

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

SUMMARY RECORD OF THE SIXTH (6th) MEETING OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The sixth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector in terms of the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held on 3rd - 4th May, 2016 in the Ministry of Environment, Forest and Climate Change. Prof. Arun Pandey, Dr.R.K. Jain and Shri Santosh Gondhalekar, Members of EAC has expressed their inability to attend the meeting due to prior engagements. The list of participants is annexed.

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

Confirmation of the minutes of the 5th Meeting

The minutes of the 5th meeting, as circulated were confirmed.

6.3 ENVIRONMENTAL CLEARANCE (EC)

6.3.1 Capacity Expansion of Crude Steel (3 MTPA to 5.5 MTPA) of M/s Bhushan Power and Steel Limited at Village Thelkoloi, Lapanga, Tehsil Rengali, District Sambalpur, Odisha. (F.No-J-11011/40/2009-IA.II(I)).

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s M/s Dastur) gave a detailed presentation on the salient features of the project. The application for expansion of Crude Steel production (3 MTPA to 5.0 MTPA) along with CPP (560 MW to 710 MW) of M/s Bhushan Power & Steel Limited (BPSL), located in Village Thelkoloi, Tehsil Rengali, District Sambalpur, State Odisha was initially received in the Ministry on 30.09.2014 for obtaining Terms of Reference (TORs), as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 14.11.2014 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed TORs to the project on 30.03.2015. This was further amended for expansion to 5.5 MTPA crude steel production along with CPP from 560 MW to 710 MW by the EAC(I) during its meeting on 01.06.2015 and the revised ToR was prescribed on 18.08.2015. 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.

Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 06.04.2016. The proposal is for enhancement of production of crude steel from 3.0 million tonnes per annum (million TPA) to 5.5 million TPA along with CPP from 560 MW to 710 MW. The total land required for the project is 284 ha, which has been acquired through IIDCO. No forestland involved. The entire

land has been acquired for the project. It has been reported that water bodies exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The topography of the area is undulated and reported to lie between 21° 37'30" to 21° 52'30" N Latitude and 83° 55'00" to 84° 07'30" E Longitude, at an average elevation of 150 m AMSL. Following table shows the configuration of the project:

Sl. No.	Facilities	EC Granted at 3.0 MTPA	Plant Configuration at 5.5 MTPA
1	Coal Washery	1 x 1.0 MTPA 1 x 3.5 MTPA	1 x 1.0 MTPA 1 x 3.5 MTPA
2	Beneficiation Plant	1 x 1200 TPH	1 x 1200 TPH
3	Pellet Plant	3.5 MTPA	4.0 MTPA
4	DRI Kiln	14 x 500 TPD	14 x 500 TPD
5	Coke Oven	2 x 0.45 MTPA (Non recovery type)	2 x 0.45 MTPA (Non recovery type)
		1 x 1.0 MTPA (Recovery Type)	1 x 1.2 MTPA (Recovery Type)
6	Sinter Plant	1 x 105 m ² 1 x 204 m ²	1 x 105 sqm 1 x 450 sqm
7	Blast Furnace	1 x 1008 cum 1 x 2015 cum	1 x 1008 cum 2 x 2015 cum
8	EAF	6 x 100 ton	6 x 100 ton
9	LF	6 x 100 ton	6 x 100 ton 2 x 250 ton*
10	IF	4 x 15 ton	-
11	Alloy Smelter	4 x 16 MVA	4 x 16 MVA
12	BOF	-	2 x 250 ton*
13	VD/AOD	2 x 100 ton	2 x 100 ton 2 x 250 ton*
14	RH	-	2 x 250 ton*
15	HMDP	-	2 x 250 ton*
16	Lime Plant	3 x 300 TPD 1 x 600 TPD	3 x 300 TPD 2 x 600 TPD
17	Dolo Plant	1 x 300 TPD 1 x 100 TPD	1 x 300 TPD 1 x 100 TPD 1 x 600 TPD
18	Oxygen Plant	1 x 400 TPD 1 x 660 TPD	1 x 400 TPD 1 x 660 TPD 1 x 1250 TPD
19	Billet Caster	(1 x 2) + (2 x 4) + (1 x 5) Strand	(1 x 2) + (2 x 4) + (1 x 5) Strand
20	Bloom Caster	1 x 2 Strand	2 x 2 Strand
21	Thin Slab Caster	2 x 1 Strand	3 x 1 Strand

22	CSP/ESP	1.8 MTPA	4.0 MTPA
23	Cold Rolling Mill	1.0 MTPA	2.5 MTPA
24	Pipe and Tube Mill	0.2 MTPA	0.8 MTPA
25	Galvanising/ Galvalume Line	0.5 MTPA	1.3 MTPA
26	Colour Coating Unit	0.45 MTPA	0.7 MTPA
27	Wet Flux Galvanising Line	-	-
28	Forging shop	-	-
29	Wire and Rod Mill	0.45 MTPA	0.45 MTPA
30	Heavy Bar and Rod Mill	0.55 MTPA	0.55 MTPA
31	Captive Power Plant	560 MW	710 MW
32	Cement Plant	1.0 MTPA	1.0 MTPA

The process of project is based on the conventional Blast Furnace (BF)-Basic Oxygen Furnace (BOF) route. The targeted production capacity of the integrated steel plant is 5.5 million TPA crude steel along with CPP from 560 MW to 710 MW. The ore for the plant would be procured by local e-Auction. The ore transportation will be done through rail/road. The ground water table reported to ranges between 2.22 m - 6.28 m below the land surface during the post-monsoon season and 4.60 m - 8.84 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 20% and thereby the area is designated as 'safe'. The water requirement of the expansion project is estimated as 45,720 m³/day, which will be met from the backwater reservoir of Hirakud Dam from the present allocation. The power requirement of the expansion project is estimated as 236 MW, which will be obtained from captive generation.

Ambient air quality monitoring has been carried out at 8 locations during December 2014 to March 2015 and the data submitted indicated that PM10 ranges from 70.7 µg/m³ to 86.6 µg/m³, PM2.5 ranges from 34.3 µg/m³ to 45.1 µg/m³, SO₂ ranges from 0 to 8.2 µg/m³ and NOx ranges from 24 µg/m³ to 29.8 µg/m³. The results of the modelling study indicated that the maximum increase of GLC for the proposed project is 14 µg/m³ with respect to the PM10, 9 µg/m³ with respect to the SO₂ and 9 µg/m³ with respect to the NOx.

There are 226 people in the core zone of the project. R&R is involved. It has been envisaged that 106 households to be rehabilitated, which will be provided compensation and preference in the employment.

It has been reported that a total of 1.1 million TPA of waste will be generated due to the project, which would be utilized in various processes of the steel plant or sold to outside agencies. It has been envisaged that an area of 94 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

The Public Hearing of the project was held on 17.02.2016 for production of 5.5 million TPA of crude steel along with CPP (710 MW), under the chairmanship of ADM, Sambalpur. The issues raised during public hearing *inter-alia* include employment, pollution etc.

The capital cost of the project is Rs. 9,090 Crores and the capital cost for environmental protection measures is proposed as Rs. 49,000 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1,000 Lakhs. The proponent has mentioned that there is no court case to the project or related activity.

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

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. The project proponent shall prepare R&R plan for the effected households in the core zone including compensation to be paid and employment to be provided and submit the same to the Ministries regional office.
- iii. 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.
- iv. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely. The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
- v. Efforts shall further be made to use maximum water from the rain water harvesting 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. All the effluent should be treated and used for ash handling, dust suppression and green belt development. ETP sludge should be disposed off scientifically.
- vi. All the coal fines, char from DRI plant shall be utilized and no char shall be used for briquette making or disposed off anywhere else. Scrap shall be used in steel melting shop (SMS) and SMS slag and kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- vii. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
- viii. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.

- ix. 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.
- x. 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.
- xi. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- xii. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- xiii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- xiv. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- xv. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
- xvi. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.
- xvii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xviii. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.
- xix. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xx. An amount of Rs. 458 crores shall be earmarked towards the Enterprise Social Commitment for a period of 10 years for implementing activities based on Public

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

- xxi. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xxii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxiii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxiv. The project proponent shall provide for LED lights in their offices and residential areas.
- xxv. 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.

6.4 FURTHER CONSIDERATION

6.4.1 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[F. No. J-11011/252/2011-IA II (D)]

The proposal was earlier considered during the 47th meeting of Expert Appraisal Committee held on 3rd – 4th September, 2015, when the Committee had desired additional information on the following points for further consideration of the proposal:

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

Based on the information submitted by the Proponent vide letter No. SKS/EHSCP/2016/174 dated 11th April, 2016 the proposal was considered further. The Project Proponent and their consultant (M/s Vimta Labs Limited) made a presentation on the additional information.

The Proponent informed that the project area of 100.1 ha is under acquisition by the state government/CSIDC and the State Industries Department has already taken favorable decision to acquire 98.151 ha of private land in Pataidih Village, Masturi Tehsil, Bilaspur District. It was also mentioned that CSIDC issued a letter dated 15.09.2015 to M/s SKS Cement Ltd. to deposit Rs.19.40 Crore for processing their land acquisition procedure. Regarding consent of land owners, the proponent mentioned that the villagers through Gram Saba, have given their full consent for this project.

The Committee after detailed deliberation noted that no tangible document regarding land acquisition and consent from the individual owner of the land is available with the proponent. The Committee advised the proponent to submit the requisite documents as desired earlier and mentioned at point (i) and (ii) above for further consideration of proposal.

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

The proposal was earlier considered during the 45th meeting of Expert Appraisal Committee held on 11th – 12th August, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

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

Based on the information submitted by the proponent vide letter No. RBSSNFIPL/2015-16/392 dated 17th February, 2016 the proposal was considered further. The Project Proponent

M/s RBSSN -Ferrous Industries Private Limited made a presentation on the additional information.

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

- i. The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- v. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- vi. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- vii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act whichever are more stringent.
- viii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- ix. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
- x. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.

- xi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xiii. The project proponent shall provide for LED lights in their offices and residential areas.
- xiv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on the local needs and issues raised during public hearing. Action plan for ESC with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of action plan so prepared shall be ensured accordingly in a time bound manner.
- xv. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xxvi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxvii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxviii. The project proponent shall provide for LED lights in their offices and residential areas.

xxix. 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.

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

The proposal was earlier considered during the 1st meeting of Expert Appraisal Committee held on 18th – 20th November, 2015, the Committee observed that there is no technical expert from project side for explaining the process. The Committee; therefore, deferred consideration of the proposal and requested project proponent to depute a senior officer from proponent’s side who will explain the process for further consideration.

The proposal was included in the agenda of the second meeting of the Expert Appraisal Committee meeting held on 28th – 30th December, 2015. However, consideration of the proposal was deferred on the request of the Project Proponent. The Project Proponent and their Consultants made a presentation on proposal.

The proponent explained the technology for Rotary Hearth Furnace (RHF) which consists of a flat, refractory hearth rotating inside a stationary circular tunnel kiln. It has been explained that the product can be in the form of DRI pellets, briquettes, hot metal or nuggets. Following table shows the present plant facility and the land requirement:

S. No	Particular	Capacity	Land required
1.	Beneficiation of Iron Ore Plant with all Plant & Facilities with Green Cover	1.9 MTPA	39.86 Acres
2.	Coal Washery with all Plant & Facilities with Green Cover	0.35 MTPA	13.51 Acres
3.	Rotary Hearth Furnace with all Plant & Facilities including WHRB & with Green Cover	0.40 MTPA	21.08 Acres
4.	Producer Gas Plant (PGP) as fuel source of Plant	400 MNM ³	01.82 Acres
	TOTAL		76.27 Acres
	POSSESSED LAND		77.00 Acres

Due to the revised scope of the project, power requirement for the project will be 15 MW. M/s RSPL will meet the requirement from Grid supply 5 MW, plus 10 MW through the same WHRS in RHF.

As per EC accorded the water requirement was 7500 KLD for all the units. As per revised Scope of the Project, the water requirement envisaged as 4000 KLD for the proposed units, out of which 1902.0 KLD will be recycled after adequate treatment therefore net water requirement will be 2098.0 KLD during the operation phase. The water will be sourced from surface water (Lilagar River) as well as Ground water i.e. bore wells. It is proposed to develop a separate pond for rain water harvesting to fulfill a part of water requirement for industrial process.

Earlier a proposal for amendment in EC was recommended by the Committee in its 22nd meeting held on 28th – 29th August, 2014. The proposal was regarding incorporation of the producer gas plant as one of the unit in the earlier EC, as the producer gas plant was an integral part of EIA/EMP report. PP mentioned that the producer gas plant is now incorporated in the new plant, therefore amendment regarding producer gas plant in the old EC is not required.

Based on the presentation made and discussions held the Committee recommended the project for environment clearance under clause 7(ii) of EIA Notification, 2006 subject to stipulation of the following additional specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The Project Proponent shall comply with all specific and general conditions stipulated earlier to the project vide Environment Clearance letter No. J-11011/466/2010-IA.II(I) dated 10th September, 2013.
- ii. Life-cycle assessment to assess the environmental impacts associated with all the stages of a product's life from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling of the product and the waste generated in the process should be carried out through certified laboratory testing and the report should be submitted to the regional office of the Ministry once the production is started along with the 6 monthly compliance report.
- iii. The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- iv. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- v. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.
- vi. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- vii. The project proponent shall provide for LED lights in their offices and residential areas.
- viii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

- ix. The project proponent shall provide for LED lights in their offices and residential areas.
- x. The Project Proponent shall carry out laboratory testing of all products with regard to environmental hazard and submit report to Ministry of Environment, Forest and Climate Change and its Regional Office.

6.5 ANY OTHER ITEM

6.5.1 Integrated Steel Plant (6 MTPA) and Captive Power Plant (1000 MW) at Kerjang, Angul, Odisha by M/s Jindal Steel and Power Ltd - [J-11011/365/2006-IA-II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Min Mec) gave a presentation on the project. The application of the proponent is for amendment in environment clearance accorded to the project on 22.2.2007 for 6 MTPA capacity of integrated steel plant with 1000 MW captive power plant. The project proponent and their Consultant made presentation. It was informed that an amendment to the above mentioned Environment Clearance was issued by the Ministry on 14.11.2008 for following configuration:

S.No.	Name of the Unit	Product	Unit	Capacity
1	Pellet Plant	Iron ore pellets	MTPA	5.0
2	Coal Gassifiers	Coal gas	Nm ³ /yr	4000 x 10 ⁶
3	DRI Plant (Gas based)	Sponge Iron	MTPA	4.0
4	Blast Furnace	Pig Iron	MTPA	3.2
5	Coke Oven & Byproduct Plant	Coke	MTPA	2.0
6	Sinter Plant	Sinter	MTPA	4.0
7	Steel Melting Shop	Steel	MTPA	6.0
8	Rolling Mill	Steel Product	MTPA	6.0
9	Ferroalloy Plant	Ferroalloys	MTPA	0.08
10	Lime-dolime Plant	Lime / Dolime	TPD	3000
11	Process Gas/ Pressure Recovery Turbine	Electricity	MW	62
12	Coal based Power Plant	Electricity	MW	1080 (8x135 MW)

The proponent has provided the status of implementation of project as under:

S. No	Name of the Unit (Capacity as per EC)	Status
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1	Coal Gassifiers (4000x106 Nm ³ /yr)	Commissioned (1800 x106 Nm ³ /yr)
2	DRI Plant (Gas based) (4.0 MTPA)	Commissioned (1.8 MTPA)
3	Steel Melting Shop (6.0 MTPA)	Commissioned (1.5 MTPA)
4	Rolling Mill (6.0 MTPA)	Commissioned (1.2 MTPA)
5	Lime-dolime Plant (3000 TPD)	Commissioned (1000 TPD)
6	Process Gas/ Pressure Recovery Turbine (62 MW)	Commissioned (41.3 MW)
7	Coal based Power Plant (8x135 MW)	Commissioned (6x135 MW)
8	Pellet Plant (5 MTPA)	Under implementation (5 MTPA)
9	Blast Furnace (3.2 MTPA)	Under implementation (3.2 MTPA)
10	Coke Oven & Byproduct Plant (2.0 MTPA)	Under Implementation (2.0 MTPA)
11	Sinter Plant (4.0 MTPA)	Under Implementation (4.0 MTPA)
12	Ferroalloy Plant (0.08 MTPA)	Under Implementation (0.08 MTPA)

As per the stipulation of the Ministry, the company has to adopt the dry quenching of coke to conserve water and mitigate pollution. In this regard, the proponent has requested for allowing them for use of wet quenching system in coke oven batteries till the Coke Dry Quenching (CDQ) which commissioned. It was also informed that after commissioning of the CDQ, wet quenching be allowed to be kept as stand by for emergency operation and also to be used during the annual shut down for the CDQ boiler. Further, the proponent has requested for bifurcation of 6 MTPA Steel Melting Shop (SMS) based on Electric Arc Furnace (EAF) route (3 MTPA) and through Basic Oxygen Furnace (BOF) route (3 MTPA). It was also mentioned during the presentation that adoption of BOF route for steel making will lead to reduction in pollution load.

The Committee has noted that the plant is at present in operation and producing 1.2 MTPA of steel. As the proposal was initially accorded environment clearance by the Ministry on 22.2.2007, the Committee has raised the issue of validity of environment clearance. The Member Secretary has informed that on the issue of validity of environment clearance, Ministry has taken a decision.

Based on the presentation made and discussions held, the Committee was of the view that since the project was accorded environment clearance by the Ministry on 22.2.2007; therefore, the proponent shall ensure that the project should achieve its full capacity of 6 MTPA production by 2017. The Committee thereafter recommended the proposal for proposed amendment (i) for use of wet quenching system in coke oven batteries till the Coke Dry Quenching (CDQ) is commissioned; (ii) allowed wet quenching to be kept as stand by for emergency operation and also to be used during the annual shut down for the CDQ boiler and (iii) bifurcation of 6 MTPA

Steel Melting Shop (SMS) to Electric Arc Furnace (EAF) route (3 MTPA) and Basic Oxygen Furnace (BOF) route (3 MTPA).

6.5.2 Proposed Cement Plant with a capacity of Clinker 3 MTPA, Cement, 7 MTPA (OPC, PSC, PPC) of M/s JSW Cement Ltd at village Mogla, Tehsil Chitapur, Dist Gulbarga, Karnataka – Relocation of the proposed project – Amendment in ToRs [J-11011/271/2012.-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Bhagavathi Ana Labs Pvt. Limited, Hyderabad) gave a presentation on the project. M/s JSW Cement Limited has proposed to set up a Greenfield Cement Plant with a production capacity of 3.0 MTPA of Clinker and 7.0 MTPA of Cement at Mogla Village, Chitapur Taluka in Gulbarga District, Karnataka. The ToRs were prescribed to the project *vide* letter No: J-11011/271/2012-IA.II (I) dated 20.02.2013

A proposal for relocation of the proposed site to Sy No. 335 to 349 along with project coordinates was submitted to Ministry by the project proponent on 01.09.2014 in order to utilize mineral reserves located in the area. The proposal was accepted by the Ministry and revised ToRs were issued *vide* letter No J-11011/271/2012-IA.II (I) dated 26.05.2015.

The proponent has mentioned that during the EIA studies it was found that the proposed project site is in Bhimnagar Village, Sedam Taluka instead of Mogla Village, Chitapur Taluka in Gulbarga District of Karnataka State. There is no change in the project site location, Sy. Nos. and coordinates submitted earlier.

The Committee after detailed deliberation accepted the request of the proponent and recommended amendment in ToRs for changing the location of the project from Village Mogla, Tehsil Chitapur, District Gulbarga, Karnataka to Village Bhimnagar, Taluka Sedam, District Gulbarga, State Karnataka. The title of the project may be read as “Proposed Cement Plant with a capacity of Clinker 3.0 million TPA, Cement 7.0 million TPA (OPC, PSC & PPC) Village Bhimnagar, Taluka Sedam, District Gulbarga, State Karnataka by JSW Cement Ltd.”

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

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Environment & Power Technologies Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The proposal was earlier considered by the Expert Appraisal Committee during its 5th meeting held on 30th – 31st March, 2016 wherein it was decided that since there is an enhancement of production of Sponge Iron from 1.20 LTPA to 1.65 LTPA, therefore it is not a case of amendment in the EC. It is an expansion project. The committee noted that since the increase in the capacity is very marginal; the proponent can apply afresh under clause 7(ii) of EIA Notification, 2006 for expansion project. The project proponent also has to submit the compliance status of the existing environmental clearance and implementation status of the plant.

The proposal was considered by the Expert Appraisal Committee (Industry) and the project proponent and their EIA-EMP consultant (M/s Environment & Power Technologies Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The committee advised PP to make presentation on specific points which were highlighted in the earlier EAC meeting. Accordingly the PP made the presentation.

Following table present the material balance for production of 1 ton of Sponge Iron for the existing plant and the proposed plant:

Existing 1.20 LTPA

Input Raw Materials	Quantity (Ton)	Total Quantity (TPA)	Output from Kiln	Quantity (Ton)	Total Quantity (TPA)
Iron Ore	1.85	2,22,000	Sponge Iron	1.00	1,20,000
Coal	1.00	1,20,000	Char & Dolochar	0.30	36,000
Dolomite	0.04	4,800	Dust from Settling Chamber	0.10	12,000
			ESP Dust	0.10	12,000
			Carbon & Oxide Losses to Atmosphere	1.39	1,66,800
	2.89	3,46,800		2.89	3,46,800

Proposed 1.65 LTPA

Input Raw Materials	Quantity (Ton)	Total Quantity (TPA)	Output from Kiln	Quantity (Ton)	Total Quantity (TPA)
Pellet	1.42	2,34,300	Sponge Iron	1.00	1,65,000
Coal	0.85	1,40,250	Char & Dolochar	0.20	33,000
Dolomite	0.03	4,950	Dust from Settling Chamber	0.07	11,550
			ESP Dust	0.07	11,550
			Carbon & Oxide Losses to Atmosphere	0.96	1,58,400
	2.30	3,79,500		2.30	379500

Source of Water will be from Tungabhadra River Right Bank High Level Canal (RBHLC). The existing power requirement for the project is 0.92 MW, which will be increased to 1.01 MW. The additional power requirement (0.09 MW) is met from existing captive power generation sources.

Based on the presentation made and discussions held, the Committee desired that the project proponent should submit the latest compliance report for the existing Environment Clearance from the Regional Office, for further consideration of the project by the Committee. A

comparative statement depicting the environmental status for the older and the new capacity should be presented.

6.5.4 Expansion of Integrated Steel Plant, Coal Washery (1.5 MTPA) and Captive Power Plant (200 MW) at Rengeli, Sambalpur Forest Division, Sambalpur, Odisha by M/s Shyam DRI Power Ltd – Extension of validity of EC [J-11011/495/2006-IA.II(I)]

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

6.6 CASE FOR TERMS OF REFERENCE (TOR)

6.6.1 Expansion of Integrated Steel Plant from 5.6 MTPA to 12.8 MTPA crude steel by M/s Bhushan Steel Limited, located at Village Meramandali, District Dhenkanal, Odisha (F.No-J-11011/829/2008-IA.II(I)).

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Dastur) gave a detailed presentation on the salient features of the project. 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. Bhushan Steel Ltd. proposes to expand its existing Integrated Steel plant for production of 12.8 MTPA crude steel from its present production of 5.6 MTPA crude steel. It is proposed to set up the plant for various grades of steel products based on BF/Midrex- BOF/EAF route. The proposed unit will be located at village Narendrapur & Meramandali, Tehsil Motunga, District Dhenkanal, State Odisha. The land area required for the integrated steel plant is about 660 Ha out of which 218 Ha land will be used for green belt development. Total project cost is approx Rs. 19,860 Crore. The proposed expansion project will involve both direct and indirect deployment of local manpower. Direct opportunities would likely to facilitate employment of about 5100 at the 12.8 MTPA crude steel production stage.

The proposed production facilities for the expansion plan are as follows:

Sl. No	Technological Facilities	Proposed facilities	Proposed capacity (mtpa)
1	Coke Oven Batteries with by-products recovery	1x74 ovens, 2x64 ovens	2.84
2	Sinter Plant	1 X 224 sqm 2 X 480 sqm	10.22
3	Blast Furnace	3400 cum (Augmentation of 1681 cum), 4500 cum (Augmentation of 3814 cum),5800 cum (New),	6.9

4	DR Plant	COG based MIDREX Plant (1 X 1.6 MTPA)	1.6
5	Calcining Plant	6X600 tpd	0.98
6	BOF	2X200 ton, 2X250 ton	6.0
7	EAF	2X100 ton	1.55
8	Bar & Rod Mill	1 unit	0.4
9	Medium & Heavy Section Mill	1 unit	0.8
10	Rebar Mill	1 unit	1.2
11	Wire Rod Mill	1 unit	0.6
12	Plate Mill	1 unit	1.2
13	CSP	1 unit	3.5
14	Cold Rolling mill	2 units	1.4
15	Stainless Steel Complex	1 unit	0.5
16	Captive Power Plant (CPP)	2 x 165 MW 2 x 40 MW (TRT)	410 MW

The overall power requirement for the plant after implementation of the proposed project is estimated to be about 815 MW, which will be obtained from Captive power generation units as well as the Grid power supply. Total captive generation will be about 737 MW, balance required power will be drawn from the grid power supply system.

Proposed raw material and fuel requirement (mainly coal) for production at 12.8 MTPA stage are 34.2 MTPA and 9.8 MTPA respectively. The requirement would be fulfilled by indigenous sources as well as through import.

The Water Consumption for the proposed project will be 5305 cum/hr and waste water generation will be 1264 cum/hr. The Domestic Waste Water will be treated in Sewage Treatment Plant (STP) and industrial waste water generated will be treated Common Effluent Treatment Plant (CETP) and reused as make-up water.

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

- i. The Public Hearing for the project should be conducted by Odisha Pollution Control Board.
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.6.2 Proposed “0.5 MTPA Integrated Steel Plant” by M/s JAI RAJ ISPAT LTD (JRIL) proposed at Orvakal Mega Industrial Hub of APIIC, Government of A.P. at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh (J-11011/110/2016-IA-II).

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s B.S. Envi – Tech Pvt. Ltd., Secunderabad) gave a detailed presentation on the salient features of the project. The proposal was considered 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. Jai Raj Ispat Limited proposes to install a Greenfield 0.5 MTPA Integrated Steel Plant. The integrated steel plant will produce the finished products as TMT bars (3,50,000 tonnes per annum) and alloy steel bars (1,50,000 tonnes per annum).

The proposed unit will be located at Orvakal Mega Industrial Hub (OMIH) of Andhra Pradesh Industrial Infrastructure Corporation (APIIC), Government of Andhra Pradesh (A.P) at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh.

The total land required for the project is 400 Acres (161.94 Ha), out of which 34.97 Ha is kept for production units, 4.15 ha. for water reservoir, 35.36 ha. for roads and open area, 9.9 ha. for raw material storage, 53.44 ha. for green belt and 24.08 ha. is others. The above land has been identified and developed by APIIC, Government of Andhra Pradesh. Total project cost is estimated at 1700 Crores. The proposed project will provide direct employment to about 1355 people and indirect employment to about 6000 people (during peak construction period).

The various production capacities is given below

A. FINISHED PRODUCTS

Description of plant	No. of units	Production Capacity
TMT Rebar Mill	1	350,000 T Rebars
Alloy Steel Bar Mill	1	150,000 T Bars

B. VARIOUS UNITS

Description of plant	No. of units	Production Capacity
Coke Oven Plant	1	250,000 T Coke
Sinter Plant	1	617,400 T Sinter
Blast Furnace	1	416,500 T Hot Metal

Steel Melting Shop comprising : Oxygen Furnace - 1 Ladle Furnace - 1 Ladle Furnace - 2 Vacuum Degasser -1 CCM for direct rolling of TMT Bars CCM for rolling of Alloy Steel Bars	1	513,393 T of Billets
Power Plant – 27 MW, consisting of Coke Ovens Waste Heat Recovery – 15 MW Blast Furnace Gas Fired – 12 MW	1	204,120,000 kWh
Air Separation Plant	1	87,500 T Oxygen
Lime Calcination Plant	1	56,100 T Lime

The power requirement of the project envisaged as 27 MW (in house generation) and 50.70 MW (sourced from Andhra Pradesh Central Power Distribution Company Limited APCPDCL).

The estimated water quantity for the project is 9600 m³/day (source: Backwaters of River Krishna). The wastewaters generated from various units are treated by the Effluent Treatment Plant. The wastewater generated from the domestic usage will be treated by Sewage Treatment Plant (STP) and will be utilized for horticulture, gardening and road spray.

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

- i. The Public Hearing for the project should be conducted by Andhra Pradesh Pollution Control Board
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.6.3 Proposed for Manganese ore Processing Plant of at Sy. Nos. 92, 93,& 94, Tatiguda Village, Garividi Mandal, Vizianagaram District, Andhra Pradesh by M/s Shiv Shanthi Cement Private Limited (J-11011/111/2016-IA-II)

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd.) gave a presentation on the project. It was presented that the Project Proponent is presently operating a Manganese Sinter unit of capacity 25TPD and a Manganese Oxide unit of 25 TPD capacity. The Proponent has now proposed to enhance the capacity of Manganese Oxide unit

from 25TPD to 50TPD and wanted to establish a new Manganese ore Concentrate of 50TPD capacity.

The Proponent mentioned that Consent to operate has been obtained from APPCB for manufacturing of Manganese Sinter (25TPD) and Manganese Oxide (25TPD) vide order number 9037/APPCB/ZO-VSP/Tech/2014-15 dated 09.04.2014, which was valid till 31.03.2016. They have applied for renewal of Consent to operate on 05.01.2016 to APPCB, who in turn advised them to obtain Environmental Clearance for existing plant. The Proponent has requested for regularization of existing plant and proposed to enhance the capacity of Manganese Oxide unit from 25TPD to 50TPD and wanted to establish a new Manganese ore Concentrate of 50TPD capacity.

The Committee noted that the Manganese ore processing plant falls under Project/Activity of Metallurgical industries (ferrous & non ferrous) and is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006, which require prior environmental clearance before establishing the project. Therefore, the above project for manufacturing of Manganese Sinter –25 TPD and Manganese Oxide – 25TPD is established in violation of EIA Notification, 2006. As there is no mechanism in existence for dealing with the violation cases, the Committee deferred consideration of the project.

6.6.4 Capacity expansion of Sponge Iron Plant (from 200 to 400 TPD), up-gradation of CPP (from 8 to 15 MW) and installation of SMS with CCM (480 TPD), Rolling Mill (300 TPD), CPP (15 MW) and Fly-ash Brick Plant (60,000 bricks / day) of M/s Shah Sponge & Power Ltd., at Village Bhumri (Juri), East Singhbhum, Jharkhand [J-11011/891/2007-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Vardan Environet) gave a detailed presentation on the salient features of the project. The proposal was considered 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. Environment Clearance for the existing unit was accorded by the Ministry vide letter No. J-11011/891/2007-IA.II(I) dated 18.6.2010.

M/s. Shah Sponge & Power Ltd. has proposed to expand its existing unit for manufacturing of Sponge Iron from 60,000 TPA to 1,20,000 TPA, CPP from 8 MW to 30 MW, Mini Blast Furnace 18,000 TPA (existing) and installation of steel melting shop (1,58,000 TPA), continuous casting (1,51,000 TPA), rolling mill (1,01,970 TPA – 50,985 TMT bar and 50,985 structural section) and fly ash brick plant 180 lakh bricks per annum. The unit is located at Village Bhumri (Juri), District East Singhbhum, Jharkhand State. The total land required for the project is 43.36 acres, which is in the possession of the proponent. An area of 6.3 acre is for existing units (MBF, DRI, CPP), 7.35 acre is for entrance road storage yard, 1.5 acre for canteen, security etc., 7.81 ha for proposed expansion (phase-I), 6.05 acre for proposed expansion (phase-II) and 14.35 acres land will be used for green belt development. No forest land is involved. No wildlife sanctuary / national park/ biosphere reserve exist within 15 km of the project site. Total

project cost is Rs. 266.14 Crore. Proposed employment generation from proposed project will be 594.

It has been mentioned that during start-up of the plant and deficiency of power, it will be obtained from Jharkhand State Electricity Board. The electricity load is 1400 KVA. HT power connection from Jharkhand State Electricity Board is available in the plant premises. The company has also proposed to install 1x1250 KVA DG Set. the water requirement of the project is envisaged as 905m³/ day, which will be sourced from bore well. NOC from CGWA is under renewal.

Proposed raw material and fuel requirement for project are as follows, which would be fulfilled by nearby sources:

Raw Materials	Exiting		Proposed		Total	
	TPD	Tons / year	TPD	Tons / year	TPD	Tons / year
Iron Ore	433	1,29,900	340	1,02,000	773	2,31,900
Coal	309	94,750	640	2,03,400	949	2,98,150
Coke	45	13,500	-	-	45	13,500
Limestone	21	6,240	10	3,000	31	9,240
Dolomite	12	3,600	-	-	12	3,600
Quartize	1.8	540	-	-	1.8	540
FeMn, FeSi, Al	-	-	7.18	2,370	7.18	2,370

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

- i. The Public Hearing for the project should be conducted by Jharkhand Pollution Control Board
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.7.1 Expansion of Asbestos Fibre Cement Sheet Manufacturing Plant (from 14500 T/M to 30000 T/M) by M/s Everest Industries Limited, located at Podanur, District Coimbatore, Tamil Nadu [J-11011/342/2012-IA-II(I)].

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Ecomen Laboratories Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The proposed capacity expansion for manufacturing of Chrysotile Asbestos Fibre Cement Products from 14500 T/M To 30000 T/M of M/s Everest Industries Limited located in Village Podanur (town), Tehsil Coimbatore South, District Coimbatore, State Tamil Nadu was initially received in the Ministry on 17.09.2012 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) during its meeting held on 5-7th March, 2013 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry had prescribed TORs to the project on April 23, 2013. Based on the TORs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on April 21, 2016. The existing project was accorded environmental clearance by the Ministry vide letter No. J-11011/673/2007-IA-II(I) dated 22nd February, 2008. The compliance report has been submitted by the Regional Office, Chennai on 30.06.2015.

The proposal is for expansion of manufacturing of Chrysotile Asbestos Fibre Cement product (roofing sheets and accessories) from 14500 tons per month (TPM) to 30000 TPM in its existing sheet plant through product mix change and marginal capacity increase on existing non-asbestos production line. No additional land is required for the proposed expansion project, as expansion will occur within existing land of 82.25 acres (33.29 ha). the entire land is in the possession of M/s Everest Industries Limited. No forestland involved. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project.

The targeted production capacity of the Chrysotile Asbestos Fibre Cement Products is 30,000 TPA. Increase in asbestos product of 15500 tons/month shall be achieved in the existing non-asbestos line (8000 tons/month) by taking certain existing machinery system into loop. At any time the maximum production capacity shall not cross 30000 tons/month in the entire plant. The raw material for the plant will be obtained domestically and imported as well. Cement will be procured from Dalmia, Trichy, Chettinad cement, Trichy and ACC Madukkarai, Coimbatore; Fly ash from Mettur and Tuticorin thermal plant and Pulp from Chennai. The Chrysotile Asbestos fibre imported from Russia & Kazakhstan by ship in closed containers and received from Cochin Port to EIL Plant by road. The raw material transportation will be done by truck through road.

The topography of the area is flat and reported to lies between 10⁰56'47.85" to 10⁰57'11.50" N Latitude and 76⁰59'0.06" to 76⁰59'11.42" E Longitude in Survey of India topo sheet No. 58B/13 at an elevation of 432 m AMSL. The ground water table reported to ranges between 7.6 m - 26.2 m below the land surface during the post-monsoon season and 13.0 m – 32.2 m below the land surface during the pre-monsoon season.

The total water requirement of the project after expansion is estimated as 330 m³/day, out of which 315 m³/day of fresh water requirement will be obtained from the municipal corporation (240 m³/day), bore well (23 m³/day) & authorized tankers supply (52 m³/day) and the remaining requirement of 15 m³/day will be met from the recycled water (STP treated). The power requirement of the project after expansion is estimated as 3 MW (3000 KVA), will be obtained from the Tamil Nadu Electricity board (TNEB).

Ambient air quality monitoring has been carried out at 8 locations during October 2013 to December 2013 and the data submitted has indicated that PM₁₀ ranges from 50 µg/m³ to 80.30 µg/m³, PM_{2.5} ranges from 28.70 µg/m³ to 46.20 µg/m³, SO₂ ranges from 6.31 µg/m³ to 16.50 µg/m³ and NO_x ranges from 11.46 µg/m³ to 23.00 µg/m³. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 11.70 µg/m³ (at Siddanapuram from 65 µg/m³ to 76.77 µg/m³) with respect to the PM₁₀, 3.92 µg/m³ (at Siddanapuram from 41.40 µg/m³ to 45.32 µg/m³) with respect to the PM_{2.5}.

There will be an increase of 50 more employees making it to 350 people after expansion. No R&R is involved. It has been envisaged that no families to be rehabilitated.

PP mentioned that no waste will be generated due to the project. It has been envisaged that an area of 10.98 ha (27.14 acres) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

The Public hearing of the project was held on 24.02.2016 for production of 30,000 TPM of Chrysotile Asbestos Fibre Cement Products, under the chairmanship of District Collector. The issues raised during public hearing are *inter-alia* include encouraging sports activities, ground water depletion in surrounding areas, disposal of solid waste creating breathing problems, pathway to the public etc.

The capital cost of the project is Rs. 3 Crores and the capital cost for environmental protection measures is proposed as Rs. 5 Lakhs (already incurred) & Rs. 2 Lakhs (proposed to be incurred). The annual recurring cost towards the environmental protection measures is proposed as Rs. 90.25 Lakhs. An amount of Rs. 15.0 Lakhs has been earmarked for Enterprise Social Commitment

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

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.
- ii. The water quality monitoring report should be displayed on the notice board outside the plant premises for the information of the local public
- iii. The proponent shall comply with the Hon'ble Supreme Court Direction (year 1995) regarding occupational health and safety measures in asbestos industries.

- iv. Emission norms for asbestos fibre should be regularly monitored and kept < 0.2 fibre/cc.
- v. Work place asbestos fibre should be regularly monitored and kept < 0.1 fiber/cc.
- vi. Total particulate matter emission should be regularly monitored and kept < 2 mg/Nm³ in stack.
- vii. Ambient air quality monitoring should be done specifically for asbestos fibre.
- viii. Medical examination should be carried out by specially designed medial respiratory questionnaire and the report should be submitted along with the 6 monthly compliance report.
- ix. Spirometry test should be conducted every 6 months and x-ray shared be done once in year and report submitted.
- x. At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xi. The proponent shall prepare a detailed ESC Plan for every next 5 years for the proposed project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The ESC Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards ESC activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO, Bhopal. The details of the ESC Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xii. All waste generated in the process should be used within the plant.
- xiii. Permission from the ground water board should be obtained and submitted to the Ministry
- xiv. The Project Proponent should develop in-house facility to monitor asbestos fiber.
- xv. 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.

- 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.

6.8 FURTHER CONSIDERATION

6.8.1 Proposed expansion of existing plant & set up additional units to reach capacity of 3 MTPA capacity at Village - Salav, PO Revdanda, Taluka - Murud, District - Raigad, Maharashtra by M/s JSW Steel (Salav) Limited - ToRs [F. No. J-11011/166/2015-IA-II(I)]

The proposal was earlier considered in the 45th meeting of the Expert Appraisal Committee (Industry-I) held on 11th - 12th August, 2015. The Committee was of the opinion that the land required for the project is not adequate and also the pre-feasibility report submitted with the application is very sketchy. The Project Proponent has therefore to revisit the Project Feasibility Report and revise it. In addition, the following additional information would be required for further consideration of the proposal:

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

Based on the information submitted by the PP vide letter No JSWSSL/ENV/MoEFCC/2016 dated 16th March 2016 the proposal was considered further. The Project Proponent and their consultant (M/s Mecon Limited) made a presentation on the additional information.

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

- i. The Public Hearing for the project should be conducted by Maharashtra Pollution Control Board.
- ii. CRZ clearance for intake and outfall structures should be obtained from the Ministry. In case a desalination plant to be installed, then a separate CRZ clearance should be obtained from the Ministry.
- iii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

- iv. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.8.2 Expansion of Sponge Iron Plant, Induction Furnaces, Installation of Ferro Alloys Unit, Alloy Steel Billet Plant, Alloy Steel Bar/TMT Rolling Mill, Light & Medium Section Mill, Heavy Section Mill of M/s Top Worth Urja & Metals Ltd. located at Village Heti, PO Udasa, Tehsil Umred, District Nagpur. [F. No. J-11011/283/2013-IA II (I)]

The proposal was earlier considered in the 4th meeting of Expert Appraisal Committee (Industry-I) held on 25th – 26th February, 2016. Based on the presentation made and discussions held, the Committee desired additional information on the following for further consideration of the proposal:

- i. Details for the ToRs No. 19 and 29 should be submitted.
- ii. Mitigation measures for SO_x and NO_x to be provided quantitatively.
- iii. Traffic study for the existing road should be conducted and analysis report should be submitted.
- iv. Details for the ToRs No. 31, 27, 28, 36, 37 and 42 (in tabular form) should be rewritten and submitted.
- v. TCLP (ToR 38) test should be conducted and details should be submitted.

The PP vide letter No TUML/NGP/EC/MoEF/Delhi/16-17/03 dated 11.04.16 submitted the information sought by the Committee, therefore the proposal was taken up for further consideration by the EAC. The Project Proponent and their consultant [Pollution and Ecology Control Services (PECS)] made a presentation on the additional information. The proponent has mentioned that there is no drainage passes through the project area. There are two first order seasonal drains adjacent to the project site towards North-East and South-West. There is no river in 1 KM of the project site. It was informed that the existing and proposed transportation of material will be carried out by the road. The existing 135 trucks per day plying on the road will be increased to 445 trucks per day. Information on air pollutants with and without control measures has been provided. It has been presented that with the use of APC (ESP, back filter etc.) there will be considerable reduction in pollution.

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

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

- iii. The project proponent ensure that the parking area should be paved.
- iv. The project proponent should provide for Scrubber to reduce SO_x emission before it is going to ESP.
- v. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- vi. 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.
- vii. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- viii. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- ix. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- x. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- xi. A time bound action plan shall be submitted for reduction in solid waste, its proper utilization and disposal.
- xii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.
- xiii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiv. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.

- xv. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xvii. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xviii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xix. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xx. The project proponent shall provide for LED lights in their offices and residential areas.
- xxi. 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.

6.8.3 Proposal for 2 x 6 MVA Sub merged Arc Furnace for Ferro Alloy - Ferro Manganese-23,630 Mt/P.A Or Silico Manganese- 16,150 Mt/P.A or Pig Iron 26,100 Mt/P.A, 4 x 15 MT Induction Furnace with Billet – 129900 Mt/P.A, Re- Rolling Mill

– 89280 Mt/P.A ha. by M/s Supersmelt Industries Pvt. Ltd, located at Barjora, Bankura, West Bengal. (F.No-J-11011/678/2008-IA.II(I).

The proposal was earlier considered in the 4th EAC meeting held on 25th – 26th February, 2016. Based on the presentation made and discussions held, the Committee desired additional information on the following for further consideration of the proposal.

- i. Details of compliance of ToRs No. 19, 36, 37, 41, 42 should be rewritten and submitted.
- ii. Revised layout map should be submitted.
- iii. Revised layout plan for green belt.
- iv. Information as per Annexure 11 of the Minutes of the Meeting should be provided

The PP vide letter No NIL dated 5th March, 2016 submitted the information sought by the Committee, therefore the proposal was taken up for further consideration by the EAC.

Based on the documents submitted by the PP the matter was discussed by the Committee. After detailed deliberation the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided. Submerged arc furnace PM level should be restricted to 50 mg/Nm³.
- iii. The project proponent should provide for Scrubber to reduce SO_x emission before it is going to ESP.
- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- vi. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- vii. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- ix. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- x. A time bound action plan shall be submitted for reduction in solid waste, its proper utilization and disposal.
- xi. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.
- xii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiii. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.
- xiv. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xvi. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the

Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

- xvii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xviii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xix. The project proponent shall provide for LED lights in their offices and residential areas.
- xx. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

6.9 ANY OTHER ITEM

6.9.1 Proposed Project of 3 MTPA Hot Strip Mill, 3.3 MTPA Beneficiation and 2 MT Pellet Plant and Special Plate Plant (3,000 TPA to 15,000 TPA) within the premises of Rourkela Steel Plant of M/s Steel Authority of India Ltd (SAIL) at village Rourkela Tehsil Rourkela, District Sundergarh, Odisha (F.N.-J-11011/66/2014-IA.II(I))

The Ministry has granted ToRs to the project on 27th June, 2014. The validity period of the ToR as mentioned in the ToR letter was for a period of 2 years from the date of issue of ToRs. Therefore, PP has applied for grant of extension of validity of ToRs for one more year.

It is noted by the Committee that the Ministry vide OM dated 8th October, 2014 and 7th November, 2014 extended the validity period of ToRs for a period of 3 years, which is extendable for a period of 1 year, if required. Therefore the ToR letter granted to the PP on 27th June, 2014 is already valid for a period upto 26th June, 2017.

After detailed deliberation, the Committee decided that there is no need for extension of validity of ToRs for further period of 1 year at this stage. Since the ToR letter is already valid upto 26th June, 2017.

6.9.2 Expansion of Steel Plant (Sponge Iron Plant, M.S. Billet, TMT Bars/Structural Steels, Ferro Alloy Plant) along with Captive Power Plant (48MW) of M/s B.S. Sponge Pvt. Ltd., at village Taraimal, Post Gerwani, Tehsil Gharghoda, Dist. Raigarh, Chhattisgarh - Extension of validity of Environment Clearance [F. No. J-11011/313/2008-IA II (I)]

The Environmental Clearance for the proposal was granted by the Ministry vide letter F. No. J-11011 / 313 / 2008 – IA II (I) dated 1st January 2009 to M/s B.S. Sponge Pvt. Ltd. PP has applied for Extension of validity of the Environmental Clearance dated 16.01.2015 and the proposal was considered by the Expert Appraisal Committee during its 33rd meeting held on 10th – 11th February, 2015. In view of the status of implementation of the project and reasons given by the project proponent, the Committee recommended for extension of validity of Environmental Clearance dated 1st January 2009, for further period of 5 years with effect from 1st January, 2014.

However, in the meantime an amendment in the EIA Notification, 2006 was issued by the Ministry vide Notification No. S.O. 1141(E) dated 29th April, 2015, extending the period of validity of Environment Clearance from 5 years to 7 years. Therefore, it was communicated to the PP vide letter dated 6th August, 2015 that the EC accorded to the Project stands valid upto 31.12.2015. In case of seeking further extension of Environment Clearance beyond 31.12.2015, an application as per the provisions of EIA Notification, 2006 as amended may be submitted afresh by online to the Ministry.

Accordingly, PP has applied for extension of validity of EC for further period of 3 years. Following is the current implementation status of the project:

Units	Existing Plant	Expansion Production capacities for which EC has been obtained on 01-01-2009	Production capacities after expansion	Status of Implementation of Expansion project for which EC has been accorded
Sponge Iron through DRI process	60,000 TPA (2 x 100 TPD)	1,20,000 TPA (4x100 TPD)	1,80,000 TPA	1 x 100 TPD Implemented In addition to already existing 2x100 TPD kilns (Total production capacity in operation is 90,000 TPA)
Manufacturing of Billets and Steel Ingots through Induction Furnace with Concast	--	1,62,000 TPA (2x12 MT & 2x15 MT)	1,62,000 TPA	2 x 8 MT Induction Furnace Civil Work started
Manufacturing of Re-rolled products	--	1,05,000 TPA	1,05,000 TPA	To be implemented
Ferro alloys	--	25,000 TPA (1x7.5 mVA & 1x9 mVA)	25,000 TPA	To be implemented
Generation of Power through WHRB Boiler	--	12 MW (6x10 TPH)	12 MW	8 WHRB civil work started
Generation of Power through FBC Boiler	--	36 MW (1x150 TPH)	36 MW	To be implemented

The project proponent informed that the project has been implemented after obtaining the Environmental Clearance; however, due to severe recession in steel sector (sluggish market condition) & fall in cash flow of the company during the past few years, the majority of units were not implemented.

The PP requested for extension of validity of EC for further period of 3 years i.e. upto 31st December 2018.

The Committee after deliberations recommended for extension of validity of EC dated 1st January 2009 for further period of 3 years i.e. upto 31st December, 2018. The project proponent shall furnish the time schedule for completion of the project by 31st December, 2018

6.9.3 Proposed ferro alloys manufacturing and Sinter Plant at village Belsonda, District Mahasamund, Chhattisgarh by M/s Balaji Power – Extension of validity of ToRs [J-11011/409/2012-IA.II(I)]

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant.

6.9.4 Cement Plant (4.0 MTPA) and Captive Power Plant (40 MW) at village Kokanhalli-Hoshalli, Talika Sedam, District Gulbarga, Karnataka by M/s Dalmia Cement (Bharat) Ltd – Extension of validity of EC [J-11011/118/2007-IA.II(I)]

The Environmental Clearance for the proposal was accorded by the Ministry vide letter No J-11011/118/2007- IA II (I) dated 25th August, 2008. Further the Ministry had accorded extension of validity of Environmental Clearance (EC) for a period of three years vide letter dated 15th October, 2013 i.e. up to 24th August, 2016.

PP mentioned that it will not be possible to commission the aforesaid project within the validity period accorded by the Ministry. It was informed that the Proposed Cement plant could not be set up within extended validity period of the Environmental Clearance mainly because of :

- i. Delay in 6(1)B relaxation of the associated captive limestone mine as per the provisions of the Mines and Minerals (Development and Regulation) Act, 1957, from the Ministry of Mines, Govt. of India, resultant
- ii. Delay in approval of Mining plan of the associated Mine by IBM which was submitted to IBM on 18.09.2009.
- iii. It was also delayed on account of delay in obtaining permission under Section 109 of Karnataka Land Revenue Act which is now partly obtained

The proponent has mentioned that they have made substantial progress in implementing the project which *iner-alia* includes:

- i. Purchased 476 acres of land and duly registered. Besides agreements made with pattadars for 68 acres after paying advance amount. Further, negotiation is in progress for purchase of balance land.
- ii. Obtained U/s 109 permission for 544 acres 01 guntas of land from Revenue Department. Application u/s 109 for purchase of balance land is under progress.
- iii. An amount of Rs. 55 crores have been incurred on this project till date.
- iv. Obtained in principle approval for railway siding from South-Central Railway and submitted the DPR for final approval along with codal charges of Rs. 70 lakh.
- v. Obtained LOI from Department of Mining & Geology (DMG), Karnataka for grant of 995.97 ha of limestone ML area.

The Committee after detailed deliberation recommended the proposal for extension of validity of EC for further period of 2 years, i.e. upto 24th August, 2018. The project proponent shall furnish the time schedule for completion of the project by 24th August, 2018

6.10 CASE FOR TERMS OF REFERENCE (TOR)

6.10.1 Proposed modification/enhancement in the existing configuration of induction furnaces with at existing steel division without change in approved capacity of M/s SKS Ispat and Power Ltd. at Village Siltara, District Raipur, Chhattisgarh. [F.No-J-11011/99/2006-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Anacon Laboratories Pvt. Ltd., Nagpur) gave a presentation on the salient features of the project. The proposal was considered 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.

Environmental clearance for the project of integrated steel plant of M/s.SKS Ispat and Power Limited was granted by the Ministry vide letter No. J-11011/99/2006-IA.II(I) dated 25.08.2006.

The proponent has informed that steel melting shop of having capacity 3, 31,500 TPA has been achieving only 55-60% capacity and hence being an integrated plant other facilities such as Sponge Iron, Rolling Mills, Ferro Alloys and also CPP are underutilized. As the Steel Melting shop was producing less capacity of production the entire unit has become unviable and uneconomical and is not in a position to meet the financial refunds as stipulated by financial institutions.

The proponent proposed that if the unit is supported by establishing additional 4 x 15T capacity Induction Furnace, along with existing Steel Melting Shop configuration without crossing the approved total capacity of 3,31,500 TPA within the existing plant premises. The units can achieve the already approved capacity. Following table presents the existing capacities and the units proposed by the proponent:

Existing Production capacity & configuration	Proposed Change/ configuration	Total production capacity & configuration	Remarks
SMS – 3,31,500 TPA 4 x 12T Induction Furnace & 4 x 15T Induction Furnace (Production Achieved 55-60% till date)	SMS – 3,31,500 TPA (No change in approved capacity) 4 x 15T Induction Furnace (Balance % of production will be achieved by instillation of 4 x 15 T IF's)	SMS – 3,31,500 TPA (Initially approved capacity) 4 x 12T Induction Furnace 8 x 15T Induction Furnace	Four more Induction Furnaces of (15T each) to be installed to achieve approved rated production
Sponge Iron - 2,70,000 TPA 2 x 100 TPD & 350 x 2 TPD Kiln	-	Sponge Iron - 2,70,000 TPA 2 x 100 TPD & 350 x 2 TPD Kiln	No change at present
Rolling Mill (4 Nos.) - 3,84,000 TPA	-	Rolling Mill (4 Nos.) - 3,84,000 TPA	No change at present
Ferro Alloy – 29,400 TPA	-	Ferro Alloy – 29,400 TPA	No change at present
Power Plant – Total 85 MW 25 MW WHRB and 2 X 30 MW CFBC & AFBC CPP.	-	Power Plant – Total 85 MW 25 MW WHRB and 2 X 30 MW CFBC & AFBC CPP.	No change at present
Gasifire (5 Nos.) 5 x 8000 Nm ³ /Hr.	-	Gasifire (5 Nos.) 5 x 8000 Nm ³ /Hr	No change at present
Oxygen/Nitrogen Plant – 170 NM ³ /Hr.	-	Oxygen/Nitrogen Plant – 170 NM ³ /Hr.	No change at present

Earlier an application was filed by the proponent under clause 7(ii) of EIA Notification dated 14th September 2006, as amended. After detailed deliberation it has been decided by the Committee that since the environmental clearance dated 25.08.2006 for the project was accorded by the Ministry as per EIA Notification, 1994, therefore the proposal submitted by the proponent under clause 7(ii) of EIA Notification, 2006 cannot be considered.

After detailed deliberation the Committee suggested the proponent to submit the following information for further consideration of the proposal:

- i. Technical report from competent agency should be submitted as to why the present approved capacity has not been achieved and how the addition of 4X15 IF will facilitate to achieve the approved capacity without enhancing the approved capacity.
- ii. Pre-feasibility report should be prepared and presented.

6.10.2 Proposed Cement Plant (3 MTPA), Captive Power Plant (70 MW) and 3.56 MTPA Captive Lime Stone Mine of M/s Neco Industries Limited located at Village(s) Risda, Dasrama and Parsabhader, Tehsil & District Baloda Bazar, Chattisgarh (J-11011/112/2016-IA-II)

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

M/s Neco Industries Limited (NEIL) has proposed to set up a new 3 MTPA Cement Plant along with 70 MW Captive Power Plant and 3.56 Million TPA of captive limestone mine, at Village(s) Risda, Dasrama and Parsabhader, Tehsil & District Baloda Bazar, Chattisgarh. The project area lies between 21°37'30" to 21°38'20" N Latitude and 82°07'50" to 82°09'10" E Longitude. In order to meet the Lime Stone requirement for the 3 MTPA Cement Plant, NEIL has been issued LOI by the Government of Chhattisgarh in Lime Stone deposit at village – Parsabhader, Tehsil & District- Baloda Bazar, Chhattisgarh.

The total area required for the cement plant is 200.567 Hectare. No forest land is involved. The total water requirement for the project is 3 MCM, which will be sourced from Kukurdih Dam (4 km from site). PP mentioned that the State Government will facilitate the Company to obtain water allocation for the above project as per the norms. The plant will generate employment to 466 persons. The cost of the project is Rs. 1831.52 Crores.

During the discussion, the Committee regarding Captive Limestone Mine was of the view that as there is a separate expert committee for appraising the mining project the proponent should delink the mining component from the project. The Committee; therefore, decided to consider the cement plant project for awarding Terms of Reference. With regard to proposal of 3.56 MTPA Captive Limestone Mine, the proponent was advised to apply separately to the Ministry for obtaining clearance for Mining proposal. However, a combined public hearing can be conducted for both the proposals.

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

- i. The Public Hearing for the project should be conducted by Chhattisgarh Environment Conservation Board.
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.10.3 Expansion of Asbestos Cement Sheet Plant (1,20,000 TPA to 3,20,000 TPA) (Phase 1 – 40,000 TPA & Phase 2 – 1,60,000 TPA) project of M/s Visaka Industries Limited located at Kannawan Village, Bacchranwan Gram Panchayat, Maharajganj Tehsil, Raebareli District, U.P. [J-11011/157/2005-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant [M/s Paryavaran Labs (India) Ltd., Hyderabad] gave a presentation on the salient features of the project. The proposal was 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), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Visaka Industries Limited has proposed to expand the existing unit from 1,20,000 TPA to 3,20,000 TPA (Phase 1 : 40,000 TPA + Phase 2 : 1,60,000 TPA). The plant is located at Kannawan Village, Bachharawan GP, Maharajganj Tehsil, Raebareli, District, U.P. The land required for the project is 10 ha. and no additional land is required for the proposed expansion. The project lies at Latitude 26⁰ 25'45.2" N and Longitude 81⁰ 07' 47.5" E.

The power requirement for the plant is 750 KVA, which will be obtained from UPSEB. DG sets of 2 X 500 KVA are also installed. No Additional DG Sets are required. Water requirement for existing plant is 140 KLD, the requirement for the proposed phase -1 expansion will be 60 KLD and phase -2 expansion will be 200 KLD. Total water requirement for both existing and proposed will be 400 KLD (per day) for process and administrative purposes. It will be met by existing bore wells within the project site.

The regular manpower required for existing administration and production purposes is around 50. Additional manpower (both regular and contract basis) for expansion will be up to 50.

The raw materials required are Asbestos fibre & other fibres (8 to 9%), Binders cement & flyash materials (45 to 47% and 27% respectively). Asbestos fibre will be brought in pelletized form, in impermeable bags and under compressed condition.

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

- i. The Public Hearing for the project should be conducted by Uttar Pradesh Pollution Control Board.

- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

6.10.4 Greenfield Copper Refinery Plant (10 MTPA) project of M/s Adani Enterprises Limited located at Adani Port Special Economic Zone Land in Village(s) Siracha and Navinal, Taluka Mundra, District Kutch, Gujarat [J-11011/113/2016-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant [M/s Paryavaran Labs (India) Ltd., Hyderabad] gave a presentation on the salient features of the project. The proposal is 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. Adani Enterprises Limited proposes to install a new manufacturing unit for 10 LTPA copper project. It is proposed to set up the plant for Copper Cathode based on Pyrometallurgical process technology and Electro-refining process. The proposed unit will be located at Adani Port Special Economic Zone (APSEZ) land (Siracha and Navinal Villages), Mundra Taluka, Kutch District, Gujarat State. The proponent has provided 3 sites for the project and proposed to set up the plant at Site-II. The land required for the project is 256.58 ha, out of which 154.18 ha is for industrial use and 102.38 ha is forest land. It has been informed that state government has recommended the forest diversion proposal to the Central Government. The proponent has also informed that the merits for selecting Site-II for the project inter-alia include proximity to west port from where major raw material will be imported, major part of land is within the notified SEZ and also the forest land diversion proposal is forwarded by the State government to Central Government. The proposed site lies between 22°48’55.78” N Latitude and 69°34’32.02” E Longitude. There are no national parks/ wildlife sanctuary within 10 km radius. the project area falls under Seismic Zone V. The estimated project cost is Rs. 10,000 Crore and the estimated environment protection cost is Rs. 900 crores. Employment generation from proposed project will be about 2000 direct employment and about 5000 indirect employment.

The proposed capacity for different products for new site area as below:

Name of Unit	No. of Units	Capacity of each Unit	Production Capacity
Copper Smelter plant	2	4.5 LTPA	9 LTPA
Copper Refinery plant	2	5.0 LTPA	10 LTPA
Continuous cast copper rod plant	2/3	2.5/ 1.67 LTPA	5 LTPA

Copper scrap melting facility	2	0.5 LTPA	1 LTPA
Sulphuric acid plant	2	15 LTPA	30 LTPA
Phosphoric acid plant	2	2.5 LTPA (100% P ₂ O ₅)	5 LTPA (100% P ₂ O ₅)
Aluminium Fluoride plant	2	15,000 TPA	30,000 TPA
Selenium Recovery plant	2	144 TPA	288 TPA
Precious metal recovery plant (Gold)	2	25 TPA	50 TPA
Precious metal recovery plant (Silver)	2	250 TPA	500 TPA
Oxygen (industrial) Plant (95% Purity)	2	45,000 TPM	90,000 TPM
Waste heat recovery boiler	2	25 MW	50 MW

The electricity load required is 300 MW, out of this, 40 MW will be generated from internal process steam by waste heat recovery; whereas the remaining 260 MW power will be sourced from APSEZ Ltd. through M/s. Mundra Utility Pvt Ltd. Company has also proposed to install 6 DG Set of 1200 - 2000 KVA Each, as a backup facility.

Proposed raw material requirement for project are Copper concentrate and Rock phosphate. Requirement would be fulfilled by importing as well as from domestic market. Fuel consumption will be mainly Furnace Oil, LPG/NG and Coal for process requirement. Water Consumption for the proposed project will be 32,800 KLD desalinated water and waste water generation will be nil outside the project boundary. Domestic waste water will be treated through Sewage treatment plant and industrial waste water generated will be treated in the Effluent Treatment Plant & through reverse Osmosis plant and reused in the process. ETP Sludge shall be disposed as per applicable hazardous waste management rules.

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

- i. The Public Hearing for the project should be conducted by Gujarat Pollution Control Board
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Plan for management of Arsenic bearing sludge should be submitted.

- v. Hazardous management plan for handling of all hazardous material including minerals, products and waste, like H₂SO₄ and Arsenic sludge should be prepared by the project proponent and submitted.

The meeting ended with a vote of thanks to the chair.

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 conveyer-cum-rail transport shall be examined.

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

8. Occupational health

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

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. 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.
12. 'A tabular chart with index for point wise compliance of above TORs.
13. 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(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.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water

ADDITIONAL TORS FOR PELLET PLANT

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

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

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

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

Air Pollution

Plant /Unit	Pollutants	Qty generated	Method used to Control/ and specifications/attach Separate Sheet to furnish Details	Number of units planned & Capacity	Budget	Estimated Post Control Qty of Pollutant	
						Per Unit	Per Day

**LIST OF PARTICIPANTS OF EAC (I) IN 6th MEETING OF EAC (INDUSTRY-I) HELD
ON 3rd – 4th MAY, 2016**

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