

**SUMMARY RECORDS OF 43rd MEETING OF THE EXPERT APPRAISAL
COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY – 1
PROJECT CONSTITUTED UNDER THE EIA NOTIFICATION, 2006
HELD ON 2nd – 3rd JULY, 2015**

The 43rd meeting of the Expert Appraisal Committee for environmental approval of Industry-I was held on 2nd – 3rd July, 2015. List of participants annexed.

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

The minutes of 41st meeting were confirmed as circulated.

43.3 ENVIRONMENTAL CLEARANCE (EC)

43.3.1 Expansion of Ferro Alloy Production (3300 TPA to 56760 TPA) and proposal for MS Billets and TMT Bars production at Survey no's 199, 200, 202-204 and 210, Korlapahad Village, Kethepally Mandal, Nalgonda District, Telangana by M/s. Sai Durga Ferro Alloys Private Limited [J-11011/331/2010-IA-II (I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Team Labs and Consultants, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 14th Meeting of Reconstituted Expert Appraisal Committee held during 23rd – 25th September, 2010 for the preparation of EIA-EMP report. The ToR was awarded by MoEF vide letter No. F. No.J-11011/331/2010-IA-II(I) dated 20.10.2010 for the preparation of EIA-EMP report. The PP submitted the final EIA report vide letter no. SDFAL/NGA/MoEF/EC/1 dated 4th April, 2013 after the expiry of TOR validity of 2 years. The proponent was advised to submit form - 1 afresh. The form-1 was reviewed in 18th Reconstituted Expert Appraisal Committee (Industry) meeting of EAC held on 28.4.2014 and the project proponent was advised to revalidate the data and submit final EIA/EMP report again. The final revalidated EIA/EMP report was submitted by project proponent vide letter dated 26th 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.

The proposal is for enhancement of production capacity of Ferro Alloys from 3300 (TPA) to 56,760 TPA and inclusion of MS Billets of capacity 72,000 TPA and TMT Bars of capacity 60,000 TPA, in the existing area of 22.1 acres. The capital cost for expansion is Rs. 58 crores, towards installation of 1x7.5 MVA SEAF and 1x9 MVA Submerged Electric Arc Furnace (SEAF), induction furnace and rolling mill to produce TMT bars and or MS billets at Sy No. 199, 200, 202, 203, 204 & 210 of Korlapahad Village, Kethepally Mandal, Nalgonda District, Telangana. The nearest human settlement from the site is Korlapahad village, at a distance of 1.5 km from the project site towards east direction. The Musi Right Flank Canal is at a distance of 3.7 Km from the project site towards East direction, which is flowing from N-S, the Musi River is flowing at a distance of 6.5 Km towards NE which is flowing from N-S. The Palleru River is flowing at a distance of 6.0 Km in SW. The NH-9 is at a distance of 0.3 km from the plant site in

south direction. Nearest Railway station from the plant site is Nalgonda, at a distance of 20.1 Km. There are no major industries, reserve forests, national parks, sanctuaries and ecologically sensitive areas within the study area (with in impact area of 10 km). An area of 7.29 acres of land of the total land area has been developed as green belt. It is proposed to develop another 1.81 acres green belt in addition to existing area. The capital cost for environment management is Rs. 642 lakhs and the annual recurring cost is Rs. 152.33 lakhs. Manufacturing capacity is presented as follows:

Production Capacity

S. No	Description	Capacity (TPA)				Total TPA
		Existing	Proposed			
		5 MVA	Existing 5 MVA	7.5 MVA	9 MVA	
1	Ferro Silicon (Fe Si) *	3300	--	7000	8400	18700
2	Silico Manganese (Si Mn) *	--	9900**	14850	17820	42570
3	Ferro Manganese (Fe Mn) *	--	13200**	19800	23760	56760
4	MS Billets	--	72000			72000
5	TMT Bars	--	60000			60000

*Ferro alloys are manufactured on campaign basis.

**It is also proposed to utilize the existing 5 MVA furnace for the manufacture of Ferro Manganese and Silico Manganese in addition to Ferro Silicon.

Plant Facilities

S.No	Description	Permitted	Proposed	Total after expansion
1	Submerged Electric Arc Furnaces (SEAF)	5 MVA	9 MVA 7.5 MVA	9 MVA 7.5 MVA and 5 MVA
2	Induction Furnace		2 x 15T	2 x 15T
3	Continuous Casting Machine		240 TPD	240 TPD
4	Rolling Mill		200 TPD	200 TPD
5	Cooling Towers	1.6 TR	350 TR	1.6TR and 350 TR
6	DG Set*	62.5 KVA	250 KVA 750 KVA	62.5 KVA 250 KVA and 750 KVA

* DG Sets shall be used during load shutdown period only.

The baseline study for ambient air quality, surface, ground water quality, noise, ecology and soil quality was carried out during October – December 2010 and the existing data was revalidated by collecting fresh baseline data for the period of one month i.e. May 5, 2014 to June 5, 2014. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO₂, NO_x and CO at eight locations, including the project site with the observed values ranging between 26-51 µg/m³, 14-24µg/m³, 7-11µg/m³, 7-16µg/m³ and 0.4-0.8µg/m³ respectively. Values conform to the prescribed standards for Ambient Air Quality. Ground water quality is observed to be above limits at few locations.

The sources of air pollution from the plant are proposed 7.5 MVA and 9 MVA submerged Electric Arc Furnaces, Induction furnace, Rolling Mill and DG sets of 250 KVA, 750 KVA in addition to existing 5 MVA and 62.5 KVA DG set. Emissions from the induction furnace and

rolling mill are passed through a cyclone followed by bag filter. Emissions from submerged electric arc furnaces shall be mitigated by provision of bag filters.

The permitted water consumption and effluent generation is 11 KLD and 3 KLD respectively. The total water requirement after the proposed expansion is 186 KLD which shall be drawn from ground water. The effluents generation will be blow downs from cooling towers of 33 KLD, which will be used for dust separation and cooling towers make-up after primary treatment. Domestic wastewater of 18KLD sent to septic tank followed by soak pit.

The slag generated from production of Ferro Manganese will be used as raw material for Silico Manganese. The slag generated from Silico Manganese and Ferro Silicon will be used as construction material, base layer for roads lying. Slag generated from the Induction furnace will be used as construction material/sold to cement manufacturers, mill scales generated from the rolling mill will be sold to sinter plants/cement manufacturers and dust generated from furnace shall be sold to brick manufacturers. These solid wastes shall be stored in a closed shed constructed on an elevated platform. Slag generated from the furnaces shall be subjected to TCLP test to qualify them as non hazardous before disposal. Waste oil and used batteries from the DG sets are sent to authorized recyclers.

The public hearing for the project was conducted on 13.07.2012 at the plant site at Sy. No. 199, 200, 202 to 204 & 210 of Korlapahad Village, Kethepally Mandal, Nalgonda District. The major issues raised during the public hearing, *inter-alia* includes 50% employment for local people, laying CC road in the village, land for construction of school and financial assistance for construction of temple, control the pollutants by taking special measures jobs for local people, prioritizing the SCs and weaker sections, 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. Increase the size of Rainwater harvesting pond so that 15days water storage capacity can be developed. Status on the development of RWH pond should be submitted with the 6 monthly compliance report.
- iii. Submerged arc furnace PM level should be restricted to 50 mg/Nm³ and for induction furnace and rolling mill, the PM levels should be < 115 mg/Nm³.
- iv. The total water requirement shall not exceed 186 KLD. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- v. In-plant control measures and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be

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

- vi. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- vii. 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.
- viii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner.
- ix. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 13.07.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Chennai.
- x. 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.

43.3.2 Expansion of Baliapal Ferro Alloys Plant by new addition of 2x9 MVA and 3x5 MVA capacity Submerged Arc Furnace and one chrome ore beneficiation plant at Village Balipal, Tehsil Danagadi, District Jaipur, Odisha by M/s B.C. Mohanty & Sons Pvt. Ltd. – [F. No. J-11011/316/2012-IA II (I)]

The proposal was considered by the Expert Appraisal Committee and the Project Proponent and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 8th Meeting of Reconstituted Expert Appraisal Committee held during 16th – 17th May, 2013 for the preparation of EIA-EMP report. The ToR was awarded to the project vide letter No. F. No. J-11011/316/2012-IA II (I) dated 24th June, 2013 for the preparation of EIA-EMP report. The final revalidated EIA report is submitted vide letter dated 22.04.2015. 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 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

The existing project is in operation with consents from the State Pollution Control Board. The proposal is for enhancement of High Carbon Ferro Chrome from 12,500 TPA to 66,000 TPA High Carbon Ferro Chrome/Ferro-Manganese/Sillico-Manganese/Ferro Silicon/Pig Iron, or a combination thereof by new addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace. The production from Chrome Ore Beneficiation Plant would also be enhanced from

36,000 TPA to 48,000 TPA of throughput. The proposed expansion would also be established within the existing plant premises of the Company at village Baliapal, Tehsil Danagadi in Jajpur District of Odisha State. The said project is located in Survey of India Topo sheet No.73 G/16. The project site is bounded by latitude 21° 02' 13.58'' N to 21° 02' 28.56'' N and longitude 85° 58' 33.81'' E to 85° 58' 45.87'' E. In order to have product flexibility while keeping in view the demand supply scenario, the company would use the same facility fully or partially to manufacture Ferro Alloys, like High Carbon Ferro Chrome, Ferro Manganese, Ferro Silicon & Silico Manganese and Pig Iron. The total land required for the existing and proposed expansion is 34.85 acres. The total land has been procured by the project proponent. The present land use is industrial. There is no national park/wild life sanctuary/biosphere reserve/ tiger reserve/ elephant reserve in the core (project area) and buffer zone (10 km radius of the project area). The Plant would operate for about 330 days in a year. The total number of employees to be recruited is about 500 (direct and indirect). The project cost of the proposed expansion is budgeted at Rs.70.00 Crores (Rupees Seventy Crores) only. The same will be funded by financial institutes with Promoters contribution. The Capital Cost on Environmental Pollution Control would be Rs.150.00 Lacs (Rupees One Crore fifty lacs) only. Recurring Cost on Environmental Pollution Control is Rs.15.00 lacs/Annum (Rupees fifteen lacs per Annum) only.

The site is well connected with road & rail transport. National High way no. 200 is passing at a distance of 7.0 Kms away towards south of project site. Express High Way No. 01 is passing adjacent to project area at a distance of 500 meters towards west of project site. Similarly Railway Line of East Coast Railway (Jakhpura- Banspani Section) is passing at a distance of 4.0 Kms from the project site towards east of project site.

Raw Material and Products - Ferro Chrome

List of Materials	Quantity in M.T	Actually Quantity in M.T
Chrome Ore fines	1.40	1.302
Chrome Briquettes	1.00	0.920
Coke	0.64	0.576
Quartz	0.300	0.288
Magnesite	0.200	0.018
Total	3.54	3.101
The 3.54 M.T of materials are fed into the furnace for manufacturing of one M.T of Ferro-Chrome and Slag of 1.2 M.T is generated from furnace.		

Raw Material and Products – Ferro Manganese

List of Materials	Quantity in M.T	Actual Quantity in M.T
MnO Ore	2.2	2.046
Coke	0.60	0.450
Quartz	0.20	0.192
Dolomite	0.10	0.09
Carbon Paste	0.025	0.0192
Total	3.125	2.7972

The 3.125 M.T of materials are fed into the furnace for manufacturing of one M.T of Ferro Manganese and Slag of 0.9 M.T is generated from furnace.

Raw Material and Products – Silico Manganese

List of Materials	Quantity in M.T	Actual Quantity in M.T
Mn Ore	2.5	2.325
Coke	0.7	0.525
Carbon Paste	0.025	0.192
FeMn Slag	1.2	1.176
Quartz	0.18	0.1728
Total	4.605	4.3980

The 4.605 M.T of materials are fed into the furnace for manufacturing of one M.T of Silico Manganese and Slag of 1.953 M.T is generated from furnace.

Raw Material and Products – Ferro Silicon

List of Materials	Quantity in M.T	Actual Quantity in M.T
Quartz	1.1	1.056
Coke	2.7	2.079
Mill Scale	0.30	0.3
Carbon Paste	0.040	0.040
Total	4.14	3.475

The 4.14 M.T of materials are fed into the furnace for manufacturing of one M.T of Ferro Silicon and Slag of 0.872 M.T is generated from furnace.

Raw Material and Products – Pig Iron

List of Materials	Quantity in M.T	Actual Quantity in M.T
Iron Ore Fines	1.3	1.196
Coke	0.6	0.486
Carbon Paste	0.018	0.0145
Mill Scale	0.400	0.384
Quartz	0.100	0.96
Total	2.418	2.1765

The 2.418 M.T of materials are fed into the furnace for manufacturing of one M.T of Ferro Silicon and Slag of 0.5705 M.T is generated from furnace.

The basic raw materials required for the project are Chrome Ore, Molasses, Hydrated lime, Coke, Carbon Paste, Quartz, Manganese Ore, Dolomite, Ferro Manganese Slag, Iron Ore Fines, Mill Scale and Low Grade Ore. Chrome ore will be sourced from own mines as well as from market and other raw materials will be sourced from local markets. Mode of transportation of raw materials will be mostly by trucks covered by tarpaulin to prevent spillage on road avoiding ground fugitive emission. Finished product will be packaged in Gunny Bags and then loaded in the covered trucks. It is a requirement to maintain the quality of the finished product of various Ferro Alloys.

The requirement of power for the project is around 32,000 KWH. This will be sourced from State Grid. The proposed project will use ground water. The necessary permission for drawl of ground water will be obtained from the Central Ground Water Authority before establishment.

About 60,000 to 85,000 TPA of slag will be generated from the Process. Slag would be collected at the point of production, and will be used in construction of Roads etc after TCLP Test. Dust from Bag Filter of Submerged Arc Furnace and Tapping Process will be collected, stored in storage yards and disposed to use in briquette manufacturing. Slag generated will be dumped in the secured landfill within the plant premises. Plant has enough area for handling of slag. Used Oil will be disposed to authorized reprocessing units having valid authorization from State Pollution Control Board, Odisha. The earth / mud separated at COB Plant will be disposed for land filling.

The baseline data collection was carried out in the Winter Season of 2013 i.e. December, 2013, January & February 2014 and the study area is limited within 10 Kms radius from the periphery of the project area.

The baseline Ambient air quality are within the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No 826(E) dated 16th November, 2009. It is seen that, PM₁₀ values ranged from 32.80 to 79.74 µg/m³. PM_{2.5} values ranged from 12.90 to 49.90 µg/m³. Similarly the SO₂, levels ranged from 7.18 to 14.78 µg/m³, while NO_x ranged from 10.14 to 19.86 µg/m³. All the result area within the permissible limit as per NAAQ. The Noise level was also within the prescribed limit. Impact on air quality due to fugitive emissions consequent to this project operation is estimated based on the computer model – ISCST (Industrial Source Complex Short Term Model) predicted that the maximum incremental ground level concentration of PM (24 hrs. average) from the project would be 1.43848 µg/m³. The ambient air quality standards of surrounding area will remain well within the prescribed air quality standards. There is no such adverse impact on Noise Level, water quality, soil quality, land environment, transport & communication, biological and socio economic.

Public hearing was held on 20.01.2015. The issues raised *inter-alia* included was Dust suppression & water pollution control, afforestation program, local employment opportunity based on educational qualification & family members of land losers, provision of health care with primary health care facility, provision of better educational facility, provision of solar light, provision of drinking water and provision of more peripheral developmental work etc.

Based on the presentation made and discussion 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. Existing briquetting plant should be expanded to handle the entire Chrome concentrate and utilized in the present and proposed plant. The selling of the chrome concentrate should also be done in form of briquettes.

- iii. Fugitive emission should be controlled by constructing wind breaking walls.
- iv. Rejects from the beneficiation plant should be sent back to the existing Mine for disposal.
- v. Carboxy haemoglobin level in the blood of the workers should be regularly monitored.
- vi. Cr in ambient air and work place should be monitored once in a month and the report should be submitted.
- vii. Liver Function Test for workers should be conducted once in 3 years.
- viii. The ETP should be in place and treated effluent recycled/used should conform to the standards.
- ix. Efforts shall be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement.
- x. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- xi. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided.
- xii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiii. 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.
- xiv. 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.
- xv. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 20.01.2015 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Chennai.
- xvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

43.3.3 Proposed 7.0 MTPA Pellet Plant at village Narendrapur, Tehsil Meramandali, District Dhenkanal, Odisha by M/s Bhushan Steel Ltd. [F. No. J-11011/18/2013-IA II (I)]

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

proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 6th Meeting of Reconstituted Expert Appraisal Committee held during 5th – 7th March, 2013 for the preparation of EIA-EMP report. The ToR was awarded to the project vide letter No. F. No. J-11011/18/2013-IA II (I) dated 25th April, 2013 for the preparation of EIA-EMP report. 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 addition of 7 million TPA pellet plant to the existing 5.6 MTPA steel plant. The Project Proponent is presently operating 5.6 MTPA integrated steel plant based on DRI-BF iron making and BOF/EAF steel making production facilities. Since, there is a scarcity of getting lump iron ore in the market and only iron ore fines are available which need suitable beneficiation and pelletisation before its use as feed stock for BF and DRI. In view of this, BSL is proposing to add one 7.0 MTPA Pellet plant unit will be established within the boundary of the existing 5.6 MTPA integrated steel plant units at Meramandali in Dhenkanal, Odisha to strengthen the feed stock throughput to DRI & BF. The total project cost is estimated to be Rs. 3,000 Cr. The capital outlay for environmental control measures is estimated to be Rs. 135.0 Cr during expansion with a recurring expenditure of Rs. 15.0 Crores.

S. No	Description	The Plant configuration	Remarks
1.	Pellet Plant	Pellet Plant 7.0 MTPA	Unit to use fine iron ore to convert into pellets through agglomeration

All stack emissions will be designed for PM emission of 50 mg/Nm³ through deployment of appropriate pollution control equipment. To reduce fugitive dust emission due to handling of iron ore & coal, dust extraction and dust suppression systems will be installed at appropriate locations. The dust suppression systems will consist of water sprinkling systems and dry fog dust suppression systems. There are no waste water discharges in pellet plant operations except run off during monsoon. The principal solid waste produced is dust from pollution control equipment. The flue dust will be recycled to the pellet plant itself.

Ambient Air Quality (AAQ) was monitored at eight monitoring stations. The results are compared with National Ambient Air Quality Standards (NAAQS) Stipulated by the Ministry of Environment & Forests (MOEF) vide notification GSR 826 (E) dated Nov 16, 2009. It is seen that, PM₁₀ values ranged from 50-142 µg/m³. PM_{2.5} values ranged from 22-50 µg/m³. Similarly the SO₂, levels ranged from 4-13 µg/m³, while NO_x ranged from 8-25 µg/m³.

The Public hearing for the project was held on 12.11.2014 at Motanga R.I. office premises in Dhenkanal district.

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

- i. Existing online monitoring data for a period of 3 months for all the parameters for all the 7 stations should be compared with the data presented in the EIA report and submitted.
- ii. SMS slag utilization plan should be submitted to the Ministry

- iii. The queries raised during the Public Hearing and the response given by the PP should be presented in the tabular form and submitted. The details regarding the officers who has supervised and presided over the entire public hearing process should be submitted.
- iv. Year wise ESC plan should be submitted to the Ministry
- v. Health parameters monitored by the PP should be submitted. Health data for at least 10 people for the health parameters should be demonstrated during the presentation.
- vi. Compliance report from the Regional Office should be submitted.
- vii. MOU for iron ore supply and mode of transportation.

43.3.4 Proposed expansion of Aluminum melting from 20,000 TPA to 30,000 TPA, Propane storage from 50MT to 100 MT and power back up from 4.9 MW to 37.3 MW 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)]

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.

43.3.5 Proposed Integrated Steel Plant of 0.6 MTPA and 130 MW Power Plant of M/s RBSSN -Ferrous Industries Private Limited [RBSSN FIPL] near Hampaptna village, Hagaribommanahalli Taluk, Bellary Dist, Karnataka – [J-11011/496/2011-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.

43.3.6 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)]

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.

43.4 FURTHER CONSIDERATION

43.4.1 Expansion of Fe-Mn Plant from 50,400 TPA to 76,000 TPA with addition of 10 MVA submerged arc furnace by M/s Tata Steel Limited at Joda, Keonjhar District, Odisha -Additional documents submitted-[File No.J-11011/3/2012-IA.II(I)]

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

- i. The details on new components to be listed along with the existing units in a tabular form and submitted.

- ii. Data from the nearby hospital, on the skin disease for past 5 years should be submitted.
- iii. The analysis report annexed with the EIA and EMP report for heavy metal analysis for raw material and sludge, placed at Annexure – V (AV-1) (copper, mercury and fluoride) should be rechecked and resubmitted.
- iv. Medical report of the employees for the last 3 years should be submitted

Based on the additional information/ clarification submitted by the proponent vide letter dated 02.07.2015, the proposal was considered further.

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. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. 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. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 should be followed.
- v. Water sprinkling arrangements as well as dry fog system to control fugitive emission shall be undertaken.
- vi. Tap hole emissions shall be taken to GCP system by providing proper hood and suction system.
- 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. Regular monitoring of surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study

for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.

- x. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico Manganese (Si-Mn). All the other ferro alloy slag shall be used in the preparation of building materials.
 - xi. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
 - xii. Green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
 - xiii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.
 - xiv. 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.
 - xv. Monitoring report on Ambient Air Quality, fugitive dust and noise levels inside the plant shall be submitted along with the 6 monthly compliance report
- 43.4.2 **Proposed asbestos sheet manufacturing plant (21600 TPA) at survey No. 265/1-4; 266/1,2,3,4; 268; 285, village Rachakpura, Shedriya Grampanchayat, Niwali Tehsil, Tonk District, Rajasthan by M/s Visaka Industries – Additional documents submitted Environmental Clearance – [F. No J-11011/256/2012-IA-II(I)]**

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

- i. Time series data for all the operating plants of PP for a period of 1 year for asbestos fibre and particulate matter in stack emission, work place and ambient air should be submitted.
- ii. Confirmation that 33% green belt with 10-15 meter width of plantation all around the plant boundary will be provided
- iii. To confirm that the discharge from the plant will be zero and water consumption will be restricted to 220 KLD. Revised water balance calculation should be submitted
- iv. Occupational health budget should be increased to 15 lakhs. Details on list of equipments and dispensary proposed to be installed should be submitted.

Based on the additional information/ clarification submitted by the proponent vide letter dated 22.05.2015, the proposal was considered further.

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 shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in impermeable bags and under compressed condition.
- ii. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.
- iii. There shall be no manual handling/opening of asbestos fibre bags. The company shall install fully automatic asbestos fibre debagging system.
- iv. Fugitive emissions shall be controlled by bringing cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle it into the process. Fugitive emissions generated from hopper of Jaw crusher and pulverizer shall be channelized through hood with proper suction arrangement, bag filter and stack.
- v. The Company shall comply with total dust emission limit of 2 mg/Nm^3 as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc . Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc .
- vi. Bags containing asbestos fibre shall be stored in enclosed area to avoid fugitive emissions of asbestos fibre from damaged bags, if any.
- vii. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
 - a) All monitoring transfer points shall be connected to dust extraction system.
 - b) Leakages or dust from machines and ducts shall be plugged.
 - c) Floor shall be cleaned by vacuum cleaner only.
 - d) Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises.
- viii. Quarterly monitoring of pollutant (PM_{10} , asbestos fibre count) in the work zone area and stack(s) shall be undertaken by the Project proponents. In addition, the asbestos fibre count including the fugitive dust in the work zone area shall be monitored by an

Independent monitoring agency like NIOH / ITRC / NCB or any other approved agency on six monthly basis and reports shall be submitted to the Ministry's Regional Office, SPCB and CPCB.

- ix. As reflected in the Environmental Management Plan, all the treated effluent shall be recycled and reused in the manufacturing process. No process water shall be discharged outside the premises and 'zero' discharge shall be maintained. All the domestic wastewater shall be treated in septic tank followed by soak pit and used for green belt development.
- x. The Company shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.
- xi. The cut and damaged fibre bags shall be repaired immediately. Empty fibre bags will be shredded into fine particles in a bag shredder and recycled into the process. Piling of AC sheets shall be done in wet condition only.
- xii. The Company shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment and Forests.
- xiii. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. The proponent shall create in-house facilities for spirometry test. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, Spirometry test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for sugar and albumen, blood tests for TLC, DLC, ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court including the recent Kalyaneswari case.
- xiv. To educate the workers, all the work places where asbestos dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- xv. The company shall also undertake rain water harvesting measures and plan of action shall be submitted to the Ministry's Regional Office within three months.
- xvi. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 5th October, 2012 shall be satisfactorily implemented and a separate

budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office

- xvii. Green belt shall be developed in at least 33 % of plant area as per the CPCB guidelines in consultation with the DFO. More focus shall be given towards the South East side of the plant layout.
- xviii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office. Implementation of such program should be ensured accordingly in a time bound manner.
- xix. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

43.4.3 Expansion from 3,45,000 TPA of Pig Iron Production to 5,00,000 TPA Hot Metal production and 10 MW waste heat recovery power plant of M/s Tata Metaliks Limited at Gokulpur village, PO Samraipur, Tehsil Kharagpur, District Pashchim Medinipur, West Bengal [J-11011/377/2013-IA II (I)] (Internal Discussion, PP need not to attend)

Committee has seen the compliance report submitted by the Regional Office of the Ministry and found that compliance to certain conditions prescribed in the EC letter 24.06.2009 have not been complied with. The Committee desired to seek comments and action plan from the PP for non-compliance and partial compliance of the EC conditions for further consideration of the project.

43.4.4 60 TPD stand alone clinker grinding unit of M/s Jai Cement Industries at Plot No. G-96-97, RIICO Industrial Area, Deeg, Tehsil Deeg, Dist. Bharatpur, Rajasthan [J-11011/269/2012-IA-II(I)]

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

43.5 ANY OTHER ITEM

43.5.1 Expansion of Ferro Alloys Plant by installation of 1 X 9 MVA Submerged Electric Arc furnace in Phase-I and 6 X 9 MVA Submerged Electric Arc furnace in Phase-II at village Ghutgoria, Distt. Bnakura, West Bengal by M/s Cosmic Ferro Alloys Limited – [F. No - J-11011/356/2012-IA II (I)]

The proposal was considered by the Expert Appraisal Committee and the Project Proponent and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 6th Meeting of Reconstituted Expert Appraisal Committee held during 5th – 7th March, 2013 for the preparation of EIA-EMP report. The ToR was awarded by MoEF vide letter No. F. No. J-11011/356/2012-IA II (I) dated 18th April, 2013 for the

preparation of EIA-EMP report. 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.

2. The proposal is for enhancement of ferro alloy production. The present installed capacity of the plant is 75,000 TPA of Ferro Alloys, for which the Environment Clearance was accorded by the Ministry vide letter no. J-11011/538/2008-IA II (I) dated 10th December 2008. The Consent to Operate from WBPCB vide letter no. C068857, MEMO NO. 2057-7/WPBD-CONT (2315)/05 dated 31st August 2012 (valid up to 31st August 2015) for installation of 5 x 9 MVA SAF's.

3. The proposal is now for installation of 1x9 MVA Submerged Electric Arc Furnace in Phase-I and 6x9 MVA Submerged Electric Arc Furnace in Phase-II. The proposed expansion will increase the production capacity of Silico Manganese and Ferro-Manganese from 56,740 TPA & 82,800 TPA to 1,67,340 TPA & 2,29,800 TPA respectively.

Furnace No.	Capacity (MVA)	Annual Production Capacity (TPA)	
		Silico-Manganese	Ferro-Manganese
Existing			
5	5 x 9	56,740	82,800
Proposed			
Phase - I			
1	1 X 9	15,800	21,000
Phase – II (Proposed)			
1	9	15,800	21,000
2	9	15,800	21,000
3	9	15,800	21,000
4	9	15,800	21,000
5	9	15,800	21,000
6	9	15,800	21,000
Total Proposed	7 x 9	110,600	147,000
Total capacity after expansion	12 x 9	167,340	229,800

The project is located in the Bankura District of West Bengal. The site is located at North latitude of 23°26' 27.6" and East longitude of 87°15' 5.4" with an altitude of 85 meters above MSL. The plant is located 9.6 km in NE away from the Durgapur and 150 kms south east of Kolkata. The existing plant is having manpower of 780. The proposed expansion will require additional manpower of 900. Thus, manpower requirement after expansion will be 1680. The project cost of the proposed project is estimated to be **Rs.157 Crores** including interest during construction and other financial changes that are involved. The budgetary allocation towards pollution control arrangements for the proposed expansion project is Rs.210 lakhs.

The company is possessing total land admeasuring 46.62 acres, out of which 24.62 acres of land is earmarked for existing operation. For proposed expansion provision of 22 acres of land will be made available. No additional land acquisition is required.

The water requirement for the existing and proposed plant will be 80 m³/day which will be met by abstraction of groundwater. The industry has permission from SWID Bankura for drawl of groundwater. The plant will receive all major raw materials in required sizes by rails or by trucks and will be unloaded manually at the existing raw materials stock yard. The power requirement of the company will be met from Damodar Valley Corporation (DVC) to the tune of 8000 KVA (9 MVA for each furnace). The power supply is intended from Damodar Valley Corporation at a 33 KV feeder to the G.O.D. switches with drop out fuse. One 250 KVA diesel generating set (DG) is provided for supplying LT power to various critical areas

The wastewater generation from the plant (existing & proposed) will be 55 m³/day and the domestic generations will 4 m³/day from existing and proposed plant. Evaporation losses will be 21 m³/day. Wastewater will be treated in the ETP. Domestic effluent will be discharged in septic tank and soak pit. It is proposed by the proponent to adopt zero discharge patterns.

Total plant area is 46.62 acres (i.e. 18.87 Ha.). The project proponent has already planted 6000 trees within 8.25 acres (3.34 Ha.) of its plant premises as green belt. Proposed expansion area will be 21.62 Acres (i.e. 8.75 Ha.) thus, plantation will be carried out on 7.13 Acres (i.e. 2.88 ha.) @ of 1500 trees/ha, which will be about 33% of the proposed expansion area. It is proposed to plan 1000 tree saplings every year. Some trees shall be planted along approach road side in proposed project area.

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

- i. Compliance report from the Regional Office along with action plan for the non-compliance mentioned in the Regional Office report should be submitted.
- ii. Land acquisition details should be submitted along with supporting documents.
- iii. MoU with the mine owners should be submitted for disposal of slag.
- iv. Actual photographs of arc furnace should be submitted.
- v. Recheck CO data as provided in ambient air.
- vi. Fluoride concentration is high in SW-7. The data should be rechecked and also data for coliform to be rechecked.
- vii. Revised ESC plan should be submitted for the 5% of the project cost.
- viii. Revisit the solid waste generation information.

43.5.2 Expansion of Cement Grinding Unit from 2.5 to 3.4 MTPA by process Optimization at village Daburji, P.O Lodhimajra, Tehsil and District Ropar in Pubjab by M/s Ambuja Cement Ltd – Extension of Validity of ToR [J-11011/146/2012-IA-II(I)]

The ToR for the proposal of Cement Grinding Unit from 2.5 to 3.4 MTPA by process Optimization at village Daburji, P.O Lodhimajra, Tehsil and District Ropar in Pubjab by M/s Ambuja Cement Ltd was awarded vide letter No. J-11011/146/2012 – IA-II(I) dated 15th June, 2012. The validity of ToRs was extended vide letter dated 5th November, 2014 upto 29.05.2015.

PP mentioned that the proceeding of Public Hearing has been forwarded to the Ministry on 18th June, 2015, however, the compliance report from regional office is still awaited. Therefore, PP vide application dated 26th May, 2015 requested to further extend the validity of ToRs as per OM No. J-11013/41/2006 dated 7th November, 2015 for a period of 1 year.

The committee after detailed deliberation extended the validity of ToR for a period of 1 year i.e up to 29.05.2016

43.6 CASE FOR TERMS OF REFERENCE (TOR)

43.6.1 **Proposed 60,000 TPA of Asbestos Cement Sheet manufacturing unit at Khasara No. 385/1(Part), 385/5, 385/3, 385/22,61,62/2 (Part) at Nakati Khapari - Konari Road, Konari Village, Tilda Tehsil, Raipur Disrict, Chhattisgarh by M/s Salasar Pipes Private Limited [J-11011/140/2015-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. 4(c), 'Asbestos milling and asbestos based products' under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Salasar Pipes Private Limited has proposed to establish manufacturing of Asbestos Cement Sheets & Accessories – 60,000 TPA at Khasara No. 385/1(Part) 385/1(Part), 385/5, 385/3, 385/22,61,62/2 (Part), Nakati Khapari – Konari Road, Konari Village, Tilda Tehsil, Raipur District, Chhattisgarh. The Latitude is 21°29'13.29"N and Longitude is 81°48'58.72"E. The total land required for the project is 11.80 acres [Out of which 4.8 acres has been acquired and the remaining is under the process of acquisition (agreements executed)]. The cost of the project is 22.50 crore.

The proposed project area does not fall under the industrial areas / cluster, which are listed in MoEF office memorandum dated 13th January 2010 & its subsequent amendments. Konari Village is the nearest habitation at a distance of 0.8 Km. from the proposed project site. There are no National Parks, Wild life Sanctuaries and Migratory routes of Wild Animals within 10 Km. radius of the project site. No Reserve Forests within 10 Km. radius of the project site, however Khaludabri Protected Forest is present at distance of 9.5 Kms. from the project site. No forest land is involved in the project site. Mahanadi Branch Canal is passing at distance of 1.5 Kms. from the project site. No rivers within 10 Km. radius of the project site. Baikunth Railway Station is at a distance of 3.7 Kms. from the project site. Following table shows details of raw material:

S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport
1	Cement	26,000	Nearby Cement plant	By Rail / Road (through Closed containers / Bullets)

2	Fly Ash	17,000	Nearby Power plant	By Road (Closed containers)
3	Asbestos fibre	4,300	Imported (Canada, Russia, Brazil & Poland etc.)	By Ship upto the port then by Road (Closed containers)
4	Pulp	500	Local market	By Road (through covered trucks)

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.
- ii. Land documents to be submitted.
- iii. Fiber, PM10, PM 2.5 to be monitored.

43.6.2 3.5 MTPA Integrated Steel Plant including 295 MW CPP at Village:Halavarthi,Tehsil: Koppal, Dist: Koppal, State: Karnataka by M/s AARESS Iron & Steel Limited(AISL) [J-11011/161/2015-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 AARESS Iron & Steel Limited(AISL) has proposed Integrated Steel Plant 3.5 MTPA along with 295 MW CPP at village Halvarthi, Koppal in Karnataka. The nearest railway station is Ginigera – 3.5 Km approx, nearest port is GOA port at 320 kms. Tungbhadra Reservoir is approximately 9.0 km, nearest airport is Bengaluru which is 300 km approx. No eco sensitive area within 10 km of the plant.

Total 922.19 Acres of land is in possession of company. In addition to this adjacent 995.50 Acre of barren land is under process of acquisition. Karnataka State High Level Clearance Committee has considered to acquire the land through KIADB. PP has option to acquire the proposed land of 995.50 acres either through KIADB or under section 109 of KLR Act. No Rehabilitation/Resettlement required for the project. No National Park, Biosphere Reserve and Wildlife Sanctuary including Notified Eco-sensitive Areas within 10 km radius. No archaeological monument, inter-state boundary and defense installation.

Following table shows the configuration of the plant:

Sl. No.	Plant Units	Phase-I	Phase-II	Final Plant Configuration
1	Coal Washery	1x3.0 MTPA	-	1x3.0 MTPA

2	Ore Beneficiation Plant	1.2 MTPA	-	1.2 MTPA
3	Pellet Plant with coal gasifier unit	1x1.2 MTPA	-	1x1.2 MTPA
4	Sinter Plant	1x144 m ² 1.29 MTPA	1x324 m ² 3.8 MTPA	(1x144)+(1x324) m ² 5.09 MTPA gross sinter
5	Coke Oven	1x0.68 MTPA 2x55 Ovens 5.5 m tall	1x1.5 MTPA 2x65 Ovens 7.0 m tall	2.1 MTPA Coke Oven battery 2x55 ovens 5.5 m tall 2x65 ovens 7.0 m tall
6	Blast Furnace	1x1681m ³ BF 1.2 MTPA	1x3814 m ³ BF 2.6 MTPA	1x1681m ³ +1x3814 m ³ BF 3.8 MTPA hot metal
	BF slag	343,000	788,000	1,131,000 tpa
7	SMS			
a)	EOF (Energy Optimising Furnace)/BOF (Basic Oxygen Furnace)	2x65 t EOF	2x180 t BOF furnaces	(2x65)t EOF+ 2x180 t BOF
b)	LF (Ladle Furnace)	2x65 t	1x180 t	2x65 t +1x180 t
c)	VD / RH Degasser	2x65 t VD	1x180 t RH Degasser	2x65 t VD +1x180 t RH Degasser
f)	Billet Caster/ Bloom Caster	2x3 Billet Caster +1x2 Bloom caster	-	2x3 Billet Caster +1x2 Bloom caster
h)	Slab Caster	-	2x1 strands slab caster	(2x1) Strand

Following table shows the production and its capacity:

Sl. No	Items	Annual Production (tonnes)
1	Alloy steel Long products	850,000
2	Hot rolled Coils (Flat Products) /cold rolled products	23,40,000
	Total	31,90,000
3	CPP	295 MW

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

- i. Public Hearing to be conducted by Karnataka Pollution Control Board
- ii. Details of the acquired land and the land under acquisition should be submitted.
- iii. Green belt should be developed all along the periphery of the plant boundary and proposed layout plan should be shown at the time of EIA/EMP report presentation.
- iv. Fresh baseline data to be collected for the preparation of EIA/EMP report. The old data may be used for comparing the status of environment.

v. Economic feasibility of the project should be submitted.

43.6.3 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 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 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.

Jaiprakash Associates Limited (JAL) in association with International Business Machines Corporation (IBM), USA and Tower Semiconductor Limited (TowerJazz), Israel, proposes to set up a Semiconductor Wafer Fabrication (FAB) facility along with gas based Captive Power Plant at Jaypee Greens, Sector – 24, Yamuna Expressway Industrial Development Authority (YEIDA) Area, District Gautam Budh Nagar, Uttar Pradesh. Department of Electronics & Technology (DeitY), Ministry of Communications and Information Technology, Govt. of India has issued a Letter of Intent, upon technical and commercial evaluation of the Project Proponent, to provide support for setting up of the proposed Semiconductor Wafer Fabrication (FAB) facility in India vide letter No.28(1)/2014-IPHW dated 19th March, 2014. The Letter of Intent has been issued to consortium of Jaiprakash Associates Ltd (Principal Promoter); International Business Machines Corporation (IBM), USA (Principal Technology Partner) and Tower Semiconductor Limited (TowerJazz), Israel.

The project will be set up in a total area of 50 Acres, already identified and available with Jaiprakash Associates Ltd (JAL). The project site is located within the geographical co-ordinates Latitude – 28° 18' 59.7" N - 28° 19' 00.0" N and Longitude - 77° 0' 31' 20.8" E - 77° 0' 31' 47.0" E respectively. Water required for the proposed project will be 11,600 m³ /day which will be sourced from River Yamuna, flowing at a distance of approx. 2.0 km from the site, after obtaining necessary approvals. The power requirement of the proposed project is 80 MW. Power supply shall be ensured from UPPCL (Uttar Pradesh Power Corporation Limited) at 132 KV/220 KV. As standby arrangement a Gas based Captive Power Plant of 80 MW is proposed to ensure uninterrupted supply of power to the plant.

Manpower required during the construction phase will be 1150 nos. In addition to this 1700 people will be getting indirect employment during construction period. Approximate 1290 people will be on site for the operation of proposed project. The total investment for setting up of the FAB facility is estimated as Rs.28,919 Crores. No national parks, wildlife sanctuaries and eco-sensitive zones in the study area. The area is not known for any natural hazards. Seismically, this area is categorized under Zone-IV as per IS-1893 (Part-I) – 2002.

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 to understand the process. The ToRs for the above proposal shall be provided once the sub-committee visit the plant and provide its comments. In the meantime, the proponent may be advised to revisit the water balance as provided in the pre-feasibility report along with the process to be provided to treat the effluent.

43.6.4 Expansion of Pellet Plant from 1.2 MTPA to 2.2 MTPA within the existing 1.75 MTPA integrated steel plant situated at Village : Naharpali, Tehsil : Kharsia, Distt : Raigarh, Chhattisgarh by M/s Monnet Ispat & Energy Ltd. [J-11011/196/2007-IA-II(I)]

The PP along with their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP 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 Monnet Ispat & Energy Ltd has proposed for an expansion of Pellet Plant from the existing 1.2 MTPA to 2.2 MTPA within the existing 1.75 MTPA integrated steel plant situated at Village Naharpali, Tehsil Kharsia, Distt Raigarh, Chhattisgarh. Earlier the EC was accorded to the project vide letter No. J-11011/196/2007-IA.II(I) dated 26.12.2007 for the integrated steel plant. Following is the table showing configuration of the steel plant:

S.N.	Unit	Capacity (MTPA)	Units presently under operation
1	Sponge Iron Unit	0.70	0.50
2	Blast Furnace	1.00	0.70
3	Ferro Alloy Plant (Submerged Arc Furnace)	0.075	-
4	(Steel Plant) Electric Furnace	1.74	1.20
5	Rolling mill & Pellet	1.20	1.20
6	Power plant (7x120 TPH AFBC+4x35 TPH WHRB)	240 MW	170 MW
7	Palletisation Plant	1.20	1.20
8	Sinter Plant (2 x 0.75 TPA)	1.50	0.75
9	Coal Beneficiation Plant	1.00	1.00
10	DG sets (1x3.8 MVA & 3x1500 KVA)	1x3.8 MVA & 3x1500 KVA	2x1500 KVA

Total project area is 227.84 ha. Rabo RF (0.92 Km, NE), Basnajhar RF (6.07 km, SW), Burha Pahar (6.64 Km, W), Kenmura PF (2.64 km., SW), Bendojhariya PF (5.11 Km, SW) are located within 7 km radius from project site.

It has been observed by the Committee that the full capacity of the plant has not been installed by the PP. And since the 7 years validity period of the EC has been expired on 25.12.2014, the PP

has to apply afresh for the establishing remaining component for which the installation is yet to be completed.

Regarding expansion of the pellet plant, PP informed that the expansion project does not require any additional land and infrastructure development. Expansion will be done by adding one wet grinding ball mill and one filter press to the existing facility. MIEL is already having a sanction of 11 MGD water. Water requirement will be met from the available source. Iron ore fines will be transported through closed conveyor from the existing railway siding within the plant premises.

In view of the above PP has requested to consider the proposal under section 7(ii) of EIA Notification, 2006 and exempt the scope of EIA and public hearing.

After detailed deliberations, the Committee agreed to the request of the proponent for considering the proposal under section 7(ii) of EIA Notification, 2006 after receipt of following information.

- i. Analysis of data for emission of all stack for the past 1 year
- ii. Ambient air quality monitoring for one month and submit the information to the Ministry
- iii. Detailed note on, 'How no change in equipment can produce more pellets'
- iv. Additional pollution load due to increase in production of pellet.

43.7 ENVIRONMENTAL CLEARANCE (EC)

43.7.1 Proposed cement Grinding unit (1000 TPD) at Dag 144, 145, 146, 147 & 151 of K.P. Patta No. 19, 21, 42 & 9 under G.P.S. co-ordinate 26°05,12.96"N and 91°52,4930" E, village-Am b her, 12tb Mile, Jorabat, Mouza- Sonapur, Dist- Kamrup, (M) in Assam by M/s K. R. Associates [F. No. SEIAA. 107/2013/43]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their consultant made a presentation. During the presentation, the Committee noted that the TORs to the project were awarded by SEIAA, Assam with exemption of public hearing. However, later they transferred the proposal to centre, since the project is a category 'A' project due to its location near inter-state boundary. The Committee has, therefore, decided consider the project after conduct of Public Hearing.

43.7.2 Environmental Clearance of Zinc Smelter (2,50,000TPA) and CPP (100MW) to Include Fumer Plant to convert Jarosite to slag of M/s Hindustan Zinc Ltd. at Putholi, Gangrar, Chittorgarh, Rajasthan [J-11011/279/2006-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 25th Meeting of Expert Appraisal Committee held during 13th – 14th October, 2014 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter no. J-11011 /279/2006-IA.II (I) dated 20th November 2014. Baseline monitoring has been conducted from 1st December 2014 to 28th February 2015 for the preparation of EIA-EMP report. 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 and appraised by the Expert Appraisal Committee (Industry) of MoEFCC.

M/s Hindustan Zinc Ltd. has proposed to establish Fumer plant (pyro-metallurgical process) within the existing leaching circuit of Hydro-II Zinc Smelter at Chanderiya Lead Zinc Smelter, Hindustan Zinc Limited. Earlier the Environmental Clearance was granted for 2,50,000 TPA, Zinc and CPP of 100 MW vide letter No. J-11011 /279/2006-IA.II(I) dated 6th December 2006. The proposed project will eliminate the generation of Jarosite, which is presently stabilized with lime and cement to convert into stabilized Jarofix and is stored in secured Jarofix disposal yard. The proposed modified process of Hydro-II Zinc smelter will produce clean slag instead of Jarosite, which will be used by cement manufacturers. The proposal will be executed within the existing plant premises only.

The project site is situated in the village Putholi, at about 8.5 km North of Chittorgarh city in Rajasthan State, India. The site is located at the intersection of latitude 24°57'21" N to 24°58'00" N and longitude 74°38'34" E to 74°40'22" E. The elevation of the site is about 400 m above mean sea level. The Chittorgarh-Ajmer highway (NH-79) passes at a distance of 5.0 km from plant boundary. The nearest railway station is at Chanderiya (2.5 km, SW) under Western Railway situated on Chittorgarh - Ajmer railway line. The estimated cost for conversion of unusable solid waste to usable slag is about Rs.500 Crores and cost on EMP is about Rs.80 Crores. There will not be any additional land acquisition for this project.

With this proposed project, generation of Jarosite and recurring land requirement for disposal will be eliminated, wherein clean Fumer slag will be generated to be utilized further in cement industries. Existing Hydro-I smelter having capacity of 2,10,000 TPA of Zinc metal will continue to operate through Jarosite process route.

Ambient air quality monitoring was carried out for PM₁₀, PM_{2.5}, SO₂, and NO_x at eight locations including the project site with the observed values ranging between 44.1-94.8 µg/m³, 28.1-42.7µg/m³, 14.3-22µg/m³, and 18.8-33µg/m³ respectively.

The proposed Fumer plant's water requirement is about 2400 m³/day, which shall be within the stipulated water requirement of the existing Hydro-II plant water requirement including 100MW CPP (of 11000 m³/day). The Proposed Environment improvement project mainly aims at waste reduction, better utilization of available land for alternative use and conservation of natural resources.

As mentioned by the PP, following are the advantages of projects:

- i. Current Jarosite process requires land for storage of Jarofix. Proposed Fumer plant will generate usable clean slag, which can be sold to cement plants and hence it eliminates the need of land for storage of hazardous waste in future.
- ii. Off-gases from Fumer will be passed through waste heat recovery boiler, which will produce -21MWH of electrical power as Green Energy. Out of ~ 21MW production, - 11MW will be used in running Fumer. Therefore Fumer is self-sufficient in energy

requirement and will produce additional power of ~ 10MW, which will be either utilized for other plants or will be available to the State grid.

- iii. Fumer Slag contains -7.6% Lime and -43% Fe₂O₃. This will reduce consumption of - 17000 metric tons CaCO₃ in cement industry and will reduce carbon footprint by ~7700 tons. Hence it will conserve natural resources.

Based on the information provided 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 Committee observed that the piezometer samples have shown very high sulphate content upto 3158 mg/l. This indicate seepage of leachat from the jarofix in the landfill. This needs to be investigated and an action plan for remedial action needs to be submitted to the Ministry within 6 months.
- ii. All the slag from the Fumer plant should be utilized in the cement plant.
- iii. All the existing jarofix landfill site should be scientifically capped as per CPCB guideline.
- iv. The PP should install piezometer on the northern side of the new landfill site.

43.7.3 Proposed capacity expansion of existing 200 TPD cement Plant to 2,500 TPD cement Plant (Phase: 300 TPD expansion and Phase II 2,000 TPD expansion) and mining of limestone in 29.4141 hectares of land at village Khrew. Tehsil Pampore, District Pulwama, J &K by M/s Cemtac Cement Pvt. Ltd [J-11011/226/2012-IAII(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 3rd Meeting of Expert Appraisal Committee held during 3rd – 4th December, 2012 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter no. J-11011 /226/2012-IA.II (I) dated 11th February, 2013. The plant is 5.03 km from the Dachigam National Park, therefore, as per amendment notification dated 25th November, 2014, falls under B category project. However, since the tenure of the J&K, SEIAA has been expired and SEIAA/SEAC has not been reconstituted, therefore, the proposal has been considered at the central level.

M/s Cemtac Cement Pvt. Ltd has proposed Cement Plant expansion from existing capacity of 200 MT/Day to 2500 MT/Day in two phases. 200 to 500 MT/Day expansion in Phase I and 500 to 2500 MT/day in Phase II. The industry intends to put up three (3) new vertical shaft kilns of 100 TPD capacity. In phase 2, the industry would increase its production from 500 MT/day to 2500 MT/day using the Rotary Kiln Technology. The industry is having its own captive mines in an area of 29.4141 hectares for the extraction of limestone for the cement plant. The industry would be extracting the raw limestones from the captive mines for its use in the cement manufacturing process. No litigation/Court case is pending pertaining to the project. The site is located at Solnaran Saturnmarg Khrew, Pampore, Pulwama, Jammu and Kashmir. The latitude/longitude of the site are 34⁰03' North and 75⁰02' East and situated at an altitude of 1630

meters. The existing cement manufacturing complex has been developed in an area of about 10 hectares, in an approved industrial limestone area of Jammu and Kashmir. Phase - 1 of the project to be implemented in existing land area of 10 Hectares/24.7 acres/200 kanals and for Phase – 2, additional land around 15 Hectares/37.5 Acres/300 Kanals has to be acquired. PP mentioned that 10 Hectares/24.7 acres/200 kanals is already under possession and 15 Hectares/37.5 Acres/300 Kanals has to be acquired. Following table shows the requirement of raw material. The man power required for the project is 100 persons for the existing plant. for phase – 1, 150 persons are required and for phase – 2, 300 persons are required.

Particulars	Existing (200 TPD)	Phase 1 (500 TPD)	Phase 2 (2500 TPD)
Limestone	250	625	3000
Coal/Pet	40	100	500
Coke	-	-	-
Gypsum/Clay	50	130	650
Iron Dust	3.5	8.5	42.5

The proposed location of the project is within the Khrew Limestone area in District Pulwama which is suitable for mining of lime stone. The industrial unit is having an area of 29.4141 hectares of land for the mining of limestone for captive consumption adjoining to the site. The mining site is in the name of the director of the company and has been granted lease by the Jammu and Kashmir Government for 20 years.

Pet Coke/coal shall be used as fuel for the project. Phase 1 will require 33000 MT/Annum of fuel and Phase 2 will require 165000 MT/Annum of fuel. Ground Water at the rate of 75 m³ /day (maximum) shall be used for the process. There will be no discharge from the industrial units however, domestic effluent to the tune of 12 m³/day will be generated.

Ambient air quality monitoring has been carried out at 6 locations. PM₁₀ concentration ranged from 29-65 µg/m³, PM₂₅ concentration ranged from 33-49 µg/m³, concentration level of SO₂ ranged from 3.9-10.2 µg/m³ and NO_x concentration is 5.5-20.8 µg/m³. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 10.5 µg/m³ with respect to the PM₁₀, 4 µg/m³ with respect to the SO₂ 6.5 µg/m³ with respect to the NO_x.

Public hearing was conducted on 2nd May, 2013 at Khrew, Tehsil Pampore, dist Pulwama under the chairmanship of Additional District Magistrate Pulwama.

It has been observed by the Committee that the existing mining lease was accorded to the PP in the year 2002. The Mining activity was started in 2005. It has been observed that the PP has not taken Environmental Clearance for the mining project considering the mining project to be a minor mineral project. However, since the mining activity is carried out for use in the cement plant, the mining comes under major minerals and attracts EIA Notification.

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

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

43.7.4 Expansion of Steel Manufacturing Unit at Village Budhewal, Tehsil Kum Kalan, District Ludhiana Punjab by M/s Prime Steel Processors [J-11011/185/2013-IA-II(I)]

M/s Prime Steel Processors – PP and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 11th Meeting of Expert Appraisal Committee held during 26th – 27th August, 2013 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter no. J-11011 /185/2013-IA.II (I) dated 15th October, 2013. 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 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s Prime Steel Processors is located at VPO- Jandiali, Budhewal Road, Near Kohara, Distt. Ludhiana, Punjab. They are already manufacturing Steel Ingots/Billets at the capacity of 21,000 MTA through Induction furnace of capacities 4.5TPH and structural steel at the capacity of 45,000MTA through rolling mill. PP now wants to enhance the capacity of their unit by adding two numbers of Induction Furnaces of 10.0 TPH capacities each. After addition of two numbers of furnaces the total capacity of Steel Ingot/Billets will be 1, 12,000 MTA. Cost of the Project Rs. 45 Cr. There are no National Parks, wildlife sanctuaries, within 10 km radius of the project site. It is an approved industrial area. In all there will be about 200 persons out of which no persons will stay in the factory except watchman. The raw materials used in the manufacturing of special steel Ingots are MS/CI Scrap, Sponge / Pig Iron, Ferro Alloys which will be sourced from Domestic as well as International Market.

Following Machinery will be in position in the unit:

Machinery	Existing	Proposed
Induction Furnace	2 No. (4.5 TPH)	2 No. (10TPH)
Magnetic Transfer System	2 No.	2 No.
Rolling Mill	1 No.	Nil
Heating furnace (Oil Fired)	1 No.	Nil.
Over Head Cranes	2No.	2 No.
Gassifier	1No.	Nil

The total power available in unit is 5 MW. About 8MW additional power will be required for expansion. This demand will be met by sourcing the power from Punjab State Power Corporation Limited from the nearby Sub-station. Water consumption for the unit will be small as the requirements are only for cooling system where water will be re-circulated in a closed circuit. The existing water requirement is 11 KLD, which include about 4 KLD makeup water for cooling purpose and 7 KLD for domestic purposes. After expansion water requirement for domestic purpose will be 12 KLD & makeup water for cooling will be 13 KLD. The total

consumption of fresh water after expansion will be 25 KLD would be met from ground water through a tube-well already existing within the premises.

About 9.5 KLD waste water from the toilets is expected which is treated through septic tanks and the effluent is used within the premises for landscaping and trees. Solids from APCD will be disposed off at designated land filling site. Slag from furnace will be sent to cement plant for further use. The Hazardous wastes generated from the unit is used DG Set oils. The used oil from D.G. Set shall be sold to recyclers. There are no other hazardous wastes.

Ambient air quality monitoring has been carried out at 8 locations. PM_{10} concentration ranged from 67.3-72.1 $\mu\text{g}/\text{m}^3$, PM_{25} concentration ranged from 36.5-42.7 $\mu\text{g}/\text{m}^3$, concentration level of SO_2 ranged from 2.3-3.2 $\mu\text{g}/\text{m}^3$ and NO_x concentration is 4.7-19.0 $\mu\text{g}/\text{m}^3$.

Public Hearing for the project was conducted by PPCB on 4th November, 2014 under the Chairmanship of Additional Deputy Commissioner, Khanna, Distt. Ludhiana. The major issues raised during the meeting are pollution control, employment to the residents, Waste ash/slag etc. should not be thrown outside by the industry creating dump site, developmental work for the benefit of local population etc.

Based on the presentation made and discussion 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. For induction furnace and rolling mill, the PM levels should be 115 mg/Nm^3 .
- ii. The total water requirement shall not exceed 25 KLD. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- iii. Ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided.
- iv. In-plant control measures and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

- vi. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- vii. 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.
- viii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner.
- ix. All the commitments made to the public during the Public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Chennai.
- x. 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.

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

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 29th Meeting of Expert Appraisal Committee held during 11th – 12th December, 2014 and 31st meeting held on 8th – 9th January, 2015 for the preparation of EIA-EMP report. The ToR was awarded by MoEFCC vide letter no. J-11011 /574/2009-IA.II (I) - Pt dated 28th April, 2015. The proposed project activity is listed at S.No. 5(i) in Pulp & paper industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEFCC.

The Ministry has accorded Environmental Clearance (EC) to the plant vide F No. J-11011/574/2009-IA II (I) dated 18th March 2011 and corresponding CFO was also issued by the State Pollution Control Board for production of 7.40 lakhs tpa of paper/board, 3.50 lakhs BD TPA of bleached wood pulp, 114.5MW cogeneration plant and other associated facilities. Currently, BCM Unit imports appx. 1,00,000 tpa Bleached Chemi-Thermo Mechanical Pulp (BCTMP) at a high cost to use the same in the middle layer of some of the coated paperboards. Hence, to reduce input cost and also to save foreign exchange, ITC-PSPD proposes to install a new 1,00,000 TPA BCTMP manufacturing facility within the existing premises of Bhadrachalam

unit. Installation of BCTMP manufacturing facility has become essential for overall profitability and flexibility of the existing operations. The project will create direct employment for about 100 persons. In addition, it will generate indirect employment for about 250 persons in the peripheral industries and service organizations. Total investment for the installation of BCTMP Plant and auxiliary plants is Rs 450 Crores, out of which Rs.50 Crore is allocated towards pollution control equipment and implementation of environmental pollution control measures.

The proposals covered under the BCTMP project are Installation of 1,00,000 AD TPA BCTMP plant, Installation of BCTMP Waste Liquor Evaporation Plant for effective conversion of waste liquor to energy and also to achieve Zero Liquid Discharge, Installation of White Liquor Oxidation Plant along with Oxygen Generation Plant to recycle the caustic, thus reducing consumption of caustic and bleaching chemicals, Augmentation of Wood Handling and Chipping Plant, Installation of new Chip Washing Plant. No additional land will be acquired, as the BCTMP manufacturing facility will be setup within the existing Mill premises.

ITC-PSPD has developed farm forestry in and around Bhadrachalam, covering an area of about 163,000 hectares, which yield appx. 20 lakh ton of wood every year. The present requirement is about 8 lakh ton of wood PA and the additional requirement for BCTMP will be 1.50 lakh ton PA. Hence, adequate raw material will be available for the new plant.

The overall steam requirement for the project will be 50 tph. Current steam consumption of the Unit is 623 tph and after installation of BCTMP unit, it will be 673 tph. It is proposed to draw the steam for new plant from the existing captive power boilers, having overall capacity 780 tph. Hence, no additional boilers will be installed for the proposed project. To meet the additional steam and power requirement, 80,000 tpa indigenous coal will be required. After commissioning of the project, the total coal requirement for the Unit Bcm will be 7,90,000 tpa, which is within the consented quantity of 8,00,000 tpa.

The project will require 15 MW of power. It is proposed to meet the power requirement by drawing power from the Unit's existing captive power plant of capacity 114.5 MW. Additional power will be drawn from Telangana Power Generation Corporation (TPGENCO), if required. The fresh water requirement will be 2000 m³/day for BCTMP plant. Present water consumption of the Unit is appx. 75,000 m³/day to 77,000 m³/day. Water consumption after commissioning of BCTMP facility will be within the consent level of 79,000 m³/day. The proposed BCTMP plant process is based on the Best Available Technology (BAT) from world leaders METSO/ANDRITZ with zero discharge concepts. Hence, there will not be any discharge from the BCTMP plant into effluent treatment plant.

Ambient air quality monitoring has been carried out at 4 locations. PM₁₀ concentration ranged from 17-22 µg/m³, PM₂₅ concentration ranged from 34-49 µg/m³, concentration level of SO₂ ranged from 6-16 µg/m³ and NO_x concentration is 33-37 µg/m³. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.89 µg/m³ with respect to the SO₂ 1.56 µg/m³ with respect to the NO_x.

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

- I. Ground water samples, for parameters namely, PH, BOD, COD, TDS and colour from locations where treated water is being used for irrigation and other locations where this water is not used should be reanalysed and submitted.
- II. Sodium absorption ratio for one month should be collected and furnished.
- III. Compliance of Environment Clearance conditions stipulated for the main plant from the Regional Office of the Ministry should be submitted.

43.8 ANY OTHER ITEM

43.8.1 Modification cum Expansion of existing project form 0.1 MTPA billet to 0.25 MTPA rolled product at Badtumkela dist. Sundargarh odisha by M/s Bhaskar Steel and Ferro Alloys –ToR – [J-11011/491/2008-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.

M/s. Bhaskar Steel & Ferro Alloy Ltd. has proposed modification cum expansion of the existing Integrated Steel Project from 0.1 MTPA billet to 0.25 MTPA rolled product at Badtumkela dist. Sundargarh Odisha. The Latitude of the site is 21⁰ 49' 49.20" N and Longitude is 84⁰ 55' 40.79" E. Total existing installed capacity is 0.96 Lacs TPA of sponge iron and 1.05 Lacs TPA of billets. The manufacturing set up consists of 1x300 TPD DRI Kiln and 4x8 T Induction Furnace (IF) with matching LFs & other auxiliary systems. The company has already acquired 84 acres land, in which the existing plant is running & expansion project will be accommodated in the vacant space of this land. The company is in the process of further acquiring about 200 Acres of land from IDCO.

The nearest railway station is Barsuan 19.90 km, nearest airport is Rourkela at a distance of 58 km, nearest village is Rajamunda, nearest state highway is SH-10A : 6.5 km, nearest river is river Brahmani river.

Following table shows the existing and the proposed plant configuration:

UNIT	CONFIGURATION
DRI kiln	1x300 TPD
SMS	4x8 T IF, 1x20T & 1x15T LRF
CCM	Matching
Power Plant	1x6 MW (WHRB)
Power Plant	1x6 MW (AFBC)
Dry Coal Separator	1x50 TPH
Coal sizer with Truck Tippler	1x200 TPH
Mobile Crusher	1x100 TPH
Slag crusher	1x10 TPH

Proposed facility

PHASE-1		PHASE-2	
UNIT	CONFIGURATION	UNIT	CONFIGURATION
DRI kiln	2x350 TPD 2x100 TPD	DRI kiln	2x350 TPD 2x100 TPD
Pelletization	1x0.6 MTPA	Pelletisation	1x0.6 MTPA
IO Beneficiation	1x1.2 MPTA	IO Beneficiation	1x1.2 MPTA
SMS	3x20 T IF	SMS	3x20 T IF
Rolling mill	25 TPH	Rolling Mill	25 TPH
Power Plant	2x9 MW(WHRB)	Power Plant	2x9 MW(WHRB)
Power Plant	2x10MW(CFBC) MW CFBC/AFBC	Power Plant	2x10 MW CFBC/AFBC
Fe-Mn Plant	1x9 MVA	Si-Mn Plant	1x9 MVA

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

- i. Public Hearing to be conducted by Odisha Pollution Control Board
- ii. Revised layout plan should be submitted along with the EIA/EMP report
- iii. Compliance report from the RO, Bhubneshwar should be submitted along with the EIA/EMP report

43.8.2 Addition of a 2MTPA Pellet Plant and 7m tall top charged Coke oven battery of 0.768 MTPA production capacity to Existing Bokaro Steel Plant of M/s Steel Authority of India Ltd. at Bokaro Steel City, at Bokaro Dist., Jharkhand – (Amendment in ToRs)[F. No. J-11011/327/2014-IA II (I)]

The ToR for the proposal was accorded by the Ministry vide letter No. J-11011/327/2014-IA II (I) Dated 31st December, 2014. PP requested for waiver of point no. 49 of ToR i.e. “At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item wise details along with the time bound action plan shall be included. Socio-economic development activities need to be elaborated upon”.

PP mentioned that they have established an exclusive department for carrying out various activities under Corporate Social Responsibility. The main focus areas of CSR activities are, Education, Infrastructure, Health, Support for disabled/under privileged, Income generation & livelihood, Water supply and sanitation, Sports and culture, Women empowerment.

PP mentioned that they are spending huge sum on various CSR initiatives. The year wise expenditure on various CSR initiatives during the last 3 year is given below:

S. No	Year	2012-13	2013-14	2014-15
1	Eduacation	122	152	552
2	Health Care	120	160	483
3	Infrastructure	162	194	653
4	Income generation and skill development	39	57	167
5	Water and sanitation	82	84	363
6	Women empowerment	89	60	262
	Total	614	707	2480

Based on the justification provided by the PP the Committee recommended an amount equivalent to 2.5 % of the total cost of the project to be earmarked towards the Enterprise Social Commitment

43.8.3 Regularization of EC for 0.9 MTPA operational Pellet Plant of M/s Rashmi Metaliks Ltd. installed and commissioned at vill. Gokulpur, PO Shamraipur, PS: Kharagpur, Dist. West Midnapore, West Bengal (Amendment in TORs) [J-11011/372/2014-IA.II(I)]

The proposal is regarding change in the name of the company from M/s Rashmi Metaliks Ltd to M/s Orissa Metaliks Pvt Ltd. The Member Secretary informed to the Committee that the change of the name of the company is an administrative work and the PP has to apply directly to the Ministry in a hard copy format along with the following documents:

- i. No Objection Certificate/Affidavit from M/s Rashmi Metaliks Ltd in a non-judicial stamp paper for transferring the ToR letter dated 12th February, 2015 to M/s Orissa Metaliks Pvt Ltd;

43.8.4 Amendment in the Environmental Clearance for change in product mix for Sindri Cement Works, Sindri, Dhanbad District, Jharkhand. By M/s ACC cement [J-11011/623/2009-IA.II(I)]

Sindri Cement Works, ACC Ltd is having standalone grinding unit of 1.0 MTPA Portland Slag Cement (PSC) at Village Sindri, Tehsil & District Dhanbad, Jharkhand. The Environmental clearance for expansion of Cement Grinding Unit from 1.0 MTPA to 2.5 MTPA for PSC was granted by Ministry vide letter no J-11011/623/2009-IA.II(I) dated 13th May, 2011

PP mentioned that they are in the process of implementing the expansion project for increase of cement production from 1.0 to 2.5 MTPA PSC. As part of expansion, ACC has proposed to install a Vertical Roller Mill (VRM) of 180 tph capacity for which EC is obtained.

It has been explained in the Committee that due to the change in the market scenario and market demand, Sindri cement Works (SCW) proposes to produce the required grade of products such PPC, OPC & GGBFS including PSC without increase in the Cement production capacity. In view of above PP seeks amendment in Environmental Clearance from MOEF for the following product mix.

Item	EC granted	Amendment in EC requested
Cement Production , (Million Tonnes Per Annum)	2.5	2.5
	PSC	PSC,PPC, OPC& GGBFS

PP mentioned that no additional infrastructure would be required for production of PSC, OPC & GGBFS. However for production of PPC cement, PP has proposed pneumatic fly ash feeding system, a new silo of 5000 tons capacity to store fly ash and three state of art bag filter designed to meet the outlet dust concentration well within the permissible limit. Provision of an additional cost of Rs 33 Crores has been kept towards this.

The coal consumption will reduce for which the EC was granted. The reduction will be to the extent of reduction of Slag Cement. Accordingly the emissions ie PM10, SO2 & Nox also get reduced.

Major quantity of other raw material will be transported by railways. Though, slight increase of PM10 is anticipated with the three bag filters for Fly ash system, it will be compensated by decrease in emissions due to reduction in coal requirement. VRM will be equipped with Bag Filter which is designed to meet outlet dust concentration of less than 30 mg/Nm³

After detailed deliberation the Committee recommended for amendment in the environmental clearance to produce PSC, PPC, OPC& GGBFS.

43.8.5 Steel plant in APHC Industrial Estate, Merlapaka Village, Yerpedu Mandal, Chittoor District, Andhra Pradesh by M/s Pushpit Steels Private Limited - Extension of validity of Environmental clearance Environmental Clearance issued by MOEF vide F. No. J-11011/137/2008 IA-II (I) dated 28.05.2008.

Environmental Clearance for the project was accorded vide F.No. J-11011 / 137 / 2008 – IA II (I) Dated 28th May 2008 issued in the name of M/s. Sri Venkateswara Sponge & Power Private Limited. The EC is valid till 27th May, 2015, as per the amendment Notification dated 29th April, 2015. PP mentioned that the unit has incurred losses continuously & became a sick unit and it was taken over by Andhra Bank. Latter it was taken over by M/s. Pusphit Steels Private Limited through auction from Andhra Bank on 19th April 2013.

PP has requested to extend the validity of EC for further period of 3 years as per the amendment Notification dated 29th April, 2015 and transfer the EC from M/s. Sri Venkateswara Sponge & Power Private Limited to M/s. Pusphit Steels Private Limited.

It is noted that the EC was accorded on 28th May 2008 and it is valid till 27th May, 2015, as per the amendment Notification dated 29th April, 2015. PP has applied to the Ministry on 27th May, 2015, i.e. within the validity period.

The committee after detailed deliberation recommended the proposal of extension of validity of EC for further period of 3 years i.e. upto 27th May, 2018. Regarding change of name from M/s. Sri Venkateswara Sponge & Power Private Limited to M/s. Pusphit Steels Private Limited, PP has to apply to the Ministry directly along with the requisite documents.

43.8.6 Expansion of mild steel ingots/billets (208 TPD - 416 TPD) at Survey No.171- 172 IDA Bolaram Jinnaram Mandal Medak district Andhra Pradesh by M/s Vijay Iron Foundry Pvt Ltd. - Extension of validity of Environmental clearance Environmental Clearance issued by MOEF vide F. No. J-11011/1074/2008 IA-II (I) dated 11.03.2008.

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.

43.9 CASE FOR TERMS OF REFERENCE (TOR)

43.9.1 Enhancement in cement production capacity of cement (1.37 to 2.0 MTPA), crinker (1.0 to 3.0 MTPA) CPP (18 to 25 MW) & WHRB (15 MW) at Village: Ghorawat, Tehsil: Bhopalgarh, District: Jodhpur, Rajasthan by M/s. Marwar Cement Limited. [J-11011/154/2009-IA-II(I)]

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

The Environment Clearance (EC) for the Integrated Cement Plant (Cement 1.37 MTPA, Clinker 1.0 MTPA, CPP 18 MW & DG set 5 MW) at Village: Ghorawat, Tehsil: Bhopalgarh, District: Jodhpur, Rajasthan was granted in the name of M/s. Vedanta Industries Ltd. by the MoEF, New Delhi vide its letter no. J-11011/154/2009-IA II (I) dated 27.09.2010.

Later, in the year 2014, the name of the company was changed from M/s. Vedanta Industries Ltd. to M/s. Marwar Cement Ltd. to reflect cement activity in its name w.e.f. 12.03.2014. Only the name of the company was changed, Directors & Shareholders of the company remained same.

Now, M/s. Marwar Cement Ltd. (formerly M/s. Vedanta Industries Ltd.) has proposed for change in the production capacity of Cement (1.37 to 2.0 MTPA), Clinker (1.0 to 3.0 MTPA), CPP (18 to 25 MW) & WHRB (15 MW) at Village: Ghorawat, Tehsil: Bhopalgarh, District: Jodhpur, Rajasthan.

No construction has been started for the earlier project of integrated cement plant. The Consent to Establish (CTE) has been obtained from the State Pollution Control Board, Rajasthan. Therefore, the project requirements viz. Land, Raw materials, Water, Power, Manpower etc. have been taken considering the total capacities as given below:

Units	Granted capacity	Enhancement Capacity	Total Capacity
Cement (MTPA)	1.37	0.63	2.0
Clinker (MTPA)	1.0	2.0	3.0
Captive Power Plant (MW)	18	7	25
WHRB (MW)	NIL	15	15

D.G. Set (MW)	5	NIL	5
---------------	---	-----	---

Total project area is 75 ha which has already been acquired by the company. Out of the total project area, 33% of the area i.e. 24.75 ha will be developed as greenbelt/plantation area. Geographical coordinates for the project site are Latitude 26° 30' 31.28" to 26°30'53.21"North and Longitude 73° 45'48.60" to 73°46'31.33" East.

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

- i. Public Hearing to be conducted by Rajasthan Pollution Control Board.
- ii. Compliance report from the Regional Office for the existing project.

43.9.2 Rolling Mill-175000 MTPA Sponge Iron 70000 mtpa MS Billets 175000 mtpa Pig Iron - 100000 mtpa HG Sponge Iron - 70000 mtpa Iron Ore Pellets-600000mtpa Captive Power Plant - 15mw Fly Ash Blocks 2000000 PA ha. at Jodidevarahalli Village, Kallambella Hobli, Sira Taluk by M/s Sunvik Steels Pvt. Ltd. [J-11011/959/2008-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 for by the PP.

43.9.3 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 Nm³/hr) at Debipur & Maheshpur, District: Burdwan, West Bengal by M/s Maithan Alloys Ltd [J-11011/191/2013-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.

43.9.4 1.2 MTPA capacity Grinding Unit at SIPCOT, Tuticorin in Tamilnadu to produce GGBS/PSC/PPC/OPC by M/s JSW Cement Ltd.[F. No-11011/162/2015-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 PP along with their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. The proposed project activity is listed at S.No. 3(b), Cement Industry, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s JSW Cement Limited (JSW) proposes to setup a 1.2 MTPA capacity Grinding Unit at SIPCOT, Tuticorin in Tamilnadu. JSW wishes to produce GGBS/PSC/PPC based on market demand. Plant will have a Roller Press Mill of 1.20 MTPA capacity. The plant will be located in an area of 60 acres in SIPCOT Industrial Estate. The principal raw materials are Clinker, Slag, Gypsum and Fly Ash. The major raw material, Clinker will be met from Cement plants of JSW/ international market. Water requirement of the plant is 500m³/day and will be met from SIPCOT supply. No solid waste generation from the plant. No process wastewater generation. PP mentioned that infrastructure includes railway siding , roads, storm water drains with adequate storage space for clinker and flyash and parking area will be developed. Greenbelt will be developed in about 20 acres. Power requirement will be supplied by SIPCOT. Total capital Investment Cost is Rs 239 crores

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 project.

On the request of PP Committee agreed for the collection of data to be done in July, August, September, 2015

43.9.5 Proposed Coke Oven plant (1,44,00 Ferro Alloys Plant) Fe-SI 14,0400 TPA along with captive power plant 2x9 MW at plot no. C-Industrial Growth Centre, Matia Goal Para, Assam by M/s Anjaney Coke & Alloys Pvt. Ltd – TOR - [J-11011/53/2015-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 PP along with their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP 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.

Earlier PP had submitted the Form-I for Ferro Alloy, Coke Oven and WHRB based Power Plant. Project was considered for TOR in the 37th REAC meeting held on 30th April 2015. During TOR it is requested to consider coal washery unit as a part of project which was earlier not covered in application. It was accepted by the committee, however, the Committee directed to, again submit revised Form-I application incorporating details of Coal washery. Accordingly revised Form-I was submitted incorporating details of coal washery.

M/s. Anjaney Coke & Alloys Pvt. Ltd has proposed to establish following facility at Plot no. C, Industrial Growth Centre, Matia, Goalpara, Assam.

NO.	NAME OF THE FACILITY	CAPACITY			REMARKS
		PHASE-I	PHASE-II	TOTAL	
1	Ferro Alloy plant	7,200 TPA	7,200 TPA	14,400 TPA	Submerged Arc Furnace of 2 x 9 MVA
2	Coke Oven Plant	72,000 TPA	72,000 TPA	1,44,000 TPA	Clean type heat recovery top charge coke oven (Non-recovery coke oven plant)
3	Coal Washry	1,44,000 TPA	1,44,000 TPA	2,88,000 TPA	Hydro Cyclone Technology
4	Power Plant	9 MW	9 MW	18 MW	2 x 36 TPH Waste heat recovery boiler

No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area within 10 KM radius. However Shilabari RF, Dabli Hill RF and Upartala RF are located at distance of 7.5 km, 9 km and 9.6 km respectively from the project site. Nearest River is Brahmaputra/Dudhnai River which is at a distance of 1.3 km. Nearest railway station is Krishnai at a distance of 5 km. Nearest airport is Guwahati at 85 km. The cost of the proposed project would be Rs. 307.97 Cr. Total capital cost for environmental pollution control measures would be Rs. 20 Cr. and recurring cost per annum would be Rs. 0.5 Cr.

The main raw materials required for the project is Coal 2,90,880 TPA, Quartz 25,920 TPA, Lam Coke 2,160 TPA, Mill scale 6,192 TPA. Coal will be sourced from Assam, Bihar, Meghalaya, U.P, Jharkhand West Bengal, Quartz will be from Assam, Jharkhand, Bihar and LAM Coke From Andhra Pradesh & Tamil Nadu.

Around 18.2 ha (45 Acre) Industrial land has been Allotted (Prov.) by AIDC for the project. About 6 ha area i.e. 33 % of total plant area shall be developed as green belt at plant boundary, road side, around offices & buildings and Stretch of open land. There shall be no any rehabilitation and resettlements are involved.

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.
- ii. Analysis on the seismic data for the region to be submitted.
- iii. Environmental management plan for high Sulphur coal should be submitted.
- iv. Applicability of the order of Hon'ble Supreme Court on the coke oven plant and its implication on the project.

43.9.6 1.2 MTPA Grinding Unit and Kudikadu Village, Cuddalore Taluk, Cuddalore District, Tamilnadu by M/s JSW Cement Limited []

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

The PP along with their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. The proposed project activity is listed at S.No. 3(b), Cement Industry, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s JSW Cement Limited (JSW) proposes to setup a Cement Grinding Unit in at Kudikadu Village, Cuddalore District in Tamilnadu. JSW wishes to produce GGBS & PSC as per the market demand. Plant will have a Roller Press Mill of 1.20 MTPA capacity. The plant will be located in an area of 40 acres in SIPCOT Industrial Estate. The principal raw materials are Clinker, Slag and Gypsum. The major raw material, Clinker will be met from Cement plants of JSW/ international market. Water requirement of the plant is 500 m³/day and will be met from SIPCOT supply

Infrastructure include railway siding , roads, storm water drains with adequate storage space for clinker and flyash and parking area will be developed. Greenbelt will be developed in about 13.2 acres. Power requirement will be supplied by SIPCOT. Total capital Investment Cost is Rs 245 crores

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 project.

On the request of PP Committee agreed for the collection of data to be done in July, August, September, 2015.

43.9.7 4.0 MTPA standalone Iron Ore Pellet Plant of M/s Brahmani River Pellets Ltd(BRPL) at Kalinga Nagar Industrial Complex, Duburi, Dist: Jajpur, Odisha [J-11011/295/2014-IA-II(I)]

Brahmani River Pellets Ltd is operating a 4.0 million ton Beneficiation Plant at Barbil, a 4.0 million ton Pellet Plant at Kalinganagar Industrial complex at Jajpur and an underground pipeline joining the two plants, thus making all three as an integrated unit. Prior Environmental Clearance was obtained for Beneficiation plant (including pipeline). No separate EC was obtained for pellet plant as standalone Pellet Plants (without steel making capacities) do not

require environment clearance as it was generally conceived both by Regulatory Authorities (State Pollution control Boards) and the Industry as palletisation does not come under the category of primary metallurgy.

It may be mentioned that in the matter of M/s Ardent Steel Ltd V/s Ministry of Environment and Forests and State Pollution Control Board, Odisha, The National Green Tribunal vide their judgment dated 27th May 2014 held that standalone pellet plants also require environmental clearance.

Subsequent to the judgment of NGT, the State Pollution Control Board Odisha informed the company vide their letter dated 6th June 2014 to submit an application for environmental clearance in terms of EIA Notification, 2006 within one month.

The Ministry directed on 8th September that the existing pellet plants should apply for TOR within three months and obtain EC within one year.

The matter was considered in the 23rd meeting of Reconstituted Expert Appraisal Committee on 18th September 2014. PP sought exemption for public hearing during presentation which was denied. However approval for TOR was granted on 10th November 2014 with public hearing.

PP now with reference to the Office Memorandum dated. 10.12.2014 requested for exemption of Public hearing since the unit is situated in the Kalinga Nagar Industrial Complex.

After detailed deliberation the Committee recommended the proposal for exemption of Public hearing for the project.

43.9.8 Greenfield cement project by name and style M/s Sai Krishna (India) Cements Pvt. Ltd with a capacity of 2.0 MTPA Cement production along with 30 MW coal based Captive Power Plant in Turakapalem Village of Machavaram Mandal, Guntur District, Andhra Pradesh – [J-11011/137/2015-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 PP along with their EIA-EMP consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. The proposed project activity is listed at S.No. 3(b), Cement Industry, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s KRISHNA SAI GROUP (KSG) proposed to set up a Greenfield cement project by name and style M/s SAI KRISHNA (INDIA) CEMENTS PVT. LTD with a capacity of 2.0 MTPA Cement production along with 30 MW coal based Captive Power Plant in Turakapalem Village of Machavaram Mandal, Guntur District, Andhra Pradesh.

The Plant will be located in an area of 277.0 acres which is a private patta land with rainfed cultivation. Residential colony will be located nearer to the plant with about 100 houses. The Waste water from colony and plant will be treated in the Sewage Treatment Plant. The principal raw materials are Limestone, iron ore, Coal and Gypsum. The major raw material, limestone will be met from Captive limestone mine (167.571 Ha) located about 1.0 km of the proposed cement plant area.

Coal will be sourced from coal fields of Singareni Collieries Company Limited (SCCL), a subsidiary company of Coal India Limited. These collieries are located at a distance of about 300-350 km from the proposed plant site. Plant will have Clinker line of 4,500 tpd (production capacity) with an installed capacity 5000 tpd /1.5 million TPA and cement unit having a potential of 6000 tpd (3000 OPC & 3000 PPC) /2.0 million TPA at Turakapalem Village with Product Mix of OPC and PPC. A 30 MW coal based power plant will be installed to meet the power requirement of the plant.

Indian Coal required for cement plant will be sourced from coal fields of Singareni Collieries Company Limited (SCCL) or Imported coal from South Africa/ Indonesia. Water requirement of the plant is 1300 m³/day and will be met from Krishna River which is located at 8 km from the plant site. The project is based on clinkerization factor of 1.45 on kiln feed basis with specific heat consumption of 700 kcal/ kg clinker.

The plant and mine will give employment to about 450 people. Total capital Investment Cost is Rs. 2000 Crores including a captive thermal power plant of 30 MW

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

- i. Public Hearing to be conducted by Andhra Pradesh Pollution Control Board
- ii. No drainage should be disturbed

43.9.9 Proposed Cement Plant (3.0 MTPA), Clinker Unit (1.4 MTPA), Coal Washery (0.96 MTPA) along with 2x20 MW Captive Power Plant at Village Pataidih (Semradih Panchayat), Tehsil Masturi, District Bilaspur in Chhattisgarh and proposed new Limestone Mine i.e. Chilhati Limestone Mine, District Bilaspur in Chhattisgarh by M/s SKS Cement Limited (A subsidiary of SKS Ispat and Power Limited) - Environmental Clearance – [F. No. J-11011/252/2011-IA-II (I)]

Ministry has granted TOR vide letter no J-11011/252/2011-IA-II (I) dated 12.08.2011 for establishment of a cement plant in Bilaspur District of Chhattisgarh State. Further Ministry has granted TOR validity Extension for addition one year vide Letter No. J-11011/252/2011-IA.II (I) dated 13th November 2013.

PP mentioned that for the above Cement plant Govt. of CG vide MRD / Letter No. F 3-86/200712 dated 13th October 2008 has allotted a captive Chilhati Limestone Mine (Peak

production capacity 2.25 MTPA over 299.751 Ha. area) at Villages - Chilhati, Loharabore, Sukulkari, Godadih MN 1, Belha, Bhurkunda, Tehsil – Masturi, District - Bilaspur, (Chhattisgarh). As per EIA Notification dated 14th September 2006, (as amended upto date), PP conducted public hearing (for both Chilhati Lime stone Mine and Cement Plant) on 25.07.2014 and final EIA submitted on 08.12.2014.

The proposal for grant of Environment Clearance for the captive Mines was considered at 29th EAC (Non-Coal Mining) dated 16.01.2015 and during the discussion it was observed that the public hearing was completed well within the validity of TOR but the final EIA/EMP was submitted after the expiry of validity of TOR. Hence Ministry vide letter No.J-11015/120/2011-IA.II (M) dated; 09.02.2015, advised for extension in validity of TOR as per the MOEF OM F.No.J-11013/41/2006-IA-II (I) (Part) dated 07.11.2014. Ministry has extended the TOR validity vide letter no.J-11015/120/2011-IA.II (M) dated 17.04.2015.

PP mentioned that since TOR validity for captive mines has been extended by EAC (Non-Coal Mining) till 28. 07. 2015, the validity period of TOR for Cement plant may also be extended at par with our mines.

After detailed deliberation the Committee recommended for extension of validity of ToR for period of 1 year i.e up to 11.8.2015.

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 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. Site Details
 - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

6. Environmental Status

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

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modeling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

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

8. Occupational health

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

9. Corporate Environment Policy

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

The following general points shall be noted:

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

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

ADDITIONAL TORS FOR INTEGRATED STEEL PLANT

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

ADDITIONAL TORs FOR CEMENT INDUSTRY

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

ADDITIONAL TORs FOR PULP AND PAPER INDUSTRY

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

LEATHER/SKIN/HIDE PROCESSING INDUSTRY

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

Coke oven plant

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

Asbestos milling and asbestos based products

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

Induction/arc furnaces/cupola furnaces 5TPH or more

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

Metallurgical industry (ferrous and non-ferrous)

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

LIST OF PARTICIPANTS OF EAC (I) IN 43rd MEETING OF EAC (INDUSTRY-I)
HELD ON 2nd – 3rd 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	A	
10.	Dr. Antony Gnanamuthu	Member	A	
11.	Prof. C. S. Dubey	Member	P	
12.	Shri Niranjan Raghunath Raje	Member	A	
MOEF Representatives				
13.	Dr.Satish C. Garkoti	Scientist F & MS (Industry-I)		
14.	Shri Amardeep Raju	Scientist D		
