.2 µg/m<sup>3</sup> , SO<sub>2</sub> 17.3 µg/m<sup>3</sup> & NOx 1 µg/m<sup>3</sup> at a distance of 2 Kms. Stacks of adequate height has been provided as per CPCB norms. ESPs are proposed for Pellet plant, DRI Plant and Power plant process chimneys. In order to control Fugitive dust, Conveyor belts will be covered, dry fog system at coal unloading area and water sprinklers will be provided.

The dust / Solid wastes generated from the various process units are recycled. Slag is proposed to be disposed off in landfill area. Slag will be used for road making. Waste oil & used oil will be off loaded to KSPCB Authorized agents. Green belt to an extent of 33 % of land will be developed. Priority will be given to employ local people in the proposed industry.

Socio-economic Study has been conducted. Based on CSR report and points raised during public hearing meeting, an amount of Rs.94.40 Crore is earmarked for Enterprise Social Commitment related activities based on local needs to be spent over a period of 10 years.

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

- i. Ambient air quality data should be rechecked by conducting 1 month monitoring at the study area.
- ii. Public hearing points raised and commitment of the project proponent along with time bound action plan with financial allocation to implement the same should be provided in tabular form.
- iii. Revised layout plan showing green belt of 15-20 meters width all around the periphery of the project site should be submitted.

**45.3.3 Proposed enhancement of existing production capacity of casting by addition of one continuous caster, addition of new product (i.e Heavy Engineering Equipment and Components) and installation of Coal Gasifier of M/s L&T Special Steels and Heavy Forgings Pvt. Ltd. at Hazira Manufacturing Complex, Surat – Hazira Road, Hazira notified Area, Village Suvali, District – Surat, Gujarat [J-11011/53/2014-IA-II(I)]**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Eco Chem Sales and Service, Surat) made a detailed presentation on the salient features of the project and proposed environmental protection measures. . The Terms of Reference (ToRs) to this project were recommended during the 18<sup>th</sup> Meeting of Reconstituted Expert Appraisal Committee held during 28<sup>th</sup> – 30<sup>th</sup> April, 2014 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter No. F. No.J-11011/53/2014-IA-II(I) dated 3<sup>rd</sup> July, 2014 for the preparation of EIA-EMP report. PP vide letter dated 14.05.2014 requested for exemption of public hearing since the proposed expansion project is in the existing manufacturing facility in Hazira Notified Industrial Area. The matter was considered in the 27<sup>th</sup> meeting of the EAC held during 13<sup>th</sup> and 14<sup>th</sup> November 2014 and the Committee after deliberation reiterated its stand and mentioned that PH has to be conducted as per the EIA Notification, 2006. However, the matter was further examined in the Ministry in accordance with the OM issued by the Ministry dated 10<sup>th</sup> December, 2014 and Ministry has taken a decision to exempt the Public Hearing, since the expansion project is in the existing manufacturing facility in Hazira Notified Industrial Area. A letter in this regard was issued to the PP on 20<sup>th</sup> January, 2015. PP vide letter dated 27<sup>th</sup> June, 2015 submitted the final EIA/EMP report to the Ministry. 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.

L&T has collaborated with Nuclear Power Corporation India Limited (NPCIL), where L&T holds stakes of 74%. The joint venture i.e., M/s. L&T Special Steels and Heavy Forgings Private Limited is in the business of manufacturing nuclear-grade forgings. Existing unit has already obtained Environment Clearance vide Letter F.No.J-11011/193/2009-IA-II(I) Dated 20<sup>th</sup> October, 2009. Existing unit has also obtained Consolidated Consents & Authorization (CCA)

form State pollution Control Board vide CCA order No. AWH-49308 dated 05.09.2012, which is valid up to 14.05.2017.

The current capacity utilization of the plant is less than 10 % of its installed capacity due to the impact of Fukushima Nuclear Power Plant disaster. PP mentioned that the new large scale nuclear power plants by the Government have not yet taken off impacting the plans for supply of the critical forgings. PP further mentioned that the requirements of large forgings for other sectors have not picked up, as desired according to the current economic scenario.

Therefore, in order to utilize the existing steelmaking capacity and to make the project viable, LTSSHF proposed an addition of continuous caster to utilize the melting capacity of furnaces, addition of new product-lines viz. Fabrication of Heavy Engineering Equipment, Components, etc. and installation of Coal Gasifier. The cost of the proposed unit will be Rs. 325 Crore Additional 430 nos. of employee shall be recruited after proposed expansion.

The land for the proposed project is already in the possession of L&T. The proposed expansion would be within the existing premises of LTSSHF, existing spare space of 16,200.00 sq. meter would be utilized for the proposed expansion, hence no additional land would be required for the proposed expansion. All the infrastructure facilities i.e. Manufacturing Shops including steel melting shop, forging shop, machine shop, Utility including WTP, ETP, STP and Administrative Building, Security offices, Canteens, Medical Centre etc. are available with the existing unit of LTHSSF. Following table shows the existing and the proposed quantity of production:

S.No	Products	Existing Quantity	Total after expansion
1	Forgings	60,000 MT/Annum	60,000 MT/Annum
2	Steel Ingots, Castings & Liquid Steels	80,000 MT/Annum	5,30,000 MT/Annum
3	HEE & Components	NIL	15,000 MT/Annum
4	Coal Gas	NIL	770 Lacs SCM/Annum

Total water requirement after proposed expansion would be 8986 KLD in the operation phase, which would be met from Singanpore Weir, Tapi River. The peak power requirement for the project would be 140 MW, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL). No additional power would be required for the proposed expansion, as existing power supply is sufficient. During the construction work power would be taken from the existing power supply sources of LTSSHF. The total fuel requirement is provided in the following table:

S.No	Fuel	Existing	After Expansion
1	Natural Gas	28350 NM <sup>3</sup> /Hr	27100 NM <sup>3</sup> /Hr
2	Coal Gas generated in proposed gasifier	NIL	10000 NM <sup>3</sup> /Hr
3	Diesel	800 Lit/Hr	800 Lit/Hr

Industrial effluent after proposed expansion would be treated in existing Effluent Treatment Plant (Capacity: 2600 KLD), followed by UF and RO system. After treatment, the treated industrial effluent would be recycled for Cooling applications, Boilers. Treated effluent will also be utilized for Horticulture & Toilet flushing. The RO reject shall be utilized for Slag cooling or horticulture after blending with treated effluent. Domestic wastewater after proposed expansion would be treated in existing Sewage Treatment Plant (STP-150 KLD Capacity). The treated sewage would be utilized for horticulture purpose within the premises. The facility shall be a Zero- discharge facility after the proposed expansion.

During the study PM<sub>2.5</sub> was observed between 30.7 – 55.1 µg/m<sup>3</sup>. Maximum concentration of PM 2.5 was found at Project Site. PM<sub>10</sub> was observed in the range of 46.4-101.0 µg/m<sup>3</sup>. It was slightly higher near project site. SO<sub>2</sub> concentration was observed in the range of 5.1 to 24.4 µg/m<sup>3</sup>. NO<sub>x</sub> concentration in Ambient Air quality was between 11.7-34.7 µg/m<sup>3</sup>.

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 and conditions for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The width of green belt should be 20-22 meters all around the periphery of the site. Green belt should be developed in 33 % of plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.
- iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be followed.
- iv. Proper utilization of fly ash should be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2010. All the fly ash should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office. Tar and slag generated from the plant should be fully utilized.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry and regularly monitored.
- vi. The total water requirement should not exceed 8986 KLD. 'Zero' effluent discharge should be strictly followed and no wastewater should be discharged outside the premises.
- vii. Monitoring report on Ambient Air Quality, fugitive dust and noise levels inside the plant should be submitted along with the 6 monthly compliance report.
- viii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time

bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

- ix. Provision shall be made for the housing of construction labour 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.

#### **45.4 FURTHER CONSIDERATION**

##### **45.4.1 Expansion of Tannery Unit (Raw hide to finished leather) of M/s A.K.I India Pvt. Ltd at Tehsil & Dist. Unnao, Uttarakhand (EC) (J-11011/128/2013-IA-II (I))**

The matter was earlier considered in the 29<sup>th</sup> meeting of Expert Appraisal Committee (Industry) held on 11<sup>th</sup> and 12<sup>th</sup> December 2014. The committee recommended the project for grant of environment clearance. However, while processing the proposal in the Ministry, it was decided that a site visit should be conducted and the compliance status of the earlier environment clearance granted to the project should be submitted. Therefore, Regional Office of the Ministry at Dehradun was requested vide letter dated 20<sup>th</sup> January, 2014, to conduct a site visit and submit report. A site visit was conducted on 25<sup>th</sup> May, 2015 and a report was submitted to the Ministry. It was observed that number of non-compliance were noticed during the site visit. The matter was accordingly placed before the EAC for appraisal.

During the presentation it was informed by the PP that the PP has not received the copy of the site visit report therefore they are not in a position to provide response to the observations mentioned in the site visit report.

The Committee advised Ministry to forward a copy of the site visit report to the PP for their comments. The matter will be further considered once the response is submitted by the PP.

##### **45.4.2 Proposed for 4 x 9 MVA Ferro Alloy Plant for production of either or combination of High Carbon Ferro Chrome, Ferro Manganese or Silico Manganese by M/s Misrilal Mines Private Limited [File No. J-11011/307/2011-IA.II(D)]**

The proposal was earlier considered by the Expert Appraisal Committee during its 35<sup>th</sup> meeting held on 26<sup>th</sup> – 27<sup>th</sup> March, 2015, wherein the Committee had sought additional information/ clarification on following related issues:

- i. Analysis report for TCLP test for the slag should be submitted following MoEFCC method, HSM – 2008
- ii. One month monitoring and analysis data for the parameters of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and CO should be submitted.
- iii. ToR point No 46 (*Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of*

*workers: plan of evaluation of health of workers by pre designed format. chest x ray. Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety)* is not properly addressed in the EIA report. Revised report on ToR no 46 should be submitted. Nearest Hospitals/Health Centres data for the last 3 years should be submitted in a tabular form.

- iv. Details of secondary emission control measures should be submitted

Based on the additional information/ clarification submitted by the proponent vide letter No. MMPL/FAD/ENV/MoEFCC/2015-16/1 dated 20<sup>th</sup> June, 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 environmental clearance subject to stipulation of the following specific conditions and any other mitigative measures and conditions for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The Project Proponent should take all effective measures to ensure that the loss of chromium should be further reduced.
- iii. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. should be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> and installing energy efficient technology.
- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB should be followed.
- vi. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.
- vii. All the effluent generated should be treated and used for dust suppression and green belt development. No effluent should be discharged and 'zero' discharge should be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- viii. Slag produced in Ferro Manganese (Fe-Mn) production should be used in manufacture of Silico Manganese (Si-Mn). All the other ferro alloy slag should be used in the preparation of building materials.

- ix. Green belt should be developed in 33 % of plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.
- x. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.
- xi. All the commitments made to the public during the Public Hearing / Public Consultation meeting should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.
- xii. Provision should 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.

**45.4.3 Manufacturing plant for Slabs, Pig iron, Billets and Rebars located at Kutch, Gujarat by M/s Welspun Iron & Steel Pvt. Ltd.[ J-11011/136/2015-IA-II(I)]**

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

**45.5 ANY OTHER ITEM**

**45.5.1 Extension in validity of Environment Clearance of the proposed expansion of Cement Plant (2.0 - 2.6MTPA Clinker) at village Suli, Tehsil Arki ,PO Darlaghat by M/s. Ambuja Cements Ltd. [J-11011/792/2007-IA II (I) dated 29/02/2008]**

The Project Proponent and their consultant made a presentation. The expansion of cement plant was accorded Environment Clearance by the Ministry vide letter No. J-11011/792/2007-IA II (I) dated 29/02/2008. The PP has applied for extension of validity of EC through online application after the validity period of EC of 7 years (as per amendment notification dated 29<sup>th</sup> April. 2015). It is noted that the covering letter requesting extension of validity of EC was of date 25<sup>th</sup> May, 2015, however, the online application was made on 25<sup>th</sup> June, 2015. As per amendment Notification dated 29<sup>th</sup> April. 2015, the cases which were received within one month after the validity of EC would be referred to concerned EAC and based on their recommendations, the delay shall be condoned at the level of Joint Secretary in the Ministry. More than one month after the validity period of EC but less than three months after such validity period then based on the recommendations of EAC, the delay would be condoned with the approval of the Minister in charge of MoEFCC. Provided that no condonation for delay would be granted for any application for extension filed 90 days after the validity period of EC.

In the instant case, the PP has applied on 25<sup>th</sup> June, 2015 through online application to the Ministry which is 118 days after the validity of EC.

The Committee after detailed deliberation referred the matter to the Ministry for taking a view.

**45.5.2 Extension of validity of Environmental Clearance for expansion of Sponge Iron Plant from 100 TPD to 300 TPD, M.S. Billets 400 TPD, TMT Bars/Structural Steels 400 TPD and CPP 12 MW (WHRB - 6 MW & FBC - 6 MW by M/s Jeevaka Industries Pvt. Ltd. located at Nasthipur Village, Hatnoora Mandal, Medak District, Andhra Pradesh [J-11011/145/2006-IA II (I)]**

The Project Proponent and their consultant made a presentation. The expansion of Sponge Iron Plant was accorded Environment Clearance by the Ministry vide letter No. J-11011/145/2006-IA II (I) dated 14<sup>th</sup> July, 2008 in the name of Jeevaka Industries Limited. The PP has presented the following status of implementation of the project.

S.no.	Name of the Product	Existing Capacity	Proposed Expansion Capacity	Implementation Status of Projects Cleared in EC/ reasons for non implementation
1.	Sponge Iron	100 TPD	(2x100 TPD) 200 TPD	Out of 2 Kilns, one kiln of the 100 TPD capacity has started production and consent to Operate has been obtained from TSPCB (earlier APPCB). The implementation of the other kiln will be completed by Dec, 2015.
2.	M.S. Billets	-	400 TPD	Yet to commence the work due to poor market conditions, Non availability of funds.
3.	TMT Bars/Structural Steels	-	400 TPD	Yet to commence the work due to poor market conditions, Non availability of funds
4.	Captive Power plant	-	WHRB – 6 MW FBC – 6 MW	The civil construction work has commenced. Appointment of consultant, and EPC contract to M/s. Thermax Ltd. has been given advance payment also. The plant could not be completed earlier due to financial constraints. Now we certainly will be able to complete the power plant in next three years.

It was noted that the PP vide online application dated 23<sup>rd</sup> June, 2015 applied for extension of validity of Environment Clearance for further period of 3 years. PP also requested for transfer of EC from M/s Jeevaka Industries Limited to M/s Jeevaka Industries Pvt. Ltd.

The committee after detailed deliberation recommended the proposal of extension of validity of EC for further period of 3 years i.e. upto 13<sup>th</sup> July, 2018. Regarding change of name

from M/s. Jeevaka Industries Limited to M/s. Jeevaka Industries Pvt. Ltd., PP has to apply to the Ministry directly along with the requisite documents.

**45.5.3 Amendment in EC to increase the production of hot metal in Blast Furnace from 0.45 MTPA to 0.54 MTPA (Original EC issued to M/s Sesa Industries Ltd, EC amendment issued to M/s Sesa Goa Ltd. Name of Company now Vedanta Ltd). [F. No. J-11011/946/2007-IA-II (I) dated 3-6-2009 and 25-4-2012.]**

The Project Proponent and their consultant made a presentation. The project was accorded Environment Clearance in the name of M/s Sesa Industries Limited vide letter No. J-11011/946/2007-IA-II(I) dated 3<sup>rd</sup> June, 2009. The PP is operating a blast furnace, sinter plant, coke oven & CPP (WHRB) at Navelim Industrial Area, Bicholim, North Goa. An amendment in the EC was granted vide letter dated 25<sup>th</sup> April, 2012. Vide EC amendment letter dated 25/04/2012, Ministry approved implementation of the project in two phases; of exactly half the capacity in each phase.

PP mentioned that 4,50,000 tons/year capacity BF (450 m<sup>3</sup>) started production in August 2012. Presently foundry grade pig iron is produced in the BF, whose production cost is higher than basic grade pig iron. The demand of foundry grade pig iron for automobile industry has come down drastically in last 2 years. Therefore it has been decided by the PP to produce basic grade pig iron along with foundry grade and remain competitive in export as well as domestic market. PP mentioned that similar Blast Furnaces operating in other places in India indicated that 450 m<sup>3</sup> blast furnace is capable of producing at least 5,40,000 tons/year pig iron after undergoing process optimization and efficiency improvement. Therefore PP filed application for EC amendment. Following table shows the existing capacity and proposed enhancement:

<b>S N</b>	<b>Facility</b>	<b>Production Capacity</b>	<b>Phase-I (Under operation)</b>	<b>Phase-II</b>
1	Mini Blast Furnace	9,00,000 TPA (Hot Metal)	4,50,000 TPA <i>(EC amendment requested to increase this to 5,40,000 TPA)</i>	4,50,000 TPA
2	Sinter	20,00,000 TPA (Sinter)	10,00,000 TPA	10,00,000 TPA
3	Coke Oven	6,00,000 TPA (Coke)	3,00,000 TPA	3,00,000 TPA
4	Power Plant	60 MW (thru WHRB)	30 MW	30 MW

PP mentioned that the production increase can be achieved through increased injection of wind volume, oxygen enriched blast, charging sinter feed upto 90%, better process control in operations. Additional design capacity to suit 540000 TPA production is available in all plant machinery / equipment, including pollution control systems. There will be no change in process technology or plant layout. The land area remains same.

Following table shows material balance of blast furnace (existing & proposed enhancement)

<b>Raw Materials (INPUT) In tons</b>	<b>Quantity for 450000 TPA</b>	<b>Quantity for 540000 TPA</b>	<b>Product (OUTPUT) In tons</b>	<b>Quantity for 450000 TPA</b>	<b>Quantity for 540000 TPA</b>
Sintered ore	631,080	757,296	Hot Metal / Pig iron	450,000	540,000
Lump iron ore	157,770	189,324	Slag	184,500	221,400
Coke	208,350	250020	LOI, BF gas, losses, etc	411,300	493,560
Pulverised Coal (PCI)	56,250	67,500	Dust	7,650	9,180
<b>Total</b>	<b>1,053,450</b>	<b>1,264,140</b>	<b>Total</b>	<b>1,053,450</b>	<b>1,264,140</b>

The consumptive water will remain well within the permitted volume (8316 KLD). The consumptive water of existing plant is 5036 KLD and the consumptive water after enhancement of production would be 5471 KLD. SGP water and BF cooling water will continue to be re-circulated. Entire dust will continue to be reused in sinter plant. Entire slag will continue to be sold to cement plants in India / abroad. Most of the raw materials and finished product will continue to be transported using barge. No additional discharge of pollutants shall take place into air, water and land environment.

After detailed deliberation the Committee advised PP to submit application under clause 7(ii) of EIA Notification, 2006 for phase- I alongwith monitoring report from Regional Office, MoEFCC for the existing plant. The matter will be further considered once the information is submitted to the Ministry.

**45.5.4 Proposed DRI TK Pelletisation Plant 0.15 MTPA & Iron ore Beneficiation Plant - 0.30 MTPA, located at Sy. No. 25, 26, 27,28 Taranagar, Sandur Taluka, Bellary District, Karnataka by M/s KEJ Minerals Pvt Ltd. - Amendment of iron ore beneficiation to mineral beneficiation[J-11011/427/2010-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 for by the PP.

**45.5.5 Amendment in Environmental Clearance regarding use of Fuel Mix in existing Cement Plant located at Village Rawan, Tehsil Balodabazar, District Balodabazar – Bhatapara, Chhattisgarh by M/s. Ambuja Cements Limited (Unit: Bhatapara) – [J-11011/355/2005 - IA II (I)]**

The Project Proponent and their consultant made a presentation. M/s Ambuja Cement Limited has proposed an amendment in Environment Clearance issued by Ministry for the existing clinkerization unit (Line - II) of 2.72 MTPA vide letter No. J-11011/355/2005-IA-II(I) dated 13<sup>th</sup> April, 2007. The proposal is for use of Fuel Mix (Petcoke along with coal in different

proportion) in existing Cement Plant (Clinkerization unit of 2.72 MTPA capacity – Line - II). Following table shows the proposed amendment:

Category	Existing	After Proposed Amendment
<b>Fuel for Cement Plant (Kiln)</b>		
Fuel	Coal	Coal : Petcoke
Proportion in mix fuel	100%	Proportion to be designed for “S” content not exceeding 7.5 % in fuel mix
Fuel Consumption (MTPA)	0.49	As per proportion (Max. = 0.264 Petcoke)

Following table shows the category of the fuel along with the details of source and mode of transportation:

S. No.	Category	Source	Agreement / MoU	Mode of Transportation
1.	Coal	SECL Korba, SECL Raigarh Imported Coal: South Africa, Indonesia etc.	SECL Under Process	Rail / Road
2.	Petcoke	Reliance, Essar, etc.; Imported Petcoke	Under Process	Rail / Road

After detailed deliberation the Committee advised PP to submit application under clause 7(ii) of EIA Notification, 2006 alongwith monitoring report from Regional Office, MoEFCC for the existing plant. The matter will be further considered once the information is submitted to the Ministry.

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

##### **45.6.1 Proposed 500 TPD clinker (Rotary Kiln) unit and 500 TPD Cement grinding (closed circuit) located at Dag 144, 145, 146, 147 & 151 of K.P. Patta No. 19, 21, 42 & 9 village-Ambher, 12th Mile, Jorabat, Mouza- Sonapur, Dist- Kamrup, (M) in Assam by M/s K. R. Associates [F. No J-11011/139/2015-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 project proponent and their Consultant made a presentation. It is a Category ‘B’ project, [3(b) Cement Plants (<1 Million tonnes/annum production capacity, All stand alone grinding units)] but due to presence of Interstate boundary and Wild life sanctuary within 10 km radius of the project site it will be treated as category A project, as per Environmental Impact Assessment (EIA) Notification dated 14<sup>th</sup> September, 2006 and its subsequent amendments.

M/s. K R Associates is planning to set up a new 500 TPD clinker (Rotary Kiln) unit and 500 TPD Cement grinding (closed circuit) at Dag No. 144, 145, 146, 147 & 151, Patta No. 19,

21, 42 & 9, under G.P.S. co-ordinate 26°05', 12.96"N and 91°52', 4930" E, Village Ambher, 12<sup>th</sup> mile, Jorabat, Mauza Sonapur, District Kamrup, Assam. The total Project Cost is Rs. 3856.24 Lakhs, including site development, building, all the plant machinery and its installation and Environment Protection measures cost. Land admeasuring 13,378 Sq. mt. of private land has been acquired for the proposed Cement Grinding Unit.

Total water requirement of the proposed project is 7 KL/day, which will be met through ground water using bore well. The estimated power requirement for the project would be 2,300 KW. Power will be sourced from Assam State Electricity Board. For the proposed cement grinding unit 100 lit/hr diesel will be required to run stand by D. G. Sets. Diesel will be sourced from the nearest petrol pump. The proposed cement grinding unit will have employment potential providing direct employment to approximately 75 full time persons.

The proponent has requested for use of already collected data for the preparation of the EIA report, the Committee agreed to the request and allowed the proponent to use the data for preparation of EIA/ EMP report.

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. P.H. shall be conducted by the Assam Pollution Control Board.

#### **45.6.2 Iron Ore Beneficiation plant of 9,00,000 TPA capacity located at Village Gidhali, Tehsil Dondi, District Balod, Chhattisgarh by M/s Godavari Power and Ispat Limited [F. No J-11011/169/2015-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 project proponent and their Consultant made a presentation. 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 Godawari Power and Ispat Limited (GPIL) is operating an Iron Ore Crushing unit of 12,00,000 TPA capacity since May, 2009 situated at Village Gidhali, Near Kusumkasa, Tehsil Dondi, District Balod, Chhattisgarh. The iron ore from captive mines of Ari Dongri Dist. Kanker and Boria Tibbu, Dist. Rajnandgaon is received by dumper / trucks to Iron Ore Crushing site at Gidhali.

It is proposed to set up a new beneficiation plant of 9,00,000 TPA for beneficiation of crushed ore of existing crushing plant and also iron ore from captive mines at Ari Dongri, Dist. Kanker, Chhattisgarh and Boria Tibbu, Dist. Rajnandgaon, Chhattisgarh. The Longitude and Latitude of the site are E 81° 05' 22.41" and N 20° 40' 18.33". The proposed Iron Ore Beneficiation plant will be established in the existing area of 19.550 ha. An area of 0.2479 ha. will be utilized for setting up the proposed plant.

The unit will consume about 2.0 MW of power. The power will be consumed from the State Electricity Board (CSPDCL). The water consumption for the existing Iron Ore Crusher is 62 KL/day. The plant will require 288 KL of water per day (make-up water) for the proposed Iron Ore Beneficiation Plant. The water will be sourced from nearby Keshla (Jhurjhura) Nalla. The sanction for withdrawal of water has been obtained for 1.0 MCM from the Water Resources Department, Chhattisgarh vide letter No. 6554/29/14/2000 dated 11/09/2012.

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. P.H. shall be conducted by the Chhattisgarh Pollution Control Board.

**45.6.3 Proposed Greenfield leather processing unit for (Raw to finished) 2500 raw skins/hides per day by M/s Nagora Leather at Khasra no. 1492/5, Village-Chawandiya, Tehsil-Malpura, District-Tonk, Rajasthan [F. No- J-11011/167/2015-IA-II(D)]**

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 project proponent and their Consultant made a presentation. The proposed project activity is listed at S.No. 4(f), Leather/skin/hide processing industry, under Category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Nagora Leather has proposed to establish a new leather processing unit (raw to finished) at khasra no. 1492/5 chawandiya village, tehsil- malpura, district- tonk, rajasthan. The Latitude of the site is 26°27'6.54" North and Longitude is 75° 27'9.37" East. The nearest city is Tonk at a distance of 46 Km from Site. The nearest highway is SH-12 (Jaipur –Bhilwara) within 3 km of site. The nearest river/stream is Mashi seasonal river, approx. 10 km from site. Nearest railway station is Jaipur which is 62 Km from Site. No eco-sensitive area such as national park/wild life sanctuary/biosphere reserves/reserve forests within 10 km radius of project area. No litigation is pending against the project.

This is a new industrial unit for processing of 2500 raw skins/hides per day. The water Requirement for the project is 93 KL/day. Other raw materials are Hydrated lime, Sodium Sulphide, Sodium Chloride, Basic Chromium Sulphate etc. the Power Requirement for the project is 80 KW (20 KVA DG Set as standby). The land requirement for the project is 19000 Sq.m. Total investment proposed for the project is Rs. 2.30 Crores. Total investment proposed for the pollution is Rs. 30 Lakhs. Total expected manpower working 30 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. P.H. shall be conducted by the Rajasthan Pollution Control Board.
- ii. Forced circulation evaporation should be installed. No solar evaporation pond is permitted at the site.
- iii. Implementation of Clean technology of CPCB should be explored.
- iv. Details for achieving Zero liquid discharge in the plant should be presented.

**45.6.4 Manufacturing Plant of Sponge Iron, Billets/Ingots, Rolling Mill Products of M/s and Power Plant (AFBC & WHRB) by M/s AKR Steels and Power Pvt Ltd. located at Survey No. 12 & 13 Village Juna Katariya, Taluka Bhachau, District Kutch, Gujarat [F. No: J-11011/165/2015-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 project proponent and their Consultant made a presentation. 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 AKR Steels & Power Pvt. Ltd. proposes to install a new project of integrated steel plant, rolling mill products and captive power plant at Survey no. 12 & 13 Village Juna Katariya, Taluka Bhachau, District Kutch, Gujarat. Following tables shows the product, installations and production capacity of the plant:

S.No	Product	Production Capacity
1	Sponge Iron	12000 MT/Month
2	Billets/Ingots	10000 MT/Month
3	Rolled Products	10000 MT/Month
4	Power Plant <ul style="list-style-type: none"> <li>• AFBC</li> <li>• WHRB</li> </ul>	12 MW <ul style="list-style-type: none"> <li>• 4 MW</li> <li>• 8 MW</li> </ul>

**Installations**

S.No	Units	Production Capacity
1	Rotary Kiln	2 x 200 TPD
2	Induction Furnace	1 x 30 TPD
4	Power Plant <ul style="list-style-type: none"> <li>• AFBC</li> <li>• WHRB</li> </ul>	12 MW <ul style="list-style-type: none"> <li>• 4 MW</li> <li>• 8 MW</li> </ul>

The company has acquired the new land of total 20.68 acres, which is a barren land. The water consumption for the proposed project is 650 KL/day, mainly for cooling boiler and drinking. Source of water is Gujarat Water Infrastructure Limited (GWIL). Electricity shall be obtained from captive power generation and Gujarat Electricity Board. Estimated project cost along with analysis in terms of economic viability of the project is 160 crores. The total employment generation due to the proposed project is 400 (Skilled & Unskilled).

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. P.H. shall be conducted by the Gujarat Pollution Control Board.

**45.6.5 Proposed expansion of Manufacturing of Mild Steel and Alloy Steel Billets & its Re-rolling, having granted capacity of 2400 MT/month by M/s Jay Bharat Metcast Pvt. Limited located at Village Morai, near GIDC Vapi, Taluk Pardi, District Valsad, Gujarat [F. No. J-11011/168/2015-IA-II(D)].**

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 project proponent and their Consultant made a presentation. The project falls under Category 'B', since the site is within 5 km from interstate boundary of union territory of Daman and DN &H, therefore the proposal is appraised at the Central level.

M/s Jay Bharat Metcast Pvt. Ltd. is metallurgical industry manufacturing mild steel & alloy steel products. The unit is located Survey No. 57/2, Village Morai, Near GIDC Vapi, Taluka Pardi, District Valsad, Gujarat. The unit has obtained consent vide order no. GPCB/CCA-VCD-1676/ID:24566/308230 dated 25/03/2015. The project will be established in the existing plant premises having an area of 22,450 m<sup>2</sup>. No additional land will be required for the proposed expansion. Following table shows the details of existing and the proposed facility:

No.	Product	Capacity, TPM		
		Existing	Proposed	Total after expansion
1	Mild Steel & Alloy Steels Billets	2400	10900	13300
2	Re-Rolling Mild steel and Alloy Steel – TMT Bars, Round and Bars, Square Bars and structural Steel	13300	0	13300

The total water required after the proposed expansion is 195 KLD. The water will be sourced from bore well (7.5 HP x 2 nos.). Existing Power requirement for the project is 4000 KVA. Proposed power requirement is 10000 KVA. 500 KVA DG set for emergency is also proposed along with the expansion. Imported Coal/steam coal will be used as a fuel at the rate of 930 MT/Month. HSD at 75 LPH. The total cost of the expansion project is 962 lakh.

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. P.H. shall be conducted by Gujarat Pollution Control Board.
- ii. Environmental impact assessment should be conducted for the complete plant (existing and the proposed)

**WEDNSDAY, 12<sup>th</sup> AUGUST, 2015**

#### **45.7 ENVIRONMENTAL CLEARANCE (EC)**

##### **45.7.1 Proposed Capacity Expansion of DI pipes Plant (1,10,000 TPA to 300, 000 TPA) of DI pipes of M/s Tata Metalliks DI Pipes Limited located at Samraipur Block, Gokulpur, Block- Kharagpur-1, Paschim Medinipur, West Bengal [J-11011/173/2007-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, Hyderabad.) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToRs) to this project were recommended during the 27<sup>th</sup> Meeting of Reconstituted Expert Appraisal Committee held during 13<sup>th</sup> – 14<sup>th</sup> November, 2014 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter No. F. No.J-11011/173/2007-IA-II(I) dated 31<sup>st</sup> December, 2014 for the preparation of EIA-EMP report. The PP submitted the final EIA report online dated 1<sup>st</sup> July, 2015. The proposed project activity is listed at S.No. 3(a) in Metallurgical industries (ferrous & non ferrous) under Category 'A' of the Schedule of EIA notification 2006.

The proposal is for enhancement of production from 1,10,000 TPA to 3,00,000 TPA. The expansion will be carried out within the existing plant premises of 40 acres located at PO-Samraipur, block-Kharagpur-I, district - Paschim Medinipur, West Bengal. The plant site is located between Latitude and Longitude- A : 22°23'10.1" N to 87° 17'10.5"E, B : 22°22'59.1"N to 87°17'13.0"E, C: 22°22'46.5"N to 87°17'06.9"E, D:22°23'0"N to 87°16'53.5"E and E :22°23'08.8"N to 87°17'01.0"E. The cost of the project will be about Rs. 380 crores.

The existing plant is located 1.0 km SE from Gokulpur Railway Station and 120 km,E from Kolkatta Airport. Nearest water body is Kasai River, at a distance 2.2 km in North direction. PF near Khejurdanga Village located at a distance 3.9 km in North, PF near Koradana village is located at distance 8.9 km in North direction, PF near Prem nagar is located at distance 9.0 km in south direction, PF near Srikrishna colony located distance at 9.8 km in South direction and PF near Gorabandh chati village located distance at 14.0 km in south direction. There are eight other industries located in 10 km radius, namely Tata Metaliks Limited, Bansal Cement Limited, Rasmi Metaliks Limited, Ramsarup Industries Limited, APS Energy Private Limited, Kalimati Steel Pvt Limited, Wellman and Mittal Foundry. The project area comes under seismic zone-III. TMDIPL proposed expansion is based on the existing technology. Making DI pipes from molten metal by using Centrifugal Casting Machine. These Pipes are annealed by Annealing Furnace by using LDO, LVFO, and BGF. Then these pipes are coated by Zinc and Bitumen/epoxy based paint. Internally pipes are coated with cement slurry. Existing storage of finished goods or materials shall be expanded to meet the increased production capacity accordingly. ETP capacity will be enhanced and treated water will be recycled. Solid waste will be disposed to authorized recyclers. Permission for 150 MGD water has been obtained from the WBIDC vide letter dated 30<sup>th</sup> May 2007.

Sr. No.	Particulars	Existing	Expansion
1	Production of DI Pipes	Processing units : Melting Casting Annealing Finishing	
2	Production	1,10,000 TPA	3,00,000 TPA
3	Land Area	40 Acres No additional land requirement	

Following table shows the raw material requirement for the project:

Raw Materials Requirement				
Sl. No.	Material	Existing TPA	Proposed TPA	Mode of Transportation
1	Hot metal	1,20,000	3,25,000	Road/Rail
2	Steel scrap / Sponge iron	12,000	38,000	Road/Railway wagons
3	Ferro silicon, calcium carbide magnesium ingot, inoculants	1720	4000	Road
4	Sand for core	5000	18,000	Road
5	Resin, hardener, catalyst, paint	300	420	Road
6	Zinc wire/Aluminum wire	1040	2000	Road
7	Sand for lining	27,500	50,000	Road
8	Portland cement	17,500	30,000	Road
9	Bitumen/Epoxy paint	400 Kl	1350 kl	Road

Total water requirement after the proposed expansion will be about 1800 m<sup>3</sup>/day, which will be met from existing bore wells (6 nos permitted by SWID) and 4 nos of new bore wells already approved by SWID. Power requirement after expansion will be met from the WBSEB grid. Total power requirement for operation will be about 12 MW to operate the induction furnaces, casting machines and other equipment. Total energy consumption will be about 350 kWh/T of pipes. The power will be received at 132 kV from WBSEB. During construction of the project, requirement of skilled/unskilled workers will be around 1000 persons. The total manpower requirement after expansion, during operation phase will be about 200. Development of greenbelt in 33% area will be included in the EIA report with identification of ground covers and plant density etc.

Public Hearing for the project was held on 08.05.2015 by WBPCB at Mahasakti Mahasangha, Satkui (near BDO office Kharagpur-I) Kharagpur, District Paschim Medinipur. The major issues raised during the public hearing *inter alia* include, priority to the local youth for employment, adequate water supply facility for local village, CSR program in consultation with the representative of the local village, improvement of infrastructure of local schools 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 and conditions for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. 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. should be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> and installing energy efficient technology.
- iii. Secondary emission should be restricted to less than 100 mg/Nm<sup>3</sup>.
- iv. Gaseous emission levels including secondary fugitive emissions from all the sources should 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 should 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 at Chennai. 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.

**45.7.2 Proposed induction furnace (2x25T) Billets and Rolling Mill for manufacture of TMT bars (90,000 TPA) located at plot no. Plot No.SPL -6, Industrial Area, Growth Centre, Phase II, Abu Road, District Sirohi, Rajasthan by M/s. Panchsheel Global Private Limited [ J-11011/149/2011-IA II (I)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s VIMTA Labs, Hyderabad.) gave a detailed presentation on the salient features. The Terms of Reference (ToRs) to this project were recommended during the 24<sup>th</sup> Meeting of Reconstituted Expert Appraisal Committee held during 19<sup>th</sup> – 20<sup>th</sup> May, 2011 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter No J-11011/149/2011-IA-II(I) dated 10/06/2011 for the preparation of EIA-EMP report.

The PP submitted the final EIA report dated 17<sup>th</sup> April, 2013. However, Ministry vide letter dated 24<sup>th</sup> June, 2013 requested the proponent to submit additional information regarding an authenticated map of the study area by the Chief Wildlife Warden, Government of Rajasthan showing the distance between the boundary of plant site and the Sanctuaries [Balaram Ambaji Wildlife Sanctuary and Jessore Sloth Bear Sanctuary] along with their recommendations and comments, Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden, Government of Rajasthan for conservation of Schedule I fauna, if any exists in the study area, a copy of the application submitted to the Standing Committee for National Board for Wildlife (SCNBWL) seeking clearance under the Wildlife Protection Act, 1972 and the gazette notification of the State Government of Rajasthan regarding the notified industrial area in respect of the project area.

PP vide letter dated 16<sup>th</sup> September, 2013 submitted the requisite information. However, vide letter dated 6<sup>th</sup> February, 2014 it was again requested by the Ministry to revalidate the EIA/EMP report through QCI accredited consultant and conduct the Public Hearing for the project.

PP vide letter dated 5<sup>th</sup> June, 2015 and 28<sup>th</sup> July, 2015 submitted that since the project is located in the Notified Industrial Area, PH is exempted according the OM dated 10<sup>th</sup> December, 2014. PP also submitted the Gazette Notification for the RIICO industrial area during the meeting. As far as accreditation of the consultant is concerned the Committee is of the view that since the project is of 'B' category due to the presence of Inter-State boundary at 0.8 Km west from the site boundary and Balaram Ambaji Wildlife Sanctuary is 2.7 km towards SW to SE and Jessore Sloth Bear Sanctuary 9.5 Km towards NW, the report prepared by a 'B' category consultant for the respective sector is acceptable.

The project is a Greenfield steel industry proposing to manufacture M.S. Billets, TMT Bars and Angles having production capacity of 90,000 TPA, coming up at SPL-6, RIICO Industrial Area, Growth Centre, Phase-II, Abu Road, District-Sirohi, Rajasthan. The nearest highway is NH-14, at 0.49 km towards WNW connecting Beawar in Rajasthan with Radhanpur in Gujarat. The nearest railway station is Shri Amirgarh Railway station (approx 5.88 km), nearest air port is Dabok, Udaipur (122.6 km.). The nearest habitation is Mawal, at 1.73 km. The Suket Nadi is at 2.22 km, Sewaran River is at 3.75, Banas Nadi is at 1.73 km, Teliya Nadi at 8.35 km, Kaleri Nadi at 3.8 km, Gomti Nadi at 8.3 km. The Balaram Ambaji Wildlife Sanctuary falls within the buffer zone of the project (2.7 km towards SW to SE) as per Forest and Environment Department Notification dated 7<sup>th</sup> Aug, 1989, published in the Gujarat Government gazette, Part IV- A. The Jessore Sloth Bear Sanctuary falls within buffer zone of the project (9.5 km towards NW). There is fairly dense mixed jungle, which is about 4.93 km towards SE from the site. The Keleta Hill is about 5.71 km towards SW, Rewda Hill, which is about 3.33 km towards NE. The open Mixed Jungle is about 3.3 km towards SE and 5.28 km towards SE from the site. No Rehabilitation/Resettlement required for the project. No archaeological monument and defence installation exist within study area. The estimated cost of the proposed project is Rs. 37.41 crores. About Rs. 65 lakhs kept for the environment protection program.

The total plot area acquired by the unit is 43,123.18 sq.m. The proposed project will have a connected load of 10 MW, which will be met through RSEB. RSEB would set up substation of 132/33 KV and the company will install its own 132 KV switchyard and 132 KV single circuit transmission line. Four D.G. sets with cumulative capacity of 1000 kVA (250 kVA each) will be installed for power back up.

Fresh water demand is 58 KLD. One time water demand will be 270 KLD (recycled water – 212 KLD), 25 KLD water is required for domestic purposes. Water demand will be met partly from ground water and partly from RIICO water supply. Industrial waste water will be treated in the well designed effluent treatment plant and will be recycled. Domestic wastewater of 18 KLD will be treated in STP and used for plantation and other purposes.

The baseline study for ambient air quality, surface, ground water quality, noise, ecology and soil quality was carried out during October – November, 2011. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO at seven locations, including the project site with the observed values ranging between 42.8 - 69.3 µg/m<sup>3</sup>, 22.6 - 38.1 µg/m<sup>3</sup>, 5.1 - 7.0 µg/m<sup>3</sup>, 12.1 - 18.9 µg/m<sup>3</sup> and 108 - 189 µg/m<sup>3</sup> respectively.

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

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Prior clearance from the Standing Committee of the National Board for Wildlife should be obtained due to location of the plant in the buffer zone of Balaram Ambaji Wildlife Sanctuary and Jessore Sloth Bear Sanctuary, before commencing any expansion 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 implies that wildlife clearance shall be granted to the project and that your proposal for wildlife clearance shall be considered by the competent authorities on its merit and decision taken. 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 Ministry of Environment, Forest and Climate Change shall not be responsible in this regard, in any manner.

- iii. Measures shall be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50mg/Nm<sup>3</sup> and installing energy efficient technologies in the Plant.
- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices. 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. Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
- vii. Rainwater harvesting scheme shall be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains shall be de-silted and regular supervision of the areas shall be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement.
- viii. Greenbelt of approximately 15-20 meter width consisting of a 3-tier of trees consisting of species with thick canopy should be developed all along the periphery of the plant, roads, vacant spaces, transfer points, etc as part of 33% of total plant area.
- ix. All the effluents shall be treated and reused for dust suppression/green belt development. No effluent should be discharged and 'zero' discharge should be adopted.
- x. Hazardous materials, if any, required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the Environment (Protection) Rules.
- xi. Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.
- xii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and implemented.
- xiii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xiv. All the commitments made to the public during public hearing/public consultation should be satisfactorily implemented and adequate budget provision should be made accordingly.

- xv. All the permanent workers should be covered under ESI Scheme. The company should have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.
- xvi. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should 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.
- xvii. Provision should 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.

**45.7.3 Proposed Mill Development Plan II (MDP II) to increase production of paper, ECF Bleached wood and Bagasse pulp and Captive co-generation power located at Tiruchengudu, Namakkal, Tamil Nadu by M/s Seshasayee Paper and boards Ltd - [J-11011/194/2013-IA.II(D)].**

The matter was earlier considered in the 41<sup>st</sup> meeting of the Expert Appraisal Committee held on 1<sup>st</sup> – 2<sup>nd</sup> June, 2015, when the Committee desired additional information on various issues. The Project Proponent vide letter dated 2<sup>nd</sup> July, 2015 submitted the requisite information. The Project Proponent made presentation on the additional issues and informed that System is already in place to reduce COD in the Pulp Mill and Chemical Recovery Complex. Further, it was informed that the extended delignification system known as “Rapid Displacement Heating Technology” is in place to reduce the lignin in the wood pulp coming out of the Digester Section. A well designed Oxygen delignification system to further reduce the lignin entering the Bleach Plant. PP mentioned that the plant is Elemental Chlorine free Plant. Bleaching is done by using Chlorine Dioxide and Hydrogen Peroxide.

PP further mentioned that in the Chemical Recovery Complex, they have installed an efficient Evaporation Plant, a Chemical Recovery Boiler, a Reausticizing Plant with White Liquor CD Filter and a Lime Mud CD Filter along with an efficient Lime Kiln.

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 and conditions for environmental protection:

- i. The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The project authority should install multi cyclones, wet scrubbers with the boilers to achieve the particulate emission below 50 mg/Nm<sup>3</sup>. The emissions from chemical recovery section should be controlled through primary and secondary venturi scrubbers.

- iii. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit should be shut down and should not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. The industry should ensure the compliance of the standards for discharge of the treated effluent from the unit as stipulated under the EPA rules or SPCB. Adequate steps including use of modern RO/UF based technologies should be used to increase recycling and reduce water consumption.
- v. Regular monitoring of ground water quality should be carried out in and around the project site by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] should be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater quality is affected due to the project activity, necessary corrective measures should be carried out.
- vi. The company should submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.
- vii. The project authority should dispose of hazardous waste as per the provision of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- viii. The company should develop green belt in 33% of the total land as per the CPCB guidelines to mitigate the effect of fugitive emissions.
- ix. Pre-placement medical examination and periodical medical examination of the workers engaged in the project should be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x. The company should make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- xi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector should be strictly implemented.
- xii. All the commitments made to the public during the Public Hearing/Public Consultation meeting should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office.

- xiii. Provision should be made for the housing of construction labour with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- xiv. At least 5% of the total cost of the project shall be earmarked towards Enterprise Social Commitment (ESC) based on locals' needs and the activity-wise details and village-wise details along with time-schedule for implementation shall be prepared in consultation with village panchayats and district administration and submitted to the Ministry's Regional Office. Implementation of such programme shall be ensured accordingly in a time-bound manner.

**45.7.4 Expansion of Integrated Steel Plant (1.4 MTPA) of M/s Kalyani Steels Ltd., located at Koppal, Tehsil Koppal, District Koppal, Karnataka [J-11011/172/2007-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 & Company (P) ltd.) gave a detailed presentation on the salient features. The Terms of Reference (ToRs) to this project were recommended during the 23<sup>rd</sup> Meeting of Reconstituted Expert Appraisal Committee held on 18<sup>th</sup> – 19<sup>th</sup> September, 2014 for the preparation of EIA-EMP report.

However, while examining the proposal, it was observed by the Ministry that separate clearances were obtained for Blast Furnace Gas based Power Plant from 8 MW to 11 MW, Sinter Plant of 1 MTPA capacity and Coke Oven of capacity 2 x 0.12 MTPA and 2 x 9 MW Waste Heat Recovery Plant from SEIAA, Karnataka. Ministry vide letter dated 17.11.2014 sought clarification from the state government regarding separate clearances obtained from SEIAA, Karnataka. SEIAA, Karnataka vide letter dated 21<sup>st</sup> May, 2015 mentioned that the proposal have been considered by the authority independently as per provision under EIA Notification, 2006 as listed at Sl. No 1(d), 4(b) and 3(a). However, PP vide letter dated 25.05.2015 informed that the projects have not been implemented, only 2 x 9 MW Waste Heat Recovery Plant is incorporated in the proposed expansion project. It was decided by the Ministry that ToRs should be issued to the PP and regarding amendment proposal of the PP (Expansion of steel plant (Rolling Mill Capacity: from 300,000 TPA to 500,000 TPA) an application be moved by the proponent separately. Finally the ToRs were awarded by Ministry of Environment, Forest and Climate Change vide letter No J-11011/172/2007-IA-II(I) dated 26<sup>th</sup> June, 2015 for the preparation of EIA-EMP report.

The Project Proponent submitted final EIA/EMP report online vide application dated 26<sup>th</sup> June, 2015. It was mentioned that based on the ToRs prescribed during the 23<sup>rd</sup> Meeting of Reconstituted Expert Appraisal Committee held on 18<sup>th</sup> – 19<sup>th</sup> September, 2014 and uploaded on the website of the Ministry, the draft EIA/EMP report was prepared and submitted to the Karnataka Pollution Control Board for conduct of Public Hearing. Subsequently, a Public Hearing was held on 28<sup>th</sup> March, 2015.

M/s Kalyani Steels Ltd has proposed expansion of their integrated iron and steel plant for production of 1.4 MTPA carbon and alloy steel along with stainless steel in the existing complex at Koppal, Karnataka. The project site lies between 15°19'25"N - 15°20'41" N latitude and 76°14'48" E - 76°15'43" E longitude. It is proposed to expand the existing facility to 1.4 MTPA Crude steel in the integrated steel plant. The total project cost is Rs 5531 Cr. The total budget allocated towards peripheral social development and CSR activities is estimated to Rs 140 crores i.e. (approx. 2.5% of the total project cost) for the proposed expansion project. The process routes considered are as follows:

- i) Production of hot metal through Blast Furnace followed by Basic Oxygen Furnace (BOF) for conversion of Hot metal to Liquid Steel (BF → BOF route), followed by continuous casting, ingot casting and rolling of bars and wire rods
- ii) Production of hot metal through Blast Furnace & Hot Direct Reduced Iron (HDRI) through Direct Reduction plant (DR plant) followed by Basic Oxygen Furnace (BOF) & Electric Arc Furnace (EAF) for conversion of both hot metal and HDRI to Liquid Steel (BF + DR → BOF + EAF), followed by continuous casting, ingot casting and rolling of bars and wire rods

The principal primary raw materials & additives required for operation of the plant would be iron ore, coking coal, PCI coal and anthracite coal, limestone, dolomite, quartzite, ferro-alloys, oxygen, etc,. The raw materials consumption rate would be about 3.48 T per Ton of crude steel and these would be either sourced locally or imported. List of Existing & Proposed Production Facilities is mentioned in the following table:

S. No	Production Unit	Existing Configuration	Existing Production capacities	Existing + Proposed Configuration	Existing + Proposed Production capacities
1	Coke Ovens and By-products Recovery Plant (COBP)	-	-	2 x 45 ovens	0.6 MTPA Gross Coke
2	Sinter Plant	1 x 33 sq m	0.5 MTPA	1 x 33 sq m + 1 x 130 sq m	1.79 MTPA
	Pellet Plant			1 x 1.2 MTPA	1.2 MTPA
3	Blast Furnace	2 x 250 cu m + 1 x 350 cu m	0.7 MTPA	x 750 cu m + x 250 cu m + 1 x 350 cu m	1.64 MTPA Hot Metal
	DR Plant			1 x 0.5 MTPA	0.4 MTPA
4	Pig Casting Machine		40 tph		40 tph 180 tph
5	Lime/dolo Calcining Plant	-	-	2 x 300 TPD	0.17 MTPA Calcined Lime 0.05 MTPA Calcined Dolo
6	Steel Melt Shop	-	-	BOF - 2 x 60 T	1.46 MTPA Liquid

				LF-3x 60 T	Steel
				IF - 1 x 50 T	
				VD/RH - 2 x 60	
				EAF - 1 x 60 T	
				AOD - 1 x 60 T	
7	Casting units	-	-	Continuous Caster Billet cum bloom cum round caster Billet cum bloom caster Bloom cum round caster Ingot Casting	1.4 MTPA Crude Steel
8	Rolling Mill	Bar & Wire Rod Mill		Bar 8s Wire Rod Mill	0.49 MTPA Bars, flats & Wire Rods
		Heavy bar Mill		Heavy bar Mill	0.31 MTPA Rounds & RCS
		Bar & Rod Mill	0.3 MTPA	Bar & Rod Mill (augmented)	0.34 MTPA Bars & Rods
		Annealing Furnace Tempering Furnace		Annealing Furnace Tempering Furnace	60 TPH 50 TPH
9	Air Separation Plant	-	-		600 TPD (BOO basis)
10	Power Plant	BF gas based	8 MW	BF Gas based - 8	8 MW
				MW CDQ - 6 MW	5.4 MW
				TRT - 3.65 MW	3.28 MW

Total water requirement for the project is envisaged as 3.14 MGD (595 cum/hr), which would be drawn from Tungabhadra dam. KSL already has a water withdrawal permission of 4.8 MGD (909 cum/hr), of which about 292 cum/hr water is required for the existing plant. Balance 617 cum/hr of make-up water would be available for the proposed expansion from the existing system against a requirement of 595 cum/hr. Hence, no additional water is envisaged for the proposed expansion. The Project Proponent has mentioned that no ground water would be extracted.

Total power requirement for the project is envisaged as 128 MW, which would be met through in-plant generation of about 8.68 MW (5.4 MW from CDQ and 3.28 MW from TRT) and drawal of power from KPTCL grid of about 120 MW. In-principle approval from SHLCC for the same is in place.

The total wastewater generated, including Sewage Treatment Plant (STP) and effluent would be treated in a Common Effluent Treated Plant (CETP) and stored in Guard Pond for subsequent uses.

Treated wastewater/effluent would either get reused in the cooling circuit or stored in Guard Pond for other uses such as greenbelt/landscape maintenance. With regard to Zero Liquid Discharge, the committee was of the view that in such a large project it is practically not possible to recycle/reuse the entire treated effluent. The Committee however, suggested to use the treated effluent for agricultural purpose. The Committee further mentioned that the treated effluent in no ways should be discharged in to water bodies.

About 0.8 MTPA of various solid wastes would be generated, of which about 0.1 MTPA need to be kept for storage and use after further processing. The generation of hazardous wastes would be about 12 TPD, consisting of mainly coal tar sludge & BOD sludge. Both would be recycled in coke making by mixing with coal charge.

Total Point source Gaseous Emission from the 47 (Nos.) stacks of proposed expansion would be about 191.4 kg/hr of particulate matter, 137.7 kg/hr of SO<sub>2</sub> and 288.7 kg/hr of NO<sub>x</sub>, after installation of adequate Air Pollution Control devices. The vehicular emissions have also been accounted for. 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 ESPs, Bag Filters, Scrubbers as per process requirements, technological alterations, adjustment of raw material quality, excess air control, regenerative burners, etc. PP mentioned that the CO<sub>2</sub> will be separated by PSA.

There are no eco-sensitive zones like National Parks, Wild Life Sanctuaries, Elephant/Tiger Reserve, Migratory routes, Reserve Forest, Protected Forest within the study area. There are no Schedule- I fauna in the study area as per Wildlife (Protection) Act, 1972.

The Public Hearing (PH) was held on 20.03.2015 at the project site. In the PH local population affirmed that KSL has promoted employment and brought in overall development in the Project Influence Area. Villagers opined that with expansion, special focus should be laid on supply of drinking water, further promotion of local employment and dust preventive measures (apprehended during expansion).

On the issue of the Public Hearing, the Project Proponent was asked how they have gone ahead with the Public Hearing when the ToRs to the project were prescribed by the Ministry only on 26<sup>th</sup> June, 2015. The Project Proponent has mentioned that the draft EIA Report was prepared by them based on the minutes of the meeting of the Expert Appraisal Committee held on 18<sup>th</sup> – 19<sup>th</sup> September, 2014 and uploaded on the website of the Ministry. The draft EIA/EMP report so prepared was submitted to the Karnataka Pollution Control Board for conduct of Public Hearing. Accordingly, Karnataka Pollution Control Board conducted Public Hearing on 28<sup>th</sup> March, 2015. The Committee accepted the EIA-EMP report.

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 and conditions for environmental protection:

- i. The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.

- ii. The PP should ensure treatment of effluent particularly from Blast Furnace (BF) and Coke Oven plant. The plant should be designed to meet the cyanide standards notified by MoEFCC under E(P) Rules, 1986.
- iii. Coke Dry Quenching should be practiced.
- iv. In-plant control measures and dust suppression system should be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system should be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters should be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system should be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- v. Greenbelt of approximately 15-20 meter width consisting of a 3-tier of trees consisting of species with thick canopy should be developed all along the periphery of the plant, roads, vacant spaces, transfer points, etc as part of 33% of total plant area.
- vi. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head should be created and the annual capital and revenue expenditure on various activities of the Plan should be submitted as part of the Compliance Report to RO, at Bhopal. The details of the CSR Plan should also be uploaded on the company website and should also be provided in the Annual Report of the company.
- vii. Hot gases from the DRI kiln should be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in Waste Heat Recovery Boiler (WHRB). The gas then should be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP should be installed to control the particulate emissions from the WHRB.
- viii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- ix. All the blast furnace (BF) slag should be granulated and provided to cement manufacturers for further utilization. Flue dust from pellet plant, sinter plant, DRI and SMS and sludge from BF shall be re-used in sinter plant. Coke breeze from coke oven plant should be used in sinter and pellet plant. SMS Slag should be given for metal

recovery and properly utilized. All the other solid waste including broken refractory mass should be properly disposed off in environment-friendly manner. The details should be submitted along with 6 monthly compliance report.

- x. Coal and coke fines should be recycled and reused in the process. The breeze coke and dust from the air pollution control system should be reused in sinter plant. The waste oil should be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.
- xi. No untreated effluent should be reused for any process.
- xii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices. Gaseous emission levels including secondary fugitive emissions from all the sources should 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 should be followed.
- xiii. Dust suppression system and bag filters should be installed to control the fugitive dust emissions at conveyor and transfer points, product handling loading and unloading points.
- xiv. Rainwater harvesting scheme should be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains should be de-silted and regular supervision of the areas should be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.
- xv. All the effluents should be treated and reused for dust suppression/green belt development/floor washing etc. No effluent should be discharged in to the water bodies and the left over treated effluent should be used for agriculture purpose.
- xvi. Hazardous materials required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the E(P) Rules.
- xvii. Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.
- xviii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and implemented.
- xix. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.

- xx. All the commitments made to the public during public hearing/public consultation should be satisfactorily implemented and adequate budget provision should be made accordingly.
- xxi. All the permanent workers should be covered under ESI Scheme or the company should have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company. Pre-placement medical examination and periodical medical examination of the workers engaged in the project should be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly
- xxii. All SMS slag should be temporarily stored and the area should be monitored regularly and report should be submitted to the regional office.
- xxiii. No groundwater should be extracted during construction and operation of the plant.
- xxiv. Provision should 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.

#### **45.8 FURTHER CONSIDERATION**

##### **45.8.1 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) (J-11011/466/2010-IA.II(I), Bilaspur, Chhattisgarh (EC)**

The matter was earlier considered in the 41<sup>st</sup> EAC meeting held on 1<sup>st</sup> – 2<sup>nd</sup> June, 2015. The Committee after detailed deliberation requested PP to submit the layout map of the 77 acres area, which is acquired by them along with the facilities proposed on it. PP vide letter dated 3<sup>rd</sup> July, 2015 submitted the revised layout map as advised by the Committee.

The Committee noted that the proposal of PP 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.

**45.8.2 Semiconductor Wafer Fabrication (FAB) Facility with an installed capacity of 40,000 Wafer Starts/Month (in two Phases) with 80 MW Gas Based Captive Power Plant located at Jaypee Greens, Sector 24, Yamuna Expressway Industrial Development Authority (YEIDA) Area by M/s Jaiprakash Associates Ltd. [J-11011/160/2015-IA-II(I)].**

The matter was earlier considered during the 43<sup>rd</sup> meeting of Expert Appraisal Committee held on 2<sup>nd</sup> – 3<sup>rd</sup> July, 2015. The Committee after detailed deliberation decided that a sub-committee should visit Semi-Conductor Laboratory, Department of Space, Government of India at Chandigarh, which is having a similar facility with different product configuration. The ToRs for the above proposal would be provided once the sub-committee visit the plant and provide its comments.

The Sub-Committee comprising of Shri R. K. Garg, Vice-Chairman, EAC, Dr. B. Sengupta, Member, EAC and Shri A.D. Raju, Scientist 'D', MoEFCC visited the Semi-Conductor Laboratory, Department of Space, Government of India at Chandigarh on 10<sup>th</sup> July, 2015 and provided its comments. The Committee also advised Ministry to invite a representative from M/s Semi-Conductor Laboratory, Chandigarh to provide their inputs during the meeting of the project. Dr. Vikas Trikha from M/s Semiconductor Laboratory attended the meeting of the Expert Committee. The Project Proponent and their consultant made a presentation. 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**.

- i. P.H. should be conducted by the U.P. Pollution Control Board.
- ii. The Project Proponent while considering the **raw water requirements** for the project should incorporate the following:
  - a) Treatment/disposal/reuse plan for drain/effluent from CPP, unless the entire make-up of 1160 m<sup>3</sup>/day of water pertains to the evaporation losses.
  - b) Scheme for the treatment of effluent from Wet-Scrubbers (proposed for Acid / Base exhaust systems) and its drain/blow-down to a local waste treatment plant and recycling should be submitted.
  - c) Plan for achieving quality specifications (as per the permissible limits) for 700 m<sup>3</sup>/h final drain/discharge. It is noted that this stream may be contaminated with high TDS, especially if TDS level of raw water (6700 m<sup>3</sup>/h) is high.

Arrangements for adequate storage and monitoring before discharge should be provided.

- iii. Specific plan for on-line monitoring (Fluoride, TDS, pH etc.) of the treated effluent should be submitted.
- iv. Specific plan for on-line monitoring of Solvent exhaust (for VOC) should be submitted.
- v. Specific plan for on-line monitoring (Fluoride, Acid mist etc.) for acid exhaust should be submitted.
- vi. Plan for Point of Use (POU) exhaust/air abatement systems (viz. thermal oxidation/wet scrubber), especially for processes using Arsine ( $\text{AsH}_3$ ), Phosphine ( $\text{PH}_3$ ), Diborane ( $\text{B}_2\text{H}_6$ ), Nitrogen Trifluoride ( $\text{NF}_3$ ) etc. and Ammonium hydroxide baths /bulk handling of ammonium hydroxide etc., if any, should be submitted.
- vii. Detailed list and estimated quantities of all the items (covered under hazardous waste management & handling rules), which may be disposed-of should be submitted.
- viii. Details pertaining to proposed holding capacities, collection & final disposal methodology etc. for hazardous waste, viz. Dry sludge from local waste treatment plant, Solvents, Photo-resist etc. should be submitted.
- ix. Detailed list of items along with estimated quantities to be disposed-of regularly, as solid waste viz. used/contaminated gloves/mops, empty drums /cans of hazardous chemicals, test/processed Wafers, etc. should be submitted.
- x. Proposed disposal methodology to be adopted for solid waste shall also be mentioned. (viz. local incineration / disposal after de-contamination etc.).
- xi. Plan to contain ammonia ( $\text{NH}_3$ ) fumes.
- xii. MoU with buyers for disposal of left over hazardous chemicals in the container/cylinder. If not, plan for empty cylinder management.
- xiii. Disaster Management Plan.
- xiv. Plan for disposal of Mercury.
- xv. The Project Proponent should explore the possibility of setting up of incinerator and provide details thereof.

**45.8.3 Expansion of integrated steel plant from 1.5 MTPA to 3.0 MTPA along with CPP from 2X50 MW to 3X50 MW located at Village Satarda, Taluka Sawantwadi, District Sindudurg in Maharashtra by M/s Shree Uttam Steel and Power Limited- EC- [F. No. J-11011/467/2010-IA-II (I)].**

The proposal was earlier considered in the 35<sup>th</sup> meeting of the Expert Appraisal Committee held on 26<sup>th</sup> – 27<sup>th</sup> March 2015, when the Committee has sought additional information on various issues for further consideration of the proposal.

The Project Proponent vide letter dated 1<sup>st</sup> July, 2015 submitted the requisite information. The Project Proponent and their consultant made presentation on the additional information. With regard to Zero Liquid Discharge, the committee was of the view that in such a large project it is practically not possible to recycle/reuse the entire treated effluent. The Committee however, suggested to use the treated effluent for agricultural purpose. The Committee further mentioned that the treated effluent in no ways should be discharged in to water bodies.

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 and conditions for environmental protection:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Continuous ambient air quality monitoring and online monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. should be provided.
- iii. In-plant control measures and dust suppression system should be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system should be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters should be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system should be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- iv. The Project Proponent should comply with the MOEFCC Standards issued vide GSR 277 (E) dated 31.03.2012 regarding Coke Oven and Integrated Iron and Steel Plant.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources should 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 should be followed.
- vi. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- vii. All the blast furnace (BF) slag should be granulated and provided to cement manufacturers for further utilization. Flue dust from pellet plant, sinter plant, SMS and sludge from BF should be re-used in sinter plant. Coke breeze from coke oven plant should be used in sinter and pellet plant. SMS Slag should be given for metal recovery and properly utilized. All the other solid waste including broken refractory mass should be properly disposed off in environment-friendly manner.
- viii. Coal and coke fines should be recycled and reused in the process. The breeze coke and dust from the air pollution control system should be reused in sinter plant. The waste oil should be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.
- ix. Green belt should be developed in 33 % of plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.

- x. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants and Coke Oven Plants should be implemented.
- xi. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.
- x. Provision should be made for the housing of construction labour 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
- xi. The project proponent should adhere to new coke oven standards notified by MoEFCC.
- xii. Dry coke quenching with stand by wet quenching should be followed
- xiii. No untreated effluent should be reused for any process.
- xiv. Rainwater harvesting scheme should be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains should be desilted and regular supervision of the areas should be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.
- xxv. All the effluents should be treated and reused for dust suppression/green belt development/floor washing etc. No effluent should be discharged in to the water bodies and the left over treated effluent should be used for agriculture purpose.
- xv. Hazardous materials required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the E(P) Rules.
- xvi. Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.
- xvii. All the permanent workers should be covered under ESI Scheme. The company should have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up with medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.

#### **45.9 ANY OTHER ITEM**

**45.9.1 Integrated 36000 TPA High Titanium Slag, 20000 TPA Pig Iron and 30000 TPA Titanium Dioxide Pigment Plant by M/s Saraf Agencies Pvt. Ltd. located in SEZ, Chhatrapur, District Ganjam, Odisha [F. No. J-11011/658/2007-IA II (I)].**

The ToRs for the project were prescribed by the Ministry vide letter F. No. J-11011/658/2007-IA II (I) dated 7<sup>th</sup> July, 2015 with conduct of Public Hearing. The proposal is for exemption of Public Consultation Process.

The Project Proponent vide letter dated 7<sup>th</sup> August, 2015 informed that Public Hearing for the said project was conducted by OPCB on 30.5.2008 at Chamakhard for their original project comprising 1,08,000 TPA Titanium Slag, 69,000 TPA Pig Iron, 40,000 TPA Pigment, 10,000 TPA Titanium Sponge. PP mentioned that issues raised were considered by PP based on that Environmental Clearance was accorded to them on 16<sup>th</sup> October, 2008.

It has now been proposed to put up a plant in Phase-I for production of 36,000 TPA Slag, 20,000 TPA Pig Iron & 30,000 TPA TiO<sub>2</sub> Pigment. The only change has been the source i.e. earlier the source of technology was Russian, now, it is China.

The Project Proponent and their consultant made a presentation. The Committee after detailed deliberation recommended for exemption of Public Hearing since the Public Hearing for the large scope of the project was conducted in 2008 and the project was accorded Environment Clearance.

**45.9.2 Proposed modification cum expansion of (1X600 m<sup>3</sup>) Blast Furnace and 1X110 m<sup>2</sup> Sinter Plant) of 1.6 MTPY Stainless Steel Plant of M/s Jindal Steel Ltd located at Kalinganagar Industrial Complex, Jajpur District, Odisha [F. No. J-11011/281/2007-IA II (I)].**

The ToRs for the project were prescribed by the Ministry vide letter F. No. J-11011/281/2007-IA II (I) dated 12<sup>th</sup> June, 2015 with conduct of Public Hearing. The proposal is for exemption of Public Consultation Process.

The Project Proponent mentioned that the proposal of 1.6 MTPA stainless steel plant of M/s Jindal Steel Ltd. was granted Environment Clearance by the Ministry on 1<sup>st</sup> November, 2007. The Public Hearing for the complete project including the component of blast furnace of 1x1600 m<sup>3</sup> capacity and sinter plant of 1x180 m<sup>3</sup> capacity was held on 30<sup>th</sup> June, 2006. However, certain components were not implemented within the validity of EC.

The Project Proponent and their consultant made a presentation. It was mentioned that the project will be implemented on the land within existing Plant Premises and there will be no requirement of additional land, no R&R required. The Water, Power and other utilities are also available within Premises. PP further mentioned that the earlier EC was accorded for the capacity of blast furnace of 1x1600 m<sup>3</sup> capacity and Sinter plant of 1x180 m<sup>3</sup>, however, now the capacities are also reduced to 1 x600 m<sup>3</sup> of blast furnace and 1 x110 m<sup>2</sup> of sinter plant.

The Committee noted that the request for exemption of public hearing was not perused by the PP while presenting the case for obtaining the ToRs. Therefore, the ToRs were recommended

with conduct of Public Hearing. Now looking into the above justification provided by the PP and also reducing the scope of the project, the Committee after detailed deliberation recommended the proposal for exemption of Public Hearing.

**45.9.3 Expansion of Cement Plant (clinker – 4.06 MTPA to 5.30 MTPA, Cement 6.10 MTPA to 9MTPA, Power (35 to 52.5MW) of M/s Mangalam Cement Ltd. located at village Morak, Tehsil Ramganj Mandi, Dist.Kota, Raj –Amendment in ToRs [J-11011/30/2007-IA.II(I)]**

The ToR for the above proposal for increase of clinker from 4.06 to 5.3 MTPA and increase of cement from 6.10 to 9.00 MTPA was accorded by the Ministry vide Letter no J-11011/30/2007-IA II(I)(Pt) dated 31<sup>st</sup> December, 2014. The TORs were issued with a note that “a letter has to be provided by MCL that the existing CPP will not be expended to 52.5 MW and power to tune of 13.5 MW will be sourced from existing windmill and 3 MW solar power will be installed separately”. The proposal is now for inclusion of coal based CPP of 17.5 MW capacity.

The Project Proponent and their consultant made a presentation. It was mentioned that the quality of the cement depends on availability of stable and continuous power. Erratic and unreliable power with variations in voltage and frequency will result in frequent tripping of process system resulting in upset conditions thereby affecting the quality of Cement. Considering the load conditions required for the process, operating the cement plant on wind power and solar power would be difficult as both are uncertain and unpredictable and cannot provide required constant power supply. Accordingly, requested for amendment in TOR including 17.5 MW coal based power plant in expansion proposal.

The Committee after detailed deliberation recommended for amendment of ToRs for including 17.5 MW coal based power plant in expansion proposal

**45.9.4 Establishment of a Mini Integrated Steel Plant of M/s Raipur Power and Steel Ltd. located at Plot No. 75 & 76 (P), Borai Industrial Area, village Borai, Tehsil and Dist. Durg, Chhattisgarh.**

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 for consideration.

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

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 for consideration.

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

**45.10.1 Increase of Clinker Production from 1.6 MTPA to 2.60 MTPA (By Installation of New Line) Cement from 0.9 MTPA to 2.0 MTPA by M/s Nagarjuna Cement**

**Plant (NCL) located at Mattapalli village, Mattampalli mandal of Nalgonda District., Telangana [J-11011/576/2008-IA.II(I)-Pt].**

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.

NCL Industries Ltd. (NCL), is operating a Cement Plant with a Clinker production capacity of 1.6 Million Tonnes Per Annum(MTPA) at Mattapalli village, Mattampalli mandal of Nalgonda District, Telangana. NCL received Environmental Clearance vide MOEF letter no. J-11011/576/2008-IA.II(I) dated 15<sup>th</sup> December, 2009.

NCL now proposes to increase clinker production capacity from 1.60 to 2.60 MTPA and cement production from 0.9 to 2.00 MTPA by installing a new unit. With increase of clinker production capacity, the limestone requirement would increase from 2.55 MTPA to 3.9 MTPA. NCL proposes to meet the above additional limestone requirement from three captive limestone mining leases. The mining leases extends over an area of 541.88 acres, in Mattapalli, Sultanpur thanda and Gundlapalli villages in Mattampalli Mandal, Nalgonda Dist. Telangana. NCL complex is located in an area of 48.12 ha. There is no wildlife sanctuary, national park, eco-sensitive area within the 10 km radius of the project site.

Upcoming Railway line by South Central Railways (SCR) is under construction connecting Mellacheruve & Janpahad. NCL has got in-principle approval from SCR for own railway siding. This railway line will help in transporting cement from the cement plant to the market and obtaining raw materials like coal, gypsum and other additives, etc.

The peak power consumption in the NCL Cement plant complex including mine is 18 MW. Total power requirement for the NCL cement plant complex is met from Grid. Additional power required is about 12 MW. The present water requirement for the plant is 670 m<sup>3</sup>/day and is sourced from Krishna river. Additional water requirement for proposed Unit is 230 m<sup>3</sup>/day and will be met from Krishna river. It is proposed that 50 additional employees will be required. Total capital Investment Cost is Rs. 200 crores.

PP further requested for use of data collected for the mining project for which ToR was granted by SEIAA, AP. The data was collected for the month of April to June, 2015. The committee is of the opinion that since the proposed plant is at about 0.5 Km from the mine area, the data collected for the mining project can be utilized for the cement project. However, committee also advised the PP to produce air and water monitoring data for 1 year for the existing cement plant.

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. P.H. shall be conducted by the Telangana Pollution Control Board.

**45.10.2 Manufacturing of Ingots/Billets (60000 TPA) located in RIICO Industrial Area, Bhiwadi, Alwar, Rajasthan, by M/s Sri Balaji Forging Pvt. Ltd [J-11011/138/2015-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 expansion unit is categorized under category 'B' of the EIA Notification, 2006 and subsequent amendment, however, the project/activity falls under "A" Category as the Inter-state boundary (Haryana and Rajasthan) is at 2.12 km. towards NE from the project site. The proposed expansion project is coming up in the notified RIICO Industrial Area.

M/s Sri Balaji Forgings Pvt. Ltd has proposed for expansion of manufacture Ingots/Billets, from 26,000 TPA to 60,000 TPA within the existing plant situated at E-908, RIICO Industrial Area, Bhiwadi, Alwar, Rajasthan. The nearest highway is NH-71 B, at 1.47 km towards NE connecting Rewari to Palwal, both in the state of Haryana. The nearest railway station is Rewari Junction (24.61km approx), nearest airport is Delhi (73.66 km). The nearest city, town & habitation is Bhiwadi (< 2.5 km). The Rangla reserve forest is 2.83 km, Chaupanki PF, Khori Kalan PF and Godhan PF are 2.83 (NNE), 7.55 km (SSE) & 2.06 km (SW) respectively. The Indauri Nala is 5.47 km. No Rehabilitation/Resettlement required for the project. No defence installation within study area. After expansion total employment generation will be 65.

The total plot area is 3724 sq.m. No additional land acquisition is required. The total project cost after expansion will be Rs. 1212.19 Lakhs (existing- Rs 382.19 lakhs + Proposed - Rs. 830 lakhs). Existing power demand is sufficient to cater the demand of proposed expansion. Power connection from 33 KV line from, the nearest GSS located in the RIICO industrial area, Bhiwadi, District Alwar, existing connected load is 5070 kW. Contract demand is 4,850 kVA. After expansion connected load is 6618.5 KW & contracted demand 65000 KVA has already been sanctioned by the RVVNL.

Total water requirement for project is 20 KLD. Domestic water requirement is about 4 KLD. Water for industrial process and domestic purpose will be met by RIICO/ Ground water supply. Industrial waste water will be Nil. Domestic wastewater will be treated septic tank followed by soak pits.

The Project Proponent has mentioned that the project is located within Bhiwadi Industrial Estate and requested for exemption from public consultation, which the Committee has agreed to.

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. Notification in support of location of the project within industrial estate clearly demarcating the plot area within the industrial estate should be submitted.

**45.10.3 Proposed expansion of existing plant and setting up of additional units in the integrated steel plant of 3 MTPA, located at Village - Salav, PO Revdanda, Taluka - Murud, District - Raigad, Maharashtra by M/s JSW Steel (Salav) Limited [F. No. J-11011/166/2015-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.

It was noted that M/s Welspun Max Steel Ltd. (formerly known as Vikram Ispat Ltd) was operating 0.75 MTPA Natural Gas based Sponge Iron plant at Salav, Raigad District of Maharashtra. Environment Clearance was granted to M/s Welspun Max Steel Ltd. on 27.01.2011, for expanding the existing operations from 0.75 MTPA to 1.75 MTPA Sponge Iron Plant along with integrated facility of Pellet plant (4.0 MTPA), Steel Plant (1.5 MTPA), Captive Power Plant (330 MW) in the existing premises. Due to the non-availability/scarcity of Natural gas for steel making, the project for the expansion could not be started by Welspun Maxsteel.

M/s JSW Group acquired the 0.75MTPA Gas based Sponge Iron plant of M/s Welspun Max Steel in the year 2014. Upon acquisition of Welspun Max Steel Ltd. in 2014, the company has been renamed as JSW Steel (Salav) Ltd. It now proposes to expand the existing plant & set up additional units to reach capacity of 3 MTPA Integrated Steel Plant within the existing plant premises, with a product list of flat and long products considering the market scenario. It is required to expand the capacity of existing jetty (from 5 to 17 MTPA) to handle the requirement of incoming raw materials (majorly iron ore, non-coking and thermal coal) and outgoing finished goods (long and flat steel products) at 3 MTPA stage. The total capital investment in the proposed project will be around Rs. 12,000 crores including power plant and cement plant.

PP mentioned that land requirement for the expansion project will be 380 acres, which is already in possession of the company. Make up water requirement for the project will be met from river- 45.7 MLD & 85 MLD sea/ creek water for once through cooling system for CPP. Permission for 45.7 MLD river water with-drawls has been obtained from Irrigation department, Government of Maharashtra. Therefore, availability of requisite land, water and other infrastructural facilities in the existing plant premises and providing COREX-DRI-EAF route for steel making.

The proposed expansion project for 3 MTPA integrated steel plant with total capacity for different units are as follows:

S. No	Facilities	Unit	Existing (A)	Units for EC granted on 27/01/2011 (Not Implemented)	Expansion Capacity Proposed (B)	Total Capacity at 3.0 MTPA (A+B)
1	RMHS	MTPA	1.5	-	8.5	10
2	DRI	MTPA	0.75	0.75 to 1.75	1.0	1.75
3	Pellet Plant	MTPA	-	4.0	4.0	4.0
4	COREX	NoxMTPA	-	-	2 x 0.85	2 x 0.85
5	SMS-EAF	No x T	-	1x240	2 x 240	2 x 240
6	Ladle Furnace	No x T	-	1x240	2 x 240	2 x 240
7	RH-Degasser	No x T	-	1x240	1 x 240	1 x 240
8	Slab Caster	-	-	1 No.	-	-
9	Thin Slab Caster	Strands	-	-	2x1 Strand	2 x 1 Strand
10	Compact strip Mill	MTPA	-	-	3.0	3.0
11	Beam Blank/Bloom Caster	Strands	-	-	1x3 Strand	1x 3 Strand
12	Medium Section Mill	MTPA	-	-	0.7	0.7
13	Heavy Section Mill	MTPA	-	-	0.8	0.8
14	Tin Plate incl. of PLTCM, CAL & ARP	MTPA	-	-	0.4	0.4
15	Lime Plant	TPD	-	300	600	600
16	Dolo Plant	TPD	-	100	300	300

17	Oxygen Plant	TPD	-	400	2 x 2200	2 x 2200
18	CPP (Coal base)	MW	-	330	330	330
19	Cement Plant	MTPA	-	-	1.5	1.5
20	DG	MW	1x2.5	-	-	1x2.5
21	Township	-	√	-	-	√
22	Jetty	MTPA	5.0	-	12#	17

After detailed deliberations, the Committee was of the opinion that the land required for the project is not adequate and also the pre-feasibility report submitted with the application is very sketchy. The Project Proponent has therefore to revisit the Project Feasibility Report and revise it. In addition, the following additional information would be required for further consideration of the proposal:

- i. Details on the residential areas/villages around the plant. Specifically the residential area adjacent to the plant boundary.
- ii. The land requirement proposed for the project is inadequate and to be revisited and revised.
- iii. The land use of the land to be procured for the project should be clearly provided along with justification of adequacy of land.
- iv. Justification for requirement of water for the project.
- v. Details regarding site for the disposal of waste.
- vi. Proposal for clean technology adoption.
- vii. Layout plan indicating the proposed units for the project

Based on the above information, the proposal will be re-considered.

**45.10.4 Proposed pellet plant of 90,000 MTPA capacity along with Coal Gasifier 5000 Nm<sup>3</sup>/hr located at Kh. No 219, 220, 221 PH No. 54 at Billori Village, Jagdalpur Tehsil, Bastar District, Chhattisgarh by M/s Agrawal Iron and Industries [J-11011/164/2015-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 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Agrawal Iron & Industries – Unit 2 has applied for regularisation of Pellet Plant of capacity 90,000 TPA located at Kh.No.219, 220, 221, P.H.No.54, Village -Billori, Tehsil - Jagdalpur, District -Baster, Chhattisgarh Pellet Plant, in compliance to the order issued by Hon'ble NGT in the matter of Ardent Steel Limited Vs UoI. The CTE for the plant was granted

on 02.11.2013. The cost of the project is Rs. 19.6 Crores. It is noted that 3.43 acres of land is in possession of management and same is converted for industrial purpose. Following table shows the units and the capacities:

S.No.	Unit	Product	Production Capacity
1	Pellet Plant	Pellets	90,000 TPA
2	Gasifier (for Producer gas)	Producer Gas	5,000 Nm <sup>3</sup> /hr

The plant area does not fall under the industrial areas / cluster. Billori Village is the nearest habitation at a distance of 0.5 Km from the plant site. There are no National Parks, Wild life Sanctuaries and Migratory routes for birds within 10 Km radius of the site. Kanger RF, Metawada RF are present within 10 Km radius of the plant site. No forest land is involved in the project site. Indravati River is passing at a distance of 5.3 Kms. from the project site. Semra Railway Station is at a distance of 1.3 Kms. from the plant site. NH 43 is passing at a distance of 2.0 Kms. from the plant site.

The Project Proponent was asked to provide the reasons for making application for seeking Environment Clearance for the proposed project after elapse of more than one year of the timeline as provided by the Hon'ble NGT in their order dated 27<sup>th</sup> May, 2014. The Project Proponent informed that the proposed site falls in the naxal prone area, therefore, the delay caused in submission of application for regularization of the pellet plant. The Committee desired that the Ministry may take a view regarding acceptability of the application or otherwise. In the event of acceptability of the application, the TORs recommended by the Committee may be considered.

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. P.H. shall be conducted by the Chhattisgarh Pollution Control Board.

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

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

**45.10.6 Proposed expansion of Sponge Iron/Sponge Pellets Manufacturing Unit in Existing Premises of M/s. Nilkanth Concast Private Limited located at Survey No.221, Village Vadala, Taluka Mundra, District Kutch [J-11011/85/2008-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. Nilkanth Concast Private Limited has proposed for expansion of sponge iron/sponge pellets manufacturing unit in existing premises Survey No.221, Village Vadala, Taluka Mundra, District Kutch, Gujarat. Following table shows the existing and the proposed facility :

Sr. No.	Product	Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total after Proposed Expansion (MT/Month)
1	Sponge Iron/Sponge Pellets	6000	6000	12000
2	Mild Steel, Ingots, Billets, MS Rolled Products, TM Bars	15000	--	15000
3	Captive Power Plant	4 MW	--	4 MW
4	Waste heat recovery boiler-Power Plant	6 MW	--	6 MW
	<b>Grand Total</b>	<b>21000 &amp; 10 MW</b>	<b>6000</b>	<b>27000 &amp; 10 MW</b>

Total 50,142 m<sup>2</sup> land area is available at site; out of this 16,847 m<sup>2</sup> (i.e. approx 33.6 % of total area) is developed as greenbelt and other forms of greenery. Total costs of the Proposed Expansion project will be Rs. 10 Crores. Capital cost of air & water pollution control system and environmental monitoring equipments and monitoring will be Rs. 1.2 Crore.

The existing power requirement for the project is 10 MW. There are 4 no of DG sets available at the site. The existing coal requirement is 3900 MT/month, furnace oil 20000 lit/day, LDO 1000 lit/day and mixture of coal, lignite, char is 6.5 MT/hr. The proposed plant will require 4500 MT/Month of coal.

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. P.H. shall be conducted by the Gujarat Pollution Control Board.
- ii. The char generated from the furnace should be consumed in Atmospheric Fluidised Bed Combustion (AFBC) and waste heat recovery boiler (WHRB)

**45.10.7 Proposed Mineral beneficiation (Manganese Ore) of capacity 12,000 TPA of M/s Paonarkhari Minerals and Chemicals (PMC) Pvt. Ltd. located at village Paonarkhari, district Bhandar, Maharashtra [J-11015/269/2012-IA-II(M)].**

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Pollution and Ecology Control Services, Nagpur) gave a detailed presentation on the salient features of the project. The Terms of Reference (ToRs) to this project were recommended during the 7<sup>th</sup> Meeting of Reconstituted Expert Appraisal Committee (Non-Coal Mining) held on 15<sup>th</sup> – 17<sup>th</sup> May, 2013 for preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter F. No.J-11015/269/2012-IA-II(M) dated 22<sup>nd</sup> August, 2013 for the preparation of EIA-EMP report. The PP submitted the final EIA report online dated 14<sup>th</sup> January, 2015. The proposal was appraised by the EAC for Non-Coal Mining sector in its 34<sup>th</sup> meeting held on 29<sup>th</sup> May, 2015. Subsequently, vide note dated 19<sup>th</sup> June, 2015 it was decided to transfer the file to SEIAA, Maharashtra considering it as Category 'B' project. In the meantime the PP informed that the proposals is Category 'A' project under item 3(a) of the schedule to the EIA Notification 2006 and should be transferred to Industry (I) sector. Therefore the file was transferred to Industry (I) sector and appraised in the EAC Industry (I) committee.

M/s Paonarkhari Minerals and Chemicals Pvt. Ltd. (PMC) was established in 1995 for processing of Manganese ore and is registered as a small scale industry with the District Industries Centre, Bhandara. The unit is involved in purchasing raw material (i.e. Manganese ore of required grade) from Manganese Ore India Ltd. (MOIL) and Product (i.e. roasted, calcined or reduced ore) is supplied to manufacturers of Manganese Sulphate, which is used in fertilizers. PMC has proposed to expand its existing unit from capacity 3500 MTPA of output (combined capacity of MnO, MnO<sub>2</sub> and ground minerals) to 12000 MTPA of combined capacity at Paonarkhari, Distt. Bhandara, Maharashtra.

The unit is located at Gut No. 330, Village Paonarkhari, Tumsar, District Bhandara, Maharashtra. The site is located at 21° 32' 03.64" N Latitude and 79° 42' 33.97" E Longitude. Nearest city is Tumsar (17 km), nearest populated area is Gobarwahi Village (1 km), nearest Railway station is Gobarwahi Railway station (2.0 km). The SH-251 is at 2 km from the site and NH-6 is at 60 km. No National Park, Sanctuaries, Wildlife corridors, Elephant/Tiger Reserve located within 10 km radius. A reserve forest is present within 5-6 km from project site. Following table shows the present and the proposed capacity of the plant:

S. No.	Product	Existing Capacity (MTPA)	Proposed Capacity (MTPA)
1	Manganese Oxide (MnO)	1750	6000
2	Manganese Di-oxide (MnO <sub>2</sub> ) and other processed minerals	1750	6000

The details for the raw material required for the plant is given below:

S. No.	Raw Material	Current Requirement (Combined 3500 MTPA)	Requirement After Expansion (Combined Capacity 12000 MTPA)	Source

1.	Manganese Ore	5000 MTon	15000 MT	Dongri Buzurg and other mines of MOIL
2.	Fuel Wood	400 MTon	2400 MT	Maharashtra Forest Dept. in Bhandara and Gondia.
3	Mineral Coal	320 MTon	1920 MT	Western Coal Fields Ltd.
4	Charcoal	40 MTon	240 M T	-
5	Coke	255 MTon	1535 M T	Suppliers located at major integrated steel plants
Total		6015 MTon	21095 MT	

The Power Requirement for the project is 54 KW for the existing project and the proposed project would require 200 KW of power, which will be sourced from Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL), Tumsar. One D.G. set of capacity 40 KVA is available to meet emergency power requirement.

The ambient air quality monitoring was carried out for the period of September to November 2013 at 6 monitoring locations selected within 10 km radius of study area. It was seen that PM<sub>10</sub> values ranged from 39.11 to 48.13 µg/m<sup>3</sup>. PM<sub>2.5</sub> values ranged from 15.47 to 19.14 µg/m<sup>3</sup>. Similarly the SO<sub>2</sub>, levels ranged from 7.91 to 10.48 µg/m<sup>3</sup>, while NO<sub>x</sub> ranged from 11.91 to 15.8 µg/m<sup>3</sup>. All the results were within the permissible limit as per NAAQ standards.

Dust suppression system will be provided in the form of water sprinklers. All vibrating screens and weigh feeders below the hopper; day bins etc are totally covered to prevent leakages of dust. All bins are packed and covered so that there is no chance of dust leakage. Regular monitoring of air polluting concentrations, etc. will be carried out. Avenue plantation along the internal roads will be done. It is proposed that installation of Wet Scrubbers be followed in the Stacks.

The Public Hearing for the project was held on 25.07.2014 at Godavaribai Podar Smruti Bhavan, Paonarkhari, Post Gobarwahi, Tumsar, Bhandara under the chairmanship of Additional Collector, Bhandara.

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

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be followed.
- iii. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry and regularly monitored.

- iv. Water sprinkling arrangements should be installed to control fugitive emission
- v. 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.
- vi. Continuous ambient air quality monitoring and online monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. should be provided.
- vii. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage shall be treated in septic tank followed by soak pit.
- viii. 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.
- 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 at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner.
- x. Pre-placement medical examination and periodical medical examination of the workers engaged in the project should be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- xi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

**45.10.8 Expansion Project for Refining of Ferro Alloys in 3 X 5 T Electric Arc Furnaces (54,000 TPA), Calcination of Manganese Ore in 3 X 80 TPD Shaft Kilns (86,400 TPA) & Generation of Producer Gas (2,850 Nm<sup>3</sup>/hr) located at Debipur & Maheshpur, District Burdwan, West Bengal by M/s Maithan Alloys Ltd [191/2013].**

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 Maithan Alloys Limited has an existing 1x200 TPD Sinter Plant at Mouza Debipur & Maheshpur, Dendua Road, district Burdwan, West Bengal. The Environmental Clearance for 1x200 TPD Sinter Plant was obtained vide letter No. J-11011/191/2013/-IA II(I) dated 29<sup>th</sup> September 2014. The project has been set up in the premises of 23.87 acres. The earlier plant of 2x5 MVA Ferro Alloy Plant, 2 x12 MVA Ferro Alloy Plant and 1x8.25 MVA Ferro Alloy Plant has obtained Consent to Establish from the West Bengal Pollution Control Board on 05.12.1995, 10.5.2005 and 28.3.2003 respectively.

M/s Maithan Alloys Ltd. proposes to expand the existing plant by installing the following units and considering 360 days working per year:

- i. Refining of Ferro Alloys in 3 X 5 T Electric Arc Furnaces (54,000 TPA);
- ii. Calcination of Manganese Ore in 3 X 80 TPD Shaft Kilns (86,400 TPA); &
- iii. Generation of Producer Gas (2,850 Nm<sup>3</sup>/hr).

The complete project will be set up within the existing plant premises of 23.87 acres. No additional land is required for the proposed project. The estimated cost of the project is Rs 26.50 Crores. Following table shows the configuration of existing and proposed

The power requirement for the existing project is 38500 kVA. Power requirement for refining furnace will be about 6000 kVA and for calcination process about 200 kVA, i.e., total 6200 kVA. Power would be drawn from existing 132 kV sub-station. Source will be Damodar Valley Corporation (DVC). The D. G. Set of capacity 2 X 125 kVA & 1 X 250 kVA already exists with the existing plant. The total water requirement 386 KLD (existing 310 KLD; additional 76 KLD for the proposed expansion) which will be sourced from existing pipeline drawing water from Barakar river.

It has been requested by the PP during the meeting that since the Public Hearing for the existing 1 X 200 TPD Sinter Plant was conducted by the West Bengal Pollution Control Board on 27.02.2014 and since there is no major increase in the pollution load, the PH for the proposed project should be exempted from the conduct of PH. PP further requested to use the baseline data collected for the existing 1 X 200 TPD Sinter Plant for preparing the EIA report for the proposed activity.

The Committee accepted the request of the PP for exemption of PH and use of baseline data for preparation of EIA report with a condition to conduct one month baseline data collection for the proposed 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. Public Hearing is exempted for the expansion proposal.
- ii. One month baseline to be collected for the expansion project.

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## Executive Summary

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

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora-fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

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

1. Executive Summary
2. Introduction
  - i. Details of the EIA Consultant including NABET accreditation
  - ii. Information about the project proponent
  - iii. Importance and benefits of the project
3. Project Description
  - i. Cost of project and time of completion.
  - ii. Products with capacities for the proposed project.
  - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
  - iv. List of raw materials required and their source along with mode of transportation.
  - v. Other chemicals and materials required with quantities and storage capacities
  - vi. Details of Emission, effluents, hazardous waste generation and their management.
  - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
  - viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
  - ix. Hazard identification and details of proposed safety systems.
  - x. Expansion/modernization proposals:
    - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
    - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. Site Details
  - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

## 6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM 10, PM2.5, SO<sub>2</sub>, NO<sub>X</sub>, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the 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 conveyer-cum-rail transport shall be examined.

- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

## 8. Occupational health

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

9. Corporate Environment Policy

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

The following general points shall be noted:

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

- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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**ADDITIONAL TORS FOR INTEGRATED STEEL PLANT**

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

**ADDITIONAL TORS FOR PELLET PLANT**

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

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

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

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**LEATHER/SKIN/HIDE PROCESSING INDUSTRY**

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

**Coke oven plant**

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

**Asbestos milling and asbestos based products**

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

**Induction/arc furnaces/cupola furnaces 5TPH or more**

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

**Metallurgical industry (ferrous and non-ferrous)**

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

**LIST OF PARTICIPANTS OF EAC (I) IN 43<sup>rd</sup> MEETING OF EAC (INDUSTRY-I)**  
**HELD ON 2<sup>nd</sup> – 3<sup>rd</sup> July, 2015**

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

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