

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

SUMMARY RECORD OF THE SECOND (2nd) MEETING OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The second 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 28th – 30th December, 2015 in the Ministry of Environment, Forest and Climate Change. 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 1st Meeting

The minutes of the 1st meeting as circulated were confirmed subject to following modifications:

Item No. 1.3.2

Expansion of Crude Steel Production (from 9.7MTPA to 11MTPA) at Tata Steel Works of M/s Tata Steel Ltd., Jamshedpur, Dist. East Singhbhum, Jharkhand.

i. At the end of the table, at page 7, production units and capacities, following row should be inserted

Production Unit	Facilities at 9.7 MTPA stage	Production at 9.7 MTPA stage	Facilities at 11.0 MTPA stage	Production at 11.0 MTPA stage
CAPL (JV-JCAPCPL)	1 unit	0.6	1 unit	0.9

ii. At page 7, the combined capacity of all products showing <11MTPA should be read as ≤ 11 MTPA.

iii. At page 8, para 5, the sentence “The Public Hearing (PH) was exempted for the project in view of its location in the notified industrial estate” should be read as “The Public Hearing (PH) was exempted for the project”

Item No. 1.6.6

Expansion of Integrated Steel Plant (Sponge Iron from 2,10,000 TPA to 2,64,000 TPA), (Power Plant from 26 MW (CPP) to 28 MW (CPP), (WHRB -18 MW to 20 MW), SMS (1,29,6000 TPA (by 4 nos. Induction Furnace of 8T each) to 1,29,600 TPA (by 6 Nos. Induction Furnace of 8T each), Ferro Alloys from 14,400 TPA to 19,800 TPA) and new

Pellet Plant (0.6 MTPA) in its existing plant located at Village Borjhara, District Raipur, Chhattisgarh by M/s Shri Bajrang Power & Ispat Ltd.

At pages 30-31, table presenting existing and proposed plant configuration should be replaced by the following table:

Existing Production capacity and configuration	Total production capacity and configuration after expansion	Remarks
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron – 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge Iron process optimization with same (02) nos. kiln, by use of good quality coal.
Total Power Plant – 26 MW (CPP) WHRB – 18 MW Biomass – 08 MW	Total Power Plant – 28 MW (CPP) WHRB – 20 MW Biomass – 08 MW	2 MW WHRB power will be increase
SMS – 1, 29,600 TPA 4 x 8T Induction Furnace	SMS – 1, 29,600 TPA 6 x 8T Induction Furnace	Two more Induction Furnace of same capacity (8T each) to be installed to achieve rated production
Ferro Alloys – 14,400 TPA 2 x 4 MVA (SAF)	Ferro Alloys – 19,800 TPA 1 x 5 MVA + 1 x 6 MVA (SAF)	Existing SAF will be replaced by higher capacity SAF to achieve rated production
Coal Washery 1.2 MTPA Rolling Mill 0.15 MTPA (Consent to Establish taken For 0.6 mtpa and 0.12 mtpa only)	---	(At present no change) Already corrigendum received for production capacity from 0.12 MTPA to 0.15 MTPA, from MoEF, New Delhi on 26/08/2013.
Fly Ash Bricks Plant 3,00,00,000 NPA	---	No change proposed
---	Pellet Plant (0.6 MTPA)	CTE granted by CECEB, Raipur(C.G.)

Item No. 1.7.3

Expansion of Steel plant (from 1.0 MTPA to 2.0 MTPA) at Bhugaon Link road, village Barbadi, Bhugaon and Selu kata tehsil Wardha, district Wardha, Maharashtra by M/s Uttam Value Steels Limited (Formerly M/s Lloydsteel Industries Ltd.).

- i. The name of the consultant should be read as ‘MECON Ltd., Ranchi’ instead of ‘Envirotech East Pvt. Ltd., Kolkata’.

Item No. 1.9.1

Cement Plant (2.5 MTPA), Captive Power Plant (40 MW) at Villages Risda and Dhandhani, along with limestone mine (3.17 MTPA, 395.05 ha) at Villages Risda and Kukurdih, Tehsil Baloda Bazar, District Baloda Bazar –Bhatapar, Chhattisgarh by M/s Emami Cement Ltd. regarding Amendment in Environment Clearance.

- i. At page 44, para 2(i), the sentence ‘To outsource clinkers from the nearby cement plants or open market by rail’ should be read as ‘To outsource clinkers from the nearby cement plants or open market by rail/road’.
- ii. At page 44, para 2(ii), the sentence ‘To use Petcoke and agrowaste (rice husk) sourced from reliance refinery and nearby areas respectively’ should be read as ‘To use Petcoke and agrowaste (rice husk) sourced from reliance refinery or any petroleum refinery or imported’.

Any other Item

The Committee thereafter decided that before taking up the projects, to have a discussion on the issue of Corporate Social Responsibility. The Member Secretary has informed the Committee that presently the Expert Appraisal Committee has been insisting for earmarking either 2.5% of the total cost of the project or 5% of the total cost of the project towards Enterprises Social Commitment / Corporate Social Responsibility, depending upon the size of the project. In this context, copy of 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 issue was circulated. Deliberating on the issue, the Committee was of the view that the name of ‘Enterprises Social Commitment’ or ‘Corporate Social Responsibility’ in respect of environment clearance should be in the first place considered for replacement by the name ‘Environmental Conservation Support Activities’. The Committee was of the view that in addition to valid concern expressed by the public during public consultation, mitigation issues emerging from social impact assessment, the project proponent should be insisted for adopting a village in the project impacted area for converting the same in a model village having all social amenities i.e., electricity (solar lights and use of LED bulbs), clean drinking water, sanitation etc. The corporate sector should be asked to perform such welfare function towards society, which is necessary for maintaining the social interest of the society as the business entrepreneurs are trustees and not the owners of the social wealth and they have to spend a part of it for social causes. The works so carried out as part of social commitment could be visible during the implementation phase of the project. The Committee while considering the proposal at scoping stage should provide a specific TOR in this regard so that the proposed action/ plan in this regard could be seen by the Committee while considering the project for environment clearance. The Committee unanimously agreed for uniform earmarking 2.5% of the capital cost of the project towards Environmental Conservation Support Activities, in addition to the committee’s commitment under the Companies Act.

The Committee has also asked the Ministry to request the concerned Division on Climate Change to provide guidelines to the Committee(s) on addressing the issues like carbon sequestration, etc. so that that industries could be asked though specific conditions for implementing the India’s commitment on climate Change convention.

Date: 28th December, 2015

2.3 ENVIRONMENTAL CLEARANCE (EC)

2.3.1 Enhancement of Clinker Production Capacity (2 to 2.5 MTPA) and change in product Mix from 4.8 MTPA (1.1 MTPA OPC & 3.7 MTPA of PSC) to 4.8 MTPA of OPC/PSC/GGBS of M/s JSW Cement Ltd., at village Bilakalagudur, Mandal Gadivemula, District Kurnool, Andhra Pradesh [F.No J-11011/889/2007-IA.II(I)].

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (B.S. Envi – Tech Pvt. Ltd, Sec.) gave a detailed presentation on the salient features of the project. The proposal is for enhancement of Clinker production capacity from 2.0 MTPA to 2.5 MTPA and change in product mix from 4.80 MTPA (1.10 OPC + 3.70 PSC) to 4.80 MTPA (1.10 OPC + 3.70 PSC/ GGBS) of M/s JSW Cement Ltd. The project is located in Village Bilakalagudur, Mandal Gadivemula, District Kurnool, Andhra Pradesh and was initially received in the Ministry on 21.07.2014 & 18.11.2014 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 30.07.2014 and 09.01.2015 and prescribed TORs to the project for undertaking detailed EIA and EMP study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change prescribed TORs to the project on 22.10.2014. Subsequently, an amendment in the TOR was made on 12.06.2015. Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 12.10.2015.

The project proponent presented the existing capacity and proposed expansion as under:

Projects	Present Capacity	Proposed Expansion	Capacity After Expansion
Clinker Production (MTPA)	2.0	0.50	2.50
Cement Production (MTPA)	4.80 (1.10 OPC + 3.70 PSC)	Nil	4.80 (1.1 OPC + 3.7 PSC/GGBS)
Captive Power Plant (MW)	36 (18 x 2)**	-	36 (18 x 2)

The proponent has mentioned that the expansion will be carried out within the existing land area of 263.05 ha and no additional land will be used for the proposed expansion. The topography of the area is flat (flat/undulated) and reported to lie between 15°40'15" to 15°41'24" N Latitude and 78°27'21" to 78°27'54" E Longitude in Survey of India topo sheet No.57 I/6, at an elevation of 260 m AMSL. River Kundu is at a distance of 2.2 Km from the project site towards WSW direction with bed level of 248 m AMSL. High Flood Level of River Kundu is at 230 m AMSL and is at a distance of 2.2 km from the plant site. The average elevation of plant site is 261m AMSL. 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 area also does not report to form corridor for Schedule-I fauna.

The project proponent has installed the dry process cement kiln with 6 stage preheater and inline calciner for clinker production. Limestone is procured from the captive mine through dumpers to crusher. Mine is located at a distance of 1 km from the crusher. The crushed ore is transported to cement plant through covered belt conveyor and stored in Limestone stockpiles. Limestone with additives is finely ground in a Roller press mill and stored in silos. Imported coal with Pet Coke is ground in Vertical Roller Mill and stored in fine coal bins. Powdered raw mix along with fuel mix is fired into kiln at about 1400 °C to produce clinker. Clinker is stored in covered silos. OPC is manufactured by grinding clinker and Gypsum in definite proportions in Roller press mill and stored in silo. Slag is separately ground in Roller Press mills to produce Ground Granulated Blast Furnace Slag (GGBS) and stored in silos. For producing PSC, OPC and GGBS are mixed definite proportions in Paddle Mixers and stored in silos. Finished cement is packed in Polypropylene (PP) bags and dispatched. Unpacked cement/GGBS is also dispatched through covered bulkers. Transportation of finished products is done through rail and road.

The ore for the plant would be procured from the captive limestone mine (linkages nil). Coal will be imported from South Africa, Indonesia and Australia and other raw materials from local market. The ore transportation will be done through belt conveyor (Limestone from captive mine to plant), sea route (imported coal), rail and road.

Raw Material	Quantity (in MTPA)			Mode of Transport
	Before Expansion (present)	After Expansion (proposed)	Sourced from	
Limestone	3.0	3.75	Captive Mines	Closed Belt Conveyor
Coal	0.30	0.375	Imported	Road/ Railway line being laid
Aluminous Laterite	0.015	0.019	Kerala	Road
Flue Dust	0.062	0.077	JSW Steel, Bellary	Road
Gypsum	0.10	0.125	Cochin/Imported	Road
Slag	2.4	3.7	JSW Steel, Bellary	Road
Power plant – coal MTPA (Power Plant not yet established)		Imported coal - 0.18	Imported	Rail

The ground water table reported to ranges between 3-5 m below the land surface during the post-monsoon season and 12-15 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 500 m. Further, the stage of groundwater development is reported to be 24% and 24% in core and buffer zone respectively and thereby these are designated as safe.

No additional water will be required for the proposed expansion. Existing water requirement is 4500 m³/day, out of which 3000 m³ /day of fresh water requirement will be obtained from the bore wells (groundwater) and the remaining requirement of 1500 m³ /day will

be met from the harvested rainwater stored in mine pits as well as from the treated waste water to be generated from the Captive Power Plant to be set up in future.

The power requirement of the total project is estimated as 40 MW and the total power will be tapped from the state grid. No additional power will be required for the proposed expansion. The Captive Power Plant, for which the Environmental Clearance is already in place, will reduce the sourcing of power from the grid to the extent it generates, once established.

Ambient air quality monitoring has been carried out at 8 locations during March 2015 to May 2015 and the data submitted indicated that PM10 ranges from 50.8 $\mu\text{g}/\text{m}^3$ to 64.5 $\mu\text{g}/\text{m}^3$, PM2.5 ranges from 20.5 to 29.6 $\mu\text{g}/\text{m}^3$, SO₂ ranges from 8.3 to 15.1 $\mu\text{g}/\text{m}^3$ and NO_x ranges from 9.7 to 15.5 $\mu\text{g}/\text{m}^3$. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.28 $\mu\text{g}/\text{m}^3$ with respect to the PM10, 24.95 $\mu\text{g}/\text{m}^3$ with respect to the SO₂ and 13.16 $\mu\text{g}/\text{m}^3$ with respect to the NO_x.

It has been reported that there is no population in the core zone of the project. No R&R is involved. It has been envisaged that no families need to be rehabilitated. It has been reported that no solid waste will be generated due to the project. Greenbelt has already been developed in an area of 95 ha, i.e. 34% of the total area. Consent to Establish/Consent to Operate for the plant has been obtained from the Andhra Pradesh State Pollution Control Board.

Public Hearing for the project was exempted vide amended TOR letter J-110117889/2007 IA.II (I), dated 12th June, 2015.

Since the expansion is carried out through optimization and de-bottlenecking of the existing equipments and processes, there will be no capital cost involved in this project as no additional equipment/ machinery will be installed. Present recurring cost for environmental protection measures is Rs. 111 Lakhs per annum. However, it is proposed to spend an additional amount of Rs.40 Lakhs per annum as recurring cost towards environmental protection measures post expansion. 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 should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.
- iii. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control viz Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill

and cement mill. Low NO_x burners shall be provided to control NO_x emissions. Regular calibration of the instruments must be ensured.

- iv. Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- v. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- vi. AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emissions well below prescribed standards.
- vii. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed.
- viii. Arsenic and Mercury shall be monitored in emissions, ambient air and water.
- ix. The coal yard shall be lined and covered.
- x. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
- xi. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.
- xii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- 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. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office, SPCB and CPCB.
- xiv. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for

cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.

- xv. The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.
- xvi. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilisation of such wastes as per the Environment (Protection) Rules, 1986 and with necessary approvals.
- xvii. Efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous Waste Regulations and prior approval of the MPPCB.
- xviii. Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.
- 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. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
- xxii. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxiii. 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.

- xxiv. A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xxv. To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- xxvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

2.3.2 Proposed Iron Ore Pellet Plant (0.6 MTPA) located at Village Salrapenth, Panchayat Mahadeijoda, Tehsil-Sadar, District-Keonjhar, Odisha by M/s K.K. Pellets Private Ltd [F. No. J-11011/174/2013-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 for his absence by the applicant.

2.3.3 Stand-Alone Pellet Plant [(2.1 MTPA capacity) (2 units : Kiln –I of 0.6 MTPA and Kiln-II of 1.5 MTPA)] of M/s Godavari Power & Ispat (HIRA Group), located at Plot No. 428/2, Phase-I, Industrial Area Village Siltara, Tehsil Dharsiwa, District Raipur, Chhattisgarh [F.No-J-11011/216/2014-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (Pollution and Ecology Control Services (PECS), Nagpur) gave a detailed presentation on the salient features of the project. The proposal for Iron Ore Pellet Plant (in operation) of Production Capacity 2.1 Million TPA (0.6 MTPA & 1.5 MTPA) of M/s Godawari Power & Ispat Ltd at Plot No. 428/2 Phase-I, Industrial Area, Siltara, Raipur, Chhattisgarh was initially received in the Ministry on June 11, 2014 for obtaining Terms of Reference (TOR), as per directives of Honorable National Green Tribunal under EIA Notification 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 23rd meeting held on 18th -19th September 2014 and prescribed TORs to the project for undertaking detailed EIA and EMP study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed TORs to the project on 5th November 2014. Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 30th October 2015.

The proposal is for regularization of operational Pellet Plant for production of 2.1 MTPA Iron Ore Pellets (0.6 MTPA and 1.5 MTPA) as per Honorable NGT order. The 2.1 MTPA Iron Ore Pellet plant in two Phases of 0.6 MTPA and 1.5 MTPA has been established and are in operation since 2008 and 2012 respectively.

The total land in possession for the project is 56.64 Acres, which is and industrial land. No forest land is involved. The entire land has been acquired for the project. The topography of the area is flat and lies between 21°22'9.5" N to 21°22'86.1" N Latitude and 81°40'61.4" E to 81°41'22.7"E Longitude in Survey of India Topo sheet No. F44/P/11and F44/P/15, at an elevation of 298 m AM SL. 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 R&R is involved.

No national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. are located in the core and buffer zone of the project. The process of project is by using Travelling Grate Kiln process of Pellet manufacturing.

The production capacity of the Pellet plant is 2.1 million TPA. The ore for the plant would be procured from the following captive iron ore mines and the ore transportation will be done through Tarpaulin covered dumper by road and by rail.

Raw Material	Annual Consumption (MT) (including Moisture)	Sources of Supply	Method of Transportation
Raw Material for Pellet Plant			
Iron Ore Fines	23,03,225	Captive iron ore mines at Ari Dongri, District Kanker, Chhattisgarh, Boria Tibbu, District Rajnandgaon, Chhattisgarh via Iron Ore Crushing Unit at Gidhali, District Balod, Chhattisgarh and local ROM / NMDC / Odisha mines.	In Tarpaulin covered Dumper by road and by rail.
Bentonite	31,500	Gujarat	In Trucks by road
Dolomite	35,365	Madhya Pradesh	In Trucks by road
Coke	29,673	Indigenous/Imported	By Ship / Rail
HFO for Pellet	21,780 KL	Local sources / Petroleum Companies	By Tanker
Coal	1,20,450	Open market / imports	By Road / Rail

The ground water table ranges between 5m to 8m below the land surface during the post-monsoon season and 2 m to 6 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water

will be 110 m. Further, the stage of groundwater development is reported to be 11% and 21% in core and buffer zone respectively and thereby these are designated as safe areas.

The water requirement of the project is 1968 m³/day, which is being obtained from the Chhattisgarh Ispat Bhumi Limited. The power requirement of the project is 16 MW, which is being obtained from the Captive Power Plant.

Ambient air quality monitoring has been carried out at 8 locations during 7th November, 2014 – 4th February, 2015 and the data submitted indicated that the PM₁₀ ranges from 46.7 µg/m³ to 68.7 µg/m³, PM_{2.5} ranges from 23.9 to 35.5 µg/m³, SO₂ ranges from 10.8 to 15.4µg/m³ and NOx ranges from 13.5 to 21.8µg/m³. The results of the modelling study indicate that the maximum increase of GLC for the project is 6.52µg/m³ with respect to the PM₁₀, 13.38µg/m³ with respect to the SO₂, 3.58µg/m³ with respect to the NOx.

It has been envisaged that a total of 30,105 TPA of ash in the form of Clinker & Granules is being generated due to the project, which will be used in Cement and Brick Manufacturing. About 6020 TPA of Tar generated from Coal Gasification is being sold to outside parties. An area of 38.81 ha is developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project.

In view of the Notification dated 14th September 2015 issued by the MoEFCC, the standalone pellet plants, which were in existence on or before 27th May 2014 with valid consent from State Pollution Control Board are exempted from the public consultation. Consent to Operate from the Chhattisgarh State Pollution Control Board obtained.

The capital cost of the project is Rs. 742.14 Crores and the capital cost for environmental protection measures is Rs 2325.00 Lakhs. The annual recurring cost towards the environmental protection measures is Rs 72.30 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 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. Green belt shall be developed in an area of 8 ha by planting native and broad leaved species in consultation with local DFO, local community and as per CPCB guidelines.
- xii. 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.
- xiii. 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.
- xiv. The project proponent shall provide for LED lights in their offices and residential areas.

- xv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.
- 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. 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.

2.4 FURTHER CONSIDERATION

2.4.1 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, District Bilaspur, Chhattisgarh (Amendment in EC) [F.No-J-11011/466/2010-IA.II(I)]

Consideration of the proposal was deferred based on the request of the Project Proponent. The proposal would be considered in the next meeting of the EAC.

2.4.2 Increase in the production of hot metal in Blast Furnace (from 0.45 MTPA to 0.54 MTPA) for Phase-I of the project (Original EC issued to M/s Sesa Industries Ltd, EC amendment issued to M/s Sesa Goa Ltd. Name of Company now Vedanta Ltd) [dated 3-6-2009 and 25-4-2012.] F.N.-J-11011/946/2007-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 advised PP to submit application under clause 7(ii) of EIA Notification, 2006 for phase- I alongwith monitoring report from Regional Office, MoEFCC for the existing plant.

The Proponent vide letter No 'Nil' dated 14.11.2015 submitted the revised application.

Following table shows the existing capacity and proposed enhancement:

S N	Facility	Production Capacity	Phase-I (Under operation)	Phase-II

1	Mini Blast Furnace	9,00,000 TPA (Hot Metal)	4,50,000 TPA (<i>EC amendment requested to increase this to 5,40,000 TPA</i>)	4,50,000 TPA
2	Sinter	20,00,000 TPA (Sinter)	10,00,000 TPA	10,00,000 TPA
3	Coke Oven	6,00,000 TPA (Coke)	3,00,000 TPA	3,00,000 TPA
4	Power Plant	60 MW (thru WHRB)	30 MW	30 MW

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

Based on the presentation made and discussions held, the Committee recommended the proposal for amendment in the Environment Clearance to increase the production of hot metal in Blast Furnace from 0.45 MTPA to 0.54 MTPA for Phase-I of the project which is under operation.

2.5 ANY OTHER ITEM

2.5.1 Proposed Iron Ore Pelletisation Plant (1.2 MTPA), iron Ore Beneficiation Plant (3 MTPA) and producer Gas Plant (2 x 25,000Nm³/hr) of M/s Gulf Ispat Ltd. at village Ghughra, Tehsil Sihora, Dist. Jabalpur, Madhya Pradesh regarding Environmental Clearance –[F.No-J-11011/256/2013-IA.II(I)]

Consideration of the proposal was deferred based on the request of the Project Proponent. The proposal would be considered in the next meeting of the EAC.

2.5.2 Proposed Greenfield 1.2 MTPA Pelletisation Plant of M/s Essel Mining & Industry Limited located at village Nuagaon, Tehsil Bonai, Sub-division Bonai, District-Sundergarh Odisha [F.No-J-11011/378/2012-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 for his absence by the applicant.

2.6 CASE FOR TERMS OF REFERENCE (TOR)

2.6.1 Manufacturing of Ingots/Billets (60,000 TPA) situated at #SP-29, F-20-24, RIICO Industrial Area, Khushkhera (Bhiwadi), Alwar, Rajasthan by M/s Khushkhera Steels Pvt. Ltd. [J-11011/214/2015-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 for his absence by the applicant.

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

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

2.6.3 Clinker Production from 2.0 MTPA and Cement of 3.0 MTPA in the proposed Greenfield cement plant of M/s Lok Cement Limited at Kallamalla village, Yerraguntla Mandal, YSR Kadapa District, Andhra Pradesh M/s Lok Cements Ltd. [F.No. J-11011/215/2015-IA.II (I)]

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

The proposal is for setting up of a new cement plant for production of 2.0 MTPA clinker production and 3.0 MTPA cement production. The project is located at Village Kallamalla, Mandal Yerraguntla, District Y.S.R.Kadapa, Andhra Pradesh. The land requirement for the project is 140 ha (Private patta land with rainfed cultivation), which has not been acquired so far. The project site is reported to lie between 14° 41’ 29.3” to 14° 42’ 12.5” North latitude and 78° 29’ 26.5” to 78° 30’ 36.2” East longitude.

The nearest river is Penneru, which is located at a distance of 3.7 km from the site. National Highway NH-18 connecting Chittoor – Kurnool is at a distance of 23.5 km in ENE. State Highway SH-31 connecting Bellary – Nellore is at 5.45 km in NNE. Nearest railway station is Kalamalla, at a distance of 4.2 km and Yerraguntla at 6.2 km. Nearest village is Malepadu at a distance of 0.8 km and Kalamalla at a distance of 1.6 km.

S.No	Material	Quantity (MTPA)	Source Locality	Approx. distance from plant (km)	Remarks

1	Limestone	3.0	Captive mine, Kalamala & Chinnadandlu villages	0.5-1	Adjacent to the plant
2.	Laterite	0.75	Kurnool	160	Laterite is available in various localities of East Godavari District
3.	Gypsum	0.15	Visakhapatnam	500	Chemical grade gypsum from Vizag Coramandal Fertilizers
4.	Fly Ash	0.225	Rayalaseema Thermal Power Station, (RTPS) Muddanuru	2.0	Fly ash is being generated as waste at adjacent Rayalaseema thermal power plant.
5.	Fuel (coal)	0.35	Imported /Singareni	200	Chennai port / Singareni Collieries Transportation by rail/road

The power requirement for the project is 30 MW. The power will be sourced from APCPDCL (nearest sub-station). Emergency power will be sourced from DG sets. The project proponent during the presentation informed the Committee that about 10 MW of power will be generated from WHRB. Water requirement for the project is 800 m³/day. Source will be ground water initially and switch over to Mine pit. Manpower requirement will be 550 (150 direct and 400 indirect). A full-fledged township comprising of 150 quarters with necessary facilities will be developed. The total cost of the project is Rs. 1500 Crores.

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

- i. The Public Hearing to 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.

2.6.4 Manufacture and process of Manganese oxide, Manganese Dioxide and various Ferro Alloys at Plot No. C/156, MIDC Butibori, District Nagpur, (M.S.) M/s. Singh Ferro Alloys. [J-11011/170/2015-IA-II(I)]

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

29th December, 2015/Tuesday (Narmada)

2.7.1 Integrated 36000 TPA High Titanium Slag, 20000 TPA Pig Iron and 30000 TPA Titanium Dioxide Pigment Plant by M/s Saraf Agencies Pvt. Ltd. [F.No- J-11011/658/2007-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Global Tech Enviro Experts Pvt Ltd, Bhubaneswar) gave a detailed presentation on the salient features of the project. The TOR application of M/s. Saraf Agencies Pvt. Ltd. was initially received in the Ministry on 29.01.2015 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 26.03.2015 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 07.07.2015. Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 04.12.2015.

The project of M/s Saraf Agencies Pvt. Ltd. is located at Kanamana, Matikhalo, Tehsil Chhatrapur, District Ganjam in the state of Odisha. The proposal is for setting up of a new titanium complex for production of 36,000 TPA Titanium Slag, 20,000 TPA Pig Iron and 30,000 TPA Titanium Dioxide.

It may be mentioned that the project was earlier given environment clearance by the Ministry on 16th October, 2008 with Russian technology. The proponent has not proposed to use Chinese technology with zero liquid discharge.

The total land required for the project is 105.23 ha (259.94 Acre), out of which 80.67 (199.273 Acre) ha is an agricultural land, 6.7 ha (16.572 Acre) is grazing land, 4.04 ha (10.0 Acre) is other land and 13.8 ha (34.095 Acre) is Government Land. No forest land involved. The entire land has been acquired for the project and is converted to Industrial Land. The topography of the area is flat with gentle slope towards North East and reported to lies between 19^o 19' 40" to 19^o 20' 29" N Latitude and 84^o 57' 10" to 84^o 57' 40" E Longitude in Survey of India topo sheet No. 74-A/15 & 74-E/3, at an elevation varying from 18 to 33 m AMSL. The Rushikulya River is at a distance of about 9.0 Km towards East direction from the project site. 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 process of project – Titanium Slag and Pig Iron production by Submerged Arc Furnace technology and Titanium Dioxide Pigment by Sulphate Route.

The targeted production capacity of the plant is 36,000 TPA High Titanium Slag, 20,000 TPA Pig Iron and 30,000 TPA Titanium Dioxide Pigment. The ore for the plant would be procured from Indian Rare Earths Limited, Chhatrapur, Odisha. The ore will be transported by road in the covered trucks.

The ground water table reported to ranges between 2.26 to 6.11 m below the land surface during the post-monsoon season and 5.45 m to 9.45 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that, the stage of groundwater development is to be 28.75 % and thereby these are designated as safe areas.

The water requirement of the project is estimated as 7700 m³/day, out of which 6900 m³/day of fresh water requirement will be obtained from the River Rushikulya and the remaining requirement of 800 m³/day will be met from Ground Water. The power requirement of the project is estimated as 23 MVA, out of which 15 MVA will be obtained from the NESCO (North Eastern Electricity Supply Company of Odisha Ltd.), Odisha.

Ambient air quality monitoring has been carried out at 8 locations during 1st March, 2015 to 31st May, 2015 and the data submitted indicated that PM₁₀ ranges from 42 µg/m³ to 74.3 µg/m³, PM_{2.5} ranges from 32.2 µg/m³ to 50 µg/m³, SO₂ ranges from 7.1 µg/m³ to 14 µg/m³ and NO_x ranges from 9.8 µg/m³ to 15.3 µg/m³. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 1.27363 µg/m³ with respect to the PM₁₀, 1.34079 µg/m³ with respect to the PM_{2.5}, 22.60271 µg/m³ with respect to the SO₂ and 5.54257 µg/m³ with respect to the NO_x.

There are no people in the core zone of the project. No R&R is involved.

A total of about 1000 TPA of flue dust will be generated and completely recycled to the furnace after being collected from pollution control system. About 4 TPD of un-reacted illuminate will be generated and put in secured landfill. 33,000 TPA Ferrous Sulphate Heptahydrate will be generated which is saleable (for use as micronutrient fertilizer, iron oxide production and ETP). 10024 TPA Ferrous Sulphate Monohydrate will be generated which will be used in ETP. 50000 TPA Ferro Gypsum will be generated which will be disposed in secured landfill. 24 TPD Ash from producer gas plant will be generated which will be used in fly ash brick. It has been envisaged that an area of 34.68 ha (85.56 Acre) 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 exempted vide MoEFCC Letter No. F. No. J-11011/658/2007-IA II(I), dated 4th November, 2015. The capital cost of the project is Rs.779.5 Crores and the capital cost for environmental protection measures is proposed as Rs.4970 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 128.2 Lakhs.

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. 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.
- iii. The company shall not discharge any effluent including storm water from the premises. 'Zero' effluent discharge shall be strictly followed.
- iv. Skill development centre shall be established.
- v. 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.
- vi. The project proponent shall provide for LED lights in their offices and residential areas.
- vii. The project proponent shall take more efforts for controlling the emission of Sulphur Dioxide. Common neutralization shall be provided for SO_x control.
- viii. Ferro Gypsum the by-product of process should be temporarily dumped in earmarked areas for its re-use.
- ix. The project proponent shall take all precautionary measures for protection of natural water bodies. The marshy area shall not be disturbed.
- x. The total water requirement for the plant from River Rushikulya should not exceed 7700 m³/day. The effluent shall be treated and shall be recycled back and used in dust suppression, green belt and slag cooling. The leachate generated shall be treated and reused.
- xi. 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. Fire alarm locations shall be marked on the layout plan and shall be placed at appropriate location at the plant site.
- xii. 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.
- 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/ hazardous 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. The proponent shall submit a copy of the agreement with the authorized vendor to the regional office as a part of compliance.
- xv. 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.
- xvi. Green belt shall be developed atleast in 33% of the project area by planting native and broad leaved species in consultation with local DFO, local community and as per Central Pollution Control Board guidelines.
- xvii. Prior permission for drawl of 7700 m³/day of water from River Rushikulya should be obtained from the concerned irrigation department/Public Health Department, Government of Odisha. For drawn of ground water, prior permission from Central Ground Water Authority/State Ground Water Board shall be obtained.
- xviii. An action plan for disposal of slag and hazardous water shall be submitted to the Ministry's Regional Office at Bhubaneswar within 3 months.
- xix. Ground water monitoring around the site shall be carried out regularly to assess the intrusion of sea water and report should be submitted to Ministry's Regional Office/CPCB and OPCB
- xx. 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.
- 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. 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.

2.7.2 Modification cum expansion from existing 0.25 MTPA Integrated Steel Plant and 14 MW Power Plant to 0.5 M TPA Integrated Steel Plant and 84 MW Power Plant by M/s OCL Iron and Steel Limited [F.No J-11011/126/2013-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Global Tech Enviro Experts Pvt Ltd, Bhubaneswar) gave a detailed presentation on the salient features of the project. The application for expansion to 0.5 MTPA Integrated Steel Plant of M/s OCL Iron and Steel Ltd. was initially received in the Ministry on 4th Mar 2013 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 31st July 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 25th September 2013. Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 4th December 2015.

The project of M/s OCL Iron and Steel Ltd. is located in Village Lamloi, Tehsil Rajgangpur, District Sundergarh, Odisha. The proposal is for enhancement of production capacity of integrated steel plant from 0.25 MTPA (Steel billets) to 0.5 MTPA (steel billets) and power plant capacity from 14 MW to 84 MW. The project configuration is as under:

Sl No	Units	Existing prior to EC	EC obtained for expansion-1 vide letter no.J-11011/160/2010-IA-II(I) dt.29.03.2012	Units under operation/commissioning out of EC	Approved ToR for expansion-2 Vide letterNo-11011/126/2013-IA II(I) dt.10.06.2014	Project configuration after expansion-2	Final production capacity after expansion-2
1.	DRI Kiln	4x100 TPD	2x500 TPD	2X350 TPD (against 2X500TPD)	--	4x100 TPD 2x350	3,30,000 TPA Sponge iron

						TPD	
2.	IF	2x12T	4x15 T	1X12T (against 4X15T)	-	3x12 T,	92,160 TPA liq. steel
3.	LF	1x14T	1 x 30T	-	-	1x14 T	matching
4.	Billet caster	1x2 strand	1x3 strand	-	1x4 strand (against 1X3 strand)	1x2 strand 1x4 strand	5,17,160 TPA
5.	CPP(WH RB)	8 MW	20 MW	14MW (against 20MW)	-	8 MW 14 MW	22 MW
6.	CPP(AF BC)	6 MW	-	-	-	6 MW	6 MW
7.	CPP(CF BC)	-	40 MW	35MW(against 40MW)	1x21 MW	1X35MW +1X21 MW=56M W	56 MW
8.	Coal Washery	50 TPH	300 TPH	300 TPH(in place of existing 50TPH)	-	300 TPH	0.58 MTPA washed coal ,0.50 MPTA Middling & 0.08 MTPA Rejects
9.	Rolling mill	-	0.2 MTPA	-	0.5 MTPA (against 0.2 MTPA)	0.5 MTPA	0.5 MTPA Alloy steel bar
10.	MBF	-	-	-	130m ³	130m ³	1,30,000 TPA
11.	Sinter Plant	-	-	-	18m ²	18m ²	2,10,000 TPA
12.	Dolo Lime Plant	-	-	-	150 TPD	150 TPD	45,000 TPA
13.	EAF, VOD, LF	-	-	-	1x65 T	1x65 T	4,25,000 TPA liq. Steel (with 1x14LF)
14.	Oxygen Plant	-	-	-	100 TPD	100 TPD	30,000 TPA

The total land required for the project is 342.93 Acres, of Government land. No forest land involved. The entire land has been acquired for the project. The topography of the area is Weathered buried pediplain (flat/undulated) and reported to lie between 22° 12' 30.36"N

Latitude and 84° 33' 2.33"E Longitude in Survey of India top o sheet No. 73B7, 73B8, 73B11, 73B12, at an elevation of 225-250 m AMSL. 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 ground water table reported to ranges between 6-8 m below the land surface during the post-monsoon season and 5-6 m below the land surface during the pre-monsoon season.

The water requirement of the project is estimated as 8296 m³/day, out of which 988 m³/day of fresh water requirement will be obtained from the Sankh River and the remaining requirement of 7308 m³/day will be met from the Recycled water. The power requirement of the project is estimated as 107.83MW, out of which 18.44MW will be obtained from the State Power Grid.

Ambient air quality monitoring has been carried out at 8 locations during Dec 2013 to Feb 2014 and the data submitted indicated that PM₁₀ ranges from 54.6 µg/m³ to 87.3 µg/m³, PM_{2.5} ranges from 30.5 to 49.7 µg/m³, SO₂ ranges from 9.1 to 13.7µg/m³ and NO_x ranges from 12.1 to 15.2 µg/m³. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 6.45 µg/m³ with respect to the PM₁₀, 1.00 µg/m³ with respect to the SO₂.

It has been reported that there are No people in the core zone of the project. No R&R is involved.

It has been reported that a total of 389.9 tons/d of waste will be generated due to the project, out of which 340 t/d will be used for other industrial processes and 41.9 t/d will be used for low-lying land filling. It has been envisaged that an area of 45 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 13th Aug 2015 under the chairmanship of ADM, Sundergarh & RO (OSPCB) Rourkela. The issues raised during public hearing *inter-alia* include employment generation, peripheral development, control of pollution measures, etc.

The capital cost of the project is Rs 1705 Crores and the capital cost for environmental protection measures is proposed as Rs 6820 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 682 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. 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. 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 and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
- iv. 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.
- v. All the coal fines, char from DRI plant shall be utilized in CFBC boiler of power plant and no char shall be used for briquette making or disposed off anywhere else. CFBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. The project proponent shall provide for quality drinking water facility for the local people in the villages covered within the ESC plan.
- 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. 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.
- 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.

2.7.3 Proposed Expansion of Integrated Cement Project - Clinker (6.0 to 9.5 MTPA), Cement (8 to 12 MTPA), CTPP (80 to 140 MW) & WHRB (18 to 30 MW) by M/s Wonder Cement Limited located at Villages Sangaria, Borakheri, Peerkhera & Rasulpura, Tehsil Nimbahera, District Chittorgarh (Rajasthan) [F.No J-11011/298/2012-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (J.M. EnviroNet Pvt. Ltd.) gave a detailed presentation on the salient features of the project. The application for proposed expansion of Integrated Cement plant of M/s. Wonder Cement Ltd was initially received in the Ministry on 25th January, 2015 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 11th February, 2015 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 28th April, 2015. Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 30th November, 2015.

The project of M/s. Wonder Cement Ltd. is located at Villages Sangaria, Borakheri, Peerkhera and Rasulpura, Tehsil Nimbahera, District Chittorgarh (Rajasthan). The proposal is for expansion of Integrated Cement plant, Clinker (6.0 MTPA to 9.5 MTPA), Cement (8 MTPA to 12 MTPA), CTPP (80 MW to 140 MW) and WHRB (18 MW to 30 MW). The project configuration is as under:

Project Proposal	Units	Existing Granted Capacity (Line - I & II)	Proposed Expansion Capacity (New Line - III)	Total Capacity after Expansion
	Clinker (MTPA)	6.0 (2 x 3)	3.5	9.5
	Cement (MTPA)	8 (2 x 4)	4	12
	Captive Power Plant (MW)	80 (2 x 40)	60	140
	WHRB (MW)	18 (2 x 9)	1 x 12	30 (2 x 9 & 1 x 12)
	D.G. Set (MW)	7 (2 + 5)	Nil	7 (2 + 5)

The total land required for the plant is 191.064 ha. No additional land is required for the proposed expansion as the same will be done within the existing plant premises by installation of new Line-III. Existing area is under the possession of the proponent. The topography of the area is flat and reported to lie between 24° 39' 12.47" N to 24° 40' 14.8" N Latitude and 74° 37' 43.26" E to 74° 38' 48.56" E Longitude in Survey of India topo sheet no. 45 L/9 and 45 L/10, at an elevation of 438 – 445 m. No R&R is involved for the project. 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.

In order to meet the power requirement, 1x 60 MW Thermal Power Plant will be installed within the plant premises. The generating unit will have circulating fluidized bed combustion (CFBC) boiler firing multi-fuel as primary fuel, condensing steam turbine and generator, air cooled condenser and other necessary auxiliary equipment including balance of plant equipment. WHR boiler will be based on steam Rankine cycle and envisaging recovery of heat from exhaust gases at two points viz. pre-heater and clinker cooler (tapping at exhaust or mid-cooler). Steam generated in the boiler will be used in the turbine to generate electricity in the generator.

The targeted production capacity of the plant after expansion would be 9.5 MTPA of Clinker, 12 MTPA of Cement, 140 MW of CTPP and 30 MW of WHRB. The raw material and fuel requirement for the proposed expansion is given below:

S. No.	Name of Raw Material	Quantity (MTPA)			Source of Materials	Approx. Distance (Km) & Mode of Transportation
		Line - I & II	Additional (New Line - III)	Total after proposed expansion		
1.	Limestone	9.10	5.00	14.1	Captive Limestone Mines	By Covered Conveyor Belt

2.	Red Ochre	0.67	0.263	0.933	Nearby areas	30 km/ By Road
3.	Laterite	0.32	0.179	0.499	Nearby areas	80 km / By Road
4.	Gypsum	0.55	0.211	0.761	Nagaur/ Bikaner (Raj.)	500 km / By Road
5.	Fly ash	1.44	0.811	2.251	Own CPP, Kalisindh TPP & Nearby TPP	200 km / By Road
6.	Fuel Oil	0.031	0.031	0.062	IOCL	100 km by Road
7.	Coal / Petcoke / Lignite (Cement Plant)	1.71 / 0.65 / 1.32	0.579 / 0.332 / 0.875	2.289 / 0.982/ 2.195	Coal - Indigenous - Open Market / Imported - S. Africa & Indonesia, Petcoke - Reliance Refinery, Jamnagar/ Essar Refinery / IOCL Refinery, Lignite - RSMM/ GMDC	Coal - 900 km By Rail / Road, Petcoke - 562 km By Rail / Road, Lignite - 900 km By Rail / Road
8.	Coal / Petcoke/ Lignite (CTPP)	0.52/ 0.22/ 0.62	0.39/ 0.165/ 0.465	0.91/ 0.38/ 1.085		

The ground water table reported to ranges between 2 - 20 m below the land surface during the post-monsoon season and 2 - 50 m below the land surface during the pre-monsoon season.

The water requirement of the project is estimated as 4462 m³/day, out of which 3622 m³/day of fresh water requirement will be obtained from the ground water, mine sump water and Gambhiri Reservoir and the remaining 840 m³/day requirement will be met from the treated waste water from Plant and colony.

The power requirement of the project is estimated as 163.5 MW, which will be sourced from Captive Thermal Power Plant, WHRB, AVVNL (Ajmer Vidyut Vitran Nigam Ltd.) and D.G. Set (for back-up).

Ambient air quality monitoring (composite for Plant & Proposed Mine) has been carried out at 13 locations during Summer Season (March to May, 2015) and the data submitted indicated that PM₁₀ ranges from 55.2 to 84.1 µg/m³, PM_{2.5} ranges from 23.1 to 40.2 µg/m³, SO₂ ranges from 5.6 to 10.2 µg/m³ and NO_x ranges from 13.1 to 25.1 µg/m³. The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 5.94 µg/m³ with respect to the PM₁₀, 6.38 µg/m³ with respect to the SO₂ 10.68 µg/m³ with respect to the NO_x.

No solid waste will be generated from the cement manufacturing process. Dust collected from air pollution control equipments will be totally recycled back to the process. Fly ash generated from CPP will be utilized in manufacturing of PPC grade cement. Sludge generated from Sewage Treatment Plant (STP) will be used as manure for green belt development. It has been envisaged that an area of 71.31 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 09th October, 2015 for proposed expansion of Integrated Cement Project under the Chairmanship of Additional District Collector, Chittorgarh. The issues raised during public hearing *inter-alia* include, employment, pollution, infrastructure development, land related issues, education, CSR related issues, plantation, water etc.

The capital cost of the project is Rs. 1660 Crores and the capital cost for environmental protection measures is proposed as Rs. 100 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.5 Crores / annum. 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 Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.
- iii. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NO_x burners shall be provided to control NO_x emissions. Regular calibration of the instruments must be ensured.
- iv. Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tone for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- v. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- vi. AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emissions well below the standards.

- vii. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed.
- viii. Arsenic and Mercury shall be monitored in emissions, ambient air and water.
- ix. The coal yard shall be lined and covered.
- x. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
- xi. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.
- xii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- 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. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office, SPCB and CPCB.
- xiv. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.
- xv. The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.
- xvi. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilisation of such wastes as per the Environment (Protection) Rules, 1986 and with necessary approvals.
- xvii. Efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with

units with potential for generating HW. And in accordance with HW Regulations and prior approval of the MPPCB.

- xviii. Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.
- xix. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
- xx. 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.
- 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 project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxiii. The project proponent shall provide for LED lights in their offices and residential areas.
- xxiv. The proponent shall prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. 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.

- xxv. A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xxvi. To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- xxvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

2.7.4 Iron Ore Pelletizing Plant (0.6 MTPA) located at Village Phuljhar, Tehsil Telkoi, District Keonjhar, Odisha, by M/s Ardent Steel Limited [F.No-J-11011/112/2013-IA.II(I)].

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar) gave a detailed presentation on the salient features of the project. The application for existing 0.6 MTPA Pellet Plant of M/s Ardent Steel Limited was initially received in the Ministry on 12.03.2013 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its meeting held on 10.06.2013 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry had prescribed TORs for the project on 10.11.2014 and subsequently an amendment was issued on 07.07.2015 for expansion of Iron Ore Pelletisation plant (0.6 MTPA to 1.8 MTPA), Iron Ore Beneficiation plant (3 MTPA), DRI Plant (0.6 MTPA instead of 1.2 MTPA), Blast Furnace (0.6 MTPA), Sinter Plant (0.8 MTPA), SMS (1.2 MTPA), Rolling Mill (1.2 MTPA) along with Captive Power Plant (125 MW) of M/s Ardent Steel. The present proposal is for existing Iron Ore Pelletizing Plant for production of 0.6 million tones per annum.

Based on the TORs prescribed to the project, the project proponent submitted the EIA/EMP Report for environmental clearance of existing 0.6 MTPA Pellet Plant to the Ministry online on 28.11.2015.

The existing Iron Ore Pellet Plant (0.6 million TPA) of M/s Ardent Steel Limited is located in Village Phuljhar, Tehsil Telkoi, District Keonjhar. The total land acquired for the project is 36.781 ha, which is entirely of industrial type. No forestland involved. The entire land has been acquired for the project. The topography of the area is flat (flat/undulated) and reported to lie between 21°43'40.26" to 21°44'10.48" N Latitude and 85°25'53.78" to 85°27'49.41" E Longitude in Survey of India topo sheet No. 73G/6, at an elevation of 536 m AMSL. The Baitarani River passes near the project area. It has been reported that no water body/ 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 Similipal National Park is located at a distance of 68.79 KM from the site. The Grate Kiln Technology for existing pelletisation plant of 0.6 MTPA capacity has been adopted, which is first of its kind in Odisha.

The targeted production capacity of the Iron Ore Pellet Plant is 0.6 million TPA. The ore for the plant would be procured from local market. The ore transportation has been done through railway & trucks.

The ground water table reported to ranges between 0.79 to 5.6 mbgl below the land surface during the post-monsoon season and 3.8 to 12.3 mbgl below the land surface during the pre-monsoon season.

The water requirement for the existing plant is 500 m³/day, which is being sourced from ground water. NOC from CGWA has been obtained vide letter No. 21-4(70)/SER/CGWA/2008-986 dated 25.08.2008. The power requirement of the existing project is 6.0 MW, which is obtained from the Odisha Power Transmission Corporation Limited.

Ambient air quality monitoring has been carried out at 8 locations during Dec 2014 to Feb 2015 and the data submitted indicated that PM₁₀ ranges from 48.7µg/m³ to 87.9µg/m³, PM_{2.5} ranges from 23.6µg/m³ to 48.5µg/m³, SO₂ ranges from 4.3µg/m³ to 7.9µg/m³ and NOx ranges from 9.9µg/m³ to 16.6µg/m³. The results of the modelling study indicate that the maximum increase of GLC for the existing project is 1.02µg/m³ with respect to the PM₁₀.

No Rehabilitation & Resettlement is involved.

It has been reported that a total of 17945 tonnes/annum of waste is being generated due to the project, out of which 13798 tonnes/annum has been used in Pellet Plant and 4147 tonnes/annum has been dumped in the earmarked dump yard. An area of 12.141 ha has been developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

It being an existing standalone pelletisation project, Public Hearing is being exempted as per EIA Notification, 2006 as amended on 14.09.2015.

The capital cost of the project is Rs. 133.96 Crores. The capital cost for environmental protection measures is Rs. 850 Lakhs. The annual recurring cost towards the environmental protection measures is Rs. 200 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. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, a qualified doctor should be appointed and

- schedule of health examination of the workers should be drawn and followed accordingly.
- ii. The project proponent shall ensure supply of safe drinking water to the nearby villages.
 - iii. 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.
 - iv. 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.
 - 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 E(P) Act whichever are more stringent.
 - x. Proper handling, storage, utilization and disposal of all the solid/hazardous 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. The proponent shall submit a copy of the agreement with the authorized vendor to the regional office as a part of compliance.
 - xi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act and analysis shall be submitted to the regional office of the Ministry.
 - xii. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activities, its proper utilization and disposal.
 - xiii. 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.

- xiv. 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.
- xv. 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.
- xvi. The project proponent shall provide for LED lights in their offices and residential areas.
- xvii. Green belt shall be developed atleast in 33% of the total project area with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.
- xviii. 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.
- xix. 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.
- xx. 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.

- 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.

2.8 FURTHER CONSIDERATION

2.8.1 Capacity enhancement of writing and printing paper grades of paper from 90 TPD to 140 TPD of M/s Naini Papers Ltd. located at Kashipur, District Udham Singh Nagar, Uttarkahand [J-11011/360/2008-IA-II(I)]

The proposal was earlier considered during the 47th meeting of Expert Appraisal Committee held on 2nd – 3rd September, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

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

The Proponent vide letter No. NPL/MEFCC/901/2015-16 dated 9th September, 2015 submitted the information.

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

- i. The project proponent shall install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The Industry shall strictly comply the Charter issued by the Central Pollution Control Board (CPCB) for water recycling and pollution prevention in paper and pulp industry located in Ganga basin.
- iii. The project authority shall install multi cyclones, wet scrubbers with the boilers to achieve the particulate emission below 50 mg/Nm³. The emissions from chemical recovery section shall be controlled through primary and secondary venturi scrubbers.
- iv. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

- v. Ground water quality study in and around the project area shall be conducted and report submitted to Ministry's Regional Office, SPCB and CPCB.
- vi. The company shall submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.
- vii. The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- viii. Green belt shall be developed atleast in 33% of the total project area with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.
- ix. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- x. The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- xi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector shall be strictly implemented.
- xii. All the commitments made to the public during the Public Hearing/Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office.
- xiii. At least 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.
- xiv. 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.

- xv. 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.
- xvi. The project proponent shall provide for LED lights in their offices and residential areas.
- xvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

2.8.2 Replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility in the existing integrated steel plant of M/s. Essar Steel India Limited located in Hazira Notified industrial area, Village Hazira, Tehsil Choryasi, District Surat, Gujarat [F. No. J-11011/381/2014-IA II (I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (Envision Enviro Technologies Pvt. Ltd., Gujarat) gave a detailed presentation on the salient features of the project. The application for the proposal of replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility of M/s. Essar Steel India Limited was initially received in the Ministry on 11.6.2014 and 10.11.2014 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meetings held on 30.07.2014 and 11.12.2014 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 05.11.2014 & combined TOR on 12.02.2015.

Based on the TORs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 02.08.2015. The project was appraised by the Expert Appraisal Committee (Industry) during its meeting held on 03.09.2015 and desired to revise the EIA & EMP report. The revised EIA & EMP report was received by the Ministry on 09.11.2015.

The proposal is for replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility. Details of existing and proposed configuration, production facilities and products are as follows.

No.	Name of Production	Unit	Capacity	Status of Existing
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	Unit/Products		Existing	Proposed	Total	Units
1.	HBI Plant (DRI Mod. I to VI)	MTP A	7.83	-4.0	3.83	Only Mod V & VI are in operation.
2.	Blast Furnace	MTP A	2.04	3	5.04	In operation
3.	Sinter Plant	MTP A	1.48	7	8.48	In operation
4.	Coke Oven (Recovery Type)					
	Gross Coke	MTPA	1.2	1.35	2.55	Under construction.
	Crude tar (by-product)	TPA	52,200	63,000	1,15,200	
	Sulphur (by-product)	TPA	1,700	1,980	3,680	
	Crude Benzol (by-product)	TPA	0	18,243	18,243	
	Naphthalene	TPA	130	0	130	
5.	Air Separation					
	Oxygen Gaseous	Nm ³ /hr	3,60,544	64,200	4,24,744	In operation
	Oxygen liquid		2,950	500	3,450	
	Nitrogen		1,19,944	25,700	1,45,644	
	Argon		3,470	1,500	4,970	
6.	Steel Melt Shop-1(EAF) (4 Nos)	MTP A	4.6	- 4.6	0	In operation (Partial)
7.	Basic Oxygen Furnace (BoF) (3 Nos)	MTP A	0	4.6	4.6	Proposed
8.	Steel Melt Shop-2 (4 EAF & 4 LF)	MTP A	5.0	0	5.0	In operation
9.	Corex Plant (2 Nos)	MTP A	1.7	0	1.7	In operation
10.	Lime Plant (Lime /Dolime)	MTP A	0.93	0	0.93	In operation
11.	CPP	MW	31	0	31	In operation (Partial)
		MW	48	0	48	Not yet established
		MW	525	0	525	Not in operation
12.	Plate Mill	MTP A	1.5	0	1.5	In operation
13.	Pellet plant	MTP	4.0	0	4.0	Not yet

No.	Name of Production Unit/Products	Unit	Capacity			Status of Existing Units
			Existing	Proposed	Total	
		A				established
14.	CSP, Hot Rolling Mill & Long Product - HRC	MTPA	3.5	0	3.5	In operation
	Rebar		1.6	0	1.6	Not yet established
	Wire Rod		0.7	0	0.7	
15.	Caster Shop					
	Slabs from slab caster	MTPA	4.9	0	4.9	In operation
	Billets from Billet caster		2.37	0	2.37	Not yet established
16.	CRM					
	Hot Rolled Pickled Coils/Sheets	MTPA	1.5	0	1.5	In operation
	CR Coils/Sheets		1.3	0	1.3	
	Galvanized Coils/Sheets		0.65	0	0.65	
	Coated Sheets/Coils		0.1	0	0.1	
17.	Extension of Existing Jetty	Meters	734	0	734	In operation
18.	Waste Heat Recovery Based Power Plant	MW	25	20	45	In operation
19.	Pipe Mill					
	H Saw Pipes	MTPA	0.15	0	0.15	In operation
	L Saw Pipes	MTPA	0.33	0	0.33	

The total land required for the project is 50.163 ha. The proposed replacement will be carried out in the existing units after dismantling and at other vacant areas. No additional land will be acquired. No forest land involved. The topography of the area is flat and reported to lie between 21° 6' 15.07" to 21° 7' 26.78" N Latitude and 72° 38' 28.24" to 72° 39' 1.29" E Longitude in Survey of India topo sheet No. F43M12, at an elevation of 9 m AMSL. The Tapi River passes adjacent to the project area. It has been reported that no modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

It has been reported that Dumas Reserved Forest is located towards south-east direction of the project.

The targeted production capacity of the plant will not be increased and remained 9.6 million TPA. The ore in the form of DR and BF Grade Pellets for the plant would be procured from Essar's Pelletization plant located at Visakhapatnam & Paradeep, Calibrated Lump Ore would be procured from NMDC mines in Kirandul, District Dantewada, Chhattisgarh and Oxide Fines would be procured from Goa, Orissa and NMDC mines in Kirandul. The ore transportation will be done through sea route. The details of raw material is as under:

No.	Name of Raw Material	Requirement (MTPA)			Source	Mode of Transportation
		Existing	Proposed	Total		
1	DR Grade Pellets	83,91,000	-44,03,000	39,88,000	Essar's Pelletization Plant located at Visakhapatnam & Paradeep	Sea Route
2	BF Grade Pellets	45,00,000	1,72,000	46,72,000		
3	Calibrated Lump Ore	21,65,000	-11,47,000	10,18,000	NMDC mines in Kirandul, Dist Dantewada, CG.	Sea Route
4	Oxide Fines	6,12,000	52,18,000	58,30,000	Goa, Orissa, NMDC mines in Kirandul	Sea Route
	Total Iron Bearing material	1,56,68,000	-1,60,000	1,55,08,000	-	-

The ground water table reported to ranges between 0.80 m to 9 m below the land surface during the post-monsoon season and 2 m to 6 m below the land surface during the pre-monsoon season. Water for the project is/will be sourced from Tapi River at Variav, 31 km upstream from Hazira.

The water requirement of the project is estimated as 1,375 m³/hr, while total water requirement for the facilities/unit to be dismantled (HBI / DRI Modules I to IV and EAF 4 nos.) is around 1,400 m³/hr. Total water requirement of complex will be 8,499 m³/hr. Entire water is being sourced from existing water source i.e. Tapi River at Variav, 31 km upstream from Hazira. The power requirement of the project is estimated as 101MW. Total power for the facilities/unit to be dismantled (HBI/DRI Modules I to IV and EAFs 4 nos.) is around 330 MW. Total power requirement of complex will be 623 MW. Power is being sourced from 400 KV transmission tower line.

Ambient air quality monitoring has been carried out at 8 locations during 15th October 2014 to 14th January 2015 and the data submitted indicated that PM₁₀ ranges from 60 µg/m³ to 116 µg/m³, PM_{2.5} ranges from 22 to 57 µg/m³, SO₂ ranges from 13 to 27 µg/m³, NO_x ranges from 15 to 49 µg/m³ and CO ranges from <0.1 to 1.21 mg/m³. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 43.02 µg/m³ with respect to the PM, 43.99 µg/m³ with respect to the SO₂ and 22.53 µg/m³ with respect to the NO_x.

There is no habitation in the core zone of the project, therefore no R&R is involved.

Solid waste to the tune of 85,21,352 MTPA will be generated due to the project, out of which 38,50,852 MTPA will be used as raw material within steel complex, 15,52,000 MTPA will be used for land filling and road construction, 23,52,000 will be sent to cement plant and 7,66,500 MTPA will be sold to authorized party. It has been informed that 49,247 MTPA of hazardous waste will be generated due to the project, out of which 17,600 MTPA will be used in sinter plant as iron bearing material by the way of micro pellets or disposal at GPCB approved TSDF site, 3,079 MTPA will be sold to registered re-refiners, 15,090 nos./MTPA will be sent to authorised recyclers/reprocessors, 11,138 MTPA will be disposed at GPCB approved CHWIF and 2,340 MTPA will be Sold to authorized recyclers. It has been reported that an area of 159 ha is already developed as green belt and envisaged additional 93 ha to 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 is exempted for the proposed project as it is located within the notified Hazira industrial area.

The capital cost of the project is Rs. 8,097 Crores and the capital cost for environmental protection measures is proposed as Rs. 1,543 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 185.85 Crores. 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. 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. 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.
- iv. All the coal fines and char shall be utilized within the plant 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.
- v. 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.

- vi. 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.
- vii. 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.
- viii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- ix. 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.
- x. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- xi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.
- xii. 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.
- xiii. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activities, its proper utilization and disposal.
- xiv. 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.
- xv. 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.
- xvi. 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.

- xvii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured 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.
- xviii. 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.
- xix. 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.
- xx. 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.
- xxi. The project proponent shall provide for LED lights in their offices and residential areas.
- xxii. 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.

2.8.3 Mill Expansion Plan to Increase Paper production from 135000TPA to 210000TPA and increase in Captive Cogeneration Plant from 45.9MW to 90.9MW of M/s Trident Ltd. located at Village Dhoula, Tehsil & District Barnala, Punjab (EC) (J-11011/1/2013-IA.II(I) TOR dated 25.04.2013)

The proposal was earlier considered during the 31st meeting of Expert Appraisal Committee held on 8th – 9th January, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

- i. Opacity data collected by the online monitoring system should be correlated with the particulate matter emission data and submitted.
- ii. CPCB issued Show Cause Notice on 3rd June 2014. Action plan w.r.t the SCN issued by CPCB should be submitted. Committee advised PP to get the SCN withdrawn and advised to comply with all the directions issued by CPCB.
- iii. NOx baseline data should be rechecked taking new data and air prediction modeling for NOx should be carried out on the new data and re-evaluated against the earlier values with different fuels used- furnace oil and Pet coke.
- iv. 2.5 % of the construction cost for the expansion project which includes 2% of the net retain profits should be furnished for the next 5 years should be earmarked for CSR related activity and the detailed breakup of the plan should be submitted.
- v. The extent of treated water being sent for in-situ irrigation and that let off in the drains for irrigation in nearby fields may be furnished. Details of crop productivity where it is used for irrigation (both in-situ as well as outside) – before and after use of effluents should be provided. In addition, sodium absorption ration (SAR) of the soil where it is being irrigated since the last EC should be furnished.

The Proponent vide letter No. ‘TRIDENT/PCD/2015/2’ dated 23.11.2015 submitted the information.

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

- i. The project proponent shall install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The project authority shall install multi cyclones, wet scrubbers with the boilers to achieve the particulate emission below 50 mg/Nm³. The emissions from chemical recovery section shall be controlled through primary and secondary venturi scrubbers.
- iii. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. Ground water quality study in and around the project area shall be conducted and report submitted to Ministry’s Regional Office, SPCB and CPCB.
- v. The company shall submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.

- vi. The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- vii. 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.
- viii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix. The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- x. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector shall be strictly implemented.
- xi. 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.
- xii. 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.
- xiii. 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.
- xiv. The project proponent shall provide for LED lights in their offices and residential areas.
- xv. 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.

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

The proposal was earlier considered during the 43rd meeting of Expert Appraisal Committee held on 2nd – 3rd July, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

- i. Existing online monitoring data for a period of 3 months for all the parameters for all the 7 stations should be compared with the data presented in the EIA report and submitted.
- ii. SMS slag utilization plan should be submitted to the Ministry
- iii. The queries raised during the Public Hearing and the response given by the PP should be presented in the tabular form and submitted. The details regarding the officers who has supervised and presided over the entire public hearing process should be submitted.
- iv. Year wise ESC plan should be submitted to the Ministry
- v. Health parameters monitored by the PP should be submitted. Health data for at least 10 people for the health parameters should be demonstrated during the presentation.
- vi. Compliance report from the Regional Office should be submitted.
- vii. MOU for iron ore supply and mode of transportation.

The Proponent vide letter No. 'Nil' dated 30.12.2015 submitted the information.

Based on the information submitted, 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 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 E(P) 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 activities, 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. 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.
- xii. 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.
- xiii. 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.
- xiv. 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.

- xv. 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.
- xvi. The project proponent shall provide for LED lights in their offices and residential areas.
- xvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

2.9 ANY OTHER ITEM

2.9.1 Expansion of Sponge Iron Plant (3,00,000 MTPA to 6,00,000 MTPA), Ferro alloy Plant (72,000 MTPA) at Village Jitusolo. J.L. No. 702 & 703. Jitusole Junglokhas J.L. No. 731 and Baghmudi J.L. No. 928. District Paschim Modiniporo. West Bengal by M/s Rashmi Cement Limited. – Extension of Validity of EC – [J-11011/604/2008- 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 for his absence by the applicant.

2.9.2 Asbestos Fiber Cement Sheet plant (1,20,000 TPA) located at plot No. A1, Industrial area, Village & Taluka Bihiya, District Bhojpur, Bihar by M/s Ramco Industries Ltd. – Amendment in EC – [J-11011/17/2010-IA.II(I)]

M/s Ramco Industries Limited (RIL) has established and operating an Asbestos Fiber Cement Sheet Plant at Industrial Area, Bihiya, District Bhojpur, Bihar. The project was accorded Environmental Clearance by the Ministry vide letter No. J-11011/17/2010- IA II (I) dated 17.01.2011.

The present application is for amendment in the existing environmental clearance dated 17.01.2011, regarding one of the specific condition for abstraction of ground water. The condition mentions that “After 5 years operation of plant, no ground water shall be used and only rain water shall be used.” However, the PP has requested to continue abstraction of ground water as the project area falls under safe block and it is not listed under the critical, semi critical & over-exploited blocks as identified by Central Ground Water Board. (CGWB 2014 Report: Dynamic Ground Water Resources of India).

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

- i. Photographs of the site showing construction of water harvesting structures as per the specific condition of the environment clearance letter dated 17.01.2011.
- ii. The certificate from the State/Central Ground Water Board showing increasing trend of ground water level at the site and authentic rainfall data from meteorology department
- iii. Compliance report from the regional office of MoEFCC should be submitted.

2.9.3 Enhancement /Modification in the existing configuration of furnaces at existing steel division with additional 4 Nos x 15T capacity Induction Furnace with 6/11 CCM without change in the existing capacity of the issued environmental clearance located at Siltara, Dharsiva, District Raipur, Chhattisgarh by M/s SKS Ispat Limited - Under clause 7(ii) of EIA Notification 2006 – [J-11011/99/2006-IA.II(I)]

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. Presently the steel plant is in operation with following facilities:

- i. Sponge Iron Plant with capacity - 2, 70,000TPA (2x100TPD & 350 x2 TPD Kiln).
- ii. Power Plant - 85 MW (25 MW WHRB and 2x30 MW CFBC & AFBC).
- iii. Steel Melting Shop – 3, 31,500 TPA.
- iv. Rolling Mill (4Nos.) total Capacity -3, 84,000 TPA.
- v. Ferro Alloys – 29400 TPA.
- vi. Gasifire (5 Nos.)- 5x8000 Nm³/Hr.
- vii. Oxygen/Nitrogen Plant- 170 Nm³/Hr.

PP 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 under utilized. 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.

PP proposed that if the unit is supported by establishing additional 4Nos.x15T 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.

An application has been filed by PP under clause 7(ii) of EIA Notification dated 14th September 2006 (As amended), along with the updated Form-I. As there is no change in the production capacity for which EC is already approved and as the enhancement has to be done at existing premises no additional land has to be procured, as well as no additional water is required, also the power requirement will be met from captive generation even it is an eco-friendly proposal as there is no coal or fossil fuel are to be consumed.

After detailed deliberation is 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. The PP has to apply afresh for obtaining ToRs for the above proposal as per the provisions of EIA Notification, 2006.

2.10 CASES FOR TERMS OF REFERENCE (TOR)

2.10.1 Standalone cement grinding unit of 300 TPD capacity in Two Phases located at Village Kattur, Taluk Katpadi, District Vellore, Tamil Nadu by M/s Maadesh Cements [F.No-J-11011/244/2015-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'B' of the Schedule of EIA Notification, 2006, however, in view of location of the project in Andhra Pradesh – Tamil Nadu interstate boundary (0.3 km in W direction), the proposal is appraised at the central level.

M/s. Maadesh Cements proposes to set up a standalone cement grinding unit of 300 TPD capacity in two phases at Sy. No. 124, Mathanda Kuppam Panchayat, Kattur Village, Katpadi Taluk, Vellore District, Tamil Nadu in an area of 3.89 acres. 1.3 acres of land area is proposed to be developed as green belt. Total cost of the project is Rs. 135 Lakhs. The land is already acquired. The site is surrounded by open lands in all directions. Kattur village is at 1.2 km in S direction. Ramapuram railway station is at a distance of 7.6 km in SW direction. Ponnai River is at a distance of 1.6 Km in E direction. The three reserve forests namely Amudala RF (5.5 km in NE), Magimandalam RF (8.8 km in SW), Chilapalli RF (8.6 km in West) are located in the buffer zone. Andhra Pradesh – Tamil Nadu interstate boundary is at a distance of 0.3 km in W direction. There are no National Parks/ wildlife sanctuaries and critically polluted areas within 10 Km radius of the site. The site is purchased from private owners and does not involve any forest land and there is no displacement of people due to the project.

Manufacturing Capacities

S.No	Name of Product	Manufacturing Capacity (TPD)		
		Phase I	Phase II	Total
1	Cement	100	200	300

Raw Material Requirement

S. No	Raw Material	Source Locality	Quantity (TPD)	Distance from plant (km)	Transportation mode
1.	Clinker	Kamalapuram	180	160	Trucks by Road
2.	Gypsum	Chennai	15	115	Trucks by Road
3.	Flash	Chennai	105	115	Trucks by Road

The total water requirement for the proposed unit is met from bore wells. The net water requirement after implementation of the project will be around 5.0 KLD. Domestic Sewage

generation is 0.8 KLD, which will be sent to septic tank followed by soak pit. No solid waste is generated from the cement plant. The cement dust collected in the pollution control devices is recycled back to the process. The total power requirement is 150 HP. The power requirement will be met from TNEB.

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

- i. Public Hearing to be conducted by Tamil Nadu Pollution Control Board.
- ii. Detailed traffic analysis for the roads around the plans should be carried out and submitted.
- 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.

2.10.2 Proposed capacity expansion of the existing cement plant from 100 TPD to 250 TPD by M/s Ganpati Cements located at SICOP, Industrial Estate, Kathua, Jammu and Kashmir [F.No-J-11011/245/2015-IA.II(I)]

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

M/s Ganpati Cements, is planning to expand its existing cement plant capacity form 100 TPD capacity to 250 TPD at the existing location at 212, 213-B, SICOP, Industrial Estate, Kathua (Jammu and Kashmir). The plant site lies between 32° 17' to 32° 55' North Latitude and 75° 70' to 76° 16' East Longitude. The industry would install a new Vertical Shaft Kiln (VSK) for the proposed expansion. The estimated cost of expansion of the project would be around 2.14 Crores. The industry would be operative for 330 days in a year and function two 8 hour shifts per day.

The raw material required by the industry is limestone, pet coke, clay, iron dust, gypsum and fly ash. All the raw material required are available within state and if the need be can be imported from other states. The raw material and products details are provided below:

S. No.	Particulars	Unit	Existing	Proposed	Total
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	PRODUCTS				
1.	Cement (OPC, PPC and Masonry)	TPD	100	150	250
	RAW MATERIALS				
1.	Limestone	MT	123	187	310
2.	Clay	MT	26	38	64
3.	Coal/Pet Coke	MT	20	30	50
4.	Iron ore/ Dust	MT	1.7	2.5	4.2
5.	Gypsum @ 3%	MT	3	4.5	7.5
6.	Fly ash (In case of PPC cement manufacturing) (10 – 25%)	MT			25-62.5

The industry would manufacture various grades of cement including OPC (Ordinary Portland Cement), PPC (Portland Pozzolona cement) and masonry cement conforming to BIS standards. The quantity of the desired product would depend on the market demand. To control the fugitive emissions from various process steps in the industry, it is proposed to install bag house filters.

The existing unit is in 7.5 Kanals of land. The land is enough for the proposed expansion. However, the proponent is in process of acquiring additional 4 Kanals of adjoining land for storing raw material and final product.

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

- i. Compliance report of earlier EC from the Regional Office of the Ministry should be submitted along with the EIA/EMP report.
- ii. 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.

2.10.3 Rolling Mill (175000 MTPA), Sponge Iron (70000 MTPA), MS Billets (175000 MTPA), Pig Iron (100000 MTPA), HG Sponge Iron (70000 MTPA), Iron Ore Pellets (600000 MTPA), Captive Power Plant (15MW) and Fly Ash Blocks 2000000 PA ha. at Jodidevarahalli Village, Kallambella Hobli, Sira Taluk by M/s Sunvik Steels Pvt. Ltd. [J-11011/959/2008-IA-II(I)Pt.]

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.

The Project is located at Village Jodidevarahalli, Taluka Sira, District Tumkur, Karnataka. The Environmental Clearance for the existing Sponge Iron Plant 90,000 TPA along with Captive Power Plant (10 MW), Induction Furnace (12 MT) and Rolling Mill (100 TPD) was accorded Environment Clearance by the Ministry vide letter No. J-11011/959/2008-IA-II (I) dated 10th June 2009. Now, M/s. Sunvik Steels Pvt. Ltd. proposes to go for expansion of existing plant by following:

S. No	Particulars	Configuration for which EC obtained	Proposed Expansion	After Expansion
1	DRI Kiln based Sponge Iron Plant	90,000 TPA (3 x 100 TPD)	60,000 TPA (1 x 200 TPD)	1,50,00 0 TPA
2	Induction Furnace based Steel Melting Shop	36,000 TPA (1 x 12 TPH)	1,50,000 TPA (2 x 25 TPH)	1,86,00 0 TPA
3	Rolling Mill	30,000 TPA (1 x 100 TPD)	1,50,000 TPA (1 x 500 TPD)	1,80,00 0 TPA
4	Captive Power Plant	1 x 10 MW	1 x 5 MW & 1 x 10 MW	25 MW
5	Blast Furnace	---	1 x 300 TPD	90,000 TPA
6	Tunnel Kiln	---	2 x 100 TPD	60,000 TPA
7	Iron Ore Pelletization & Beneficiation	---	1 x 2000 TPD	6,00,00 0 TPA
8	Fly-Ash Brick Plant	2000 Bricks/day	6000 Bricks/Day	8000 Bricks/ Day
9	Fly-Ash Beneficiation Plant	---	1 x 100 TPD	30,000 TPA
10	Slag Crusher & Beneficiation Plant	1 x 15 TPD	1 x 30 TPD	13,500 TPA

The total land required for the project is 97.5 Acres, out of which an area of 49.5 acres is in the possession of the project proponent in which the existing plant is located and remaining 48 acres of additional land is to be allotted to the proponent under Section 109 of Karnataka Land Reforms Act, 1961.

Total cost for the proposed expansion will be Rs. 550 Crore. The power requirement of 47 MW will be sourced partly from captive power plant and partly from nearby grid. Proposed raw material and fuel requirement for project are Iron Pellets, Coal, Dolomite, Sponge Iron, Scrap, Ferro Alloys, Limestone and Furnace oil. Water Consumption for the proposed project will be 1000 KLD and same will be sourced from ground 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. Public Hearing to be conducted by Karnataka Pollution Control Board.
- ii. Compliance report of earlier EC from the Regional Office of the Ministry should be submitted along with the EIA/EMP report
- iii. On the request of the proponent the Committee has allowed to use the data collected since October, 2015 for the project.
- iv. 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.
- v. 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.

2.10.4 Proposed 1.2 MTPA Portland Slag Cement (PSC) and Ground Granulated Blast Furnace Slag (GGBS) Grinding Unit at Kalinganagar Industrial Complex, Jajpur, Odisha by M/s JSW Cement Limited [J-11011/246/2015-IA.II(I)]

M/s. JSW Cement Limited proposes to install a new manufacturing unit for 1.2 MTPA Portland Slag Cement (PSC), Portland Pozzolana Cement (PPC) and Ground Granulated Blast Furnace Slag (GGBS) grinding based on Roller Press/Ball Mill Combination Technology with high efficiency separator. The proposed unit will be located within plant premises of M/s Jindal Stainless Limited located at Kalinganagar Industrial Complex, near sukinda road village Tehsil-Danagadi, District Jajpur, Odisha. The proposed capacity for different products for new site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Cement Grinding Unit	1	1.2 MTPA	1.2 MTPA Portland Slag Cement (PSC), Portland Pozzolana Cement (PPC) & Ground Granulated Blast Furnace Slag(GGBS)

The Committee noted that the proposal is for standalone grinding unit which is a category 'B' project. Since the SEIAA/SEAC for Odisha has been constituted and is in place, the case should be transferred to SEIAA, Odisha for further consideration of proposal. In the meantime, the proponent was advised to apply online to state, while the case is transferred to the state. Committee is of the opinion that since the proposal was received in the Ministry prior to the constitution of SEIAA/SEAC, Odisha, weightage should be provided while fixing the seniority of consideration of the proposals in the SEIAA meeting.

30th December, 2015/Wednesday (Narmada)

2.11 ENVIRONMENTAL CLEARANCE (EC)

2.11.1 Integrated Project for Modernisation of Kumarasamy Raja Nagar Cement Plant for Increase of Clinker production from 2.8 MTPA to 3.185 MTPA by Up gradation of Line-1 & Optimum Utilisation of Line-II and Installation of 6MW Turbo generator of M/s Ramco Cements Ltd., at KSR Nagar, Jaggayyapet Mandal, Dist. Krishna, A.P. [F.No J-11011/403/2006-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s B.S. Envi – Tech Pvt. Ltd) gave a detailed presentation on the salient features of the project. An application for proposed modernisation of Kumarasamy Raja Nagar Cement Plant for increase of Clinker production from 2.8 MTPA to 3.185 MTPA was initially received in the Ministry on 3th November, 2014 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) during its 27th meeting held on 13th -14th November, 2014 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment and Forests had prescribed TORs to the project on 11th June, 2015.

Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 8th October, 2015.

The proposal is for increase in the Clinker production from 2.8 MTPA to 3.185 MTPA by up-gradation and modernization of process line-I. The project was earlier accorded environment clearance by the Ministry on 09.06.2009. The project is located at Kumarasamy Raja (KSR) Nagar, Jaggaiahpet Mandal, Krishna District, Andhra Pradesh. The land requirement for the project is 812.75 Ac.(329 Ha.) No additional area is required for the proposed expansion. The general elevation of the study area ranges from 20 m to >90 m above MSL. Elevation at the plant area varies in between 50 – 60 m above MSL. The perennial river Krishna flows in the South. Paleru river drains the plant area. The other streams/nallahs are flowing towards South. 47 Nos. of RWH Pits are made in the Colony and 1 No. of RWH Pit at Plant to recharge the ground water level in the vicinity. The plant area is part of the Survey of India Topo sheet No. 65/D/1 and lies between 16°52'24.90"N Latitude to 80°7'8.30"E" Longitude and 16°52'41.20" N Latitude to 80°7'29.40"E Longitude. Following table presents the existing and the proposed facility:

Cement Plant	Present approved Capacity as per MoEF&CC EC (MTPA)		Proposed enhancement (MTPA)		Capacity after proposed enhancement (MTPA)	
	Clinker	Cement	Clinker	Cement	Clinker	Cement
Line – I	1.225	3.65	0.385	0.000	1.61	3.65
Line – II	1.575		0.000		1.575	
Total	2.8	3.65	0.385	0.000	3.185	3.65
Power plant	36MW		6MW		42MW	

The total manpower existing at the plant is 439 persons. No additional manpower is proposed. The cost of the expansion is about Rs. 100 Crores.

Present Water Requirement of the plant is 6259.8 m³/day (cement plant + thermal power plant + limestone mines). It is proposed that additional water requirement for the expansion is 430 m³/day. The source of water is ground water and mine pits. The peak power consumption in the RCL Cement plant complex including mine is 45 MW. Power requirement is met from existing 2x18 MW captive thermal power plant and proposed 6 MW Generator. Additional power requirement was met from grid.

The limestone requirement for 3.185 MTPA (total) Clinker production after expansion is 4.46 MTPA. RCL has necessary clearances for limestone production of 4.46 MTPA from Captive Limestone Mines. Following table presents the details of raw material, source and mode of transportation.

S. No	Raw Material	Existing 2.80 MTPA Clinker & 3.65 MTPA Cement	Proposed 3.185 MTPA Clinker & 3.65 MTPA Cement	Source	Mode of Transport
1	Limestone	3.91	4.45	Captive Mines	Road
2	Iron Ore	0.097	0.11	Bellary	Road
3	Laterite	0.159	0.181	Rajahmundry	Road
4	Coal	0.432	0.490	Singareni Colleries	Rail
Total Clinker Production		2.80	3.185		
Clinker export for other Units		0.835	1.221		
5	Clinker used for Cement Manufacturing	1.964	1.964		
6	Gypsum	0.286	0.286	Coramandel	Road
7	Fly Ash	1.112	1.112	Vijayawada Thermal Power Station	Road
8	Slag	0.286	0.286	Vizag Steel Plant	Road
Total Cement Production		3.65	3.65		

Additional waste water generated due to installation of 6 MW turbine generator will be 95 m³/day. The existing neutralization pit is sufficient to handle waste water generated due to expansion. Treated water would be utilized for cooling purpose in cement plant, greenbelt development and ground water recharge.

All the flue gas outlets designed for particulate emission of less than 30 mg/Nm³. Domestic wastewater generated is treated in STP of 700 KLD capacity. No additional solid waste would be generated from proposed expansion. Greenbelt has been developed in an area of 130.24 acres (about 52.5 % of the plant area).

The Public hearing of the project was held on 25th August, 2015. The issues raised during public hearing *inter-alia* include start of ITI, greenery development, beautification of lake, depletion of water level etc.

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

- i. Water balance statement should be revised and submitted to the Ministry
- ii. Compliance report for the EC granted for the existing plant should be submitted.
- iii. Aerial photograph of the entire site showing the existing facility and the site for the proposed plant should be submitted.

2.11.2 Proposed Iron Ore Beneficiation Plant, Pelletization Plant and Ferro Alloys Plant at village Shahgarh, Tehsil Sihora, District Jabalpur, Madhya Pradesh by M/s Special Blasts Limited [F.No-J-11011/246/2012-IA.II(I)]

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 detailed presentation on the salient features of the project. An application for proposed Steel plant of M/s. Special Blasts Limited was initially received in the Ministry on 29.06.2012 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 3rd – 5th December 2012 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment and Forests had prescribed TORs to the project on 12th February 2013.

Based on the TORs prescribed to the project, the project proponent submitted an online application for environmental clearance to the Ministry on 26th October 2015.

The project is located at Village Shahgarh, Tehsil Sihora, District Jabalpur, Madhya Pradesh. The proposal is for setting up of Iron ore Beneficiation plant (2 x 2000 TPD), Iron ore Pelletization plant (1 x 2000 TPD) and Ferro Alloys Plant with submerged electric arc furnace (3 x 9 mVA) for production capacity of 12,00,000 TPA of Iron Ore Concentrate, 6,00,000 TPA of Pellets, 19,050 TPA of FeSi, 42,750 TPA of SiMn and 55,500 TPA of FeMn. Plant configuration & production Capacity is as follows:

S.no.	Unit	Plant Configuration	Production Capacity (TPA)	
1.	Iron ore beneficiation	2 x 2000 TPD	1200000	
2.	Iron ore pelletization	1 x 2000 TPD	600000	
3.	Submerged Electric Arc	3 x 9 mVA	FeSi	19050

	Furnace (SEAF)		SiMn	42750
			FeMn	55500

The total land required for the project is 30.52 acres, out of which 30.52 acres is an agricultural and same has been converted for Industrial Purpose. No forestland is involved in the project site. The entire land has been acquired for the project. The topography of the area is flat and reported to lie between 23°24'15.71"N to 23°24'18.37"N Latitude and 80° 2'32.55"E to 80° 2'49.98"E Longitude in Survey of India topo sheet No. 64 A/3, at an elevation of 1260 feet. The groundwater levels range between 40 to 45 m bgl. Heran river is flowing at distance of 0.7 Km. from the project site. No water body is passing through the site.

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.

Submerged Electric Arc Furnace (SEAF) will be used for manufacture of ferro alloys. The molten metal and slag will be tapped at regular time intervals into a ladle or onto cast iron pans. The slag will be overflowed to another ladle or in casting pans.

Iron ore fines, bentonite & coal fines will be used as raw materials for Iron ore beneficiation and pellet plant. Manganese ore, Pet Coke, Quartz, Fe-Mn Slag, MS Scarp & Electrode paste will be used as basic raw materials for Ferro alloy production.

The ore for the plant would be procured from Katni – Jabalpur mines. The ore transportation will be done through rail and road (covered trucks). Imported coal will be sourced from M/s. Indermani Mineral (India) Pvt. Ltd.

For Iron Ore Beneficiation				
S.No.	Item	Quantity (TPA)	Source	Mode of Transportation
1	Iron ore Fines	12,00,000	Katni – Jabalpur Mines	By Rail & Road (Covered trucks)

For Pellet Plant					
S.No.	Item	Quantity (TPA)	Source	Mode of Transportation	
1	Iron ore Concentrate	6,30,000	Own Generation	Covered Conveyor	
2	Bentonite	9,000	Jabalpur	By Road (Covered trucks)	
3	Limestone	9,000	Nearby mines	By Road (Covered trucks)	
4	Coal	Indian	36770	SECL	By Rail & Road (Covered trucks)
		Imported	21450	Russia / Indonesia / Australia / South Africa	By Sea, Rail & Road (Covered trucks)

5	Furnace oil		8100 KL	Jabalpur	By Road (Covered trucks)
6	Coal (Gasifier)	Indian	15000	SECL	By Rail & Road (Covered trucks)
		Imported	8750	Russia / Indonesia / Australia / South Africa	By Sea, Rail & Road (Covered trucks)

For Ferro Silicon

S.No.	Item	Quantity (TPA)	Source	Mode of Transportation
1	Quartz	22800	MOIL / Open Market	By Road (Covered trucks)
2	Pet Coke	7560	Jabalpur	By Road (Covered trucks)
3	M.S. Scrap	465	Local Market	By Road (Covered trucks)
4	Electrode Paste	1125	Jabalpur	By Road (Covered trucks)

For Silico Manganese

S.No.	Item	Quantity (TPA)	Source	Mode of Transportation
1	Mn Ore	42930	Katni– Jabalpur Mines	By Road (Covered trucks)
2	Mn slag	24300	In house generation	---
3	Quartz	10530	MOIL / Open Market	By Road (Covered trucks)
4	Pet Coke	4275	Jabalpur	By Road (Covered trucks)

For Ferro Manganese

S.No.	Item	Quantity (TPA)	Source	Mode of Transportation
1	Mn Ore	72150	Katni– Jabalpur Mines	By Road (Covered trucks)
2	Pet Coke	41550	Jabalpur	By Road (Covered trucks)
3	MS Scrap	2775	Local Market	By Road (Covered trucks)
4	Electrode paste	8325	Jabalpur	By Road (Covered trucks)

The water requirement of the project is estimated to be 710 m³/day, This includes Make-up water for Iron Ore Beneficiation, Pellet & Ferro Alloys and for domestic water. Water required will be sourced from Groundwater source. The power requirement of the project is estimated as 45 MW and same will be sourced from nearby grid.

Ambient air quality monitoring has been carried out at 9 locations during December 2013 to February 2014 and the data submitted indicated that PM_{2.5} ranges from 13.3 to 25.8 µg/m³,

PM₁₀ ranges from 22.3 to 43.1 µg/m³, SPM ranges from 56.6 to 98.6 µg/m³, SO₂ ranges from 6.3 to 12.2 µg/m³ and NO_x ranges from 6.2 to 13.5 µg/m³. The results of the modelling study indicate that the maximum increase of GLC for the proposed project is 0.7 µg/m³ with respect to the PM₁₀, 0.8 µg/m³ with respect to the SO₂ and 7.2 µg/m³ with respect to the NO_x.

It has been envisaged that an area of 11.0 acres (33.2% of total area) 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 14.05.2015 under the chairmanship of Additional District Magistrate, Jabalpur. The issues raised during public hearing *inter-alia* include development of local areas, providing employment, pollution control, organizing medical camps etc.

The capital cost of the project is Rs. 135 Crores and the capital cost for environmental protection measures is proposed as Rs. 8.0 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 30 Lakhs/annum. 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. 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 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. At least 25% of the water requirement shall be met from rainwater harvesting. Further, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- 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.

2.11.3 Iron Ore Pelletisation plant (4 MTPA) of M/s Brahmani River Pellets Ltd. located at Khurunti, Kalinga Nagar, Jajpur, Odisha [J-11011/295/2014-IA-II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Mecon Ltd.) gave a detailed presentation on the salient features of the project. An application for 4.0 MTPA Iron ore Pellet Plant of M/s Brahmani River Pellets Limited (BRPL) was initially received in the Ministry on 25th June 2014 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 18th September 2014 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment and Forests had prescribed TORs to the project on 10th November 2014, which was subsequently amended on 3rd December 2014, for reducing production capacity from 5 MTPA to 4 MTPA.

Based on the TORs prescribed to the project, the project proponent had submitted EIA and EMP Report (offline) on 18th February 2015 to MoEFCC without conducting public hearing and requested the Ministry to consider the proposal while exempting public consultation in accordance with MoEFCC Office Memorandum dated 10.12.2014. The Ministry took a decision to take the request of exemption of conduct of PH to the Committee. Based on recommendations of the Expert Appraisal Committee, as the pellet plant of project proponent is situated in the Kalinga Nagar Industrial Complex, which is notified as an Industrial Estate prior to EIA

Notification 2006, the Ministry has exempted the project from conduct of Public Hearing vide its letter dated 16th September 2015.

The project proponent finally re-submitted the application for environmental clearance to the Ministry (online) on 6th November 2015. The project of M/s Brahmani River Pellets Limited located in Village Khurunti, Tehsil Sukinda, District Jajpur, is for an operating iron ore pellet plant for production of 4.0 million tonnes per annum (million TPA) TPA of Iron ore Pellets.

The total land acquired for the project is 35.61 ha, which is an industrial land allotted to BRPL by Odisha Industrial Infrastructure Development Corporation (IDCO). The entire land has been acquired for the project. The topography of the area is flat and reported to lie between 20° 58' 57.91" to 20° 59' 02.70" N Latitude and 86° 01' 55.5" to 86° 02' 25.8" E Longitude in Survey of India topo sheet No. F45U1, at an elevation of 45 m AMSL. River Brahmani is at a distance of 9.7 Km from the project site. ~~Within the study area of 10 km radius~~ The most prominent drainage channel is Ganda Nallah, which is a tributary of river Brahmani is within the study area. Operation of 4.0 MTPA Pellet plant has not resulted any modification / diversion of the natural drainage pattern.

There is no National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve, Elephant Reserve etc. within the project as well as 10 km radius buffer zone of the project site.

The production capacity of the Pellets is 4.0 million TPA. The ore for the plant is getting in the form of iron ore concentrate from BRPL's Beneficiation plant at Barbil, State Odisha. The ore transportation is being done through underground slurry pipeline from Barbil to Jajpur.

The ground water table reported to range between 5.28m below the land surface during the post-monsoon season and 6.83m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 40 m. Further, the stage of groundwater development is reported to be around 29% and 32% in core and buffer zone respectively and thereby these are designated as safe exploited areas.

The water requirement of the project is 6600 m³/day, which is being reclaimed from iron ore concentrate slurry, received from its Beneficiation plant and permission for 50 KLD of water is received from IDCO for drinking purpose. The power requirement of the project is 20 MW, which is obtained from Odisha Power Transmission Corporation Limited (OPTCL).

Ambient air quality monitoring has been carried out at 10 locations during September to November and the data submitted indicated that PM₁₀ ranges from 57 µg/m³ to 74 µg/m³, PM_{2.5} ranges from 28 to 45 µg/m³, SO₂ ranges from 8.1 to 16.7 µg/m³ and NO_x ranges from 9.4 to 18.6 µg/m³. The results of the modelling study indicate that the maximum increase of GLC for the project is 4.89 µg/m³ with respect to the PM₁₀, 8.27 µg/m³ with respect to the SO₂, 1.3 µg/m³ with respect to the NO_x.

There is no solid waste generation from Pellet Plant process as 100% recycling of dust & sludge is being done. The project proponent ensures zero solid waste discharge to environment.

An area of around 10.65 ha is developed as green belt in the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

The capital cost for environmental protection measures is Rs. 3864 Lakhs. The annual recurring cost towards the environmental protection measures is calculated as Rs. 628 Lakhs. The proponent has mentioned that there is no court case related to environment 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. 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. The PP shall install scrubber or upgrade the existing scrubbers within one year to reduce SO_x emission which will be verified by the regional office.
- 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 E(P) Act 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. 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.
- 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.
- xvi. 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.
- xvii. 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.

- xviii. The project proponent shall provide for LED lights in their offices and residential areas.
- xix. 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.

2.11.4 Proposed 50 TPD Stand alone Clinker grinding Unit located at RIICO Industrial Area, Village Sotanala, Tehsil Behror, District Alwar in Rajasthan by M/s Jai Shree Krishna Cements Ltd [F.No-J-11011/99/2012-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s E.C. Engineers, Jaipur) gave a detailed presentation on the salient features of the project. The cement manufacturing unit (a standalone clinker grinding unit) of M/s Jai Shree Krishna Cements located at G-27, Industrial Area, Sotanala Tehsil Behror, District Alwar, Rajasthan was initially received in the Ministry on 16.2.2012 for obtaining Terms of Reference (TOR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (1)] during its meeting held on 26-27th April 2012 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 21st May 2012. Although it is a 'B2' category project but Haryana boundary is about 3 km away from the proposed site. Therefore, the project is considered as Category 'A' project.

Based on the TORs prescribed to the project, proponent submitted application for environmental clearance to the Ministry. The proposal was considered in the 3rd meeting of EAC held on 3rd – 5th December, 2012 wherein the Committee noted that the EIA/EMP report was prepared by M/s EQMS India Pvt Ltd who is not an accredited consultant. However, M/s EQMS India Pvt Ltd informed the Ministry that the report was prepared by M/s E. C. Engineers and M/s E. C. Engineers have obtained stay from Hon'bler High Court of Rajasthan on 16.08.2013 regarding QCI/NABET accreditation. However, vide letter dated 02.05.2014, the PP was requested to conduct public hearing for the project. PP vide letter dated 10.03.2015 requested to exempt the project from conduct of Public Hearing based on the OM dated 10th December, 2014, wherein the Ministry has exempted the conduct of Public Hearing for the projects which are located within the Notified Industrial Area.

The project is located in RIICO Industrial Area, Alwar, Rajasthan and is for setting up of a new cement manufacturing unit (a standalone clinker grinding unit) for production of 1500 tones per annum.

The total land required for the project is 1500 Sq.m. No forest land involved. The entire land has been acquired for the project area. The topography of the area is almost flat to gently undulating and reported lies between 27° 49' 46.17(N) Latitude and 76° 15' 39.41(E) Longitude in survey of India toposheet no. 54 A/5 and study area cover toposheet no. 54 A/5 and 54A/1, at an elevation of 320 MSL. It has been reported that Sota nadi is 1 Km away from the proposed project site and modification/diversion in the existing natural drainage pattern at any stage has

not been proposed.

There is no national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. reported to be located in the core and buffer zone of the project.

The targeted production capacity of the project is 1500 TPA. The raw material like clinker will be brought from Shree Cement, Bewar and Laxmi Cement, Sirohi and other raw materials (fly ash and gypsum) will procured from the outside agencies and cement mills through trucks (by road).

S. No.	Particulars	Consumption (TPD)		Storage (TPD)		Mix ratio (%)	
		PPC	OPC	PPC	OPC	PPC	OPC
1.	Clinker	31.5	46.5	60	55	31.5	46.5
2.	Fly ash	16.5	-	34	-	16.5	-
3.	Gypsum	2	3.5	6	15	2	3.5
Total		50	50	100	100	50	50

The groundwater table reported to ranges between 34-45 m below the land surface during post monsoon season. The water requirement of the project is estimates as 3 m³/day, which will be obtained from RIICO water supply. The power requirement of the project is estimated 200 KVA, which will be obtained from JVVNL.

Ambient air quality monitoring has been carried out at 5 location during pre-monsoon season and the data submitted indicated that PM₁₀ ranges from 31.0 µg/m³ to 60.0 µg/m³, PM_{2.5} ranges from 23.0 µg/m³ to 36.0µg/m³, SO₂ ranges from 6.0 µg/m³ to 18.0 µg/m³ and NOx ranges from 7.0 µg/m³ to 24.0 µg/m³. The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 0.191 with respect to the PM₁₀, 0.093 with respect to PM_{2.5}.

It has been reported that there are no people in the core zone of the project. No R&R is involved.

It has been reported that no significant waste will be generated; the waste generated during process will be reused. It has been envisaged that an area of 496.70 sq. mtr. being developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to project development activities.

The capital cost of the project is Rs 64.50 Lac and the capital cost for environmental protection measures is propos as Rs 1.66 Lac the annual recurring cost towards the environmental protection measures is proposed as Rs 66,000. 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 Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.
- iii. Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iv. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed.
- vi. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
- vii. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.
- viii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- ix. Green belt shall be developed in 33% of the project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, along road sides etc. by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.
- x. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
- xi. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

- xii. The proponent shall prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. 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.
- xiii. 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.
- xiv. The project proponent shall provide for LED lights in their offices and residential areas.
- xv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

2.12 FURTHER CONSIDERATION

2.12.1 Proposed 10 MTPA Integrated Steel Plant, 900 MW Captive Power Plant and Township, Near Barendra, Sonahatu Block, Ranchi District Jharkhand by M/s JSW Jharkhand Steel Ltd [J-11011/377/2012-IA-II(I)]

The proposal was earlier considered during the 37th meeting of Expert Appraisal Committee held on 30th April – 1st May, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

- i. Land details provided in the EAI report at page C2-10 should be resubmitted clearly indicating the type of land and actual land in possession. The unit should be in Ha.
- ii. Detailed plan should be submitted for the storage of raw material with emission mitigation measures.
- iii. Complete details for the proposed ETP for the Blast Furnace and Coke oven plant, including design of ETP to meet the cyanide standards stipulated by MoEF under EPA Act 1986 should be provided.
- iv. Details regarding use of SMS and BF slag / flyash in cement manufacturing should be provided.
- v. Revise ash balance and ash equalization plan should be submitted
- vi. Trace element report should be corrected and submitted
- vii. Iron ore analysis to be rechecked and submitted
- viii. Stamp charging + HPLA commitment in coke over plant to be provided
- ix. Commitment for the use of CDQ to be submitted

- x. Details regarding Poly aromatic hydro carbon monitoring should be submitted
- xi. SMS slag utilization scheme to be submitted
- xii. SMS plant - dog house details for fugitive emission centres should be submitted
- xiii. SMS – dry system to be adopted and details should be submitted
- xiv. Sinter plant – secondary emission mitigation detail should be provided.
- xv. Advanced CO monitoring system should be established and details should be provided
- xvi. Specific water consumption and water balance should be submitted
- xvii. SO_x, NO_x line emission data used for all the units, including flow rate taken should be submitted
- xviii. Revised table for pollution control measures should be submitted
- xix. Details on benzol plant as Tar utilisation should be provided
- xx. Action plan for waste management for each component should be submitted
- xxi. The Committee prescribed an amount of Rs. 700 cr over a period of 10 years for the CSR related activity. A detailed plan in this regard should be submitted.
- xxii. Town plan detail should be submitted including the layout of the buildings, green belt, internal roads, STP, parking plan etc,
- xxiii. Details regarding the proposed captive thermal power plant should be submitted.
- xxiv. Commitment to achieve zero effluent discharge in coke oven as BF to be provided.

The Proponent vide letter No. 'Nil' dated December, 2015 submitted the information.

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

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. 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.
- iii. Concrete floor shall be provided for storage of raw material to avoid leaching. Drainage channels all around the storage area should be constructed and the runoff should be treated in the treatment plant.
- iv. Full utilization of slag both BF and SMS should be implemented. The details should be submitted along with 6 monthly compliance report.
- v. No untreated effluent should be reused for any process.
- vi. Used oil shall not be used for lubrication. The same shall be disposed to the authorized vendor.

- vii. Air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³.
- viii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant etc. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- ix. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- x. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office, CPCB and SPCB.
- xi. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.
- xii. All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged outside the premises via drains and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.
- xiii. 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.
- xiv. 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.

- xv. The Company shall submit their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to bring into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xvi. All the commitments made to the public during the Public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office.
- xvii. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.
- xviii. Green belt shall be developed in 33% of the project area within plant premises with 20-30 meters wide green belt on all sides along the periphery of the project area, along road sides, storage yards etc. by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.
- xix. All the permanent workers should be covered under ESI Scheme. The company should have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.
- 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.
- xxi. 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.
- xxii. The proponent shall ensure that no wood should be burnt for meeting the fuel requirement.
- xxiii. The project proponent shall provide for LED lights in their offices and residential areas.
- xxiv. 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 Ranchi.

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

The proposal was earlier considered during the 1st meeting of Expert Appraisal Committee held on 18th – 20th November, 2015, when the Committee had desired additional information on the following for further consideration of the proposal:

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

The Proponent vide letter No. 'Nil' dated 19.11.2015 submitted the information. The Committee noted that the total green belt of 0.23 Ha has been proposed in the EIA report which is less than 33% of the total green belt area, as prescribed in the ToR letter and suggested to undertake plantation in school, approach road to the plant and nearby villages.

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

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The project proponent should achieve atleast 5% of the energy saving w.r.t. average power consumption after addition of two new induction furnaces.
- iii. Green belt shall be developed in addition to 0.23 ha area as proposed in the EIA report around school, approach road to the plant, nearby villages and vacant areas around the project by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines
- iv. Secondary emission should be controlled by installing proper ducting system and the exhaust gases should be pass through the bag filter.
- v. Air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³.
- vi. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant

- etc. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- vii. 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.
 - viii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
 - ix. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office, CPCB and SPCB.
 - x. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.
 - xi. All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged outside the premises via drains and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.
 - xii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office, SPCB and CPCB.
 - xiii. Risk Assessment and Disaster Management Plan for the project focussing on Disaster Prevention shall be prepared and implemented in conjunction with District Disaster Management Plan.
 - xiv. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
 - 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 their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- 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.
- xxi. Haulage roads shall be sprinkled with water at regular intervals for which water tankers with sprinkler arrangement are deployed. Regular sweeping of roads shall be practiced with vacuum sweeping machine or water flushing to minimize dust.
- xxii. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.

2.12.3 Expansion of Cement Plant (2.85 MTPA to 4.75 MTPA), Clinker Production (2.40 to 2.85 MTPA) and Captive Power Plant (55 to 70 MW) at Upar Wahi, Chandrapur, Maharashtra by M/s Maratha Cement Works Limited (A unit of Gujarat Ambuja Cement Limited) – regarding amendment in the Environmental Clearance.[J-11011/292/2006-IA.II(I)]

The proponent made a detailed presentation to the Committee. M/s. Ambuja Cements Limited (Unit: Maratha Cement Works) has an existing Cement Plant (4.75 MTPA), Clinker Production (2.85 MTPA) and Captive Power Plant (70 MW) at Uparwahi, Chandrapur, Maharashtra. Environmental Clearance (EC) to the aforesaid project was granted by MoEFCC, New Delhi vide their letter No. J-11011/292/2006-IA II (I) dated 03.11.2006. EC Compliance, duly certified by RO, MoEFCC, Bhopal has also been obtained vide letter No. 5-91/2006(ENV)/259 dated 15.05.2015.

Ambuja Cements Ltd. (Unit: Maratha Cement Works) is now proposing for amendment in above mentioned Environmental Clearance regarding use of Fuel Mix (Coal, Petcoke & Lignite) instead of only coal, in existing Cement Plant & Captive Power Plant.

There will be no additional land requirement, no change in plant capacity and manufacturing process, no additional water & power requirement, no additional wastewater generation, no change in utilities etc. due to the proposed change of fuel mix.

The matter was considered in the 13th meeting of EAC held on 18th November, 2013. After detailed deliberations, the Committee sought following information from the PAs for fresh consideration of the proposal:

- i. Project report for the proposed change in fuel mix for the cement plant/captive power plant from Coal to Coal, Petcoke, Lignite;
- ii. Pollution load details including impact on air quality on Nickel (Ni) and Vanadium (Va) [air emissions, wastewater treatment and solid /hazardous waste generation] in tabular form [Original approved proposal Vis-a-Vis proposed fuel change proposal] along with its pollution mitigation measures; and
- iii. Certified compliance report from Regional Office of MoEF at Bhopal for the existing unit

PP vide letter No. MCW/EMD/03/2015/759 dated 4.12.2015 submitted the requisite documents.

Based on the information submitted, presentation made and discussions held, the Committee recommended the proposal for use of Fuel Mix (Coal, Petcoke & Lignite) instead of only coal, in existing Cement Plant & Captive Power Plant.

2.13 ANY OTHER ITEM

2.13.1 Expansion of Cement Plant, Clinker (1.8 MTPA to 2.6 MTPA) at Village Rauri, Tehsil Arki, District Solan, Himachal Pradesh by M/s Ambuja Cement Ltd. [F. No. J-11011/986/2008-IA-II (I)].

The proponent made a detailed presentation to the Committee. It was informed that the project was earlier accorded environment clearance for expansion of Cement Plant, [Clinker (1.8-2.6) MTPA] by the Ministry vide letter No. J-11011/986/2008-IA.II (I) dated 15th

September, 2015, subject to strict compliance of Specific & General conditions including Specific Condition No. XV. The Specific Condition is reproduced below:

- i. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Dehradun. Implementation of such program shall be ensured accordingly in a time bound manner.

The project proponent mentioned that they have already spent an amount of 3.01%, 4.06% and 2.57% of the net profit after tax (PAT) towards CSR activities in the year 2012, 2013 and 2014 respectively in compliance of the Companies Act 2013. It has been requested to consider the proposal to waive-off the Specific Condition No. XV, as mentioned above.

The Committee noted that the expenditure of 5% of the total cost of the project towards ESC was prescribed for a period of 5 years. Based on the discussions, held the Committee decided that instead of waiving off the specific condition, it is recommended to extend the implementation period of 5 years for implementing ESC activities to a period of 10 years, which the proponent had also agreed to.

2.13.2 Expansion of integrated cement plant by adding additional Captive Power Plant of capacity 25 MW of M/s Jaypee Balaji Cement Plant, located at Village Budawada, Mandal Jaggayyapeta, District Krishna, Andhra Pradesh [F.No. J-11011/821/2008-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee and the project proponent and their EIA-EMP consultant (M/s Vimta Labs Ltd) gave a detailed presentation on the salient features of the project. M/s Jaypee Balaji Cement Plant (JBCP) is a unit of M/s Jaypee Cement Corporation Limited (JCCL) (formerly M/s Jaiprakash Associates Limited). The integrated Cement Plant at Village Budhawada, Mandal Jaggayyapet, District Krishna, Andhra Pradesh was accorded Environmental Clearance by the Ministry vide letter No.J-11011/821/2008-IA – II (I) dated 26th November, 2009

To meet the entire uninterrupted power requirement for the Cement Project, M/s Jaypee Balaji Cement Plant had submitted an application for Environmental Clearance for setting up a Captive Power Plant of 25 MW capacity within the existing plant premises to State Environmental Impact Assessment Authority (SEIAA) , Andhra Pradesh vide letter Ref. No. JBCP/MoEF/2013 dated 11th May, 2013. The State Expert Appraisal Committee(SEAC), Andhra Pradesh accepted the application for grant of TORs. The proposal was considered by the SEAC during its meeting held on 19th October' 2013 and TORs were prescribed by SEIAA *vide* letter No. SEIAA/AP/KRI- 2013 dated 24th October, 2013.

As per the TORs, the PP has submitted the draft EIA/EMP report to Andhra Pradesh Pollution Control Board with a request to arrange to conduct Public Hearing *vide* letter ref. No. JCCL: JBCP-41(A):14/3268 dated 10th June, 2014. The Public Hearing for the proposed project was conducted through Andhra Pradesh Pollution Control Board (APPCB), on 31st July, 2014.

The project proponent submitted the final EIA/EMP Report based on the Terms of Reference prescribed by SEIAA, A. P. and after having incorporated the Public Hearing proceedings to SEIAA, A.P. *vide* letter ref. No. JCCL/JBCP/PPP/2014/3724 dated 19th November 2014. The proposal was considered during the 72nd meeting of SEAC held on 04.01.2015 and decided to seek clarification from MOEFCC, Government of India, 'Whether the SEIAA, AP can issue EC or it is in the purview of the MOEF to issue EC for the proposed 25 MW Captive Power Plant'. The Ministry clarified to SEIAA, A.P. to transfer the proposal to MoEFCC for further necessary action.

The proposal is for setting up of new captive power plant of 25 MW capacity within the existing cement plant premises at Village Budawada, Mandal Jaggayyapeta, District Krishna, Andhra Pradesh. The total land requirement for the project is 1.5 ha, out of 186.7 ha of available land. The coordinate for the centre of the site is 16°52'19.6" N latitude and 80°01'11.8" E longitude. Total power requirement for existing cement plant is 62.6 MW, which is being met partially (31.1 MW) from existing CPP and balance (31.5 MW) from Grid. To ensure continuous and uninterrupted power supply for efficient cement plant operations, the proponent has proposed to set up an additional 25 MW Captive Thermal Power Plant in the existing premises.

The water requirement for the plant will be catered from the existing water allocation of 5000 m³/day from Krishna river.

Atmospheric Fluidized Bed Combustion (AFBC) boiler is proposed to be installed. Air cooled condenser – less water requirement (about 10% of the water consumed in conventional power plant). "Zero Discharge" concept will be adopted by reusing treated liquid effluents. Efficient electrostatic precipitator to limit the stack emission at less than 50 mg/Nm³. 100% ash utilization in existing cement plant as productive use of the waste product

Ambient air quality monitoring has been carried out at 13 locations during pre monsoon season and the data submitted indicated that PM₁₀ ranges from 35.2 µg / m³ – 60.5 µg / m³, PM_{2.5} ranges from 15.9 µg / m³ – 26.7 µg / m³, SO₂ ranges from 13.1 µg / m³ – 22.2 µg / m³ and NOx ranges from 15.4 µg / m³ – 29.4 µg / m³.

Public hearing for the project was conducted on 31st July, 2014 at Open place near Limestone Crusher of existing JBCP beside the road from Budawada village, Krishna District to Ramapuram Village, Nalgonda District, Andhra Pradesh. The issues raised during public hearing *inter alia* include, employment to local people, pollution control, Corporate Social Responsibility, etc.

The total cost of the project is Rs. 130 crores. The cost of environmental measures is Rs. 15.7 crores (recurring cost for operation protection measures is Rs. 6.9 crores).

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 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 shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material.
- 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,1986.
- 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 projectrelated activities, its proper utilization and disposal
- x. 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.
- xi. 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.
- xii. 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.

- xiii. 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.
- xiv. 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.
- 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.
- xvi. 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.
- xvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 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.

2.14 CASE FOR TERMS OF REFERENCE (TOR)

2.14.1 Mill Growth Plan (MGP) comprising addition of 5,00,000 TPA Paper & Paperboard production, 5,00, 000 BDTPA Bleached Pulp, a new 1,50,000 BDTPA

BCTMP Pulp and 190 MW Captive Co-Generation Power plant by M/s ITC Limited [J-11011/243/2015-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 for his absence by the applicant.

2.14.2 Manufacturing of Low Carbon Fe. Mn/Medium Carbon Fe. Mn/ Ferro Titanium/ Ferro Molybdenum/ Ferro Vanadium/ Ferro Niobium/ Ferro Boron/ Ferro Tungsten/ Ferro Nickel/ Ferro Aluminium/ Silico Manganese (Low Carbon)/ Aluminium Ingots / Shots / Notch bar/ Moly Oxide Briquettes/ Inoculants./ Calcium Molybdate and Manganese Oxide at C-235, MIDC Butibori, District Nagpur, by M/s D S Alloyd Private Limited [F.No-J-11011/75/2008-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category ‘A’ of the Schedule of EIA Notification, 2006 and appraised at the Central level. The project was earlier accorded environment clearance vide letter No. J-11011/75/2008 dated 17.07.2008.

M/s D S Alloyd Private Limited proposed Manufacturing of Manganese Oxide and Proposed Product Mix in Existing Product in the existing plant premises located at plot number C-235, MIDC Butibori, District Nagpur. Following table shows the product category along with the quantity.

Sl. No.	NAME OF ITEMS	PRODUCTS CATEGORY	QTY PER YEAR (IN MT)
BY THERMITE PROCESS			
1	Low/Med.Carbon Fe. Mn or,	Lumps & Powder	10080
2	Ferro Titanium or,	Lumps & Powder	
3	Ferro Molybdenum or,	Lumps & Powder	
4	Ferro Vanadium or,	Lumps & Powder	
5	Ferro Niobium or,	Lumps & Powder	
6	Ferro Boron or,	Lumps & Powder	
7	Ferro Tungsten or,	Lumps & Powder	
8	Ferro Nickel or,	Lumps & Powder	
9	Ferro Aluminium or,	Lumps & Powder	

Sl. No.	NAME OF ITEMS	PRODUCTS CATEGORY	QTY PER YEAR (IN MT)
10	Silico Manganese (Low Carbon) or,	Lumps & Powder	
11	Aluminium Ingots / Shots / Notch bar or,	Lumps & Powder	
12	Moly Oxide Briquettes or,	Lumps & Powder	
13	Inoculants or,	Lumps & Powder	
14	Calcium Molybdate or,	Lumps & Powder	
BY USING SAME CRUCIBLE EXISTING IN THE PREMISES			
15	Manganese Oxide	Lumps, Piglet / Powder	6000

The total land required for the project is 22334.5 m² and 6000 m² shed is in existing and sufficient for proposed activities. All products manufacturing process will be carried in existing infrastructure with available equipment. No additional machines or equipment required for manufacturing process.

The total production will not exceed the quantity mentioned in earlier Environment Clearance dated 17.07.2008 i.e. 10,080 MTPA for any one or mix of products except for Manganese Oxide (MnO).

The electricity load of 250 KVA will be sourced from Maharashtra State Electricity Distribution Company Limited. The raw material requirement for proposed manufacturing process is as below:

Sr. No.	Product Name	Raw Material	Quantity required (TPA)
1	Low / Med. Carbon Fe. Mn.	Manganese Ore	9576
		Aluminium Scrap	273
		Lime Powder/ Flourspar	1700
		Silico Manganese	5948
2	Ferro Titanium	Ilmenite	13104
		Aluminium Powder	5900
		Lime Powder	130
		Iron Ore	1950
3	Ferro Molybdenum.	Moybdenum Concentrate	9475
		Aluminium Powder	806
		Lime Powder	900
		Iron Scrap	1280
		Ferro Silicon	2641
4	Ferro Vanadium.	Vanadium Pentoxide (flakes)	9687

Sr. No.	Product Name	Raw Material	Quantity required (TPA)
		Aluminium Scrap	5000
		Flourspar	600
		Iron Scrap	500
5	Ferro Niobium.	Niobium Concentrate	13000
		Aluminium Powder	4536
		Iron Scrap	2000
		Lime Powder	200
6	Ferro Boron.	Boric Acid	5500
		Aluminium Scrap	5200
		Iron Scrap	7000
		Lime Powder	550
7	Ferro Tungsten.	Tungsten Ore	15000
		Aluminium Powder	3080
		Iron Ore	300
		Lime Powder	600
8	Ferro Nickel.	Nickel Scrap	4200
		Iron Scrap	6240
9	Ferro Aluminium.	Aluminium Scrap	4200
		Iron Scrap	6240
10	Silico Manganese (Low Carbon)	Manganese Ore	8542
		Ferro Silicon	3416
		Aluminium Powder	1623
		Lime Powder	600
11	Aluminium Ingots / Shots / Notch bar	Aluminium Scrap	12000
12	Moly Oxide Briquettes.	Molybdenum Concentrate	9600
		Binding Material	480
13	Inoculants.	Ferro Silicon Alloy	11000
14	Calcium Molybdate.	Molybdenum Concentrate	9000
		Lime Powder	3225
15	Manganese Oxide	Manganese Ore / Di-oxide	7500
		Coal / Charcoal	680

Total water consumption for the proposed project will be 25 KLD. The effluent generated from zigging and air pollution control systems will be treated in sedimentation tank and will be reused in the process. Sewage Line is provided by MIDC. Slag generated from manufacturing of Ferro manganese will be sold to manufacturer of Silico-Manganese.

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 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

2.14.3 Modernization of existing 150 TPD waste paper based writing & printing paper plant to agro residue based writing & printing paper plant and 12.5 Co-gen Power Plant of M/s Satia Industries Ltd. at Village Rupana, District Muktsar, Punjab [J-11011/196/2014-IA]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 5(i), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. Satia Industries Limited proposes to modernize existing unit of 150TPD waste paper based writing & printing paper plant to agro residue based writing & printing paper plant and installation of 12.5 MW of captive co-gen power plant. The project is located at Village Rupana, Taluka and District Muktsar, Punjab. The existing land area of 1,45,763 m² will be used for the integrated Pulp & Paper plant, out of which 48,102 m² land will be used for green belt development. Total project cost is approx. Rs. 100 Crores. Proposed employment generation from modernized project will be around 100 direct employments and 2000 indirect employment.

The electricity load of 15 MW has been sanctioned from Punjab State Power Corporation Ltd. (PSPCL). Company also proposes to install 12.5 MW Co.Generation Power Plant.

The raw material and fuel requirement for project are Rice Husk, Bio Mass Fuel like Wheat straw, Sarkanda, Baggase, Cotton sticks and Wood chips. Requirement would be fulfilled by nearby surrounding areas as well as imported/Indian wood chips fuel consumption will be mainly rice husk.

Water Consumption for the proposed modernization project will be 6000 KLD for unit no. 2. The water requirement for both the units is estimated as 16500 KLD. Waste water generation will be 5715 KLD for unit no. 2 and about 14635 KLD for both the units. The utilities and pulp mill are common for both the units (no.1 & 2). Domestic waste water will be treated in STP and industrial waste water generated will be treated in Bio gas Plant as well as two-stage Aeration Tank and further discharged to own plantation maintained in an area of 450 acres.

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. Approval for drawl of canal water from irrigation department.
- ii. Site photograph of the plant and also for the surrounding area around the plant.
- iii. Public hearing to be conducted by Punjab Pollution Control Board
- iv. 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.
- v. 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

2.14.4 Expansion of the existing production capacity of stainless steel billets unit from 60,000 MTPA to 180,000 MTPA by M/s Chandan Steel Limited located at GIDC, Umbargaon, Valsad District, Gujarat [J-11011/219/2015-IA.II(I)]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level. The project was earlier accorded environment clearance by the Ministry vide letter No. J-11011/479/2011-IA.II(I) dated 16.03.2012.

M/s. Chandan Steel Limited proposed to expand manufacturing unit for the production of Stainless Steel from 60,000 TPA to 1,80,000 TPA. An Induction Furnace of capacity 40 TPH will be installed in addition to existing 25 TPH Induction Furnace. The project is located at plot no. 32, 33B, 34, 35 & 36, GIDC Umbargaon, District Valsad, State Gujarat. The total plot area is 16996.8 m². Total project cost is Rs. 12 Cr.

Existing and Proposed production capacity of the plant is as below

Name of the Product	Existing Unit Capacity (TPA)	Proposed Capacity (TPA)	Total Capacity After Expansion (TPA)
S.S. Billets	60,000	1,20,000	1,80,000

Existing and Proposed raw material requirement for the project is as below

Name of the Material	Existing Unit Capacity (TPA)	Proposed Capacity (TPA)	Total Capacity After Expansion (TPA)

S.S. Scrap	92400	1,48,500	2,40,900
H.C. Ferro Chrome	5135	8217	13352
H.C. Ferro Manganese	4104	6567	10671
Ferro Silicon	3465	5544	9009
Ferro Nickel	3093	4950	8043
Lime	5280	8448	13728
Dolomite	2640	4224	6864

The electricity load of 12 MW will be sourced from Gujarat State Electricity Board Company.

Water Consumption for the proposed project will be 190 KLD supplied by GIDC. The only industrial wastewater is from air pollution control device which will be reused after treatment. The domestic wastewater is being treated in septic tank followed by soak pits. Slag generated in process will be used for tiles and bricks manufacturing.

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

- i. Compliance report from the Regional Office of the Ministry to be submitted
- ii. Notification for the Notified industrial area should be submitted indicating the location of your plot.
- 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.

Next meeting

It was decided that the next meeting of the Expert Appraisal Committee will be held on 27-29 January, 2016.

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 conveyor-cum-rail transport shall be examined.

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

8. Occupational health

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

9. Corporate Environment Policy

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

The following general points shall be noted:

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

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

ADDITIONAL TORS FOR INTEGRATED STEEL PLANT

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

**LIST OF PARTICIPANTS OF EAC (I) IN 2nd MEETING OF EAC (INDUSTRY-I) HELD
ON 28th – 30th December, 2015**

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	P	
3.	Director, Central Leather Research Institute	Member	A	
4.	Representative of Indian Meteorological Department	Member	A	
5.	Representative of Central Ground Water Board	Member	P	
6.	Dr. G. Bhaskar Raju	Member	P	
7.	Prof. Naresh Chandra Pant	Member	A	
8.	Dr. Jagdish Kishwan, IFS(Retired)	Member	P	
9.	Dr.G.V.Subrahmanyam	Member	P	
10.	Prof. Arun Pandey	Member		
11.	Shri Santosh Raghunath Gondhalekar	Member	P	
12.	Shri Ashok Upadhyay	Member	P	
13.	Shri Vijay Prakash Saha	Member	P	
14.	Dr.Satish C.Garkoti	Member Secretary	P	
