

**FINAL MINUTES OF 8<sup>th</sup> RECONSTITUTED EXPERT APPRAISAL COMMITTEE  
(INDUSTRY) MEETING HELD DURING 16-17<sup>TH</sup> MAY, 2013**

**VENUE: Scope Complex, Core 6, 5<sup>th</sup> Floor, IOCL Conference Room, Ministry of Petroleum and Natural Gas, Lodhi Road, New Delhi 110 003.**

**TIME 10.00 A.M.**

**8.0 Opening Remarks of the Chairman**

At the outset, Chairman welcomed the members of the Expert Appraisal Committee (Industry). Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

**8.1 Confirmation of the Minutes of the 7<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 4-5<sup>th</sup> April, 2013.**

The minutes of the 7<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 4-5<sup>th</sup> April, 2013 were confirmed.

**16<sup>th</sup> May, 2013**

**8.2.0 Consideration of the Projects:**

**Environmental Clearance**

**8.2.1 Expansion of the cement plant capacity from 2.16 to 4.71MMTPA and establishment of captive power plant capacity 2 x 20 MW at Sy. No 29 - 34, 35P, 36P, 37P, 38P, 39P, 40, 41, 43, 45P, 47P, 48, 49P, 50 Part of Alathiyur Village & 413P, 414P, 415P, 431P, 433 - 436, 438P, 448P, 449P, 450 Part of Dalavoi village, Sendurai Taluk, Ariyalur district, Tamil Nadu by M/s. The India Cements Ltd- regarding Environmental Clearance**

The project authorities and their consultant M/s Team Labs, Hyderabad gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 34<sup>th</sup> meeting of the Expert Appraisal Committee (Industry -1) held on 29-30<sup>th</sup> March, 2012 for preparation of EIA/EMP report. The ToR was awarded by MoEF vide F.No. J-11011/79/2012-IA.II(I) dated 25.4.2012 for preparation of EIA/EMP report. The proponent submitted the final EIA/EMP report vide letter no.ICL/DAL/LAB/004/13 dated 7.2.2013 after conducting Public Hearing for grant of Environmental Clearance. All the Cement Plants ( $\geq$  1.0 MTPA) are listed at S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s.The India cements Limited - Dalavoi Works have proposed to expand the cement plant capacity and establish a captive power plant at Sy. No 29 - 34, 35P, 36P, 37P, 38P, 39P, 40, 41, 43, 45P, 47P, 48, 49P, 50 Part of Alathiyur Village & 413P, 414P, 415P, 431P, 433 - 436, 438P, 448P, 449P, 450 Part of Dalavoi village, Sendurai Taluk, Ariyalur district, Tamil Nadu. The proposed expansion will be carried out in an area of 25.09 Ha which is already available within the existing premises of 136.78 ha (338 acres) itself. No Forest land is involved. No R&R issues are involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. The longitude and latitude of the project site is 79° 13' 3.6" E and 11° 21'35.1" N respectively. Vellar River is at a distance of 1.4 km in northeast direction. The nearest railway station is

Eachangadu at distance of 3.0 km in northwest direction. The Limestone mine is located at a distance of 2.5 km. The following reserve forests are located within the study area; Vangaram RF at a distance of 2.5 km in west direction, Tirukkonam RF at a distance of 6.5 Km in northeast direction, Pilakirchi RF at a distance of 4.8 km in northeast direction, Mudukulam RF at a distance of 6.8 km in Southeast direction, Ayyur RF at a distance of 7.5 km in southeast direction and Kuvagam RF at a distance of 7.6 km in southeast direction. Total cost of the project is Rs. 810 crores. Rs. 3960 lakhs and Rs.571.70 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures.

The existing and proposed production capacities are as follows:

S. No	Name of Product	Existing Capacity (MMTPA)	Proposed Capacity (MMTPA)	Total Capacity after Expansion (MMTPA)
1	Clinker Production	1.24	1.53	2.77
2	Cement (OPC/PPC)	2.16	2.55	4.71
3	Captive Power Plant		2 x 20MW	2 x 20MW

**\*MMTPA – Million Metric Tonnes per Annum**

The existing plant got environmental clearance from the Ministry vide letter no. J-11011/1185/2007-IA.II (I) dated 16.5.2008. Regional Office of MoEF at Bangalore had sent the certified compliance report for the existing unit vide letter EP/12.1/880/TN/2006 dated 14.2.2013. The Committee noted that the compliance to the Environmental Clearance (EC) conditions is satisfactory.

The cement plant is based on the dry process technology for cement manufacturing with pre-heater and pre-calciner technology. The limestone requirement for the proposed expansion is 7100 TPD which will be drawn from captive mines adjacent to the site by closed conveyor system. The Imported Coal requirement is 1000 TPD which will be supplied by M/s P.T.Coromandel Mineral Resources, Indonesia. The coal will reach by ship to Chennai and Karaikal port from Indonesia and then transported by road to the project site by trucks covered with Tarpaulin. To this effect, the proponent submitted the MoU made between M/s.The India cements Limited and M/s P.T.Coromandel Mineral Resources, Indonesia. As per the MoU submitted to the Ministry, the ash and sulphur content in the coal will be 2-3% and < 1.0% respectively. The Gross Calorific Value of the coal is 5500-5800 kcal/kg. The other raw materials required are bauxite, flue dust, gypsum, fly ash and pet coke. The Captive Power Plant will use coal/pet coke as a fuel. The power requirement will be 41.4 MW which will be met from the captive power plant and Tamil Nadu Electricity Board.

Ambient air quality monitoring has been carried out at 8 locations during April – July 2012 and the data submitted indicated: PM<sub>10</sub> (54-28 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26-11 µg/m<sup>3</sup>), SO<sub>2</sub> (19-6 µg/m<sup>3</sup>) and NO<sub>x</sub> (18-9 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 2.52 µg/m<sup>3</sup>, 5.51 µg/m<sup>3</sup> and 7.78 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. All transfer point locations will be fully enclosed. Airborne dust at all transfer operations / points is controlled either by spraying water or by extracting to bag filter. All conveyor systems will be closed. All feeding and discharge points of conveyor belts will be provided with skirt boards to avoid spillage. Fugitive dust from crusher and transfer points are controlled with the help of bag filters. It is proposed to provide electrostatic precipitators for the boilers of captive power plant and the kiln cooler, while the other sections are provided with bag filters as air pollution control equipment.

The water requirement after the proposed expansion is 1810 KLD (Existing: 800 KLD and Expansion: 1010 KLD) which will be sourced from ground water and storm water stored

in the mines pits. The unit obtained ground water drawl permission for 1026 KLD from Water Resources Department, Government of Tamil Nadu on 19.7.2011. The proponent informed the Committee that no ground water will be drawn for the proposed expansion. The water requirement for the proposed expansion will be met from mine pits. Domestic wastewater generation is 200 KLD. The treated waste water is reused for the greenbelt and for toilet flushing. The wastewater generated in Power Plant will be 30 KLD consisting of blow downs from boiler and cooling tower. Wastewater is treated in the Effluent Treatment Plant of 40 KLD capacity and reused after treatment for dust suppression and green belt development.

The dust collected in the control equipment will be recycled in the process at every stage. The burst bags collected from the Packing House will be taken back by the Supplier for recycling. Similarly, the worn out removed refractory bricks are also taken back by the Supplier for recycling. The used oil will be sold to registered recyclers. Fly ash will be used in the manufacturing of PPC. Out of 338 acres of the land green belt will be developed over 91 acres of land and additionally 21 acres is proposed for green belt development.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Tamil Nadu Pollution Control Board on 17.11.2012, in presence of Shri P.Senthil kumar, IAS, District Collector, Ariyalur district, at Govt High school, Dalavoi Village Sendurai Taluk, Ariyalur district, Tamil Nadu. The issues raised by the public are - local employment, implementation of pollution control measures, provision of mine water for agriculture and CSR activities like provision of drinking water, desilting of drains and tanks, construction of marriage hall, provision of harvesting platforms etc. The proponent assured the public that they will implement the pollution control measures, provide local employment and take up CSR activities in a phased manner in consultation with public representatives and district administration.

After detailed deliberations, the Committee found the EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled within 50 mg/Nm<sup>3</sup> 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<sub>x</sub> burners should be provided to control NO<sub>x</sub> emissions. Regular calibration of the instruments must be ensured.
- ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bangalore within 3 months from the date of issue of the letter.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iv. 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 should be followed.
- v. Arsenic and Mercury shall be monitored in emissions, ambient air and water.
- vi. The coal yard shall be lined and covered.

- vii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.
- viii. Total fresh water requirement after the proposed expansion for cement and captive power plant shall not exceed 1810 m<sup>3</sup>/day. No ground water shall be drawn for the proposed expansion. The water requirement for the proposed expansion will be met from stored storm water in the mines pits. The unit shall obtain ground water drawl permission from Central Ground Water Authority for the existing unit. A five year water management plan should be made so as to achieve reduction in ground water withdrawal.
- ix. 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 should be adopted.
- x. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- xi. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xii. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.
- xiii. All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2008. Efforts should be made to use fly ash maximum in making Pozzolona Portland Cement (PPC).
- xiv. A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bangalore. Only after ascertaining its radioactive level shall fly ash be supplied for utilization in cement manufacturing.
- xv. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xvi. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.
- xvii. As proposed, green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.

- xviii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.
- xix. Energy audit of all the plants shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bangalore within 3 months from the date of issue of the letter.
- xx. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 17.11.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.
- xxi. 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 Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xxiii. 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.
- xxiv. 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.

8.2.2 Expansion of the cement plant from 0.6 MMTPA to 1.7 MMTPA at Survey Nos. 127/1A, 127/1B, 127/2, 128/1A, 128/1B, 128/2B, 128/1C, 131/2B of Padaveedu Village, Tiruchengode Taluk, Namakkal District, & S.No's. 17, 19, 20, 21, 51/1 of Sanyasipatti Village, Sankari Taluk, Salem District, Tamil Nadu **by M/s. The India Cements Limited- regarding Environmental Clearance**

The project authorities and their consultant M/s Team Labs, Hyderabad gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 34<sup>th</sup> meeting of the Expert Appraisal Committee (Industry -1) held on 29-30<sup>th</sup> March, 2012 for preparation of EIA/EMP report. The ToR was awarded by MoEF vide F.No. J-11011/80/2012-IA.II(I) dated 26.4.2012 for preparation of EIA/EMP report. The proponent submitted the final EIA/EMP report vide letter no.ICL/S/TNPCB/EC/3/022013/96 dated 31.1.2013 after conducting Public Hearing for grant of Environmental Clearance. All the Cement Plants ( $\geq$  1.0 MTPA) are listed at S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s.The India cements Limited – Sankari West have proposed to expand the cement manufacturing capacity from 0.6 MMTPA to 1.7 MMTPA at Survey Nos. 127/1A, 127/1B, 127/2, 128/1A, 128/1B, 128/2B, 128/1C, 131/2B of Padaveedu Village, Tiruchengode Taluk, Namakkal District, & S.No's. 17, 19, 20, 21, 51/1 of Sanyasipatti Village, Sankari Taluk, Salem District, Tamil Nadu. The proposed expansion will be carried out in an area of 10.92 Ha which is already available within the existing premises of 66.98 ha itself. No Forest land

is involved. No R&R issues are involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. The longitude and latitude of the project site is 77° 51' 06" E & 11° 27'27" N respectively. The plant site is surrounded by colony in east direction; State Highway is in both directions, Open land in south and west direction. Salem – Cochin National Highway (NH - 47) is at a distance of 1.4 km in northwest direction. State highway is at a distance of 0.5 km in southeast direction. The nearest railway station is Sankari Durg at distance of 4.0 km in southeast direction. The Limestone mines are located in at a distance of 5.0 km. Suriyamalai RF is at a distance of 5 km in northwest direction. Total cost of the project is Rs. 275 crores. Rs. 1830 lakhs and Rs.443.8 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures.

The existing and proposed production capacities are as follows:

S. No	Product	Existing	Proposed Capacity (MMTPA*)		Total Capacity
			Optimizing the existing Kiln (Line-I)	New Kiln (Line-II)	
1	Clinker Production	0.408	0.136	0.544	1.09
2	Cement (OPC/PPC)	0.6	0.25	0.850	1.7

**\*MMTPA – Million Metric Tonnes per Annum**

The Tamil Nadu Pollution Control Board has submitted the certified compliance report of the conditions of Consent To Operate (CTO) to the Ministry for the existing unit vide letter no. T10/TNPCB/F-30573/NKL/2013 dated 23.4.2013. The Committee noted that the compliance to the conditions of CTO is satisfactory.

The cement plant is based on dry process technology with pre-heater and pre-calciner followed by grinding in cement mill. The limestone requirement after the proposed expansion is 1657111 TPA which will be drawn from captive mines and purchased from markets. The Imported Coal requirement is 132373 TPA which will be supplied by M/s P.T.Coromandel Mineral Resources, Indonesia. The coal will reach by ship from Indonesia and then transported by road to the project site by trucks covered with Tarpaulin. To this effect, the proponent submitted the MoU made between M/s.The India cements Limited and M/s P.T.Coromandel Mineral Resources, Indonesia. As per the MoU submitted to the Ministry, the ash and sulphur content in the coal will be 2-3% and < 1.0% respectively. The Gross Calorific Value of the coal is 5500-5800 kcal/kg. The other raw materials required are bauxite, flue dust, gypsum, fly ash and pet coke. The power requirement for the existing Plant is 13.3MW, Additional required for optimization is 1.9 MW and for the proposed expansion is 11.96MW. The power will be met by Group Captive Generation / Tamil Nadu State Electrical Board (TNEB).

Ambient air quality monitoring has been carried out at 8 locations during March- June 2012 and the data submitted indicated: PM<sub>10</sub> (58-31 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18-9 µg/m<sup>3</sup>), SO<sub>2</sub> (18-7 µg/m<sup>3</sup>) and NO<sub>x</sub> (37-12 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 7.35 µg/m<sup>3</sup>, 7.78 µg/m<sup>3</sup> and 1.28 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. All transfer point locations will be fully enclosed. Airborne dust at all transfer operations / points is controlled either by spraying water or by extracting to bag filter. All conveyor systems will be closed. All feeding and discharge points of conveyor belts will be provided with skirt boards to avoid spillage. Fugitive dust from crusher and transfer points are controlled with the help of bag filters. The air pollution from

kiln is mitigated by the provision of electrostatic precipitator, while the remaining sections are provided with bag filters as air pollution control equipment, before letting out into atmosphere through tall stacks.

The water requirement after the proposed expansion is 774.8 KLD (Existing: 468.8 KLD and Expansion: 306 KLD) which will be sourced from Cauvery river (18 km distance from the project site) and storm water runoff stored in mines pit. The unit obtained water drawl permission for 908 KLD from Public Works Department, Government of Tamil Nadu on 28.5.2010. There is no trade effluent generation from the plant. The wastewater is mainly from domestic sources which is in the order of 176 KLD after expansion and is treated in a sewage treatment plant of 250 KLD capacity. The treated wastewater is reused for green belt development and for water sprinkling to mitigate fugitive emissions of transport and transfer.

The dust collected in the control equipment is recycled in the process at every stage. The burst bags collected from the Packing House will be taken back by the Supplier for recycling. Similarly, the worn out removed refractory bricks are also taken back by the Supplier for recycling. The used oil will be sold to registered recyclers.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Tamil Nadu Pollution Control Board on 18.12.2012, chaired by Thiru G.Senguttuvan, District Revenue Officer at V.K.\_Duraisamy MudailaiyarD. Rajammal Kalyanamandapam, Padaiveedu village, Namakkal District, Tamil Nadu. The issues are raised by the public are - impact on ground water, implementation of pollution control measures, local employment and improvement of CSR activities etc. The proponent responded that they do not use ground water for the plant or colony, and assured to implement the pollution control measures, provide local employment and improve CSR activities.

After detailed deliberations, the Committee found the EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled within 50 mg/Nm<sup>3</sup> 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<sub>x</sub> burners should be provided to control NO<sub>x</sub> emissions.
- ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bangalore within 3 months from the date of issue of the letter.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iv. 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 should be followed.
- v. Arsenic, Nickel, Vanadium and Mercury shall be monitored in stacks emissions, ambient air and water.
- vi. The coal yard shall be lined and covered.

- vii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.
- viii. Total fresh water requirement after the proposed expansion for cement and captive power plant shall not exceed 774.8 m<sup>3</sup>/day. No ground water shall be drawn for the proposed expansion. The water requirement for the proposed expansion will be met from Cauvery river and storm water runoff stored in mines pit.
- ix. 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 should be adopted.
- x. Rain water harvesting plan shall be made and report shall be submitted to Regional Office of the Ministry at Bangalore within 3 months from the date of issue of the letter.
- xi. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xii. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.
- xiii. A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bangalore. Only after ascertaining its radioactive level shall fly ash be supplied for utilization in cement manufacturing.
- xiv. A detailed analysis of soil and crop productivity in the study area shall be carried out through a reputed institute and report submitted to Regional Office of the Ministry at Bangalore and Tamil Nadu Pollution Control Board in a time bound manner.
- xv. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xvi. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.
- xvii. Green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xviii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.

- xix. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 18.12.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.
- xx. 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 Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxi. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- 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, 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.

**8.2.3 Proposed Ferro Alloy Manufacturing Unit with 3x9 MVA Submerged Electric Arc Furnaces to manufacture 18999 TPA of Ferro Silicon, 42750 TPA of Silicon Manganese and 55, 500 TPA of Ferro Manganese on campaign basis at Sy. No. 71 & 72 part, Village Agaram, Mandal Nagari, District Chittoor in Andhra Pradesh by M/s Raghni Ferro Alloys Pvt. Ltd – regarding Environmental Clearance**

The project authorities and their consultant M/s Team Labs, Hyderabad gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 33<sup>rd</sup> meeting of the Expert Appraisal Committee (Industry -1) held on 27-28<sup>th</sup> February, 2012 for preparation of EIA/EMP report. The ToR was awarded by MoEF vide F.No. J-11011/33/2012-IA.II(I) dated 23.3.2012 for preparation of EIA/EMP report. The proponent submitted the final EIA/EMP report vide letter no.RFPAL/CTR/MOEF/EC/2013-2 dated 11.2.2013 after conducting Public Hearing for grant of Environmental Clearance. All the Ferro Alloy Plants are listed at S.No. 3(a) in Primary Metallurgical Industries under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. Raghini Ferro Alloys Private Limited have proposed to set up Ferro Alloy Manufacturing Unit with 3x9 MVA Submerged Electric Arc Furnaces to manufacture 18999 TPA of Ferro Silicon, 42750 TPA of Silicon Manganese and 55, 500 TPA of Ferro Manganese on campaign basis at Sy. No. 71 & 72 part, Village Agaram, Mandal Nagari, District Chittoor in Andhra Pradesh. The land requirement is 10.5 acres which has been already acquired by the proponent. The longitude and latitude of the site location is 79° 38' 15"E and 13° 20' 07"N respectively with an elevation of 100m above MSL. No R&R issues are involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. The nearest human settlement from the site is Agaram village which is at a distance of 0.8 km from the site in Southeast direction. Nagari railway station is at a distance of 6.6 km in SW direction. Renigunta to Tiruttani road is passing through Nagari town which is at a distance of 5.6 km from the site. Andhra Pradesh and Tamilnadu state boundary is at a distance of 4.7 km in southeast direction. Nagari river a seasonal stream, is at a distance of 2km in south direction. Nagari Reserve forest is at a distance of 3.0 km in North direction. Total capital cost of the project is

Rs. 41.0 Crores. Rs. 4.48 Crores and Rs.0.636 crores have been earmarked towards the capital cost and recurring cost per annum for environmental protection measures. Rs. 2 crores is earmarked towards the CSR related activities.

The details regarding manufacturing capacity and plant facilities details are as below.

### Manufacturing Capacity

S. No	Description	Capacity (TPA)		
		Phase - I	Phase - II	Total
1	Ferro Silicon (Fe Si) *	6333	12666	18999
2	Silico Manganese (Si Mn) *	14250	28500	42750
3	Ferro Manganese (Fe Mn) *	18500	37000	55500

\*It is proposed to manufacture the above alloys on campaign basis.

### Plant Facilities

Facility	Capacity	
	Phase-I	Phase-II
Submerged Electric Arc Furnaces	9 MVA	2 x 9 MVA's

Ferro Alloys, namely Ferro Silicon, Silico Manganese and Ferro Manganese are produced in a Submerged Electric Arc Furnace. Ferro chrome is not proposed for production in this plant. All these products could be produced in the same furnace with minor modifications. The raw materials required are – Manganese Ore (97125 TPA), Coke (28499 tpa), Dolomite (13875 TPA), Quartz (37998 TPA) and iron scrap (6650 TPA). The power requirement of 29,000 KVA will be met from the APTRANSCO and DG set of 500 KVA shall be installed for power back up.

Ambient air quality monitoring has been carried out at 8 locations during December 2010 to February, 2011 and the data submitted indicated: PM<sub>10</sub> (43-21 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14-8 µg/m<sup>3</sup>), SO<sub>2</sub> (9-5 µg/m<sup>3</sup>) and NO<sub>x</sub> (14-9 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.65 µg/m<sup>3</sup>, 2.61 µg/m<sup>3</sup> and 4.01 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. The emissions from the furnaces will be passed through the bag filters. All transfer point locations will be fully enclosed. Dust raised from transfer points will be suppressed by water sprinkling system.

The total water requirement for the two phases shall be 70 KLD which shall be drawn from ground water through bore wells. The waste water generated from the plant is cooling tower blow down of 10 KLD which is reused for dust suppression and onland irrigation after adequate treatment. The domestic effluent of 8 KLD shall be sent to septic tank followed by soak pit.

The solid waste generated from the unit is Slag from the Ferro alloy manufacturing unit which will be used as a construction material. The slag from Fe-Mn will be used as a raw material for Si-Mn. Used oil will be sold to registered recyclers.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Andhra Pradesh Pollution Control Board on 30.8.2012, chaired by Sri Ongolu Seshaiyah, District Revenue Officer at Agaram village, Nagari Mandal, Chittoor District, Andhra Pradesh. The issues raised in the public hearing are - establishment of chemical industry, disposal of effluents and impact on agriculture, impact of noise on surrounding areas, provision of funds of CSR activities which were addressed in the EIA/EMP report.

After detailed deliberations, the Committee found the EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. No charcoal shall be used as fuel. Pet coke shall be used as fuel instead of charcoal from unknown sources.
- ii. Continuous monitoring facilities for the process stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/Nm<sup>3</sup>.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iv. Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- v. 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 should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xxv. The total water requirement shall not exceed 70 m<sup>3</sup>/day. The water requirement shall be met from ground water. The unit shall obtain ground water drawl permission from Central Ground Water Authority. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- vi. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.
- vii. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico Manganese (Si-Mn). The Si-Mn slag and Fe-Si slag shall be used in the preparation of building materials.
- viii. No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.
- ix. An action plan for control of Cr and As in air and water should be prepared and submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- x. As proposed, green belt should be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30.8.2012 shall be satisfactorily implemented and a

separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.

- xii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner. The unit shall obtain panchayat clearance and copy shall be submitted to the Ministry's Regional Office at Bangalore.
- xiii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xiv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

#### 8.2.4 Expansion of Cement Plant Clinker -1.65 MTPA & Cement 2.54 MTPA and setting up of Captive Power Plant (2X20 MW) at village Wahiajer (Narpuh Elaka), Jaintia Hills, Meghalaya **by M/s JUD Cements Ltd – regarding Environmental Clearance**

The committee deferred the consideration of the proposal on the ground that there are some court cases pending against the proposed project in the Hon'ble High Court of Meghalaya and Hon'ble National Green Tribunal.

After detailed deliberations, the Committee sought the following additional information for consideration of the project:

- i. Detailed note of court cases pending against the project and its present status along with requisite supporting documents.
- ii. Latest certified report of the status of compliance of the conditions stipulated in the environmental clearance for the ongoing/existing operation of the project by the Regional Office of this Ministry at Shillong

#### 8.2.5 Expansion of Cement Plant (Clinker 1.6 MTPA to 3.2 MTPA and cement from 2.2 MTPA to 4.8 MTPA) at Village Arasmeta, P.O. Gopal Nagar, District Janjgir Champa & Bilaspur, Chhattisgarh **by M/s Lafarge India Pvt. Ltd.- regarding Environmental Clearance**

The project authorities and their consultant M/s JM EnviroNet Private Limited, Gurgaon gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 10<sup>th</sup> meeting of the Expert Appraisal Committee (Industry -1) held on 17-18<sup>th</sup> May, 2010 for preparation of EIA/EMP report. The ToR was awarded by MoEF vide F.No. J-11011/840/2008-IA.II(I) dated 18.6.2010 for preparation of EIA/EMP report. Thereafter, Ministry vide letter dated 22.8.2012 extended the validity of the ToR till 17.6.2013. The proponent submitted the final EIA/EMP report vide letter no.Nil dated 9.7.2012 after conducting Public Hearing for grant of Environmental Clearance. All the Cement Plants ( $\geq$  1.0 MTPA) are listed at S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s Lafarge India Private Limited have proposed to expand the Cement Plant (Clinker 1.6 MTPA to 3.2 MTPA and cement from 2.2 MTPA to 4.8 MTPA) at Village

Arasmeta, P.O. Gopal Nagar, District Janjgir Champa & Bilaspur, Chhattisgarh. Total Plant area is 82 ha which is already under possession of the proponent and no additional land will be required as the proposed expansion will be done within the existing plant premises itself. No Forest land is involved. No R&R issues are involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. There is no Reserve / Protected Forests etc. within 10 km radius of the project site. No court case/litigation is pending against the proposed project. The longitude and latitude of the project site is 82° 20' 38.82" E to 82° 21' 27.92" E and 21° 57' 49.61" N to 21° 58' 22.66" N respectively. The Lilagarh River is located at a distance 1.5km from the project site. The proposed site falls under Seismic Zone – II as per IS 1893 (Part-I): 2002. Total cost of the project is Rs. 1000 Crores. Capital cost for Environmental Protection Measures is Rs. 75 Crores and Recurring Cost is Rs. 1.5 Crores/annum. Rs. 50 crores is earmarked for the CSR related activities.

The existing and proposed production capacities are as follows:

S. No.	Unit	Existing capacity	Proposed Expansion	Total Capacity after Expansion
1.	Clinker Production	1.6 MTPA	1.6 MTPA	3.2 MTPA
2.	Cement Production	2.2 MTPA	2.6 MTPA	4.8 MTPA

The Chhattisgarh Environment and Conservation Board has submitted the certified compliance report of the conditions of Consent To Operate (CTO) for the existing unit to the Ministry vide letter no. 2558/R.O./T.S./CECB/2013 dated 23.1.2013. The Committee noted that the compliance to the conditions of CTO is satisfactory.

The cement plant is based on the dry process technology for cement manufacturing with pre-heater and pre-calciner technology. The raw materials required are Limestone (2.6 MTPA) which will be met from Existing Captive Mine & Proposed Chilhati Mine and transported to the plant site by conveyor belt and road. The gypsum and fly ash requirement is 0.09 MTPA and 0.528 MTPA respectively. The coal and pet coke requirement for the proposed expansion is 900 TPD. The coal will be procured from South Eastern Coalfields Limited, Korba and transported to the plant site by rail/road. The ash and sulphur content in the coal would be 30% and <0.5% respectively. The calorific value is 4700 kcal/kg. To this effect, the proponent has submitted the MoU made with M/s South Eastern Coalfields Limited. The power requirement for the proposed expansion is 23.5MW which will be met from the Captive Power Plant.

Ambient air quality monitoring has been carried out at 8 locations during October – December 2010 and the data submitted indicated: PM<sub>10</sub> (70.16-33.11 µg/m<sup>3</sup>), PM<sub>2.5</sub> (38.24-17.64 µg/m<sup>3</sup>), SO<sub>2</sub> (9.89-5.77 µg/m<sup>3</sup>) and NO<sub>x</sub> (18.16-7.19 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 5.75 µg/m<sup>3</sup>, 1.27 µg/m<sup>3</sup> and 1.1 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. To control particulate emissions, all major sources of air pollution will be provided with Bag Houses/Bag filters, ESPs to maintain the PM emission level within prescribed standards. All material transfer points will be provided with bag filters to entrap the emissions at the source itself. Clinker & fly ash has been/will be stored in silo and gypsum in covered yard.

Existing water requirement for the project is 1500 m<sup>3</sup>/day. Additional water requirement for the proposed expansion project will be 1500 m<sup>3</sup>/day, which will be sourced from Lilagar River & Mine sump. The unit obtained water drawl permission from Lilagarh river for 50,000 m<sup>3</sup>/month from Water Resources Department, Government of Chhattisgarh on 28.8.2004 for a period of thirty years. No industrial waste water will be generated due to the proposed expansion. Domestic waste water generated from Cement Plant will be treated

in the STP. The treated water will be utilized for Greenbelt Development/Horticulture activities.

No solid waste will be generated in cement manufacturing process. Dust collected from various pollution control equipments will be recycled back to the process. STP Sludge is being / will be utilized as manure for green belt development within the plant premises. Out of the total plant area (i.e. 82 ha), 39.2 ha (47.8%) will be developed under green belt / plantation; out of which, 31.9 ha (38.9%) has already been developed in a scientific manner around the existing plant boundary, roadside, office buildings and stretches of open land & 7.3 ha will be further developed.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Chhattisgarh Environment Conservation Board on 30.11.2012 under the chairmanship of Shri M.D. Diwan, Additional Collector, Tehsil- Janjgir - Champa. The issues raised during public hearing are - development work in near-by villages, employment to the locals, plantation & maintenance of trees, facilities for higher education & health etc. water conservation, road development, more plantation, employment facilities etc. In response to this, the proponent replied that various development activities have already been done & will be continued in future, employment will be given to local people as per their qualification and proper training will also be given, plantation will be done, facilities for higher education & health are being provided etc.

After detailed deliberations, the Committee found the EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled within 50 mg/Nm<sup>3</sup> 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<sub>x</sub> burners should be provided to control NO<sub>x</sub> emissions.
- ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bhopal within 3 months from the date of issue of the letter.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iv. 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 should be followed.
- v. Arsenic, Nickel, Vanadium and Mercury shall be monitored in emissions, ambient air and water.
- vi. Natural course of nallah falling in the project area shall not be disturbed.
- vii. The coal yard shall be lined and covered.
- viii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.

- ix. Total fresh water requirement after the proposed expansion for cement and captive power plant shall not exceed 3000 m<sup>3</sup>/day. No ground water shall be drawn for the proposed expansion. The water requirement for the proposed expansion will be met from Lilagar River & Mine sump. No ground water shall be used.
- x. 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 should be adopted.
- xi. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- xii. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xiii. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.
- xiv. A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bhopal. Only after ascertaining its radioactive level shall fly ash be supplied for utilization in cement manufacturing.
- xv. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xvi. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.
- xvii. A comprehensive Green belt development plan shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. The existing trees will be translocated in the areas designated for green belt with the help of reputed experts. The plan shall be submitted to the Regional Office of the Ministry at Bhopal 3 months of issue of environment clearance letter.
- xviii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.
- xix. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30.11.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.

- xx. 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 Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxi. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB within 3 months of issue of environment clearance letter.
- 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, 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.

**8.2.6 Expansion of White Cement Production Capacity from 0.56 Million TPA to 1.4 Million TPA and Captive Power Plant capacity from 7.5 MW to 33.5 MW at Rajashree Nagar, Village: Khariakhangar, Tehsil: Bhopalgarh, District: Jodhpur, Rajasthan **By M/s Ultra Tech Cement Limited (Unit: Birla White)- regarding Environmental Clearance****

The project authorities and their consultant M/s JM EnviroNet Private Limited, Gurgaon gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 37<sup>th</sup> meeting of the Expert Appraisal Committee (Industry -1) held on 14-15<sup>th</sup> June 2012 for preparation of EIA/EMP report. The ToR was awarded by MoEF vide F.No. J-11011/170/2012-IA.II(I) dated 9.8.2012 for preparation of EIA/EMP report. The proponent submitted the final EIA/EMP report vide letter no.Nil dated 28.3.2013 after conducting Public Hearing for grant of Environmental Clearance. All the Cement Plants ( $\geq$  1.0 MTPA) are listed at S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s UltraTech Cement Limited (Unit: Birla White) have proposed to expand the White Cement Production Capacity from 0.56 MTPA to 1.4 MTPA and Captive Power Plant Capacity from 7.5 MW to 33.5 MW at Rajashree Nagar, Village- Kharia Khangar, Tehsil- Bhopalgarh, District- Jodhpur, Rajasthan by both modernization of the existing system as well as by installation of new line. The total area of the existing plant is 204 acres and an additional area of 80 acres is required for the proposed expansion. The proponent has already acquired 85% of the additional 80 acres of land and remaining land to be acquired. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. There is no Reserve / Protected Forests etc. within 10 km radius of the project site. No court case/litigation is pending against the proposed project. The longitude and latitude of the project site is 73°40'30.47"E to 73°41'41.89"E and 26°35'49.76"N to 26°36'47.96"N respectively. The Dhauli Nadi and Saina ki Nadi are located at a distance of 6.5km and 5km respectively. Total cost of the project is Rs. 1061 Crores. Capital cost for Environmental Protection Measures is Rs. 76 Crores and Recurring Cost is Rs. 1.8 Crores/annum.

The existing and proposed production capacities are as follows:

Particulars	Existing Production	Proposed Production		Total Production after Proposed Expansion
		In Existing Lines	From New Line	

White Cement (MTPA)	0.56	0.12	0.72	1.4
Captive Power Plant (MW)	7.5	1.0	25	33.5

The existing plant got environmental clearance from the Ministry vide letter no. J-11011/1185/2007-IA.II (I) dated 16.5.2008. Regional Office of MoEF at Lucknow had sent the certified compliance report for the existing unit vide letter IV/ENV/R/Ind-75/562/2007/398 dated 18.10.2012. The Committee noted that the compliance to the Environmental Clearance (EC) conditions is satisfactory.

The cement plant is based on the dry process technology for cement manufacturing with pre-heater and pre-calciner technology. The raw materials required are Limestone (1754385 TPA) which will be met from Captive Mines & external suppliers and then transported to the plant site by road. The coal/lignite requirement for the CPP is 32803 TPA. For the coal/lignite supply, the proponent has submitted the MoU made with M/s Shubham Minechem Private Limited on 20.12.2012. As per the MoU, the ash and sulphur content in the coal will be 45% and 0.8% respectively. The calorific value of the coal is 3200 kcal/kg. The other raw materials required are clay, gypsum, fluorspar, feldspar, pet coke and heavy fuel. The power required for the proposed expansion project will be 20.5 MW, which will be sourced from Captive Power Plant & Rajasthan State Electricity Board.

Ambient air quality monitoring has been carried out at 9 locations during December 2011 to February 2012 and the data submitted indicated: PM<sub>10</sub> (51.98-97.63 µg/m<sup>3</sup>), PM<sub>2.5</sub> (23.08-44.38 µg/m<sup>3</sup>), SO<sub>2</sub> (7.10-12.58 µg/m<sup>3</sup>) and NO<sub>x</sub> (16.54-29.18 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 2.37 µg/m<sup>3</sup> with respect to PM<sub>10</sub>. To control particulate emissions, all major sources of air pollution will be provided with Bag Houses/Bag filters, ESPs to maintain the PM emission level within prescribed standards. All material transfer points will be provided with bag filters to entrap the emissions at the source itself. Clinker & fly ash has been/will be stored in silo and gypsum in covered yard.

The existing water requirement for the project is 1250 m<sup>3</sup>/day. Additional water requirement for the proposed expansion project will be 1400 m<sup>3</sup>/day, which will be sourced from the Ground Water & Surface Water. The unit has obtained permission for withdrawal of ground water (1250 m<sup>3</sup>/day) from CGWA vide letter no. 21-4(235)/WR/CGWA/2008-1785 dated 07.12.2011. No industrial waste water will be generated due to the proposed expansion. Domestic waste water generated from Cement Plant will be treated in the STP. The treated water will be utilized for Greenbelt Development/Horticulture activities.

No solid waste will be generated in cement manufacturing process. Dust collected from various pollution control equipments will be recycled back to the process. STP Sludge is being / will be utilized as manure for green belt development within the plant premises.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Rajasthan Pollution Control Board on 15.02.2013 under the chairmanship of Mr. Manaram Patel, ADM, Jodhpur. The issues raised during public hearing are - water conservation, road development, more plantation, employment facilities etc. In response to this, the proponent informed that employment will be given to local people as per their qualification and proper training will also be given, plantation should be done etc.

After detailed deliberations, the Committee sought the following additional information for reconsideration:

- i. AAQ modeling for the proposed cement plant and the captive power plant for SO<sub>2</sub>, and NO<sub>x</sub> parameter along with its Isopleth

- ii. Permission obtained from Govt. of Rajasthan for Surface water withdrawal
- iii. Land acquisition documents
- iv. Resettlement & Rehabilitation Plan
- v. Nickel (Ni) and Vanadium (Va) parameter in the ambient air shall be monitored for a one month period and the data shall be submitted
- vi. Transplantation scheme of natural species of the project proposed site shall be submitted.
- vii. Inventory of existing species of the project area to be submitted with the help of specialized institution.
- viii. Time bound action plan for five years towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with budgetary provision shall be submitted.
- ix. Rain water harvesting plan
- x. MoU for hazardous waste utilization in kiln
- xi. Actual data from the continuous online monitoring system for the existing unit
- xii. Time bound action plan to reduce the drawl of surface and ground water

8.2.7 Proposed 1.2 MTPA iron ore beneficiation plant, 1.2 MTPA pelletisation plant, 0.3 MTPA Non-recovery coke oven plant, 0.5 MTPA integrated steel plant along with 110 MW Captive power plant at village chutardanga, P.O. Mejia, District Bankura in West Bengal by **M/s SPS Ispat and Power Limited. - Regarding Environment Clearance.**

The Committee deferred the consideration of the proposal on the ground that the consultant (M/s Global Experts, Bhubaneshwar) who prepared the EIA/EMP report is not accredited by QCI/NABET for "*Metallurgical industries (ferrous only) - both primary & secondary – Category A*" project.

8.2.8 Expansion of Steel Manufacturing Unit at Village Ajnali, Opp. Focal Point, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab by **M/s Bhawani Industries Limited- regarding Environmental Clearance**

The committee deferred the consideration of the proposal as the EIA/EMP report submitted by the proponent was incomplete in several technical aspects. The Committee asked the proponent to submit the revised complete EIA/EMP report through the QCI/NABET accredited consultant.

### **Terms of Reference**

8.2.9 Proposed 3.0 MTPA Cement Grinding Unit at Gowaribidanur Industrial Park, Phase-II of Karnataka Industrial Area Development Board (KIADB – a part of Karnataka Commerce and Industries Department – Govt. of Karnataka) near Village: Kudumalakunte, Taluka: Gowaribidanur, District: Chikballapur, Karnataka **by M/s Reliance Cement Company Private Limited - regarding TOR**

The project authorities along with their consultant (M/s Vimta Labs, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. The stand alone cement grinding units are covered under Category 'B' as per para 3(b) of the Schedule of the EIA notification 2006. However, project site is located within 10 Km of interstate boundary (Andhra Pradesh boundary is adjacent) and treated as category 'A' project due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s. Reliance Cement Company Private Limited have proposed to set up a 3.0 MTPA Cement Grinding Unit and 60 m<sup>3</sup>/hour Ready Mix Concrete (RMC) unit at Gowaribidanur Industrial Park, Phase- II of Karnataka Industrial Area Development Board (KIADB – a part of Karnataka Commerce and Industries Department – Govt. of Karnataka) near Village: Kudumalakunte, Taluka: Gowaribidanur, District: Chikballapur, Karnataka. The land requirement for the project is 34.39 Ha. No Forest land is involved. No Reserved Forests, National Park, Wildlife Sanctuary and Archeological monuments is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The Penner river and Kumudvati river is located at a distance of 3km and 8km respectively from the project site. The proposed project site falls under seismic zone II as per IS-1893 (Part 1)-2002. The water requirement is 690 KLD which will be sourced from ground water by KIADB. The power requirement is 25 MW which will be met from grid. The raw materials required are Clinker (1.8 MTPA), Slag (0.68 MTPA), fly ash (0.375 MTPA), Gypsum (0.15 MTPA) and coal for dryer (0.027 MTPA). Total cost of the project is Rs.690 crore.

The Committee note that the Ready Mix Concrete (RMC) unit [60 m<sup>3</sup>/hour] proposed by the M/s. Reliance Cement Company Private Limited is not covered under the provisions of the EIA, Notification, 2006. Hence, the Committee has considered only the proposal of 3.0 MTPA Cement Grinding Unit.

The proponent submitted a Gazette Notification (No. CI 151 SPQ 2010, Bengaluru) dated 26.3.2010 declaring the Gowaribidanur Industrial Park, Phase- II of Karnataka Industrial Area Development Board as a notified industrial area. Based on this notification, proponent requested the EAC to exempt the project from conducting Public Hearing. The Committee noted that the Gowaribidanur Industrial Park, Phase- II of Karnataka Industrial Area Development Board was declared as a notified industrial area on 26.3.2010 after the EIA Notification dated 14.9.2006. Further, the proponent informed the Committee that KIDB is expected to conduct the public hearing for the entire zone in which the Cement grinding unit (3.0 MTPA capacity) of M/s. Reliance Cement Company Private Limited is already included.

The Committee decided that the proposal is exempted from conducting Public Hearing subject to the condition that KIDB conducts the public hearing for entire zone in which Cement grinding unit (3.0 MTPA capacity) of M/s. Reliance Cement Company Private Limited should be included. In case, if the Cement grinding unit (3.0 MTPA capacity) of M/s. Reliance Cement Company Private Limited is not considered by KIDB at the time of conducting public hearing for the entire zone, then a fresh public hearing shall be conducted by M/s. Reliance Cement Company Private Limited for the proposed 3.0 MTPA cement grinding unit.

The Committee noted that the baseline data collected during the period of 15.3.2013 to 15.6.2013 will be used for preparation of EIA/EMP report.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. A line diagram/flow sheet for the process and EMP
4. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
5. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper

- longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
6. Present land use should 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 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
  7. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
  8. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  9. Details and classification of total land (identified and acquired) should be included.
  10. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  11. A list of industries containing name and type in 10 km radius shall be incorporated.
  12. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
  13. Manufacturing process details for the cement grinding unit should be included.
  14. Mass balance for the raw material and products should be included.
  15. Energy balance data for all the components should be incorporated.
  16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  17. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  18. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
  19. Vehicular pollution control and its management plan should be submitted.
  20. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  21. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
  22. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included.
  23. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  24. Ambient air quality monitoring should be included for the day (24 hrs) for maximum GLC along with following :
    - i) Emissions (g/second) with and without the air pollution control measures
    - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity
    - iii) Model input options for terrain, plume rise, deposition etc.
    - iv) Print-out of model input and output on hourly and daily average basis
    - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
    - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant

- vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix) Graphs of monthly average daily concentration with down-wind distance
  - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
25. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
  26. One season data for gaseous emissions other than monsoon season is necessary.
  27. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  28. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
  29. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  30. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  31. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  32. A note on the impact of drawl of water on the nearby River during lean season.
  33. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  34. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
  35. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  36. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  37. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  38. Disaster Management Plan including risk assessment & damage control needs to be addressed and included. Landslide hazard map and mitigation plan, Earthquake history and management plan should be submitted.
  39. Action plan for solid/hazardous waste generation, storage, utilization and disposal should be covered.

40. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
41. 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 should be detailed in the EIA report.
42. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
43. Total capital cost and recurring cost/annum for environmental pollution control measures.
44. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
45. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the Karnataka Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

#### 8.2.10 Pellet Plant for 4.0 MTPA (1.2 MTPA x 3 lines + 10% up-gradation) along with Producer gas Plant (72000 NM<sup>3</sup>/hr) at Village Dudhaposi, Keonjhar District, Odisha by M/s Rungta Mines Ltd. – regarding TORs.

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 5<sup>th</sup> meeting as item no.5.2.8 held during 31<sup>st</sup> January 2013 – 1<sup>st</sup> February, 2013 for the grant of Terms of Reference (ToRs). The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- Transportation pattern of raw materials/finished products including the possibility of setting up of railway siding shall be explored
- Mode of disposal/utilization of solid and hazardous waste generated shall be submitted
- Plan for achieving zero effluent discharge shall be submitted

The proponent vide letter no.RML/MOEF/Dudhaposi/12-13/4706 dated 4.2.2013 submitted the aforesaid additional information.

The project authorities along with their consultant (M/s. Min Mec Consultancy Private Limited, New Delhi) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is covered under Category (A) and listed at S.N.3(a) of the Schedule of the EIA notification 2006 and have to be appraised at the Central level.

M/s Rungta Mines Limited have proposed to set up a 4 MTPA Iron-ore pelletisation plant and 72000 Nm<sup>3</sup>/hr Producer Gas Plant at Dudhaposi and Balibeda village, Tehsil Banspal Keonjhar District, Odisha. The land requirement for the proposed project is 128.18 acres. The proponent has acquired 37.03 acres of land and remaining land is under acquisition. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. Project cost is Rs. 885 Crores. The raw materials required are iron ore fines (4847040 TPA), dolomite flux (48470 TPA), bentonite (33929 TPA) and coke breeze (72706 TPA) and coal. The power requirement will be met from PGCIL/CSPPCL grids. The water requirement is 300 m<sup>3</sup>/hour which will be drawn from Baitrani river by 6.7 km long pipe line. The power requirement is 40 MW which will be met from 132 KV line from Palaspanga grid of M/s NESCO, Odisha.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. Copies of iron ore/coal linkage documents
4. A line diagram/flow sheet for the process and EMP
5. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
6. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
7. Present land use should 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 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
8. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
9. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
10. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
11. Details and classification of total land (identified and acquired) should be included.
12. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
13. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
14. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
15. A list of industries containing name and type in 10 km radius shall be incorporated.
16. Residential colony should be located in upwind direction.
17. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
18. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan. Use of tailings by tile making industries etc may be explored and plan submitted.
19. Manufacturing process details for all the process units should be included.
20. Possibility of installation of WHRB will be explored and details included
21. Mass balance for the raw material and products should be included.
22. Energy balance data for all the components should be incorporated.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
24. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.

25. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
26. Vehicular pollution control and its management plan should be submitted.
27. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
28. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
29. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
30. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
31. Air quality modeling for all the plants proposed including mine for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included. Cumulative impacts of mines and pellet plant on the ambient air quality shall be assessed.
32. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
33. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i. Emissions (g/second) with and without the air pollution control measures
  - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
34. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
35. One season data for gaseous emissions other than monsoon season is necessary.
36. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
37. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used

- from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
38. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  39. Ground water modelling showing the pathways of the pollutants should be included
  40. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
  41. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  42. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  43. A note on the impact of drawl of water on the nearby River during lean season.
  44. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  45. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
  46. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  47. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  48. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  49. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
  50. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  51. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
  52. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  53. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  54. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  55. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  56. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept

within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.

57. 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 should be detailed in the EIA report.
58. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
59. A note on identification and implementation of Carbon Credit project should be included.
60. Total capital cost and recurring cost/annum for environmental pollution control measures.
61. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
62. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i) All documents should be properly indexed, page numbered.
- ii) Period/date of data collection should be clearly indicated.
- iii) Authenticated English translation of all material in Regional languages should be provided.
- iv) The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v) The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi) The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the Odisha Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

**8.2.11 Expansion of Steel Plant along with Captive Power Plant and Sponge Iron Plant/WHRB at Periyapuliur, Amirthamangalam & Poovalambedu Village, Gummidipoondi Taluk, Thiruvallur Distt. Tamil Nadu by M/s J. R. Metal Chennai Limited.- regarding TORs**

The Committee deferred the consideration of the proposal as the proponent has already established and operating 1x35 TPH Ladle Refining Furnace without obtaining prior environmental clearance from the Ministry.

As the aforesaid proposal involves violation, the Committee recommended that the Ministry shall deal with the violation matter in accordance with its Office Memorandum dated 12.12.2012.

**8.2.12 Proposed Ferro Alloys manufacturing unit at J.L. No. 37, Dag No. 2853, 2854, Village-Tewaridanga, District-Bankura, West Bengal by M/s Tanushree Ispat Pvt. Ltd- regarding TORs.**

The aforesaid proposal was earlier placed before the Reconstituted Expert Appraisal Committee (Industry) in its 5<sup>th</sup> meeting held during 31<sup>st</sup> January, 2013 – 1<sup>st</sup> February, 2013 wherein, the Committee deferred the proposal, as the Project Proponent did not attend the meeting.

As the project has been placed twice before the Committee, the Project Proponent did not attend this meeting as well, the committee was of the view that the proposal shall be delisted and the file be closed.

**8.2.13 Proposed 3,60,000 TPA cement production clinker grinding unit at Plot No. 391, Village Baragaon, Tehsil Chunar, District Mirzapur, Uttar Pradesh by M/s RLJ Steel Plant Ltd. (Cement Division) – regarding TORs.**

As per the Environmental Impact Assessment (EIA) Notification 2006, the aforesaid project is listed at Sl. No. 3(b) of the schedule as Category 'B' and has to be appraised by the State Level Impact Assessment Authority (SEIAA)/State Level Expert Appraisal Committee (SEAC) of Uttar Pradesh.

After detailed deliberations, the Committee decided to refer the proposal to SEIAA/SEAC, Uttar Pradesh for necessary action.

8.2.14 Expansion Proposal by addition of Steel Melting and Rolling Mill at Village Juri District East Singhbhum, Jharkhand **by M/s Shash Sponge & Power Ltd.- regarding TORs**

The project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the proponent.

8.2.15 Expansion of Steel plant (from 1.000 MTPA to 2.0 MTPA) at 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 Limited) - regarding TORs.**

The project authorities along with their consultant (M/s Eco Chem Sales and Service, Suart) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s Uttam Value Steels Limited have submitted to the Committee that the name of the company has changed from M/s Lloydsteel Industries Limited to M/s Uttam Value Steels Limited with effect from 18.3.2013. To this effect, the proponent has submitted the Fresh Certificate of Incorporation Consequent upon change of name (L27100MH1970PLCO14621) issued by the Registrar of Companies, Maharashtra, Mumbai, Government of India, Ministry of Corporate Affairs.

The committee noted that existing plant got environmental clearance from the Ministry vide F.No.J-11011/77/2005-IA.II(I) dated 21.6.2005 in the name of M/s Lloyds Steel Industries Limited. The Committee asked the proponent to separately apply to the Ministry to transfer the EC from M/s Lloydsteel Industries Limited to M/s Uttam Value Steels Limited.

M/s Uttam Value Steels Limited have proposed to expand the steel plant from 1 MTPA to 2 MTPA at Bhugaon Link road, village Barbadi, Bhugaon and Selu kata, tehsil Wardha, district Wardha, Maharashtra. The land requirement for the proposed expansion is 105 ha which is already available within the existing plant premises of 220 ha. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius. The latitude and longitude of the project site is 20° 42' 36.67 N and 78° 37'31.52"E respectively. The raw materials required are pig iron, DRI, scraps, calcined lime, calcined dolomite and ferro alloys etc. The water requirement is 9970 KLD (Existing: 5350 KLD; Expansion: 4620 KLD) which will be met from Dham river. The total power requirement is 75 which will be met from M/s. Indrajit Power Private Limited. Total cost of the project is Rs. 2200 Crores. Rs. 90 crores and Rs. 4 crores is earmarked as a capital cost and recurring cost per annum towards the environmental pollution control measures.

The existing and proposed facilities and its production capacities are as follows:

Sr.No.	Name of Product	Production Capacity in MTPA		
		Existing	Proposed	Total
<b>A</b>	Hot Rolled Coils/Sheets/ Plates	1.000	0.500	<b>1.500</b>
<b>B</b>	Long Products (Bar & Rods)	---	0.500	<b>0.500</b>
			<b>Total</b>	<b>2.000</b>
<b>FURTHER PROCESSING FOR VALUE ADDITION</b>				

<b>A</b>	Cold Rolled Coils & Sheets	0.225	0.375	<b>0.600</b>
<b>B</b>	Galvanized Coils & Sheets	0.225	0.375	<b>0.600</b>
<b>FINISHING LINE</b>				
<b>A</b>	Colour Coating Product	--	0.300	<b>0.300</b>
<b>B</b>	Pipes	--	0.250	<b>0.250</b>

Stack of adequate height will be provided. Acid regeneration plan will be installed to regenerate acid from pickling waste. The wastewater generation is 715 KLD (Existing: 405 KLD; Expansion: 310 KLD). Dust suppression system will be provided all around raw material stock yard. All domestic and industrial effluent will be treated, recycled and reused within the plant premises itself and no effluent will be discharged outside the plant premises. Slag from SMS will be used for road making and peripheral development. Used oil will be sold to registered recyclers.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Iron ore/Coal linkage documents
3. Photographs of the existing and proposed plant area
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
11. Present land use should 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 should be used for land used/land-cover mapping of the area.
12. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
13. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.)

- dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
15. Coordinates of the plant site as well as ash pond with topo sheet co-ordinates of the plant site as well as ash pond with topo sheet should also be included.
  16. Details and classification of total land (identified and acquired) should be included.
  17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  18. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
  19. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
  20. A list of industries containing name and type in 25 km radius should be incorporated.
  21. Residential colony should be located in upwind direction.
  22. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
  23. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
  24. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MgO, MnO, K<sub>2</sub>O, CaO, FeO, Fe<sub>2</sub>O<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, H<sub>2</sub>O, CO<sub>2</sub>.
  25. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
  26. Action plan for excavation and muck disposal during construction phase.
  27. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
  28. Manufacturing process details for all the plants should be included.
  29. Mass balance for the raw material and products should be included.
  30. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
  31. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  32. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.
  33. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
  34. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.

35. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
36. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
37. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
38. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
39. Ambient air quality monitoring modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i. Emissions (g/second) with and without the air pollution control measures
  - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
40. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
41. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
42. One season data for gaseous emissions other than monsoon season is necessary.
43. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
44. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
45. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to

- be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
46. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  47. Ground water modelling showing the pathways of the pollutants should be included
  48. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
  49. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  50. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  51. A note on the impact of drawl of water on the nearby River during lean season.
  52. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  53. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
  54. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  55. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  56. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  57. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
  58. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
  59. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  60. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
  61. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
  62. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
  63. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.

64. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
65. 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. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
66. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
67. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
68. Occupational health:
  - a. 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,
  - b. 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.
  - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
  - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
  - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
69. 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 should be detailed in the EIA report.
70. 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.
71. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
72. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
73. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.

74. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
75. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
76. A note on identification and implementation of Carbon Credit project should be included.
77. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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 should be provided. The draft EIA/EMP report shall be submitted to the Maharashtra Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

8.2.16 Proposed Expansion of Baliapal Ferro Alloys Plant by new addition of 2x9 MVA and 3x5 MVA capacity Submerged Arc Furnace and one chrome ore beneficiation plant at Village Balipal, Tehsil Danagadi, District Jaipur, Odisha by **M/s B.C. Mohanty & Sons Pvt. Ltd. – regarding TORs**

The project authorities and their consultant M/s ERS (I) Private Limited Bhubaneswar gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft TORs for preparation of EIA/EMP report. All the Ferro Alloy Plants are listed at S.No. 3(a) in Primary Metallurgical Industries under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s B.C. Mohanty & Sons Private Limited have proposed to expand the Baliapal Ferro Alloys Plant by new addition of 2x9 MVA and 3x5 MVA capacity Submerged Arc Furnace and one chrome ore beneficiation plant at Village Balipal, Tehsil Danagadi, District Jaipur, Odisha. The proposed expansion will be carried out in the existing plant premises of 34.85 acres. The existing plant got Consent To Establish and Consent To Operate from Odisha Pollution Control Board on 12.8.2005 and 1.2.2010 respectively. The existing plant capacity is for the manufacture/production of H.C. Chrome of quantity 12500 TPA by installing one submerged electric arc furnace of 4.5 MVA capacity. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The raw materials required are chrome ore, molasses, hydrated lime, pig iron fines, coke, caobon paste, quartz, mill scale and low grade ore etc. The power requirement is 32 MW which will be met from grids. The water requirement is 40 m<sup>3</sup>/hour which will be drawn from ground water sources. The cost of the project is Rs.70 crores.

Following are the existing proposed product details:

**Existing:** Manufacture/production of H.C. Chrome of quantity 12500 TPA by installing one submerged electric arc furnace of capacity 4.5 MVA.

**Proposed**

S.No.	Proposed Production	Specifications of proposed installation	Production capacity
1.	<ul style="list-style-type: none"> <li>• High Carbon Ferro Chrome (or)</li> <li>• Ferro Manganese (or)</li> <li>• Silico Manganese (or)</li> <li>• Ferro Silicon (or)</li> <li>• Pig Iron (or)</li> <li>• a combination thereof</li> </ul>	2x9 MVA and 3x5 MVA Sub Merged Arc Furnace	66000 TPA
2.	Chrome Ore Beneficiation Plant	80,000 to 1,00,000 TPA	36000 TPA minimum and 48,000 TPA maximum (Output)

Water sprinklers will be used to suppress dust emission during raw material handling and black topping of internal roads would be done to avoid particulate matter emissions due to plying of trucks. Dry Fog dust suppression system and bag filters will be used to control dust emission during the process. Bag filters with heat exchangers will be used to control gaseous fumes and dust emission from the submerged arc furnace. Suction Hood followed by bag filters will be used to control air pollution from tapping process. Efforts shall be made to reuse the effluent generated after adequate treatment. Sewage generated due to domestic activities will be treated in a septic tank followed by soak pit.

After detailed deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project.
2. Photographs of the existing and proposed plant area
3. Compliance to the conditions stipulated in the Environmental Clearance /CTE/CTO granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. 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, compliance to the notice(s)
7. A line diagram/flow sheet for the process and EMP
8. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
9. A copy of coal linkage documents
10. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
11. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
12. Present land use should 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 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing landuse/landcover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
14. A list of industries within 10 km radius of the plant area.
15. Details and classification of total land (identified and acquired) should be included.
16. Project site layout plan showing raw materials and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
17. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
18. Quantification & Characterization of solid /hazardous waste & its action plan for management should be included.
19. Mass balance for the raw material and products should be included.
20. Energy balance data for all the components of ferro alloy plant should be incorporated.
21. Design details of Ferro Alloy Plant and manufacturing process details should be included.
22. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
23. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out including cumulative Impact of the surrounding industries.

24. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
26. Air quality modeling for ferro alloy plant for specific pollutants needs to be done. APCS for the control of emissions should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
27. Ambient air quality as per National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
28. Ambient air quality monitoring should be included for the day (24 hrs) for maximum GLC along with following :
  - i) Emissions (g/second) with and without the air pollution control measures
  - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity
  - iii) Model input options for terrain, plume rise, deposition etc.
  - iv) Print-out of model input and output on hourly and daily average basis
  - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix) Graphs of monthly average daily concentration with down-wind distance
  - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
29. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
30. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
31. Presence of aquifer/aquifers within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
32. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
33. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
34. 'Permission' for the drawl of water should be obtained. Water balance data must be provided.
35. A note on the impact of drawl of water on the nearby River during lean season.
36. Action plan for rainwater harvesting measures.
37. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.

38. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
39. Pretreatment of raw water, treatment plant for waste water should be described in detail. Design specifications may be included.
40. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
41. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources should also be included.
42. Identification and details of land to be used for all type of slag disposal in the secured land fill as per CPCB guidelines should be included.
43. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
44. Provision of Toxic Chemical Leachability Potential (TCLP) test for the slag and its end use should be included.
45. Action plan for chrome recovery and its solid waste management plan.
46. Action plan for the green belt development plan in 33 % area should be included.
47. Chrome water treatment/management plan
48. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
49. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
50. Occupational health:
  - a. 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,
  - b. 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.
  - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
  - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
  - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
51. 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 should be detailed in the EIA report.

52. At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
53. Total capital cost and recurring cost/annum for environmental pollution control measures should also be included.
54. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
55. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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 should be provided. The draft EIA/EMP report shall be submitted to the Odisha Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

#### 8.2.17 Proposed Captive Power Plant of 4 MW utilizing waste heat from existing 2x100 TPD DRI and 4MW from AFBC Boiler at Village Nawagaon, District West Singhbhum, Jharkhand **by M/s Sai Sponge (India) Ltd. – regarding TORs.**

The aforesaid proposal was earlier placed before the Reconstituted Expert Appraisal Committee (Industry) in its 7<sup>th</sup> meeting held during 4-5<sup>th</sup> April, 2013 wherein, the Committee deferred the proposal, as the Project Proponent did not attend the meeting.

As the project has been placed twice before the Committee, the Project Proponent did not attend this meeting as well, the committee was of the view that the proposal shall be delisted and the file be closed.

**8.2.18 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 - regarding TOR.**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 6<sup>th</sup> meeting as item no.6.5.15 held during 5-7<sup>th</sup> March, 2013 for the grant of Terms of Reference (ToRs). The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- i. Revised form -I and pre-feasibility project report covering all the technical aspects of the proposed plant facilities and the environmental aspects regarding anticipated air emissions, effluent generation, solid waste generation and its utilization.
- ii. Possibility of setting up of railway siding facility for transportation of the raw materials and end products shall be explored.
- iii. Primary drainage area of the project site as well as the catchment including likely change in the drainage pattern due to project may be provided.

The proponent vide letter no.JSWJH/02/01/139 dated 22.4.2013 submitted the aforesaid additional information.

The project authorities along with their consultant (M/s Vimta Labs, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s JSW Jharkhand Steel Limited have proposed to set up 10 MTPA Integrated Steel Plant, 900 MW CPP & Township, Near Barendra, Sonahatu Block, Ranchi District, Jharkhand. The total land requirement for the expansion is 3800 acres. The latitude and longitude of the project site is 23° 08'45" N – 23° 11'57" N, 85° 47'56" E – 85° 50'11" E respectively. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius. The Protected Forests exists in the study area are - PF Near Mahil Village (0.5 km SE), PF Near Mariangikir Village (0.5 km NW), PF Near Pandadih Village (1.0 km SE), PF Near NapraVillage (2.0 km SE), PF Near Chokahatu (3.0 km E), PF Near Barendra Village (4.0 km SE) and PF Near Buruhatu–Sundrup Village (4.0 km SE). The water bodies exists in the study area are - Subarnarekha River (2.4 km, NNE), Kanchi River (2.0 km, NNW), Raru Nadi (5.0 km, N) and Ghosru Nala (4.2 km, NE). The project site falls under seismic Zone – II (as per IS-1983, Part I :2002). The water requirement is 132.80 MCM per year which will be sourced from Subarnarekha River. The power requirement is 900 MW which will be met from Captive Power Plant and Jharkhand State Electricity Board (JSEB). Total cost of the project is Rs.35000 crores.

Additionally, the proponent informed that 354 acres of private land purchased so far. The registration of another 500 acres of land is under process after receiving DC's permission in May 2013. Consent for additional 518 acres of land already obtained and presently under consideration with District Collector. The iron ore will be sourced from Ankua Iron Ore Mine in Manoharpur Block, West Singhbhum district, Jharkhand for which Environmental Clearance is under consideration by the Ministry. The coal will be sourced from Rohne Coal Block in North Karanpura Coalfield in Hazaribagh, Jharkhand. The Environmental Clearance for coal block is under consideration by the Ministry. The other raw

materials required are lime stone, dolomite and bentonite etc. The proponent has obtained concurrence from Water Resources Department, Govt of Jharkhand for drawing 80 MGD (15,291 m<sup>3</sup>/hr or 132.80 MCM on annual basis) of water from Subernarekha river.

Stack of adequate height will be provided. Covered storage will be provided for coal, Iron ore & fluxes. Dust suppression systems (chemical and dry fog type) will be provided to control the fugitive emissions. The pellet plant, sinter plant, blast furnace and power plant will be provided with ESP. The solid wastes generated are – iron making slag, steel making slag, sludge, lime/dolime dusts and fly ash.

Following are the proposed product details:

<b>S.No.</b>	<b>Plant Facilities</b>	<b>Capacity</b>
1.	Beneficiation Plant	29.0 Mt/yr
2.	Pellet Plant	2 x 4.0 Mt/yr
3.	Coke Oven Plant	3 x 2.0 Mt/yr
4.	Sinter Plant	3 x 5.2 Mt/yr
5.	Blast Furnace	3 x 5200 m <sup>3</sup>
6.	Direct Reduction Plant	1.2 Mt/yr
7.	BOF Converter	3x180 T + 2x250/280 T
8.	Ladle Furnace	3x180 T + 2x250/280 T
9.	RH-Top	1x180 T + 1x250/280 T
10.	Billet Caster	2 x 6 strand
11.	Bloom Caster	1 x 6 strand
12.	Shaped Bloom Caster	2 x 3 strand
13.	Slab caster	2 x 2 strand
14.	Wire Rod Mill	1.0 Mt/yr
15.	Bar Mill	1.0 Mt/yr
16.	Medium Section Mill	1.2 Mt/yr
17.	Heavy Section Mill	2 x 1.1 Mt/yr
18.	Hot Strip Mill	4.5 Mt/yr
19.	Plate Mill	1.5 Mt/yr
20.	Cold Rolling Mill	2.3 Mt/yr
21.	Galvanising line	1.0 Mt/yr
22.	Tin Plate Mill	1.0 Mt/yr
23.	Electrical Steel	1.0 Mt/yr
24.	Colour Coating Line	1.0 Mt/yr
25.	Oxygen Plant	3 x 2500 TPD

<b>S.No.</b>	<b>Plant Facilities</b>	<b>Capacity</b>
26.	Lime Calcination plant	5 x 600 TPD
27.	Dolo Calcination Plant	2 x 600 TPD
28.	Captive Power Plant	3 x 300 MW
29.	Cement Plant	6.0 Mt/yr
30.	Coking Coal Washery	5.52 Mt/yr
31.	Non Coking Coal Washery	2.30 Mt/yr
<b>Other Facilities</b>		
32.	Water Supply Pipelines/Channels & Intake Wells /Weirs	
33.	Land and External Infrastructure	
34.	Township	
35.	Railway Sidings, Railway bridge over Subarnarekha river and rail connection to existing railway lines	

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. A line diagram/flow sheet for the process and EMP
4. Iron ore, Coal and Limestone linkage documents
5. A copy of the mutual agreement for land acquisition signed with land oustees.
6. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
7. Present land use should 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 should be used for land used/land-cover mapping of the area.
8. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
9. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
10. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
11. Coordinates of the plant site as well as ash pond with topo sheet co-ordinates of the plant site as well as ash pond with topo sheet should also be included.
12. Details and classification of total land (identified and acquired) should be included.

13. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
14. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
15. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
16. A list of industries containing name and type in 25 km radius should be incorporated.
17. Residential colony should be located in upwind direction.
18. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
19. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per ISO-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
20. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MgO, MnO, K<sub>2</sub>O, CaO, FeO, Fe<sub>2</sub>O<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, H<sub>2</sub>O, CO<sub>2</sub>.
21. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
22. Action plan for excavation and muck disposal during construction phase.
23. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
24. Manufacturing process details for all the plants should be included.
25. Mass balance for the raw material and products should be included.
26. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
27. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
28. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.
29. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
30. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
31. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
32. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.

33. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
34. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
35. Ambient air quality monitoring modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i) Emissions (g/second) with and without the air pollution control measures
  - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
  - iii) Model input options for terrain, plume rise, deposition etc.
  - iv) Print-out of model input and output on hourly and daily average basis
  - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix) Graphs of monthly average daily concentration with down-wind distance
  - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
36. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
37. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
38. One season data for gaseous emissions other than monsoon season is necessary.
39. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
40. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
41. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
42. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
43. Ground water modelling showing the pathways of the pollutants should be included
44. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
45. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant

- premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
46. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  47. A note on the impact of drawl of water on the nearby River during lean season.
  48. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  49. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
  50. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  51. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  52. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  53. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
  54. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
  55. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  56. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
  57. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
  58. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included. R&D plan to explore use of SMS slag may be submitted.
  59. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
  60. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  61. 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. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  62. Primary fresh data on flora and fauna (terrestrial and aquatic) exists in the study area should be given with special reference to rare, endemic and endangered species.
  63. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
  64. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers

- with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
65. Corporate Environment Policy
    - v. 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.
    - vi. 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.
    - vii. 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.
    - viii. 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 should be detailed in the EIA report
  66. 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.
  67. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
  68. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
  69. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
  70. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
  71. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
  72. A note on identification and implementation of Carbon Credit project should be included.
  73. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

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

- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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 should be provided. The draft EIA/EMP report shall be submitted to the Jharkhand State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

### **8.3.0 Reconsideration**

8.3.1 Grain/Molasses based distillery plant (200 KLPD) and 5 MW cogeneration power plant at village Salana jeon Singh Wala, Tehsil Amlah, District Fatehgarh Sahib, Punjab by **M/s Nahar Industrial Enterprises Limited – regarding Environmental Clearance.**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 5<sup>th</sup> meeting held during 31<sup>st</sup> January, 2013-1<sup>st</sup> February, 2013 for grant of Environmental Clearance. The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- i. Values of PM<sub>10</sub> and PM<sub>2.5</sub> needs to be rechecked.
- ii. Note on availability of molasses
- iii. Certified compliance report of Consent to Establish(CTE)/Consent to Operate(CTO) for the existing sugar mill unit from the Punjab Pollution Control Board
- iv. Complete set of data on Ambient Air Quality (AAQ) monitored during May to July, 2012
- v. Input data used for the AAQ modeling
- vi. Effluent treatment scheme for the grain and molasses based operation
- vii. Rain water harvesting measures for the proposed project
- viii. Permission of the Competent Authority for approach to the industrial plant to comply with the conditions imposed by MoEF in letter no.9PBB694/2007-CHA/1795 dated 1.4.2000
- ix. Undertaking from the proponent that lagoon pond will not be used in the distillery
- x. Action plan along with the financial budget for complying with the commitments made during the Public Hearing

The proponent vide letter No. NIEL/2013/1043/8161 dated 20.2.2013 and letter no. NIEL/2013/1044 dated 2.4.2013 submitted the aforesaid additional information.

Meanwhile, a complaint was received by the Ministry from Gram Panchayat, Salan Jeon Singh Wala, Tehsil Amluh, District Fatahgarh Sahib against the establishment of 200 KLPD distillery cited above. The complaint was placed before the REAC. The issues mentioned in the complaint are – ground water withdrawal, wildlife sanctuary (known as Bir Bhadson) exists within 10km radius of the project site and area of the site of proposed distillery plant is a thickly populated area etc. In response to this, the proponent submitted that the Regional Office of Central Ground Water Authority (CGWA) has already recommended the proposal for grant of permission. The case is on final stage of approval. There is a reserve forests known as Bir Bhadson located at aerial distance of 12.5 kms from the project site. Further, the proposed project site falls under industrial zone as per the master plan of Mandi Gobindgarh.

After detailed deliberations, the Committee found the additional information and replies to the complaint cited above are satisfactory and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. ESP along with stack of adequate height should be provided to coal/biomass fired boiler.
- ii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iii. Total fresh water requirement for grain based distillery shall not exceed 2165 m<sup>3</sup>/day. The total fresh water requirement for molasses based distillery shall not exceed 1800 m<sup>3</sup>/day. Prior permission for drawl of ground water should be obtained from the CGWA and a copy submitted to the Ministry's regional office at Chandigarh.
- iv. Water consumption should be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- v. Spent wash generation should not exceed 6 KI/KI of alcohol. Spentwash will be treated in decanter followed by bio-methanation. Treated effluent will be evaporated in MEE. Evaporated solid will be mixed with agro waste and burnt in the boiler to achieve zero discharge. Spentless effluent from bottle washing, utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vi. Any directions issued by the CPCB/SPCB in respect of use of treated spentwash for ferti-irrigation shall be complied. No treated spentwash generated from the expansion unit shall be used for ferti-irrigation.
- vii. Company shall follow good management practices viz. collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units; minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; effective composting of the spent wash by controlled

effluent spraying through mechanical system to avoid spillages & over application, blending of sludge in correct proportion with press mud; and properly finished compost and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.

- viii. All measures to control dust emissions and rice husk (if used) flying around should be taken.
- ix. Spent wash should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.
- x. No effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge should be adopted.
- xi. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- xii. No storage of wet cake should be done at site. An additional dryer should be installed so that at any time wet cake is not sold then wet cake should be converted into dry cake by operating additional dryer.
- xiii. Biomass storage should be done in such a way that it does not get air borne or fly around due to wind.
- xiv. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xv. As proposed, ash will be transferred in the covered truck. Ash shall be transferred to the brick manufacturing for which an agreement to be made in advance.
- xvi. Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.
- xvii. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xviii. As proposed, green belt should be developed in 33% of the plant area and plantation shall be done as per the CPCB guidelines in consultation with DFO. Thick greenbelt with suitable plant species shall be developed around the proposed distillery to mitigate the odour problem.
- xix. All the commitment made regarding issues raised during the public hearing/ consultation meeting held on 11<sup>th</sup> September, 2012 shall be satisfactorily implemented.

- xx. At least 5 % of the total cost of the project should be earmarked towards the environment social commitment based on public hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program should be ensured accordingly in a time bound manner.
- xxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.
- 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

**8.3.2 Expansion of existing manufacturing of manmade fiber other than Rayon- Synthetics Filament Yarn (SFY) using polyester/ Nylon/polypropylene chips from 2,50,000 to 8,30,000 TPA at Sy No. 273/1, 274 & 45/2, Industrial Area, Demni Road, Village Dadra, U.T. of Dadra and Nagar Haveli by M/s Filatex India Limited – regarding Environmental Clearance**

The above proposal was considered in the 37<sup>th</sup> Meeting of EAC(Industry-1) under agenda # 37.3.3, held during 14-15<sup>th</sup> June 2012 and the Committee has recommended the proposal for award of Environmental Clearance subject to the stipulated specific conditions along with other environmental conditions. However, in the form I submitted by the proponent as well as in the minutes of the EAC meeting held during 14-15<sup>th</sup> June 2012, the distance of the project site in respect of the Dadra & Nagar Haveli Wildlife Sanctuary are not explicitly mentioned.

Subsequent to the 37<sup>th</sup> EAC(Industry-1) meeting, communication was sent to the proponent on 23.8.2012 requesting to submit a Map showing the location of Project and Wildlife Sanctuary authenticated by the Chief Wildlife Warden along with his recommendation or comments and a copy of application submitted to National Board for Wildlife to facilitate further action in the matter. In response to this, the proponent vide letter dated 22.1.2013 submitted the following:

- i. Map showing location of the project and DNH wildlife sanctuary authenticated by the Chief Wildlife Warden along with his recommendations and comments
- ii. A copy of the letter submitted to the DIG –Wildlife for obtaining permission and recommendations of the National Board of Wildlife

The proponent along with their consultant (M/s Unistar Environment and Research Labs Private Limited, Vapi) made a presentation before the Committee. The Committee noted that as per the comments of the Chief Wildlife Warden, the site of the proposed expansion project from the nearest point of the Dadra & Nagar Haveli Wildlife Sanctuary at Falandi is about 6 km distance.

After detailed deliberations, the Committee found the information submitted by the proponent is satisfactory and suggested to stipulate following additional specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Environmental Clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the Standing Committee for National Board for Wildlife.
- ii. Environmental Clearance is subject to the final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.

**8.3.3 Environmental Clearance for proposed integrated steel plant (0.4 MTPA capacity) with 43 MW captive power plant at village-Paraghat and Beltukri, Tehsil-Masturi, District-Bilaspur in Chhattisgarh by M/s Rashi Steel and Power Limited (Formerly M/s. Rashi Strips Private Limited)– regarding reconsideration for grant of Environment Clearance.**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 7<sup>th</sup> meeting held during 4-5<sup>th</sup> April, 2013 for grant of Environmental Clearance. After detailed deliberations, the Committee sought following addition information from the proponent for reconsideration:

- i. Revised layout plan without disturbing natural drainage (nallah)
- ii. Flood hazard zonation map
- iii. Coal linkage documents on non-judicial stamp paper
- iv. Land acquisition documents
- v. Exact distance of plant site from High Flood Level of Lilaghar river
- vi. Transportation pattern of incoming raw materials and outgoing finished products

The proponent vide letter No. Nil dated 18.4.2013 submitted the aforesaid additional information to the Ministry. The proponent along with their M/s Grass Roots Research and Creation India Private Limited, Noida made a presentation before the Committee.

The Committee noted that the proposed site is at the elevation of 252 to 255 m. The proposed plant site fall outside the flood hazard zone of Lilaghar River. The project requires 199 acres of land. Out of 199 acres of land, 77 acres of land has already been purchased by sale deed with land owners and is under possession and the remaining 122 acres of land is under the process of land acquisition, by mutual agreement /sale deed. Further, the proponent submitted to the Committee that the plant site is close to Jairamnagar Railway Station. M/s Rashi Steel and Power Limited (RSPL) proposed to have siding taking off from Jairamnagar at Howrah end which is essential for transportation of incoming raw material and outgoing finished product.

Further, the Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Chhattisgarh Environment Conservation Board on 22.12.2010, in presence of Shri T.K.Verma, Collector, Bilaspur district, at Village- Paraghat and Beltukri, Tehsil- Masturi, District- Bilaspur, Chhattisgarh. The issues are raised by the public are – Resettlement and Rehabilitation rule, pollution to the ambient air and proper compensation to the land acquired etc. The proponent responded that the Land acquisition will be done as per Government rules and all Government guidelines will be followed. The technology adopted by the proponent is a green-field clean technology using Shaft furnace-EAF-CCM route with coal gasification and RHF-SAF-Ductile Iron Spun Pipe plant.

After detailed deliberations, the Committee found the additional information submitted by the proponent is satisfactory and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance.

- i. No construction activity at the project site shall be initiated till the complete land of 199 acres is acquired.
- ii. A flood hazard management plan clearly showing flood hazard zones shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bhopal within 3 months from the date of issue of the letter.
- iii. Rehabilitation and Resettlement (R & R) Plan shall be prepared and submitted to the State Government of Chhattisgarh. This shall be implemented as per the R & R Policy of the State Government of Chhattisgarh. All the recommendations mentioned in the R & R Plan shall be strictly followed including suitable employment and other facilities to all the oustees. Compensation paid in any case shall not be less than the norms prescribed under National Resettlement and Rehabilitation Policy, 2007.
- iv. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> by installing energy efficient technology.
- v. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be followed.
- vi. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.
- vii. Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
- viii. Hot gases from the 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 dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.
- ix. Total make up water requirement shall not exceed 7500 m<sup>3</sup>/ day. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.
- x. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources. 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 effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- 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 should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB.
- xiii. All the char from DRI plant shall be utilized in FBC boiler of power plant and no char shall be disposed off anywhere else. FBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning.
- xiv. In case source of coal supply is to be changed at a later stage (now proposed imported coal from South Africa) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.
- xv. 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 should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office at Bhopal.
- xvi. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xvii. A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bhopal. Only after ascertaining its radioactive level shall fly ash be supplied for utilization in cement manufacturing.
- xviii. As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xix. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Sponge Iron Plants and Steel Plants should be implemented.
- xx. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.
- xxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.

- xxii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 22<sup>nd</sup> December 2010 shall be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- 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.

8.3.4 Proposed 200 TPD Iron Nodule Plant using Rotary Hearth Furnace (RHF) Technology, Beneficiation Plant (600 TPD) and Iron Billet Plant (300 TPD) at Maneri Industrial Area, Village Maneri, Tehsil Niwas, District Mandla in Madhya Pradesh by **M/s Arfa Steels & Minerals Pvt. Limited - regarding EC**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 5<sup>th</sup> meeting held during 31-1<sup>st</sup> February, 2013 for grant of Environmental Clearance. The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- i. Values of PM<sub>10</sub> and PM<sub>2.5</sub> needs to be rechecked. PM<sub>10</sub> and PM<sub>2.5</sub> parameter shall be monitored for a one month period and the data shall be submitted
- ii. Input and output data file for the AAQ modeling
- iii. MoU for the utilization of slime, slag and ash from the gasifier shall be submitted
- iv. Management plan for solid and hazardous waste
- v. Surface and ground water quality data for the study area shall be submitted
- vi. Scheme for achieving zero effluent discharge shall be submitted
- vii. Seismic hazard map for the study area shall be submitted
- viii. Revised scheme for the Occupational Health and Safety shall be submitted

The proponent vide letter No. Nil dated 9.4.2013 submitted the aforesaid additional information to the Ministry. The proponent along with their M/s Grass Roots Research and Creation India Private Limited, Noida made a presentation before the Committee.

After detailed deliberations, the Committee found the additional information submitted by the proponent is satisfactory and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. The company shall undertake measures to mitigate particulate emissions. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> by installing energy efficient technology.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 should be followed.

- iv. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as crusher zone, loading and unloading point and all transfer points during handling of the ore. Extensive water sprinkling shall be carried out on roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- v. The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e.,  $PM_{10}$ ),  $PM_{2.5}$ ,  $SO_2$ ,  $NO_x$  in the ambient air within the impact zone shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS))]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain.
- vi. Make up water requirement shall not exceed 300 m<sup>3</sup>/day. Permission from the competent authority to draw the water shall be obtained as may be applicable in this case. Efforts shall further be made to use maximum water from the rain water harvesting sources. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- vii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water (including chromite) should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB.
- ix. Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- x. 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.
- xi. 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 should be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- xii. The tailing pond/slime pond shall be lined with impervious lining.
- xiii. The ground water quality around the tailing pond/slime pond shall be monitored regularly and records maintained.
- xiv. The garland drain shall be constructed around the tailing/slime pond.

- xv. The decanted water from the tailing/ slime pond shall be re-circulated and there should be zero discharge from the slime/tailing pond.
- xvi. The groundwater quality around the tailing/slime pond shall be monitored regularly. The monitoring network shall be designed in consultation with State Ground Water Board/Central Ground Water Authority.
- xvii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB within three months of issue of environment clearance letter.
- xviii. As proposed, green belt shall be developed in 33 % of plant area as per the CPCB guidelines in consultation with the DFO.
- xix. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on local needs and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.
- xx. The company shall provide housing for 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.
- xxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.

**8.3.5 Integrated Steel Plant (4 MTPA), captive power plant (400 MW) in district Jagatsinghpur, Orissa by M/s POSCO (India) Private Limited – reconsideration for the revalidation of environmental clearance regarding.**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 6<sup>th</sup> meeting held during 5-7<sup>th</sup> March, 2013 for grant of Environmental Clearance. The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- i. Revised layout plan for 2700 acres of land, indicating survey numbers and grid wise the process units to be coming up. The map should indicate components of 4MTPA and 8 MTPA in the area with different markings(colours) to clearly distinguish both in the map(4MTPA layout over that superimposed 8MTPA Layout)
- ii. Revised lay out plan shall also show the 33% of green belt area
- iii. Commitment from IDCO to the proponent indicating the time frame for handing over 2700 acres of land
- iv. Iron ore linkage documents
- v. Commitment regarding Liquefied Natural Gas (LNG) supply for the CPP
- vi. Permission for the water withdrawal for the ISP project from the Competent Authority shall be submitted

- vii. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
- viii. Recent satellite image of the study area
- ix. Baseline Ambient Air Quality shall be monitored for one month period and the data shall be submitted
- x. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included.
- xi. MoU with cement plants for slag utilization
- xii. Revised water balance diagram for 4 MTPA ISP
- xiii. Possibility of setting up of water storage facilities for 3-4 months shall be explored
- xiv. Details of setting up of residential/ township facilities shall be explored
- xv. Information on finex technology along with its operational parameters data from the existing plants of POSCO
- xvi. Feed preparation system for the finex process units

The proponent vide letter no. Nil dated 29<sup>th</sup> April, 2013 submitted the aforesaid additional information to the Ministry and requested to revalidate the Environmental Clearance granted by the Ministry vide letter No. J-11011/285/2007-IA.II(I) dated 19.7.2007. The proponent made a presentation before the Committee.

The proponent submitted to the Committee that their original plan during 2007 is to set up 12 MTPA integrated steel plant on 4,004 acres of land. Presently, their Intermediate Plan (2012) is to set up 4 MTPA integrated steel plant (Phase-I) with in-built provision for another 4 MTPA (Phase-II) on 2,700 acres of land. Accordingly, revised lay out plan was submitted. The intermediate plan needs minor relocations of auxiliary facilities only indicated in Plant General Layout, 2012. The original plan of setting up of 12 MTPA steel plant has remained unchanged and intact. The change is only in the construction schedule, not in the project size, overall layout and configuration. Further, POSCO committed to develop green belt in 33% of the total area. IDCO, Government of Orissa has committed to hand over the land by June, 2013. The captive source of the iron ore linkage is M/s Kandahar mine in Sundargarh district. Till the time captive mine is ready, POSCO will make a long term agreement with OMC and other private mine owner for the iron ore. POSCO is in the process of making an MOU with GAIL for the supply of Liquefied Natural Gas. POSCO has submitted the water withdrawal permission for the ISP project from the Competent Authority. As per the revised water balance submitted to the Ministry, the total water intake will be 45480 m<sup>3</sup>/day. The wastewater generated at different units will undergo primary treatment within the shop itself for recycling and the blow down water will be treated in Common Effluent Treatment Plant (CETP). The treated CETP water would be used for low end use within the Plant. A part of the treated CETP water of about 8400 m<sup>3</sup>/day will undergo further treatment in RO Plant. The RO Plant Permeate will be connected to Plant make-up water circuit. A part of the RO Plant rejects would be used for the maintenance of green belt and the balance 1128 m<sup>3</sup>/day would be discharged into the sea through a marine pipeline. POSCO will make provision for 20 days water storage during contingency lean period. Ambient air quality monitoring has been carried out at 8 locations during April 2013 and the data submitted indicated: PM<sub>10</sub> (49.3-70.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (23.6-35.5 µg/m<sup>3</sup>), SO<sub>2</sub> (7-12.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (22.1-35 µg/m<sup>3</sup>).

After detailed deliberations, the Committee found the additional information submitted by the proponent is adequate. The Committee recommended the revalidation of the environmental clearance granted to M/s POSCO (India) Private Limited and suggested to stipulate following additional specific conditions including the recommendations given in the report of the Shri K.Roy Paul Committee while considering for revalidation of environmental clearance:

- i. CRZ clearance shall be obtained for discharge of wastewater into the sea through pipeline.
- ii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below  $50 \text{ mg/Nm}^3$  by installing energy efficient technology.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be followed.
- iv. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.
- v. Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
- vi. Total water requirement shall not exceed  $45,480 \text{ m}^3/\text{day}$ . Effluent of  $1128 \text{ m}^3/\text{day}$  would be discharged into the sea through a pipeline after meeting the standards for discharge.
- vii. The proponent shall consider installing a desalination plant to cater drinking water to the neighborhood.
- viii. No ground water shall be withdrawn for the proposed project.
- ix. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources. 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.
- x. 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 should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- xi. Risk and Disaster Management Plans due to plant operation and natural hazards such as flood, cyclone and earthquake along with mitigation measures shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB. Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Disaster Management Plan shall be prepared to meet any eventuality arising from storage/ leakage of oil and gas.
- xii. Vehicular pollution due to transportation of raw material and finished products shall be controlled as well as dust emission during loading and unloading. Raw material shall be stacked at earmarked sites in sheds/stockyards with wind breakers/shields and secure of fire hazard.

- xiii. The proponent shall upload the status of compliance of the stipulated environment clearance conditions and results of monitored data on their website and update these periodically. Information shall be simultaneously sent to the Regional Office of MOEF, concerned Zonal Office of CPCB and SPCB. The criteria pollutant levels, that is of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) and of critical sectoral parameters of the plant shall be monitored and displayed at a prominent location near the main gate of the company in public domain.
- xiv. No water bodies or natural drains in the area shall be disturbed.
- xv. COC of 5.0 shall be adopted in the Captive Power Plant. The treated effluent conforming to the prescribed standards only shall be re-circulated and reused within the plant.
- xvi. Action plan for solid waste management, its conveyance outside the plant so as to ensure unfettered development of greenery within and disposal of the waste shall be submitted before completion of construction of the plant and commencement of production.
- xvii. Noise level in the work zone shall be limited to 75 dB. For personnel working in the high noise area, requisite protective equipment like earplugs/ear muffs etc. shall be provided. Personnel so deployed shall be periodically examined and audiometric records maintained.
- xviii. The proponent shall prepare detailed Occupational Health Surveillance Programme for implementation from start of the construction and operation of the plant for workers health and safety.
- xix. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.
- xx. There shall be a green belt around the plant of minimum 15 -20 metres width and the total green area within the plant shall be 25% of its area as per the CPCB guidelines. The greenery will be raised in consultation with the DFO. Action in this behalf will commence simultaneously with construction of the plant.
- xxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.
- 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

- xxiii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

#### 8.4.0 Any Other Item

- 8.4.1 Expansion of Alumina Refinery Plant (1.0 MTPA to 1.5 MTPA) and Captive Power Plant (75 MW to 990 MW) at village Kansariguda, District Rayagada in Orissa **by M/s Aditya Aluminium (A Division of Hindalco Industries Limited) - regarding extension of validity of ToR**

The proponent vide letter dated 13.5.2013 expressed their inability to attend the meeting due to unavoidable reasons. The Committee decided to consider the project as and when requested by the project proponent.

- 8.4.2 Proposed Green Field Aluminium project (Smelter 7.2 Lakhs TPA) along with captive power plant (1650 MW) at Sonahatu Block, District Ranchi in Jharkhand **by M/s Hindalco Industries Limited (Jharkhand Aluminium Project) – regarding amendment in TORs in respect of production capacities**

Terms of Reference (ToR) to the above proposal was accorded by MoEF vide letter no. J-11011/566/2011-IA.II(I) dated 10.1.2012. The Project Proponent (PP) vide letter No. Nil dated 4.1.2013 requested MoEF to change the production capacities in the ToR accorded on 10.1.2012. The revised Form-1 and Pre-feasibility report were submitted to the Ministry. The PP along with their consultant (M/s J.M. EnviroNet Private Limited, Gurgaon) also made a presentation before the Committee.

It was submitted by the proponent following are the revised capacities proposed by them:

<b>Production Capacities as per the ToR dated 10.1.2012</b>	<b>Revision sought</b>
Aluminium smelter – 7.2 LTPA Captive Power Plant – 1650 MW (11x150 MW)	Aluminium smelter – 3.6 LTPA Captive Power Plant – 900 MW (6x150 MW)

The proponent informed the Committee that following are the reasons for change in the production capacities:

- i. Change in Business Scenario
- ii. Non availability of Coal Linkage for 1,650 MW Power generation
- iii. Delay in procurement of Land for 7.2 LTPA Smelter and 1,650 MW Power Plant

Due to the aforesaid reduction in the aforesaid production capacities, the land requirement is reduced from 1510 ha to 980 ha, water requirement reduced from 179352 KLD to 92112 KLD, power required reduced from 1370 MW to 700 MW, coal requirement reduced from 7.37 MTPA to 3.7 MTPA. Further, the cost of the project is reduced from Rs.24000 crores to Rs.10800 crores.

After detailed deliberations, the Committee recommended for the aforesaid revision in the production capacities and the subject matter of the ToR accorded on 10.1.2012 may be read as "*Proposed Green Field Aluminium project (Smelter 3.6 Lakhs TPA) along with*

*captive power plant (900 MW – 6x150 MW) at Sonahatu Block, District Ranchi in Jharkhand by M/s Hindalco Industries Limited (Jharkhand Aluminium Project)”.*

**8.4.3 Integrated Steel Plant (2.0 MTPA), Cement Plant.(1.4 MTPA) and Captive Power Plant (230 MW) at Village Danapur, Taluk Hospet, District Bellary, Karnataka by M/s B.M.M Ispat Ltd. – regarding amendment in Environmental Clearance in respect of production capacities**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/236/2008-IA II (I) dated 18.5.2010. The Project Proponent (PP) vide letter No. Nil dated 7.1.2013 requested MoEF for amendment in the EC in respect of the production capacities of various units. The PP has submitted the Form I, Feasibility Report, Compliance report and EIA/EMP report. The PP along with their consultant M/s Mecon also made a presentation before the Committee.

The amendment sought by the proponent is as below:

<b>S.N.</b>	<b>Facilities approved as per the EC dated 18.5.2010</b>	<b>Amendment sought</b>	<b>Remarks</b>
1	Iron ore beneficiation plant (3.40 MTPA)	Iron ore beneficiation plant (3.40 MTPA)	No change
2	<b>Pelletizing Plant - 1.20 MTPA (HFO &amp; Pulverised Coal)</b>	<b>Pelletizing Plant - 1.20 MTPA (Coal gas &amp; Pulverised Coal)</b>	<b>No change in the configuration. Better fuel (coal gas) is used.</b>
3	DRI Plant (0.70 MTPA)	DRI Plant (0.70 MTPA)	No change
4	<b>Coke Oven (0.80 MTPA) – Non Recovery Type</b>	<b>Coke Oven (1.0 MTPA) – Recovery Type</b>	<b>Change in Technology and capacity</b>
5	<b>Sinter Plant (2.50 MTPA)</b>	<b>Sinter Plant (3.0 MTPA)</b>	<b>Change in capacity</b>
6	<b>Blast Furnace (1.70 MTPA)</b>	<b>Blast Furnace (1.80 MTPA)</b>	<b>Change in capacity</b>
7	<b>EAF &amp; BOF Steel making (2.30 MTPA)</b>	<b>EAF &amp; BOF Steel making (2.40 MTPA)</b>	<b>Change in capacity</b>
8	<b>Continuous casting machines Billet Caster – 1.10 MTPA Slab Caster – 1.10 MTPA</b>	<b>Continuous casting machines Billet Caster – 1.20 MTPA Bloom cum beam caster – 1.20 MTPA</b>	<b>Change in capacity</b>
9	<b>Rolling mills : Hot strip mill - 1.0 MTPA Structural's/wire rods – 1.0 MTPA</b>	<b>Rolling mills : Bar Mill – 0.85 MTPA Medium section mill – 0.75 MTPA</b>	<b>Change (In place of wire rod and HR coil flat, Bar &amp; section mills are envisaged)</b>
10	Oxygen Plant (2x500 TPD)	Oxygen Plant (2x500 TPD)	No change
11	<b>Calcining Plant (1080 TPD)</b>	<b>Calcining Plant (1400 TPD)</b>	<b>Change in capacity</b>
12	Cement Plant (1.40 MTPA)	Cement grinding unit (1.40 MTPA)	No change
13	<b>Power Plant (230 MW) with the following configuration:</b>	<b>Power plant (230 MW) with the following configuration:</b>	<b>No change in capacity.</b>

S.N.	Facilities approved as per the EC dated 18.5.2010	Amendment sought	Remarks
	<p><b>2x70 MW Capacity Power Plant</b></p> <p><b>90MW Co-generation power plant</b></p> <p><b>2x52 tph boilers from DRI Kiln-I</b></p> <p><b>2x56 tph boilers from DRI Kiln-II</b></p> <p><b>Waste heat recovery boilers envisaged to recover heat from off gases of Non recovery coke oven</b></p>	<p><b>2x70 MW Captive Power Plant</b></p> <p><b>70 MW from WHRB</b></p> <p><b>2x52 tph boilers from DRI Kiln-I</b></p> <p><b>2x56 tph boilers from DRI kiln -II</b></p> <p><b>1x130 tph coal fired power plant</b></p> <p><b>12MW from waste heat recovery boilers of Coke Dry Quenching Plant</b></p> <p><b>8 MW TRT from Blast Furnace</b></p>	<p><b>However there is a change in configuration</b></p>
14	Nil	<b>1x50 TPH additional coal fired boiler to meet process steam requirement for BF, VD, Coal gasifier and purging</b>	<b>Additional Unit</b>
<b>Products</b>			
1	HR Coil	Medium and light section, structural and alloy steel bars and re-bars and semis (2 .0 MTPA)	Bar 7 medium section mills are proposed
2	Structural/Wire Rods (1.0 MTPA)	Wire rods not envisaged	--
3	Cement (1.4 MTPA)	Cement (1.4 MTPA)	Cement grinding unit

After detailed deliberations, the Committee recommended that aforesaid revision in the production capacities/plant configuration in the EC accorded on 18.5.2010 cannot be amended as it is a fresh expansion proposal which involves increase in pollution load and increase in raw materials requirement etc.

The Committee noted that the capacity of the ISP (2 MTPA) will not be changed due to the aforesaid revision in the production capacities and plant configuration. Further, the land requirement will be reduced from 1429 ha to 1143.13 ha. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius of the project site. Gunda RF, Nandibanda RF and Ramgad RF are located at 4 Km, 7 Km and 4 Km respectively. The water requirement is 3414 m<sup>3</sup>/hr. Total cost of the project after the proposed revision will be Rs. 6151 Crores. Rs. 335 crores and Rs.30 crores is earmarked as a capital cost and recurring cost per annum towards the pollution control measures.

Based on the Form-I and Pre-feasibility report submitted by the proponent, the Committee prescribed the following TORs for preparation of EIA/EMP Report:

1. Executive summary of the project
2. Iron ore/Coal linkage documents
3. Photographs of the existing and proposed plant area
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.

5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Details of raw material and source of raw material shall be included.
7. Manufacturing process details of all the plants with process flow chart shall be included.
8. Sources and quantity of fuel for the boiler.
9. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
10. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non-methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
11. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
12. An action plan to control and monitor secondary fugitive emissions from all the sources.
13. Surface and ground water quality within the study area.
14. Details of water requirement, wastewater generation, water balance chart for sugar, and co-generation plant. Measures for water conservation by recycling and reuse to minimize the fresh water requirement.
15. Proposed effluent treatment system for the process units and CPP shall be included.
16. Details of solid waste management including management plan of disposal of boiler ash.
17. Green belt development as per the CPCB guidelines.
18. List of flora and fauna in the study area.
19. Noise levels monitoring at five locations within the study area.
20. Traffic study of the area for the proposed project in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
21. Detailed Environment Management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
22. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
23. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
24. Action plan for rainwater harvesting measures at plant site to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
25. Details of occupational health surveillance programme.
26. Details of socio-economic welfare activities.
27. Action plan for post-project environmental monitoring.
28. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
29. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
30. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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 should be provided. The draft EIA/EMP report shall be submitted to the Karnataka Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

#### 8.4.4 Applicability of EIA Notification, 2006 for establishment of Cold Roll Mill, galvanized, Zinc – Al alloy coated products – **Clarifications regarding**

##### **A. Proposal of Expansion of Cold Rolling Mill from 0.3 MTPA to 0.8 MTPA capacity at Bara Village Jamshedpur, District East Singhbhum, Jharkhand by M/s Tata Steel Ltd.**

The aforesaid proposal was placed before the REAC for seeking clarification regarding applicability of EIA Notification, 2006. The process details as provided by the Project Proponent are as below:

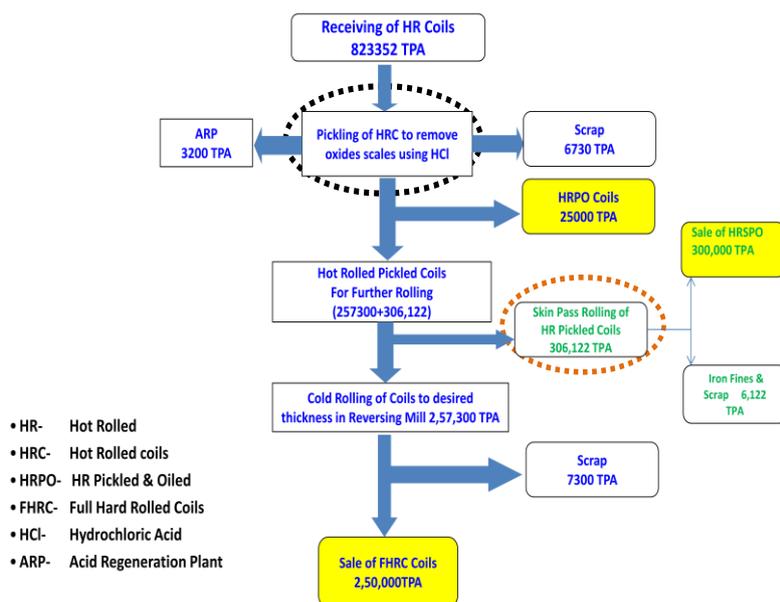
The existing plant facilities consists push-pull-pickling line of 0.3 MTPA and 6-hi reversing mill of 0.25 MTPA. M/s. Tata Steel has plans to increase the capacity of the push pull pickling line from 0.3 MTPA to 0.8 MTPA. The raw material for the CRM Bara is Hot Rolled coils received from Tata Steel main plant (JSR Works). These HR coils are pickled to remove oxide scales using HCl. The acid required is recycled and reused in closed circuit by using the existing Acid Recover plant. This pickling line which was earlier of capacity of 0.3 MTPA will be enhanced to 0.8 MTPA. However the Acid Recovery Plant capacity will be unaltered as it was designed originally in anticipation of this expansion. After Pickling these

Hot rolled Pickled Coils are passed through skin pass mill through a set of rolls (4- Hi) wherein certain elongation is provided to impart following:

1. Strip surface roughness..
2. Improve strip flatness.
3. Obtain appropriate mechanical properties

These hot rolled pickled *skin passed* coils are applied rust preventive oil on the strip surface in a controlled manner. The skin pass mill is the new facility to be established. The skin pass mill process is dry; no effluent is likely to be generated.

The process flow diagram after the augmentation of the pickling line and installation of the Hot rolled pickled skin pass mill is given below.



The expansion program requires 18 MVA additional power and 35 m<sup>3</sup>/day of water mainly for additional drinking water requirement. Both will be supplied by JUSCO.

The environmental aspects of the proposal under consideration are as below:

#### Skin Pass Mill:

Sl. No.	Waste Product	Source	Generation Quantity	Disposal Scheme
1	Metallic Scrap and iron Fines	Skin Pass Mill	6122 TPA	Recycler / Reprocessors by auction
2	Used Lubricating / Hydraulic Oils/Rust preventive oils	Skin Pass Mill	4KL/Annum	Sold to registered recyclers

#### Pickling Line Augmentation:

Sl. No.	Waste Product	Source	Additional Generation Quantity	Disposal Scheme
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Sl. No.	Waste Product	Source	Additional Generation Quantity	Disposal Scheme
1	Side trimming and front and tail end cut pieces of HR strips	Pickling Line	11,760 TPA	Sold as scrap by auction
2	Iron Oxide	Waste pickled liquor generated at Pickling line, treated at Acid regeneration plant	2087 TPA	Sold to pigment manufacturing (Tata Pigments)
3	WWTP Sludge	Waste acidic rinse water from Pickling line, treated at WWTP	600 Kg / day	Incinerated in incinerator / land fill in SLF of Tata Steel.
4	Used Lubricating, Hydraulic Oils/Rust preventive oil	Annual change in Pickling Line, Utilities etc.	4KL/Annum	Sent to registered recyclers

**B. Cold Roll Milling and Coating Complex for for production of 0.6 million tonnes cold rolled, galvanized, Zinc-Al alloy coated products as well as color coated products by M/s Asian Color Coated Private Limited**

The project details as provided by the proponent are as below:

M/s Asian Color Coated Private Limited is establishing Cold Rolling and Coating Complex for production of 0.6 million tonnes cold rolled, galvanized, Zinc-Al alloy coated products as well as color coated products to given an impetus to its strength in galvanizing and color coating field, at Dahivali Village, Pali Phata, (In the backdrop of Khopoli), Talukka Khalapur, Dist Raigad, Maharashtra. CRM complex does not fall under the category of production of TOR steel, flats, squares, special window sections, thin size HR strips, thin gaze HR strips, hexagons, wire rods, angles, channels, H-Beams, I-Beams, tele-channels etc. The company also does not fall under the category "Secondary Nonferrous Metals" source category which comprises of all processes that are part of secondary non-ferrous metals processing operations such as pre treatment, smelting, refining, casting, removing castings from molds, and casting finishing etc.

After detailed deliberations, the Committee decided to further reconsider the aforesaid clarification matter in the next EAC meeting without calling the project proponent.

**8.4.5 Modernization-cum-expansion of Bhillai Steel Plant (4.00 to 7.00 MTPA) along with Captive Power Plant (72 MW) at Bhillai, Chhattisgarh by M/s Steel Authority of India Limited (SAIL) – regarding extension of validity of the Environmental Clearance**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/28/2007-IA II (I) dated 31.3.2008. The Project Proponent (PP) vide letter

No. B-10/13/183 dated 2.3.2013 requested MoEF for extension of validity of EC. The PP along with their consultant M/s Mecon also made a presentation before the Committee.

It was submitted by the proponent that the proposed project could not be established within validity period of the granted Environmental Clearance mainly because of:-

- i. Major packages of the Modernisation-cum-expansion projects were either retendered or time extension has been provided due to higher price bid or technology consortium issues.
- ii. The modernisation of plant involves relocation of some of the existing units suitably.
- iii. The project is integrated in nature and various packages are interlinked. The progress of packages depends on upstream and downstream progress of other packages also. Contractors/ suppliers of some of these packages could not achieve the desired progress causing time over run in other packages.

After detailed deliberations, the committee recommended for the extension of validity of EC by a period of five years with effect from 28.1.2013 subject to environmental safeguards.

**8.4.6 Modernization-cum-expansion of Rourkela Steel Plant (1.9 to 4.2 MTPA), Hot metal (4.5 MTPA) at Rourkela, District Sundergarh, Odisha by M/s Steel Authority of India Limited (SAIL) – regarding extension of validity of the Environmental Clearance**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/757/2007-IA II (I) dated 29.1.2008. The Project Proponent (PP) vide letter No. 691/EE/59 dated 31.12.2012 requested MoEF for extension of validity of EC. The PP along with their consultant M/s Mecon also made a presentation before the Committee.

It was submitted by the proponent that the proposed project could not be established within validity period of the granted Environmental Clearance mainly because of:-

- i. Slow down in Steel Market during 2008-2010.
- ii. Delay in project design as all units are planned within plant's boundary.
- iii. Non availability of technical personnel for implementation as all steel plants are under expansion in this region.

After detailed deliberations, the committee recommended for the extension of validity of EC by a period of five years with effect from 28.1.2013 subject to environmental safeguards.

**8.4.7 Expansion-cum-modernization of Durgapur Steel Plant (2.088 MTPA to 3.50 MTPA, Gross Hot Metal) along with Captive Power Plant (40 MW) at Faridpur, Burdwan, Durgapur, West Bengal by M/s Steel Authority of India Limited (SAIL) – regarding extension of validity of the Environmental Clearance**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/492/2007-IA II (I) dated 10.9.2007. The Project Proponent (PP) vide letter No. GM(P)/EIA-EMP/00/01/024 dated 8.1.2013 requested MoEF for extension of validity of EC. The PP along with their consultant M/s Mecon also made a presentation before the Committee.

It was submitted by the proponent that the proposed project could not be established within validity period of the granted Environmental Clearance mainly because of:-

- Due to downturn in Global economy since October, 2008, Expansion Plan of SAIL/Durgapur Steel Plant (DSP) was reviewed by SAIL Management.
- The Investment of Rs.6771 Cr originally envisaged was curtailed to Rs 2875 Cr by SAIL Board in June, 2009 (Phase-I).
- Balance deferred facilities to be installed in Phase-II.
- NOC for Consent to Establish received from West Bengal Pollution Control Board (WBPCB) in March, 2010.
- The expansion could only be undertaken from March 2010 onwards and due to curtailed investment plan the planned expansion could not be completed.

After detailed deliberations, the committee recommended for the extension of validity of EC by a period of five years with effect from 9.9.2012 subject to environmental safeguards. The Committee suggested the proponent to submit separate application for any change in condition of EC.

#### 8.4.8 Cement Plant (4.0 MTPA) and Captive Power Plant (40 MW) at Village Kokanhalli-Hoshalli, Taluk Sedam, District Gulbarga, Karnataka **by M/s Dalmia Cement (Bharat) Ltd – regarding extension of validity of the Environmental Clearance**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/118/2007-IA II (I) dated 25.8.2008. The Project Proponent (PP) vide letter No. Nil dated 7.1.2013 requested MoEF for extension of validity of EC. The PP also made a presentation before the Committee.

It was submitted by the proponent that following are the progress made by them in the implementation of the project after the grant of EC:

- i. Completed basic and detailed engineering through well-known consultant M/s Holtec Consulting Pvt. Ltd.
- ii. Obtained clearance from State High Level Clearance Committee.
- iii. Approval obtained from the Govt. of Karnataka for land use conversion under section 109 of Karnataka Land Revenue Act, 1964 (Section 109 of the Karnataka Land Revenue Act-1961 permits conversion of agricultural land into industrial purpose).
- iv. Commerce and Industries Department, Govt. of Karnataka has also approved incentives and concessions as applicable & as per prevailing Industrial Policy of the state.
- v. Obtained extension of time to implement the project vide Government Order No. CI 1 SPI 2008 (P2), Bangalore, Dated 06.06.2012.
- vi. Feasibility study for private Railway Siding from proposed new railway crossing station between Malkhaid Rd-Sedam Stations carried out and approval has been obtained from Chief Traffic Planning Manager, South Central Railway vide letter no T143/C/569 dated 03.05.2013.
- vii. Application for power supply has been submitted at local office of Electricity Department, Karnataka and the same is under consideration.
- viii. Application for water intake from Kagina river has been submitted
- ix. Establish a camp office and posted personnel for pursuance of land.
  - x. We have purchased and registered 375 acres of land and in agreement with landowners for 169 acres of land and negotiations are in advance stages for procuring remaining land.
- xi. Incurred an expenditure of Rs. 44.50 crores on the project.

It was submitted by the proponent that the Proposed Cement plant could not be established within validity period of the granted Environmental Clearance mainly because of :-

- I. Delay in 6(1)B relaxation of the associated captive limestone mine - Have mining leases covering a total area of more than ten square Kilometers in Karnataka. Hence requires 6(1)B relaxation from Ministry of Mines as per the Provisions of the Mines and Minerals (Development & Regulation) Act, 1957. The same is pending.
- II. Area has been duly Prospected and Mining Plan of the associated mine has also been submitted to IBM for approval but couldn't be approved due to pending 6(1)B relaxation.

After detailed deliberations, the committee recommended for the extension of validity of EC by a period of three years with effect from 24.8.2013 subject to environmental safeguards.

#### 8.4.9 Expansion of Cement Plant from 2.5 MTPA to 8.25 MTPA and Captive Power Plant from 30 MW to 160 MW at Villages Sangem and Kallur, Taluk Chincholi, District Gulbarga in Karnataka by **M/s Chettinad Cement Corporation Limited - regarding extension of validity of the Terms of Reference**

Terms of Reference to the above cited proposal was accorded by MoEF vide letter no. J-11011/57/2011-IA II (I) dated 21.4.2011. The PP vide letter No Chettinad Cement/Kallur Plant Expansion/ToR-Extn/2013 dated 28.1.2013 requested MoEF for extension of validity of ToR by a period up to 20.4.2013. The PP also made a presentation before the Committee. The Committee noted that the ToR for the proposed Kallur mines expansion was granted by the EAC-Mining vide letter No. J-11015/29/2011-IA.II(M) dated 27.6.2011 and its validity is up to 27.6.2013.

It was submitted by the proponent following are the reasons for seeking extension of validity of ToR:

- i. Delay in getting the approval for modified mining plan from IBM which delayed preparation of common EIA report for Mines and the plant.
- ii. Draft common EIA report submitted to the Karnataka Pollution Control Board on 16.2.2013
- iii. Code of conduct in force due to the legislative assembly election scheduled in May, 2013.
- iv. Karnataka Pollution Control Board will be releasing the advertisement for public consultation after withdrawal of Code of Conduct
- v. Public Consultation will be conducted after 30 days from the date of release of advertisement

After detailed deliberations, the committee recommended for the extension of validity of TOR for a period of one year with effect from 20.4.2013.

#### 8.4.10 Expansion from 3.0 MTPA to 5.0 MTPA Integrated Steel Plant along with installation of Pellet Plant -4.0 MTPA and 300 MW Captive Power Plant at Geethapuram, Village Dolvi, Tehsil-Pen, District-Rajgarh in Maharashtra by **M/s JSW Ispat Steel Limited (formerly M/s Ispat Industries Limited)- Regarding transfer of Environment Clearance to M/s Amba river coke Limited in respect of 4.0 MTPA Pellet Plant.**

The aforesaid proposal was considered in the 7<sup>th</sup> meeting of the Reconstituted Expert Appraisal Committee held during 4-5<sup>th</sup> April, 2013. After detailed deliberations, the

Committee decided to further reconsider the proposal in the next EAC meeting without calling the project proponent. Accordingly, the proposal was reconsidered by the REAC.

The Committee observed that the proposal under consideration involves the transfer of part of Environmental Clearance of M/s JSW Ispat Steel Limited (formerly M/s Ispat Industries Limited) to another entity i.e M/s Amba River Coke Limited which is administrative in nature and can be processed by the Ministry itself.

The Committee also suggested that Ministry need not place such cases before the REAC for consideration.

**17<sup>th</sup> May, 2013**

### **8.5.0 Consideration of the Projects:**

#### **Environmental Clearance**

##### **8.5.1 Increase in Production of Thermoplastic Polyurethane (210 MTPM to 500 MTPM) and formulation of Polyether and Polyester of Polyol Blends (1500 MTPM) at Sy.No. 135/1A, SIPCOT Industrial Area, Phase-II, Village Semmakuppam, Mandal& District Cuddalore, Tamil Nadu by M/s Bayer Material Science Pvt. Ltd.- Regarding Environment Clearance.**

The project authorities and their consultant (M/s Ramky Enviro Engineers Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 31<sup>st</sup> Meeting of the Expert Appraisal Committee (Industry) held during 12<sup>th</sup>-13<sup>th</sup> January, 2012 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, project is treated as category 'A' project due to applicability of general condition of the EIA notification, 2006 as project site is located within 10 Km of Critically polluted area (Cuddalore) and appraised at Central level. Public hearing / consultation was exempted as per stage Section 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006.

M/s Bayer Material Science Pvt. Ltd. have proposed for the Increase in production of Thermoplastic Polyurethane (210 MTPM to 500 MTPM) and formulation of Polyether and Polyester of Polyol Blends (1500 MTPM) at Sy. No. 135/1A, SIPCOT Industrial Area, Phase-II, Village Semmakuppam, Mandal& District Cuddalore, Tamil Nadu. Expansion will be carried out within the same campus. Total plot area is 7.62 acres of which greenbelt will be developed in 2.7 acre. Total cost of the expansion is Rs.34.60 Crore. Rs. 40 Lakhs and Rs. 15 Lakhs are earmarked toward capital cost and recurring cost per annum for pollution control measures. No national park/wildlife sanctuary/reserve forest is located within 10 Km of the study area. Project proponent informed that unit was established in 1988 and a copy of letter no. Lr (M.S) No. 8 EC dated 11.02.1988 regarding clearance from Tamil Nadu State Environment Committee is submitted. Copies of consent order no. 2690 dated 23<sup>rd</sup> May, 2012 under water act and consent order no. 1081 dated 23<sup>rd</sup> May, 2012 are submitted.

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2012 to May, 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (42.1 µg/m<sup>3</sup> to 59.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (6.4 µg/m<sup>3</sup> to 11.5 µg/m<sup>3</sup>), SO<sub>2</sub> (6.9 µg/m<sup>3</sup> to 15.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (9.2 µg/m<sup>3</sup> to 14.3 µg/m<sup>3</sup>) respectively. Scrubber will be provided to control process emissions. The water requirement from ground water source for the proposed expansion project will be 97 m<sup>3</sup>/day. The

Committee that unit should submit revised water balance chart for existing unit and proposed expansion. The industrial effluent will be treated in the ETP. No effluent will be discharged outside the factory premises. Treated effluent will be reused in cooling tower for make up water. Sludge from effluent treatment plant will be sent to TSDF.

After detailed deliberations, the Committee sought the following additional information from the proponent for reconsideration:

- i. Revised water balance chart for the existing unit and proposed expansion to be submitted.
- ii. Quantity of industrial effluent generation. Characteristics of untreated effluent and treated effluent. Details of effluent treatment plant.
- iii. Layout plan of greenbelt.
- iv. Specification of VOC monitoring equipment including detection limit and calibration. Time series data for 1 year.
- v. CAS No. of Di phenyl methane Di Isocyanate (MDI).
- vi. Disaster Management Plan including offsite management plan.
- vii. Details of Occupational hazard specific pre-placement and periodical monitoring.

The proposal was deferred till the desired information is submitted. The above information shall be submitted after uploading of minutes on the website without waiting for letter from the MoEF.

#### **8.5.2 Sodium Cyanide & other Cyanide based products at plot no. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat, Gujarat by M/s Hindusthan Chemicals Company (Formerly known as M/s Cyanide & Chemicals Company)- Regarding Environment Clearance.**

The Committee noted that the MoEF vide letter no. J-11011/466/2009-IA II (I) dated 5<sup>th</sup> October, 2010 granted environmental clearance to M/s Hindusthan Chemicals Company (Formerly known as M/s Cyanide & Chemicals Company) for the existing unit. A certified report of the status of compliance of the conditions stipulated in the environmental clearance for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests is required to submit. However, no certified compliance report from the MoEF's Regional office has been submitted.

The proposal was deferred till certified compliance report from the MoEF's Regional office is submitted.

#### **8.5.3 Expansion of Laminate Sheet plant (30,000 no.month) by installing Laminate Sheets (2,50,00 no./month), Melamine formaldehyde (210 MTPM), Phenol/Urea/Cardenol Formaldehyde (450 MTPM) at Sy. No. 285/P, 281/1 Shapar Village Road, Taluka Kotada Sangani, District Rajkot, Gujarat by M/s Advance Laminates Pvt. Ltd. - Regarding Environment Clearance.**

The project authorities and their consultant (M/s Anand Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 32<sup>nd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 16<sup>th</sup>- 17<sup>th</sup> February, 2012 for preparation of EIA/EMP report. All the Resin Plants located outside notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Advance Laminates Pvt. Ltd. have proposed for the expansion of Laminate Sheet Plant (30,000 no./month) by installing Laminate sheets (2,50,000 no./month), Melamine Formaldehyde Resin (210 MTPM), Phenol/Urea/Cardenol Formaldehyde Resin (450 MTPM) at Sy.No. 282/P, 281/1, Shapar Village Road, Village Shapar (Veraval), TalukaKotadaSangani, District Rajkot,Gujarat. Total plot area is 11,320.52 m<sup>2</sup>. Total cost of the project is Rs. 3.25 Crore. No wildlife sanctuary/ national park/reserve forest is located within 10 Km distance. Following products will be manufactured:

Name of Product (s)	Existing	Proposed
Laminated Sheets	30,000	2,50,000 No./Month
Melamine Formaldehyde		210 MTPM
Phenol Formaldehyde or Urea Formaldehyde or Cardenol Formaldehyde		450 MTPM

Ambient air quality monitoring was carried out at 6 locations summer season 2012 and submitted data indicates as PM<sub>10</sub> (39.15–68.71ug/m<sup>3</sup>), PM<sub>2.5</sub> (11.38–27.53ug/m<sup>3</sup>), SO<sub>2</sub> (12.0 – 20.15ug/m<sup>3</sup>) and NO<sub>x</sub> (14.20-21.50ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed expansion is PM10 (1.07 ug/m<sup>3</sup>),NOx (0.45ug/m<sup>3</sup>) and SO<sub>2</sub> (1.86ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. Multicyclone dust collector will be provided to biomass/lignite fired boiler and thermic fluid boiler. Reverse pulse jet bag filter will be provided to sanding & Cutting Section. Fresh water requirement from ground water source will be 22.5 m<sup>3</sup>/day. Industrial effluent generation will be 6.2 m<sup>3</sup>/day and treated in ETP. Treated water will be evaporated in the steam heated evaporation system. No effluent will be discharged outside the factory premises. ETP sludge will be disposed off to TSDF. Used oil will be sold to registered recyclers.

Greenbelt will be developed in 3800 m<sup>2</sup> of land. DG set (250 KVA) will be installed. Power requirement will be 250 KVA.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 11<sup>th</sup> January, 2013. The issues raised during public hearing were regarding local employment opportunity, impact on environment due to proposed expansion, benefits to the local villagers etc and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter alongwith stack of adequate height should be installed to lignite/ biomass fired boiler to control particulate emission.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.

- v) Total ground water requirement should not exceed 22.5 m<sup>3</sup>/day and prior permission should be obtained from the Central Ground Water Authority/State Ground Water Board.
- vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt should be developed in 33% of total plant area.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 11<sup>th</sup> January, 2013 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

**8.5.4 Synthetic Resins (Resins 15,000 MTPM) and its formulation (20,000 MTPM) at Plot No. D-01 to D-06, A & S.No. 382, Village Chancharwadi, Taluka Sanand, District Ahmedabad, Gujarat by M/s Macro Polymers (P) Ltd.- Regarding Environment Clearance.**

The Project proponent did not attend the meeting. The Committee decided to consider the project as and when requested by the proponent.

**8.5.5 Synthetic Resin Manufacturing Unit (1500 MTPM) at Sy. No. 325/2, Village Bhimasar, Tehsil Anjara, District Kutch, Gujarat by M/s Salasar Agropanel Pvt. Ltd.- Regarding Environment Clearance.**

The project authorities and their consultant (Anand Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 25<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup> -30<sup>th</sup> July, 2011 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at central level.

M/s Salasar Agropanel Pvt. Ltd has proposed for setting up of Synthetic Resins Manufacturing Unit (1500 MTPM) at Sy. No 325/2, Village Bhimasar, Tehsil Anjara, District Kutch, Gujarat. Existing unit is engaged in manufacturing of three layer particle board

(80,000 Sheets/month). Total land area available is 14850 m<sup>2</sup> of which 4059 m<sup>2</sup> land area has been utilized for the existing project and 110 m<sup>2</sup> land area will be utilized for the proposed expansion project. Cost of the existing project is Rs. 900.76 Lakhs, will be increased to 975.76 lakhs. Sakara River and Tapar dam are located at distance of 7.60 Km and 9.32 Km respectively. No national park/wildlife sanctuary/reserve forest is located within 10 Km distance. Following products will be manufactured:

S. N.	Name of Products	Proposed Production Capacity	Purity (%wt)	Yield of Product	Batch Size. Kg
1	Urea-Formaldehyde (UF) Resin	1500 MTPM	47	98	8000
2	Melamine Formaldehyde (MF) Resin		49	99	1730

Ambient air quality monitoring was carried out at 6 locations summer season 2012 and submitted data indicates as PM<sub>10</sub> (46.84–110.22 ug/m<sup>3</sup>), PM<sub>2.5</sub> (10.33–52.91 ug/m<sup>3</sup>), SO<sub>2</sub> (5.9 – 19.44 ug/m<sup>3</sup>) and NO<sub>x</sub> (9.2-30.6 ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed expansion is PM<sub>10</sub> (0.43 ug/m<sup>3</sup>), NO<sub>x</sub> (0.74 ug/m<sup>3</sup>) and SO<sub>2</sub> (0.18 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS except PM<sub>10</sub>.

Cyclone separator will be provided to coal /firewood fired thermic fluid boiler. Dust collector followed by cyclone separator will be provided to coal /firewood fired hot air generator. Fresh water requirement from M/s Gujarat Water Infrastructure Ltd. (GWIL) will be increased from 4.0 m<sup>3</sup>/day to 22.3 m<sup>3</sup>/day. Industrial effluent generation will be 3.2 m<sup>3</sup>/day and treated in ETP. Treated water will be evaporated in the steam heated evaporation system. No effluent will be discharged outside the factory premises. ETP sludge will be disposed off to TSDF. Used oil will be sold to registered recyclers.

Greenbelt will be developed in 3800 m<sup>2</sup>. DG set (1000 KVA) will be installed. Power requirement from PGVCL will be 900 KVA.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 8<sup>th</sup> January, 2013. The issues raised during public hearing were regarding source of water supply, permission to use ground water, CSR, local employment, quantity of fuel to be used, environment management plan etc and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter alongwith stack of adequate height should be installed to lignite/ biomass fired boiler to control particulate emission.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by GPCB.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.

- v) Water requirement from M/s Gujarat Water Infrastructure Ltd. (GWIL should not exceed 22. m<sup>3</sup>/day. No ground water shall be used.
- vi) Industrial effluent will be treated in ETP followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt should be developed in 33% of total plant area.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 8<sup>th</sup> January, 2013 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

**8.5.6 Bulk Drug & Intermediate Unit (1,500 TPA) at Sy. No. 212-228, Village Ippalapalli, MandalKesampet, District Mahaboobnagar, Andhra Pradesh by M/s MSN Laboratories Limited - Regarding Environment Clearance.**

The project authorities and their consultant (M/s Vimta Labs Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 25<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup>-30<sup>th</sup> July, 2011 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s MSN Laboratories Limited have proposed for setting up of the Bulk Drug & Intermediate Unit (1,500 TPA) at Sy. No.212-228,Villagelppalapalli, MandalKesampet, District Mahaboobnagar, Andhra Pradesh. No national park/wild life sanctuary/reserve forest is located within 10 km distance. Total cost of the project is Rs. 540.00 Crores. Rs. 40.00 Crores and Rs. 30.00 Lakhs/annum are earmarked towards capital cost and recurring cost/annum for environmental pollution control measures. Kagina River is flowing at a distance of 8 Km. Total plot area is 48.56 ha (120 acres) of which greenbelt will be developed in 16.06 ha (39.7 acres). Mysura RF is located at a distance of 6.3 Km. Following products will be manufactured:

S. N.	Product Name	Production	S. N.	Product Name	Production Capacity
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		<b>Capacity (TPA)</b>
1	Nebivolol Hydrochloride	282.00
2	Pregabalin	240.00
3	Lacosamide	204.00
4	Atorvastatin Calcium	201.00
5	Topiramate	162.00
6	Pioglitazone Hydrochloride	120.00
7	Rosuvastatin Calcium	120.00
8	Moxifloxacin Hydrochloride	120.00
9	Olanzapine	102.00
10	Roxithromycin	81.00
11	Sparfloxacin	81.00
12	Aripiprazole	81.00
13	Gemifloxacin Mesylate	60.00
14	Gatifloxacin	60.00
15	Dabigatran Etexilate Mesylate	60.00
16	Tolterodine Tartrate	60.00
17	Lomerizine	48.00
18	Lurasidone Hydrochloride	48.00
19	Sitagliptin Hydrochloride	48.00
20	Roflumilast	42.00
21	Ezetimibe	42.00
22	Pramipexole Dihydrochloride	42.00
23	Montelukast Sodium	42.00
24	Iloperidone	24.00
25	Selegiline Hydrochloride	24.00
26	Brivaracetam	21.00
27	Asenapine Maleate	21.00
28	Safinamide	21.00
29	Zileuton	21.00
30	Vildagliptan	21.00
31	Temafloxacin Hydrochloride	21.00
32	Trovafloxacin	21.00
33	Solifenacin Succinate	21.00
34	Cefuroxime	12.00
35	Cefoxitin	12.00
36	Cefaclor	12.00
37	Cefmetazole	12.00
38	Imipenem	12.00

		<b>(TPA)</b>
48	Ximelagatran	9.00
49	Avasimibe	9.00
50	Bifeprunox Mesylate	9.00
51	Satigrel	9.00
52	Cimetropium Bromide	9.00
53	Melagatran	9.00
54	Fasudil Hydrochloride	9.00
55	Ramatroban	9.00
56	Talampanel	9.00
57	Tiotropium Bromide Monohydrate	9.00
58	Ertapenem Sodium	9.00
59	Doripenem	9.00
60	Ramipril	9.00
61	Zafirlukast	9.00
62	Darifenacin Hydrobromide	9.00
63	Tiagabine Hydrochloride	6.00
64	Vigabatrin	6.00
65	Cabergoline	6.00
66	Prulifloxacin Mesylate	6.00
67	Ecabapide	6.00
68	Dexmedetomidine	6.00
69	Eletriptan Hydrobromide	6.00
70	Frovatriptan Hydrochloride	6.00
70	Rasagiline Mesylate	6.00
72	Landiolol	6.00
73	Zolmitriptan	6.00
74	Udenafil	6.00
75	Argatroban	6.00
76	Balofloxacin	6.00
77	Beraprost	6.00
78	Pazufloxacin	6.00
79	Talipexole	6.00
80	Almotriptan	6.00
81	Rizatriptan Benzoate	6.00
82	Entacapone	6.00
83	Palonosetron Hydrochloride	6.00
84	Salmeterol Xinafoate	6.00
85	Esmolol Hydrochloride	6.00

39	Iloprost	12.00	86	Fluvastatin Sodium	6.00
40	Cefixime	12.00	87	Sumatriptan Succinate	6.00
41	Cefotaxime Sodium	12.00	88	Trandolapril	6.00
42	Carvedilol	12.00	89	Perindopril Erbumine	6.00
43	Pitavastatin Calcium	12.00	90	Cangrelor	2.40
44	Cefatrizine	12.00	91	Cilomilast	2.40
45	Cefazolin	12.00	92	Sitafloxacin	2.40
46	Cefadroxil	12.00	93	FormoterolFumarate	2.40
47	Clebopride	9.00	94	Clevidipine Butyrate	1.80

*Out of total 94 bulk drugs and intermediates, any 30 products (2500 TPA) will be manufactured at a time.*

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during December, 2011 to February, 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (32.5 µg/m<sup>3</sup> to 53.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (10.9 µg/m<sup>3</sup> to 14.1 µg/m<sup>3</sup>), SO<sub>2</sub> (8.7 µg/m<sup>3</sup> to 10.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (12.1 µg/m<sup>3</sup> to 14 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be 3.81 µg/m<sup>3</sup>, 9.35 µg/m<sup>3</sup> and 4.04 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. Scrubber will be provided to control process emissions viz. NH<sub>3</sub>, HCl, HBr, SO<sub>2</sub> etc. Multicyclone followed by bagfilter will be provided to coal fired boiler. Total water requirement will be 978 m<sup>3</sup>/day of which fresh water requirement will be 415 m<sup>3</sup>/day. Fresh water requirement will be met from ground water source and balance water requirement will be met from treated effluent. Effluent generation will be 563 m<sup>3</sup>/day. Effluent will be segregated into High TDS/COD, high TDS and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. High TDS effluent will be treated through chemical treatment followed by RO. RO permeate will be reused as boiler feed water. Sewage will be treated in STP. Organic residue and spent carbon will be sent to cement plant /TSDF. Inorganic salt, ETP sludge, evaporation salt will be sent to TSDF. Spent solvent will be sent to authorized recyclers. Waste oil/waste batteries will be sent to authorized recyclers/re-processors. The Committee asked to achieve 98% recovery of salt from waste. Total power requirement will be 15,000 KVA and sourced from AP Control Power Distribution Corporation Ltd. DG sets (5 x 1500 KVA) will be installed for standby arrangement.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 30<sup>th</sup> January, 2013. The issues raised were regarding pollution control arrangement, local employment, CSR activities, usage of groundwater, type pharma products to be manufactured etc. As regard to CSR activities, Project proponent informed that company will provide funds for construction of schools, health centre, Community centre, vocational training centre. The company will generate employment phasewise basis as per the production phase. Budget of Rs. 11.0 Crore has been earmarked for CSR. Regarding pollution control measures, project proponent informed that Rs. 40 Crore is earmarked to wards capital cost for implementation of environmental management plan. Greenbelt will be developed in 16 ha. area The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee sought the following additional information from the proponent for reconsideration:

- i. Natural nallah should not be disturbed.

- ii. Hydro-geological study of the area to be incorporated.
- iii. MoU with the coal supplier alongwith coal characteristics to be submitted.
- iv. Impact on Reserved Forest due to air emissions.
- v. Comprehensive CSR plan considering 5 % of the total cost of the project.
- vi. Occupational hazard plan to be submitted.
- vii. Chemical emergency preparedness plan with cost component to be submitted.

The proposal was deferred till the desired information is submitted. The above information shall be submitted after uploading of minutes on the website without waiting for letter from the MoEF.

**8.5.7 Organic Chemicals Unit at Plot No. 9, Sy No. 777/B/P, 780/P, 750/P, Vraj Integrate Textile Park, NH-8, Village Bidaj, District Kheda, Gujarat by M/s NPL Industries Private Limited- Regarding Environment Clearance.**

The Project proponent did not attend the meeting. The Committee decided to consider the project as and when requested by the proponent.

**8.5.8 Synthetic Organic Chemicals (3000 MTPA) at Sy No. 406, Village Ekalbara, TalukaPadra, District Vadodara, Gujarat by M/s Ahan Add-Chem Private Ltd - Regarding Environment Clearance.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 35<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 11<sup>th</sup>-12<sup>th</sup> May, 2012 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Ahan Add-Chem Private Ltd. have proposed for setting up of the Synthetic Organic Chemicals (3000 MTPA) at Sy No. 406, Village Ekalbara, Taluka Padra, District Vadodara, Gujarat. Total plot area is 6,750 m<sup>2</sup> of which greenbelt will be developed in 2227 m<sup>2</sup>. No national park/wildlife sanctuary/reserve forest is located within 10 km distance. ECP canal and Narmada canal are located at a distance of 1.29 Km and 1.23 Km respectively. It is noted that GPCB vide their letter no. GPCB/VRD-C-76/2012/107793 dated 20<sup>th</sup> March, 2012 has recommended the project proposal with zero effluent discharge. Total cost of the project is Rs. 8.43 Crore. Following products will be manufactured:

S.N.	Products	Capacity
1	Brominated Compound	2000 MTPA
2	Friedel Craft Substitution	400 MTPA
3	Nitration Compound	200 MTPA
4	Catalytic Reduction Compound	200 MTPA
5	Phosphates/Organophosphinates	200 MTPA

Ambient air quality monitoring was carried out at 8 locations during summer season 2012 and submitted data indicates as PM<sub>10</sub> (29–142ug/m<sup>3</sup>), SO<sub>2</sub> (8.0 – 21ug/m<sup>3</sup>) and NO<sub>x</sub> (10-29.9ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed expansion is Pm (4.3 ug/m<sup>3</sup>), NO<sub>x</sub> (0.1ug/m<sup>3</sup>) and SO<sub>2</sub> (0.1ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. Stack height of 30m will be provided to LDO/FO fired boiler. Caustic scrubber will be provided to control process emissions viz. HBr. All the reaction vessels will be connected with vapour column, double condensers & sub coolers in order to recover solvents. Total water requirement will be 70 m<sup>3</sup>/day of which fresh

water requirement from ground water source will be 66.1 m<sup>3</sup>/day and balance water requirement will be met from treated effluent. Industrial effluent generation will be 4.34 m<sup>3</sup>/day and treated in ETP. Treated effluent will be evaporated in MEE. No effluent will be discharged outside the factory premises. Spent solvents and distillation residue will be sent to TSDF for incineration. Sludge from wet scrubber and ETP sludge will be sent to TSDF. Waste oil will be sent to authorized recycler/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 16<sup>th</sup> January, 2013. The issues raised were regarding local employment, implementation of EMP by the project proponent, ground water contamination, CSR, pollution from industry etc and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Adequate stack height will be provided to oil fired boiler.
- ii) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HBr and VOC should be monitored in ambient air.
- iii) Scrubbers shall be provided to process vents to control process emission. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by GPCB.
- v) Total fresh water requirement from ground water source should not exceed 66.1 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/GWA.
- vi) Ground water quality monitoring minimum at 6 locations in around and the site should be carried out monthly basis for monsoon and non-monsoon period.
- vii) Total industrial effluent generation should not exceed 4.34 m<sup>3</sup>/day. Effluent shall be treated in ETP followed by MEE. Condensate of MEE should be recycled/reused for cooling tower make up water.
- viii) No effluent shall be discharged outside the factory premises and zero effluent discharge concept shall be adopted.
- ix) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF.
- x) Green belt shall be developed in 22270 m<sup>2</sup> out of 6750 m<sup>2</sup> land.

- xi) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xiii) All the issues raised during the public hearing/consultation meeting held on 16<sup>th</sup> January, 2013 shall be satisfactorily implemented.
- xiv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on earlier Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

8.5.9 Expansion of Pesticides (Rodenticides), Aluminium Phosphide (25 to 75 MTPM) & Zinc Phosphide (25 to 75 MTPM) Unit at 808 A/2, 3<sup>rd</sup> Phase, GIDC, Village Vapi, TalukaPardi, District Valsad, Gujrat by **M/s Sandhya Organics Chemicals Pvt. Ltd. - Regarding Environment Clearance.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 32<sup>nd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 16<sup>th</sup> -17<sup>th</sup> February, 2012 for preparation of EIA/EMP report. All the Pesticides plants are listed at S.N. 5(b) under Category 'A' and appraised at the Central level. The public hearing / consultation was exempted as per stage Section 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006 as project is located in the notified GIDC industrial area.

M/s Sandhya Organics Chemicals Pvt. Ltd. have proposed for the expansion of Pesticides (Rodenticides), Aluminium Phosphide (25 to 75 MTPM) & Zinc Phosphide (25 to 75 MTPM) Unit at 808 A/2, 3<sup>rd</sup> Phase, GIDC, Village Vapi, TalukaPardi, District Valsad, Gujarat. River Damanganga is flowing at a distance of 1.2 km. Patches of reserve forest exist within 5 Km radius. No national park/wildlife sanctuary is located within 10 Km distance. CC&A (Consent under Air Act, Water Act and Authorization under HW Rules) is accorded by the GPCB vide letter No.AWH-34332 dated 8<sup>th</sup> September, 2009 and is valid upto 18<sup>th</sup> May, 2014. Total plot area is 5336m<sup>2</sup> of which greenbelt will be developed in 432 m<sup>2</sup>. Interstate boundary of D&NH is located within 10 km radius of the project site. Proposed expansion will be carried out in the existing plant premises. Existing pesticide (Rodenticides) plant is in operation since 1992. Total cost of the project is Rs. 140 Lakhs. Following products will be manufactured:

S. N.	Name of Products	Existing Production (MTPM)	Expansion Production (MTPM)	Total Production after expansion (MTPM)
1	Aluminium Phosphide	25	75	100
2	Zinc Phosphide	25	75	100
<b>Name of by-products</b>				
1	Phosphoric Acid Un-reacted P <sub>2</sub> O <sub>5</sub>	25	75	100

Ambient air quality monitoring was carried out at 6 locations during March 2012 – May 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (49 µg/m<sup>3</sup> to 91 µg/m<sup>3</sup>), PM<sub>2.5</sub> (13 µg/m<sup>3</sup> to 44 µg/m<sup>3</sup>), SO<sub>2</sub> (19 µg/m<sup>3</sup> to 32 µg/m<sup>3</sup>) and NO<sub>x</sub> (17 µg/m<sup>3</sup> to 36 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.147 µg/m<sup>3</sup>, 0.00035 µg/m<sup>3</sup> and 0.07634 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. The resultant concentrations are within the NAAQS. Stack height of 11 m will be provided to gas fired boiler.

Water scrubber (demister and venturi) will be provided to the reactors to control process emissions viz. P<sub>2</sub>O<sub>5</sub>. Dust collector will be provided to blender and tablet machine. Water requirement from GIDC water supply will be increased from 9.4 m<sup>3</sup>/day to 20.0 m<sup>3</sup>/day after expansion. Industrial effluent generation from boiler blow down and washing will be increased from 1.2 m<sup>3</sup>/day to 3.9 m<sup>3</sup>/day after expansion. Effluent will be reused as scrubbing media. Phosphorus pent oxide will be scrubbed in the media and formed phosphoric acid as a by-product. Used oil will be sent to registered recycler/re-processors. Power requirement will be 150 KVA and sourced from Dakshin Gujarat Vij Co. Ltd. (DGVCL). Natural Gas (350 scm/day) and HSD will be used as fuel.

After detailed deliberations, the Committee sought the following additional information from the proponent for reconsideration:

- i. Compliance report from the State Pollution Control Board for the existing Consent to Establish/Operate to be submitted.
- ii. Existing status report on occupational health of the employees to be submitted.

The proposal was deferred till the desired information is submitted. The above information shall be submitted after uploading of minutes on the website without waiting for letter from the MoEF.

#### 8.5.10 Resin Manufacturing unit (1100 MTPM) at Plot No. 186, Mehsana Vijapur Road, Near Shobhasan Char Rasta, Village Kukas, District Mehsana, Gujarat by **M/s Siesta Laminates Pvt. Ltd.- Regarding Environment Clearance.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 11<sup>th</sup> -12<sup>th</sup> June, 2012 for preparation of EIA/EMP report. All the Resin Plants located outside notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Siesta Laminates Pvt. Ltd. have proposed for setting up of resin manufacturing unit (1100 MTPM) at Plot No. 186, Mehsana Vijapur Road, Near Shobhasan Char Rasta, Village Kukas, District Mehsana, Gujarat. Total plot area is 18400 m<sup>2</sup> of which greenbelt will be developed in 6082m<sup>2</sup>. Total cost of project is Rs. 5 Crore. No national park/wildlife sanctuary is located within 10 Km distance. Following products will be manufactured:

S.N.	Products	MTPM
1	P.F. Resin	750
2	M.F. Resin	250
3	U.F. Resin	100

Ambient air quality monitoring was carried out at 7 locations during March – May 2011 and submitted data indicates as PM<sub>10</sub> (75.68–85.59ug/m<sup>3</sup>), PM<sub>2.5</sub> (48.08–60.75ug/m<sup>3</sup>), SO<sub>2</sub> (13.07 – 20.45ug/m<sup>3</sup>) and NO<sub>x</sub> (19.51-26.58ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed project is PM (3.0 ug/m<sup>3</sup>),NOx (2.8ug/m<sup>3</sup>) and SO<sub>2</sub> (7.8ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. Multi cyclone dust collector will be provided to coal fired steam boiler and thermic fluid heater. Scrubber will be provided to methanol formaldehyde dryer. Water requirement from ground water source will be 33.32 m<sup>3</sup>/day. Industrial effluent generation will be 9.7 m<sup>3</sup>/day and treated in ETP based on oxidation vessel photo fenton process. DG set (350 KVA) will be installed as a standby arrangement.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12<sup>th</sup> February, 2012. The issues raised were regarding air pollution control arrangement, wastewater disposal, steps taken to maintain the health of worker, wastewater/hazardous waste disposal and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter alongwith stack of adequate height should be installed to coal fired boiler to control particulate emission.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total ground water requirement should not exceed 33.32 m<sup>3</sup>/day and prior permission should be obtained from the Central Ground Water Authority/State Ground Water Board.
- vi) As proposed, Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt should be developed in 33% of total plant area.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

**8.5.11 Development Drilling of Wells (on-land, 24 Development Wells) and establishment of Early Production Facilities (one) at Malleswaram, District Krishna, A.P. by M/s Oil & Natural Gas Corporation Ltd. (ONGCL)- Regarding Environment Clearance.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 32<sup>nd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 16<sup>th</sup>–17<sup>th</sup> February, 2012 for preparation of EIA/EMP report. All the on-shore and offshore oil and gas projects belong to S.N. 1 (b) and are placed under Category 'A' and appraised at the Central level.

M/s Oil & Natural Gas Corporation have proposed for development drilling of Wells (on-land, 24 Development Wells) and establishment of Early Production Facilities (one) at Malleswaram, District Krishna, A.P. PAs have planned to drill 24 Development wells during 2011-17 and establishment of one Production facility. Out of 24, 16 wells will be drilled in ML Block (46.60 sq km) out of total block area as PEL-1A (1518.50 sq km). 8 wells will be drilled in ML Block (303.10 sq. km) out of total PEL-1B (2108 sq km). Depth of well will be 2000-4000m. Total cost of the project is Rs. 264.00 Crore. Rs. 13.5 Lakhs per well have been earmarked towards Capital cost and recurring cost for implementation of EMP. Development wells will be located at following locations:

S.N.	Fields	Proposed Wells
1	Mandapeta	1
2	Pasarlapudi	3
3	GS-23	1
4	Malleswaram	13
5	Kammapalem	2
6	Kaikalur	3
7	Gopavaram	1

Following process facilities will be created :

S.N.	Facility	Qty.
1	Bath Heater	1 No.
2	Heater Treater	01 No
3	Vertical Separators	3 Nos.
4	Horizontal Tanks of 40 m <sup>3</sup> each	4 Nos.
5	Horizontal Tanks of 45 m <sup>3</sup> each	4 Nos.

Ambient air quality monitoring was carried out at 8 locations during May 2012 – June, 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (55 µg/m<sup>3</sup> to 67 µg/m<sup>3</sup>), SO<sub>2</sub> (5 µg/m<sup>3</sup> to 7 µg/m<sup>3</sup>) and NO<sub>x</sub> (8 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup>) respectively. The baseline data are within the NAAQS.

Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from tanker supply will be 25 m<sup>3</sup>/day. Water based mud (WBM) will be used. Wastewater generation during drilling operation will be 15 m<sup>3</sup>/day. Drilling mud and drill cuttings will be separated and residual unusable mud will be collected in lined pits and solar evaporated. Drill cutting (DC) will be separated from water based mud (WBM) and

washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30<sup>th</sup> August, 2005. Used oil will be sent to authorized recyclers. Produced water will be treated in ETP. Produced water will be reinjected in sub-surface after due treatment as per the APPCB norms. DG set (440 KVA) will be installed for rig operation purpose. DG set (40 KVA) will be used for lightening purpose.

A copy of the certified compliance report from the RO is submitted. The compliance to the conditions stipulated in the environmental clearance is reported satisfactory.

Public hearing was exempted under 7 (ii) of EIA Notification, 2006.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i. Ambient air quality should be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.
- ii. Approach road should be made pucca to mitigate generation of suspended dust.
- iii. The company should make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
- iv. Total water requirement should not exceed 25 m<sup>3</sup>/day/well and prior permission should be obtained from the Competent Authority.
- v. The company should construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.
- vi. Drilling wastewater including drill cuttings wash water should be collected in disposal pit lined with HDPE lining evaporated or treated and should comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill should be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal.
- vii. Produced water (11.5 m<sup>3</sup>/day) shall be treated in ETP. Treated produced water shall be disposed off through injection well as per CPCB/MoEF guidelines.
- viii. Good sanitation facility should be provided at the drilling site. Domestic sewage should be disposed off through septic tank/ soak pit.
- ix. Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting

proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorized recyclers.

- x. The Company should comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- xi. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during operation.
- xii. The company should develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xiii. The Company should carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected should be submitted six monthly to the Ministry and its Regional Office at Bangalore.
- xiv. Blow Out Preventer (BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during drilling should focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xv. Emergency Response Plan (ERP) should be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xvi. The company should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site should be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan should be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xvii. Bioremediation plan of abandonment sites in the whole lease area should be explored in addition to measures as stipulated at (xvi) above.
- xviii. Occupational health surveillance of the workers should be carried out as per the prevailing Acts and Rules.
- xix. In case the commercial viability of the project is established, the Company should prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xx. Restoration of the project site should be carried out satisfactorily and report should be sent to the Ministry's Regional Office at Bangalore.
- xxi. Oil content in the drill cuttings should be monitored by some Authorized agency and report should be sent to the Ministry's Regional Office at Bangalore.
- xxii. Company should have own Environment Management Cell having qualified persons with proper background.

- xxiii. Company should prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual should be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring should be available at the project site office.

8.5.12 Expansion of Nirma Chemical Complex at Sy No. 478/P, 447-453, 455-457, Village Kalatalav, Tehsil Bhavnagar, District Bhavnagar, Gujarat by M/s Nirma Limited- **Regarding Environment Clearance.**

The project authorities and their consultant (Team Labs) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 15<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 22<sup>nd</sup>-23<sup>rd</sup> October, 2010 for preparation of EIA/EMP report. Soda ash is listed at S.N. 4(e) & Caustic soda plant is listed at S. N. 4 (d) under category 'A' as per EIA Notification, 2006 and appraised at Central level.

M/s Nirma Limited have proposed for expansion of Nirma Chemical Complex at Sy No. 478/P, 447-453, 455-457, Village Kalatalav, Tehsil Bhavnagar, District Bhavnagar, Gujarat. Expansion is proposed within the existing chemical complex. Total plant area is 555 acres of which greenbelt will be developed in 185 acres. No additional land is required. Total cost for proposed expansion will be Rs. 415.00 Crores. Rs. 16.65 Crores and Rs. 96.00 Lakhs are earmarked towards capital cost and recurring cost/annum for implementation of environmental management plan. Black buck national park is located at a distance of 15.2 Km. Therefore, no national park/wildlife sanctuary is located within 10 Km distance. Madhia reserve forest is located at a distance of 8.2 Km. Project proponent informed that CRZ clearance is not applicable for proposed expansion other than salt works. However, CRZ clearance for development of salt works was issued by the MoEF vide their letter No. J-16011/25/2003-IA-III dated 11<sup>th</sup> August, 2004. Following products will be manufactured:

S.N.	Products/By-Products	Existing capacity	Proposed capacity (Expansion)	Total capacity after expansion
<b>01</b>	<b>Soda Ash Plant (Expansion from 1800 TPD to 2000 TPD)</b>			
	<b>Products</b>			
	Light Soda Ash	1800 TPD	200 TPD	2000 TPD
	Dense Soda Ash*	600 TPD	600 TPD	1200 TPD
<b>02</b>	<b>Caustic Soda Plant (Expansion from 240 TPD to 480 TPD)</b>			
	<b>(A) Products</b>			
	Caustic Soda	240 TPD (100%)	240 TPD (100%)	480 TPD (100%)
	Hydro-chloric Acid	20 TPD (100%)	20 TPD (100%)	40 TPD (100%)
	<b>By-Products</b>			
	Chlorine gas	212.6 TPD (100%)	212.6 TPD (100%)	425.2 TPD (100%)
	Hydrogen	6.0 TPD (100%)	6.0 TPD (100%)	12.0 TPD (100%)
	Sodium Hypo chlorine	3.0 TPD (100%)	3.0 TPD (100%)	6.0 TPD (100%)

<b>03</b>	<b>Captive Power Plant (Expansion from 62.18 MW to 97.18 MW)</b>			
	Power	62.18 MW	35 MW	97.18 MW
	Steam	600 TPH	200 TP H	800 TPH
<b>04</b>	<b>Bromine Plant (New )</b>			
	Bromine	-	<b>10 TPD</b>	<b>10 TPD</b>
<b>05</b>	<b>Salt works Expansion</b>			
	Solar Salt	12Lac TPA	8.0 Lac TPA	20 Lac TPA
	<b>Other Plant facilities</b>			
<b>06</b>	Toilet Soap	200 TPD	-	200 TPD
<b>07</b>	Detergent Power	416.66 TPD	-	416.66 TPD
<b>08</b>	Detergent Cake	416.66 TPD	-	416.66 TPD
<b>9</b>	Fatty Acid	150 TPD	-	150 TPD
<b>10</b>	Glycerine	167 TPD	-	167 TPD

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during November, 2010-January, 2011 and submitted baseline data indicates range of PM<sub>10</sub> (49–91 ug/m<sup>3</sup>), PM<sub>2.5</sub> (28–55 ug/m<sup>3</sup>), SO<sub>2</sub> (6 – 27 ug/m<sup>3</sup>) and NO<sub>x</sub> (10-27 ug/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLCs due to the proposed project is 0.03 µg/m<sup>3</sup>, 0.017 µg/m<sup>3</sup> and 0.094 µg/m<sup>3</sup> for PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. The resultant GLCs are within the NAAQS. ESP will be provided to coal fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, Cl<sub>2</sub> & NH<sub>3</sub>. Three scrubbers and Two ESPs have been installed in the lime kilns sections. Water scrubbers have been provided in ammonia recovery system. Bagfilter has been provided in lime grinding system. Wet scrubber will be provided to densification unit. Water scrubber will be installed in HCl synthesis unit. Caustic scrubber will be provided to waste gas dechlorination system. Scrubbing with NaOH/Na<sub>2</sub>CO<sub>3</sub> will be provided to debromination system.

Water requirement from sea water will be increased from 645.561 MLD to 942 MLD after expansion. For boiler/process/washing etc. water will be used after treating through RO/DM plant. The effluent from the soda ash plant will be treated in ETP. The treated effluent will be utilized in the existing salt works to recover additional salt and gypsum. Process effluent from Caustic soda & captive power plant will be treated in neutralization tank. Effluent generation from the toilet soap and fatty acid plant are taken into ETP. There is no addition in the facility and has no increase in effluent quantity. Settling pond sludge will be used in road construction, salt work bund preparation. Limestone rejects will be used in boiler for desulphurization. Fly ash from lignite coal will be used for bund preparation, road making etc. Coal ash will be used for cement units, brick making. Residue /sludge & filter sludge, ETP sludge will be sent to TSDF. Waste oil /lub. Oil from caustic soap & soda will be sent to authorized recyclers /re-processors.

Project proponent has obtained environmental clearance vide Ministry's letter no. J-11011/456/2007-IA-II (I) dated 24<sup>th</sup> June, 2008 for membrane cell based caustic soda plant alongwith lignite/coal based Captive Power Plant. Certified compliance report dated 16<sup>th</sup> April, 2013 by the Ministry's Regional Office at Bhopal is submitted. Scrubbers consisting of 18% NaOH solution (3 Nos.) having efficiency 95% at each stage has been installed with adequate stack height of 30.0 m to control process emissions from the caustic soda plant. For controlling particulate emission from the captive power plant, ESP having 99 % efficiency has been installed. For control of the Chlorine in vent gases from sodium hypochlorite unit consisting of 18 % NaOH solution having efficiency 95 % at each stage have been installed. Unit had carried out mangrove plantation along the coastal line spread

over an area of @ 153 ha.(378 acres) from 2005-11 against the 50 acres as directed by DoEF/MoEF. Project proponent committed that six monthly compliance report will be uploaded on the website. Regarding show cause notice dated 7.10.2011, 15.03.2012 and 13.02.2012, project proponent informed that replies have been filed to GPCB vide their letter dated 17<sup>th</sup> October, 2011, 23<sup>rd</sup> March 2012 and 27<sup>th</sup> February, 2012 respectively. The Committee was satisfied with the response of the project proponent.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12<sup>th</sup> September, 2012. As per public hearing report, not a single representations in the form of suggestion, objections received from the participants of public hearing. The issues raised by Paryavaran Mitra were regarding CRZ clearance, environmental audit report, manufacturing production capacity, fly ash disposal, ETP, employment status etc. and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee sought the following additional information from the proponent for reconsideration:

- i. MoU with coal supplier alongwith coal characteristics.
- ii. Impact of air emission on the reserve forests.
- iii. Time series data of online AAQMS for one year including SO<sub>2</sub>, chlorine and bromine levels.
- iv. Online display of the AAQMS to be ensured.
- v. CSR plan considering 5 % of the total project cost.
- vi. Conservation plan for mangroves alongwith primary data of the flora in and around the project area.

The proposal is deferred till the desired information is submitted and site visit is conducted by the Sub-committee of EAC. The above information shall be provided with the uploading of minutes on the website.

#### 8.5.13 Agrochemical Manufacturing Plant (52000 TPA) alongwith CPP (6.0 MW) at Plot no. Z-112 at Village Lakhigam, SEZ Dahej, Tehsil Vagra, District Bharuch, Gujarat by **M/s Rallis India Limited- Regarding TORs.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Rallis India Limited have proposed for setting up of agrochemical manufacturing plant (52000 TPA) alongwith CPP (6.0 MW) at Plot no. Z-112 at Village Lakhigam, SEZ Dahej, Tehsil Vagra, District Bharuch, Gujarat. Total plot area is 37.5 acres of which greenbelt will be developed in 35 % of the plant area. Total cost of project is Rs. 200 Crore. Rs. 25 Crore and Rs. 2.5 Crore are earmarked towards capital cost and recurring cost per annum. Estuary of Narmada river is located at a distance of 2.0 km. No ecological sensitive area (wild life sanctuaries)/ reserved /protected forest is located 10 km distance. Following products will be manufactured:

S.N.	Particulars	Quantity
1	Products	

	Agrochemical Technical	52000 TPA
	Agrochemical Formulations	10000 TPA
2	Captive Power Plant	6.0 MW

Scrubber will be provided to process vents to control process emission. Process vent will be provided with single/double condensers followed by ionization filter to minimize/control the losses of volatile solvents. Packing and solid handling will be provided with laminar flow by dust collector with bagfilter. Fresh water requirement will be 3000 m<sup>3</sup>/day. Total effluent generation will be 1900 m<sup>3</sup>/day. Effluent will be segregated into high COD, high TDS and low COD/TDS. High COD effluent will be sent to MEE. High TDS effluent will be sent to MEE. Distillate of the MEE will be sent for biological treatment and concentrate or reject will be sent to MEE followed by ATFD. Treated effluent will be sent to ultra/ nano filtration followed by reverse osmosis. Sewage will be treated in STP. Used/spent oil will be sent to re-processors/recyclers. Process waste/waste residue contain pesticide will be incinerated in common incinerator. ETP sludge /incineration ash will be sent to TSDF. Oil fired furnace (2 x 5 TPH) will be installed. HSD /Natural gas/ furnace oil/biomass will be used as fuel. Power requirement will be 6 MW and sourced from DGVCL. DG sets (2x1500 KVA + 1x 1000 KVA) will be installed.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Plant layout alongwith details of facility.
6. A copy of Gazette Notification issued by the Govt. of Gujarat indicating location of the project in notified GIDC should be included necessarily.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith photographs and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, Br<sub>2</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.

19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, if any alongwith control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. An action plan to control and monitor secondary fugitive emissions from all the sources.
24. Action plan for odour assessment and control to be submitted.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and quantity of fresh water requirement. Water balance chart including quantity of effluent generated recycled and reused and discharged.
27. Action plan for 'Zero' discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the management of fly ash generated from boiler should be included.
30. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
31. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
32. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF.
33. Risk assessment for storage for chemicals/solvents.
34. Material safety data sheet to be submitted. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
35. An action plan to develop green belt in 33 % area. Layout map indicating greenbelt to be submitted.
36. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
37. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
38. Details of occupational health surveillance programme.
39. Socio-economic development activities shall be in place.
40. Note on compliance to the recommendations mentioned in the CREP guidelines.
41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.

42. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
43. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 44. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
46. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of detailed report for the above mentioned 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. Project proponent informed that unit is located in Dahej SEZ Ltd. Environmental clearance was granted to Dahej SEZ Ltd. vide MoEF's letter no. 21-1084/2007-IA.III dated 17<sup>th</sup> March, 2010. Public hearing of SEZ was conducted on 17<sup>th</sup> August, 2007. After detailed deliberations, the Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006, subject to submission of authentic document from the State Govt. indicating that the project is located in the notified industrial area. The final EIA/EMP report shall be submitted to the Ministry for obtaining environmental clearance.

#### 8.5.14 Grain based Distillery (100 KLPD) alongwith CPP (5 MW) at Village Hiranwali, Tehsil & District Fazilka, Punjab by **M/s Savera Beverages Pvt. Ltd.- Regarding TORs.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be

undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All non-molasses based distilleries (>30 KLD) are listed at S.N. 5(g) (i) (ii) under category 'A' and appraised at Central level.

M/s Savera Beverages Pvt. Ltd. have proposed for setting up of Grain based Distillery (100 KLPD) alongwith CPP (5 MW) at Village Hiranwali, Tehsil & District Fazilka, Punjab. Total plot area is 7.28 ha (18 acres). Total cost of project is Rs. 125 Crore. No eco-sensitive area such as national park/wildlife sanctuary/biosphere reserves/ reserve forests within 10 km distance. No litigation/court case is pending against the project.

ESP will be provided to coal/rice husk fired boiler to control particulate emission. Total fresh water requirement will be 1300 m<sup>3</sup>/day. spent wash generation will be 700 m<sup>3</sup>/day and evaporated in MEE. Spent lees and MEE condensate will be treated in biological treatment followed by rapid sand filter and activated carbon. Treated effluent will be recycled/reused for cooling tower make-up. Fly ash will be sent for brick manufacturing unit. Greenbelt will be developed in 33 % of total land area.

After deliberations, the Committee prescribed the following TORs for the preparation of draft EIA/EMP:

1. Executive summary of the project.
2. Detailed break-up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.
4. Details of site and information related to environmental setting within 10 km radius of the project site.
5. A copy of lease deed or allotment letter, if land is already acquired.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material.
8. Details of proposed products alongwith manufacturing capacity.
9. Number of working days of the distillery unit.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Details of raw materials, its source & availability of all raw materials including cereal grains requirement.
12. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. Stack height should be based on maximum sulphur content in the coal. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
14. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
15. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
17. An action plan to control and monitor secondary fugitive emissions from all the sources.
18. Details of the use of steam from the boiler.

19. Ground water quality around proposed spent wash storage lagoon and the project area.
20. Details of water requirement, water balance chart for grain based Distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
21. Fresh water requirement should be restricted upto 10 KI/KI of alcohol for grain based distillery
22. Permission of withdrawal of water from competent authority.
23. Proposed effluent treatment system for grain based distillery (spent wash and spent lees) alongwith utility wastewater including CPP and scheme for achieving zero discharge.
24. Spent wash generation should not exceed 6 KL/KL of alcohol production. Details of the spent wash treatment for grain based distillery based distillery.
25. Capacity for spent wash holding tank and action plan to control ground water pollution.
26. Dryer shall be installed to dry DWGS.
27. Layout for storage of rice husk/biomass.
28. Details of solid waste management including management of boiler ash.
29. Green belt development as per the CPCB guidelines.
30. List of flora and fauna in the study area.
31. Noise levels monitoring at five locations within the study area.
32. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
33. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
34. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
35. Alcohol storage and handling area fire fighting facility as per norms.
36. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
37. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
38. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
39. Details of occupational health surveillance programme.
40. Details of socio-economic welfare activities.
41. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
42. Action plan for post-project environmental monitoring.
- 43. Corporate Environmental Responsibility**
  - (a) 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.

- (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
44. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  45. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  46. A tabular chart with index for point-wise compliance of above TORs. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation alongwith duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance

**8.5.15 Addition of Grain based Distillery Unit in Molasses based Distillery (60 KLPD) without increasing Capacity (60 KLD) at Village: Randhawa, Distt. Hoshiarpur, Punjab by M/s A.B Sugars Ltd.- Regarding TORs.**

Project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the proponent.

**8.5.16 Augmentation of hydrocarbon Production(from 2,00000 BOPD to 300000 BOPD) in RJ-ON-90/1 Block, Barmer and Jalore Districts, Rajasthan by M/s Cairn India Ltd.- Regarding TORs.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Cairn India Ltd. have proposed for augmentation of hydrocarbon Production(from 2,00000 BOPD to 300000 BOPD) in RJ-ON-90/1 Block, Barmer and Jalore Districts, Rajasthan. The Rajasthan (RJ-ON-90/1) block is a joint venture between Cairn India Ltd. (CIL -70%) and ONGC (30 %) with CIL as operator. The block covers an area of 3111 km<sup>2</sup> located largely in Barmer District & partly in Jalore District of western Rajasthan. Till date CIL has made 25 commercial discoveries out of which six have been developed/under development. The hydrocarbon resource potential is estimated at 7.3 billion barrels of oil equivalent. Following facilities will be developed:

- i. Additional 205 well pads will be developed in the various field of the block for additional production/injection/EOR wells.
- ii. Truck off loading and loading facilities will be provided to transfer crude oil and produced water for marginal fields having smaller production rates.
- iii. For medium fields, separation facilities combined with pumping into spine corridor will be engaged.
- iv. For larger fields fluids will be pumped into spine corridor.
- v. Additional 150 km of spine pipeline corridor will be acquired and over 500 Km of intra /inter field pipeline corridor will be laid down.
- vi. Mother solution plants will be set up at each of the major fields.
- vii. Enhanced Oil Recovery (EOR) will be created.

Water requirement from deep saline thumbli aquifer will be increased from 43500 m<sup>3</sup>/day to 68500 m<sup>3</sup>/day. Power requirement will be increased from 67.1 m<sup>3</sup>/day to 167.1 m<sup>3</sup>/day.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter.
5. Permission from the State Forest Department considering the impact of the proposed plant on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco

- sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
6. Distance from nearby critically/severely polluted area as per Notification dated 13<sup>th</sup> January, 2010, if applicable.
  7. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
  8. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report. Latest photograph of existing area to be provided.
  9. Details of all the facilities including CGS, GGS, OCS, EPS, produced water treatment etc to be installed. If existing facilities, give details.
  10. Detailed break up of project cost including recurring cost.
  11. Environmental considerations adopted in the selection of the drilling locations for which environmental clearance is being sought. Any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
  12. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells. It includes;
    - (i) Topography of the project site.
    - (ii) Ambient Air Quality monitoring at 8 locations for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, Methane and non-methane HC.
    - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
    - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
    - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
    - (vi) Measurement of Noise levels ( day and night both) within 1 km radius of the proposed wells.
    - (vii) Vegetation and land use; Animal resources
  13. Incremental GLC as a result of DG set operation.
  14. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
  15. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation, recycling and its final discharge.
  16. Noise control and measures to minimize disturbance due to light and visual intrusions in case coastally located areas.
  17. Treatment and disposal of wastewater.
  18. Details of generation, treatment and management of solid waste.
  19. Management of spent oil and loose material.
  20. Storage of chemicals and diesel at site.
  21. Commitment for the use of WBM only
  22. Mud make up and mud and cutting disposal – all options considered should be listed with selective option.
  23. Hazardous material usage, generation, storage accounting and disposal.
  24. Disposal of packaging waste from site.
  25. Oil spill control and emergency plans in respect of recovery/ reclamation.
  26. H<sub>2</sub>S emissions control.
  27. Produced oil handling and storage.
  28. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
  29. Details of control of air, water and noise pollution in oil collection system.
  30. Disposal of produced/formation water.

31. Whether any burn pits being utilized for well test operations.
32. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
33. Measures to protect ground water and shallow aquifers from contamination along with its monitoring plan. Action Plan should also include storm water runoff during rainy season and measures to prevent runoff which may be contaminated with oil.
34. Risk assessment and mitigation measures along with disaster management plan and prevention of blow out.
35. Safety plan to be included for the Tea worker in the nearby areas.
36. Environmental management plan.
37. Documentary proof of membership of common disposal facilities, if any.
38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environment. Risk mitigation measures should cover for all phases of the site activity including for developing road access, drilling of wells, operation and maintenance, waste management, decommissioning etc.
39. Total capital and recurring cost for environmental control measures.
40. A copy of Corporate Environment Policy of the as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26<sup>th</sup> April, 2011 available on the Ministry's website.
41. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
42. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
43. A tabular chart with index for point-wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs together with Public Hearing prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA/EMP report for the above mentioned 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. The draft EIA/EMP report should be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues raised during public hearing should be incorporated in the EIA report.

8.5.17 Ethyl Acetate Plant (30 TPD) at Village Kisanveernagar (Bhuinj) Tehsil Wai, District Satara Maharashtra by **M/s Kisanveer Satara SSk Ltd.– Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s KisanveerSataraSSk Ltd have proposed for setting up of Ethyl Acetate Plant (30 TPD) at Village Kisanveernagar (Bhuinj) Tehsil Wai, District Satara Maharashtra. Plat area will be 6000 sq. ft for ethyl acetate receiver section. Proposed project will be implemented in the existing distillery plant premises. River Krishna is flowing within 10 km distance. The plant will be operated for 300 days. Acetic acid, sulphuric acid and ethyl alcohol will be used as raw materials. The process steam and power for the proposed plant will be sourced from existing unit. Total water requirement will be 100 m<sup>3</sup>/day. Environmental clearance for distillery obtained on 29.1.1994 and 8.12. 2008. Environmental clearance for cogen unit was obtained from SEIAA/SEAC on 29.09.2011.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project
3. Justification of the project
4. Photographs of the proposed plant area.
5. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
6. Promoters and their back ground.
7. Regulatory framework
8. A map indicating location of the project and distance from severely polluted area
9. Project location and plant layout.
10. Infrastructure facilities including power sources.
11. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
12. Project site location along with site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
13. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project along with supporting document.
14. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
15. Permission, if any, from the State Forest Department
16. Details of the total land and break-up of the land use for green belt and other uses.
17. List of products along with the production capacities.
18. Detailed list of raw materials required and source, mode of storage and transportation.
19. Manufacturing process details along with the chemical reactions and process flow chart.
20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
21. Ambient air quality monitoring at 8 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 18<sup>th</sup> November, 2009. Location of one AAQMS in downwind direction.
22. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except

- monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
23. Air pollution control measures viz. Multi-cyclone and bag filter etc. shall be proposed for the effective control of gaseous emissions within permissible limits.
  24. Details of VOC monitoring system in the working zone environment, if any.
  25. Name of all the solvents to be used in the process and details of solvent recovery system.
  26. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
  27. Details of water and air pollution and its mitigation plan.
  28. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 18<sup>th</sup> November, 2009.
  29. An action plan to control and monitor secondary fugitive emissions from all the sources.
  30. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  31. Permission for the drawl of ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  32. Action plan for 'Zero' discharge of effluent shall be included.
  33. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  34. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
  35. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
  36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  37. List of hazardous chemicals (as per MSIHC rule) with toxicity levels and monitoring details.
  38. A write up on "Safe Practice" followed for hazardous chemicals handling, storage, transportation and unloading to be submitted.
  39. A write up on "Treatment of workers affected by accidental spillage of hazardous chemicals.
  40. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
  41. An action plan to develop green belt in 33 % area
  42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  43. Details of occupational health programme.
    - i. To which chemicals, workers are exposed directly or indirectly.
    - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii. What measures company has taken to keep these chemicals within PEL/TLV.
    - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v. What are onsite and offsite emergency plan during chemical disaster.
    - vi. Liver function tests (LFT) during pre-placement and periodical examination.
  44. Details of occupational health surveillance programme.

45. Socio-economic development activities shall be in place.
46. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
47. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
48. Corporate Environmental Responsibility
  - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - b. Does the Environmental 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 report.
  - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - d. Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
49. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
50. Total capital cost and recurring cost/annum for environmental pollution control measures.
51. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
52. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

**8.5.18 Oil and Gas Development in Existing Ravva Offshore Field, PKGM-1 Block, located off Surasniyanam (S.Yanam) in the Bay of Bengal, East Godavari District, Andhra Pradesh by M/s Cairn India Ltd – Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of Reference for the preparation of EIA/EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Cairn India Ltd have proposed for Oil and Gas Development program in the existing Ravva Offshore Field, PKGM-1 Block, located off Surasniyanam (S.Yanam) in the Bay of Bengal, East Godavari District, Andhra Pradesh. Ravva field in PKGM-1 offshore block spread over in 331.26 km<sup>2</sup> of area is located in Krishna-Godavari basin, Bay of Bengal off the coast of Andhra Pradesh. The Ravva field has been operation since 1994. Ravva joint venture comprises of ONGC (40 %), Videocone (25%), Cairn India Ltd. (22.5 %) and Ravva Oil Singapore Pty. Ltd. (12.5%). No national park or wildlife sanctuary is located within 10 Km radius from Ravva Terminal and PKGM-1 block. Nearest Coringa wildlife sanctuary is located at more than 30 Km from the block. Estuary of Vrudha Gautami River is flowing at distance of 17 Km. Kandikuppa RF (mangrove forest) is located at a distance of 4.5 Km from the proposed New RI platform. Vodalrevvu RF (mainly consist of Casurina equisetum) is located at distance of 9.5 Km from Ravva Terminal. MoEF vide letter no J-11011/6/91-IA dated 19<sup>th</sup> December 1991 issued environmental clearance for phase-I. Following facilities will be created :

- i. Install 1 new platform (RI) to develop & produce contingent hydrocarbon resource in the field.
- ii. Drilling of 20 development wells, 6 from new RI platform and 14 from existing platforms (4 nos. from RF, 3 nos. from RC, 3 nos. RG and 4 nos. from RE platforms).
- iii. Laying of 3 new interconnecting pipelines (of total 14 Km length) in the offshore region from new RI platform to existing RB and RG platforms as per the following arrangement:
  - a. 4 Km, 8" subsea oil pipeline from new RI platform to existing RB platform for oil production.
  - b. 4 Km, 4" subsea gas lift pipeline existing RB platform to new platform (RI).
  - c. 6 Km, 8" subsea gas pipeline from RI platform will be brought to existing RB & RG platforms for excavation through existing pipelines from RB platform to Ravva Terminal.
- iv. Drilling of 6 exploratory / appraisal wells to assess presence of hydrocarbons in pools.

- With the setting up proposed new RI platform and drilling of development/production wells, the capacity of the Ravva field will remain within already approved Crude production capacity of 50,000 BoPD and Gas production of 2.32 MMSCMD.

Total cost of the project is Rs. 3240 Crores. Air emission during well drilling (90 days per well) from diesel generators installed on board the rig (4 nos. x 2000 KVA). Air emission during test flaring for 2 to 3 days for the 6 number of exploratory/appraisal drilling. Water based mud will be used. Water requirement will be 85 m<sup>3</sup>/day (45 m<sup>3</sup>/day fresh water + 40 m<sup>3</sup>/day seawater) for drilling a well and domestic use for proposed drilling. Fresh water will be sourced through supply vessels. Sewage will be treated in STP. Wash wastewater from shaleshaker will be recirculated within mud preparation system. Power requirement will be 8000 KVA for offshore drilling and lighting the quarters at the rig through DG set ( 4 x 2000 kVA) typically installed onboard jack up rig. DG set (1500 KVA will be used for 5 emergency power supply. Provision of solar and wind power and an emergency power supply.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
4. Permission from the State Forest Department considering the impact of the proposed plant on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
5. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report. Latest photograph of existing area to be provided.
6. Project Description and Project Benefits;
7. Distance from coast line. Copy of CRZ clearance/recommendation of SCZMA to be submitted.
8. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
9. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content.
10. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, waste water generation and discharge.

11. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
12. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
13. Procedure for preventing spills and spill contingency plans.
14. Procedure for treatment and disposal of produced water.
15. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
16. Procedure for handling solid waste and any waste segregation at source for organic, inorganic and industrial waste.
17. Storage of chemicals on site.
18. Commitment for the use of WBM only.
19. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices have been followed.
20. Handling of spent oils and loose.
21. Handling of oil from well test operations.
22. Mud make up and mud and cuttings disposal procedures.
23. H<sub>2</sub>S emissions control plans.
24. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
25. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
26. Documentary proof for membership of common disposal facilities, if any.

27. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
28. Total capital and recurring cost for environmental pollution control measures.
29. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
30. A tabular chart with index for point-wise compliance of above TOR.

The following general points should be noted:

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

It was decided that 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

**8.5.19 Adhesive Manufacturing Plant at Plot no. 770/2 & 770/3, Village Jhagadia GIDC, Taluka Jhagadia, District Bharuch, Gujarat by M/s Bostik India Private Limited. – Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the Synthetic Organic Manufacturing Units located inside the notified industrial area are listed at S.N. 5(f) under Category 'B'. However this project has been appraised at the central level due to applicability of "General Conditions" as project is located within 10 Km of Critically Polluted Area i.e Ankleshwar Industrial Estate.

M/s Bostik India Private Limited have proposed for setting up of Adhesive Manufacturing Plant at Plot no. 770/2 & 770/3, Village Jhagadia GIDC, Taluka Jhagadia, District Bharuch, Gujarat. Total plot area is 34418.4 m<sup>2</sup>. Total cost of project is Rs. 55 Crore. Following products will be manufactured:

S.N.	Product	Production (MTPA)	Capacity
Flexible Laminate Adhesives			
1	Solvent Based Adhesives	7597	
2	Solvent Free Adhesive	4603	
3	Hardener – Lamination	1300	
Footwear Adhesives			
4	Chips Poly Urethane	4615	
5	Synthetic Rubber Adhesive	4209	
6	Reacted Poly Urethane	2485	
7	Primers, Cleaner & Hardeners	2145	
Total Production		26954	

Stack of adequate height will be provided to gas/oil fired thermic fluid heater. Bag filter will be to control particulate emission. Common venting system will be passed through activated carbon filter to control HC emissions. Total fresh water requirement from GIDC water supply will be 50 m<sup>3</sup>/day. Industrial effluent generation will be 10.24 m<sup>3</sup>/day and sent for incineration. Used oil will be sent to authorized recycler/re-processors. Oil soaked cotton, adhesive sludge, particulate from filter bags will be sent to authorized incinerator. Ash from incinerator will be sent to TSDF.

After detailed deliberations, the Expert Appraisal Committee prescribed the following ToRs for preparation of EIA/EMP:

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework.
6. A map indicating location of the project and distance from severely polluted area
7. A copy of Gazette Notification issued by the Govt. of Gujarat indicating location of the project in notified GIDC should be included necessarily.
8. Infrastructure facilities including power sources.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location alongwith photographs of the project site and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
11. Present land use based on satellite imagery for the study area of 10 km radius.
12. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage and transportation.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind

- direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
20. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
  21. Name of all the solvents to be used in the process and details of solvent recovery system.
  22. Design details of ETP, incinerator, if any along with control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
  23. Details of water and air pollution and its mitigation plan
  24. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
  25. An action plan to control and monitor secondary fugitive emissions from all the sources.
  26. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  27. Permission for the drawl of 50 m<sup>3</sup>/day water from the concerned agency. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  28. Action plan for 'Zero' discharge of effluent should be included.
  29. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  30. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
  31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
  32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
  33. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
  34. Risk assessment for storage for chemicals/solvents.
  35. Material safety data sheet to be submitted. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  36. An action plan to develop green belt in 33 % area alongwith layout map.
  37. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  38. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
    - vii) Details of occupational health surveillance programme.
  39. Socio-economic development activities should be in place.
  40. Note on compliance to the recommendations mentioned in the CREP guidelines.
  41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency,

responsibility and time bound implementation plan for mitigation measure should be provided.

42. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
43. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
44. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of detailed report for the above mentioned 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. After detailed deliberations, the Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006, subject to submission of authentic document from the State Govt. indicating that the project is located in the notified industrial area. The final EIA/EMP report shall be submitted to the Ministry for obtaining environmental clearance.

#### 8.5.20 Molasses based Distillery [30 KLPD to 55 KLPD (25 KLPD additional Molasses based)] alongwith co-gen Power Plant (1 MW) at Unit Rosa, Tehsil Sadar, district Shahjahanpur, Uttar Pradesh by **M/s United Spirits Limited. – Regarding TORs.**

It was noted that CPCB vide letter no. B-23012/1/PCI-III.2K10-2K11/290 dated 12<sup>th</sup> October, 2012 has issued direction under section 5 of the environment (Protection) Act, 1986. The Committee desired that the unit shall first comply with the directions issued by the CPCB. The proposal is deferred till the compliance report is received from CPCB.

#### 8.5.21 Captive Melamine Urea Formaldehyde Resin (MUF) Manufacturing Facility within the Existing Particle Board Unit at Plot No. 48/P1, Village Ninat, Tehsil Bardoli, District Surat, Gujarat by M/s Hi-Tech board Pvt. Ltd.- **regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Hi-Tech board Pvt. Ltd. have proposed for setting up of captive Melamine Urea Formaldehyde Resin (MUF) Manufacturing Facility within the Existing Particle Board Unit at Plot No. 48/P1, Village Ninat, Tehsil Bardoli, District Surat, Gujarat. Available plot area is 3,36,00 m<sup>2</sup>. Land requirement for the proposed activity will be 1511.88 m<sup>2</sup>. Total cost of project is Rs. 29.30 Lakhs. Mindhola River is flowing at a distance of 2.0 Km. No national parks & reserve forests is located within 10 Km distance. No national parks & reserve forests are located within 10 Km distance. Following product will be manufactured:

S.N.	Product	Production Capacity (MTPM)
1	Melamine Urea Formaldehyde Resin (MUF)	1500 MTPM

Formaldehyde will be stored in closed storage tank. Water requirement from the ground water source will be 0.7 m<sup>3</sup>/day. Waste oil and sludge from scrubber will be generated as hazardous waste. Power requirement will be 60 KVA. Greenbelt will be developed in 33 % of the plant area.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Photographs of the existing and proposed plant area.
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. Promoters and their back ground.
9. Regulatory framework
10. A map indicating location of the project and distance from severely polluted area
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
17. Permission, if any, from the State Forest Department
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw materials required and source, mode of storage and transportation.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.

22. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
23. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
24. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
25. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
26. Control methanol emission from drying section.
27. Details of VOC monitoring system in the working zone environment, if any.
28. Name of all the solvents to be used in the process and details of solvent recovery system.
29. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
30. Details of water and air pollution and its mitigation plan.
31. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
32. An action plan to control and monitor secondary fugitive emissions from all the sources.
33. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
34. Permission for the drawl of 0.7 m<sup>3</sup>/day ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
35. Action plan for 'Zero' discharge of effluent shall be included.
36. Treatment of phenol in the effluent, if any.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Explore the possibility to use fuel other than wood.
40. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
41. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
42. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
43. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
44. A write up on "Treatment of workers affected by accidental spillage of methanol/phenol".
45. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
46. An action plan to develop green belt in 33 % area
47. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
48. Details of occupational health programme.
  - i. To which chemicals, workers are exposed directly or indirectly.

- ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii. What measures company have taken to keep these chemicals within PEL/TLV.
  - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v. What are onsite and offsite emergency plan during chemical disaster.
  - vi. Liver function tests (LFT) during pre-placement and periodical examination.
49. Details of occupational health surveillance programme.
50. Socio-economic development activities shall be in place.
51. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
52. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
53. Corporate Environmental Responsibility
- (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
54. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
55. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
56. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the Gujarat Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

#### 8.5.22 Poly Urethane (PU) Manufacturing Unit (1220 MTPA) at Plot No. 6, Sector -6, II E, Pant Nagar, Udham Singh Nagar, Rudarpur, Sidcul, Uttarakhand by **M/s Mohit Rubber Foam (India) Pvt. Ltd.- regarding TORs**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within 10 km of interstate boundary, proposal is treated as category 'A' and appraised at Central Level.

M/s Mohit Rubber Foam (India) Pvt. Ltd. have proposed for setting up of Poly Urethane (PU) Manufacturing Unit (1220 MTPA) at Plot No. 6, Sector -6, II E, Pant Nagar, Udham Singh Nagar, Rudarpur, Sidcul, Uttarakhand. Total plot area is 4887 m<sup>2</sup>. Interstate boundary of Uttar Pradesh is located within distance of 10 Km. No wildlife sanctuary and national park is located within 15 km from the project site. No forest land is involved. No court case/litigation is pending against the project proposal. Plant will be operated for 300 days in a year. Polyol (900 MTPA), Isocyanate (300 MTPA) and Releasing Agent (40 MTPA) will be used as raw materials.

Fresh water requirement from ground water source will be 2.5 m<sup>3</sup>/day. DG set (125 KVA) will be installed. Spent oil and lubricants will be given to authorized recycler/re-processors. Solid waste generation will be in the form of cutting waste of PU foam (10 Kg/day) and sold out to the recyclers.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. A copy of Gazette Notification issued by the Govt. of Uttarakhand indicating location of the project in notified Industrial Area should be included necessarily.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.

10. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
11. Details of the total land and break-up of the land use for green belt and other uses.
12. List of products alongwith the production capacities.
13. Detailed list of raw material required and source, mode of storage.
14. Manufacturing process details alongwith the chemical reactions and process flow chart.
15. Action plan for the transportation of raw material and products.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 4 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction. Data for water and noise monitoring shall also be included.
18. Details of water and air pollution and its mitigation plan.
19. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
20. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
21. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
22. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
23. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
24. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
25. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
26. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of detailed report for the above mentioned 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. After detailed deliberations, the Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006, subject to submission of authentic document from the State Govt. indicating that the project is located in the notified industrial area. The final EIA/EMP report shall be submitted to the Ministry for obtaining environmental clearance.

#### 8.5.23 Drilling of Exploratory Wells (5 Nos.) in Block SR-ONN-2005/1 (South Rewa Basin) at Tehsil Bharatpur, District Korea, Chhattisgarh **by M/s Deep Industries Ltd.- regarding TORs**

The project authorities and their consultant (Ramky Group) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Deep Industries Ltd. have proposed for drilling of Exploratory Wells (5 Nos.) in Block SR-ONN-2005/1 (South Rewa Basin) at Tehsil Bharatpur, District Korea, Chhattisgarh. 2 exploratory wells will be drilled in phase-1 and 1 exploratory well will be drilled in phase-II. 3 exploratory wells will be finalized after seismic survey among 5 wells. Block area is 789 Km<sup>2</sup>. Total cost of the project will be Rs. 35 Crore. Well will be drilled upto depth of 2000-2500 m. Land requirement will be 1.21 ha per well. Portion of Guru Ghasidas National Park is located within the block. Sanjay National Park is located at a distance of 23 Km. Banas River and Kania River are flowing at a distance of 2 Km and 1.0 Km respectively. Jardol RF and Katuliha RF are located at a distance 0.5 Km.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
5. Permission from the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
6. Distance from nearby critically/severely polluted area as per Notification dated 13<sup>th</sup> January, 2010, if applicable.
7. Does proposal involves rehabilitation and resettlement? If yes, details thereof.

8. Details of project cost.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
  - (i) Topography of the project site.
  - (ii) Ambient Air Quality monitoring at 8 locations for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, Methane and non-methane HC.
  - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
  - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
  - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
  - (vi) Measurement of Noise levels within 1 km radius of the proposed wells.
  - (vii) Vegetation and land use; Animal resources
11. Incremental GLC as a result of DG set operation.
12. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
13. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
14. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
15. Treatment and disposal of waste water.
16. Treatment and disposal of solid waste generation.
17. Disposal of spent oil and loose.
18. Storage of chemicals and diesel at site.
19. Commitment for the use of WBM only
20. Mud make up and mud and cutting disposal – all options considered should be listed with selective option.
21. Hazardous material usage, storage accounting and disposal.
22. Disposal of packaging waste from site.
23. Oil spill emergency plans in respect of recovery/ reclamation.
24. H<sub>2</sub>S emissions control.
25. Produced oil handling and storage.

26. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
27. Details of control of air, water and noise pollution in oil collection system.
28. Disposal of produced/formation water.
29. Whether any burn pits being utilized for well test operations.
30. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
31. Measures to protect ground water and shallow aquifers from contamination.
32. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
33. Environmental management plan.
34. Documentary proof of membership of common disposal facilities, if any.
35. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environmental.
36. Total capital and recurring cost for environmental control measures.
37. A copy of Corporate Environment Policy of the ONGC as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26<sup>th</sup> April, 2011 available on the Ministry's website.
38. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
39. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same

to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

**8.5.24 Molasses based Distillery (45 KLPD) alongwith Co-Generation Power Plant (18 MW) at Village Mangrul, Tehsil & District Yavatmal, Maharashtra by M/s Deccan Sugar Pvt. Ltd. – regarding. TORs.**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Deccan Sugar Pvt. Ltd. have proposed for setting up of Molasses based Distillery (45 KLPD) alongwith Co-Generation Power Plant (18 MW) at Village Mangrul, Tehsil & District Yavatmal, Maharashtra. The proposed unit will be installed in the existing sugar plant of 2500 TCD capacity. Total cost of the project is Rs. 130 Crore. Adan River is flowing at a distance of 3 Km. No sanctuaries and biosphere is located within 10 Km distance. Protected Forest (3 Km), Sakur Reserved Forest (2 Km), Bori Reserved Forest (3 Km), Kharad Reserved Forest (7 Km), Vadgaon Reserved Forest (8 Km) and Umri Reserved Forest (6 Km) are located within 10 Km distance. Molasses (12000 MTPA) will be sourced from nearby sugar factories.

ESP alongwith stack (75 m) will be provided to bagasse fired boiler. Water requirement for distillery will be 600 m<sup>3</sup>/day and for cogeneration will be 600 m<sup>3</sup>/day. Spent wash will be treated in anaerobic digester followed by concentration and composting. The power requirement will be 5 MW. Fly ash generation will be used for land application.

After deliberations, the Committee prescribed the following TORs for the preparation of draft EIA/EMP:

1. Executive summary of the project.
2. Detailed break up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery.
4. Details of site and information related to environmental setting within 10 km radius of the project site. A copy of toposheet of the area indicating reserve forests, wildlife sanctuary, water bodies, barren land etc.
5. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
6. Recommendations from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
7. List of existing distillery units in the study area alongwith their capacity.
8. Number of working days of the distillery unit.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Manufacturing process details of distillery plant and CPP alongwith process flow chart.
11. Details of raw materials and source of raw material including sugar cane/ molasses.

12. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
14. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
15. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
16. Details of boiler and its capacity. Details of the use of steam from the boiler.
17. Ground water quality around proposed spent wash storage lagoon and the project area.
18. Details of water requirement, water balance chart for Molasses based Distillery (45 KLPD), Co-generation plant (18 MW). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
19. Water requirement should not exceed 10 Kl/Kl of alcohol (i.e. 45 m<sup>3</sup>/day) for distillery unit. Source of water supply and prior 'permission' for the drawl of total fresh water from the Competent Authority should be obtained.
20. Hydro-geological study of the area for availability of ground water.
21. Spentwash generation should not exceed 8Kl/ Kl of alcohol production.
22. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) as well as CPP and scheme for achieving 'zero' discharge.
23. Lagoon capacity for sugar unit and spent wash.
24. Details of solid waste management including management of boiler ash. MoU with cement plant for the use of fly ash.
25. Composting plan shall be submitted as per CPCB guidelines.
26. Green belt development as per the CPCB guidelines.
27. List of flora and fauna in the study area.
28. Noise levels monitoring at five locations within the study area.
29. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
30. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
31. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
32. Alcohol storage and handling area fire fighting facility as per OISD norms.
33. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
34. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
35. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.

- v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
36. Details of socio-economic welfare activities.
  37. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
  38. Action plan for post-project environmental monitoring.
  39. Corporate Environmental Responsibility
    - (a) 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.
    - (b) Does the Environmental 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 report.
    - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  40. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  41. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  42. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation alongwith duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the Maharashtra Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing / Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

8.5.25 Expansion of Bulk Drugs Unit (from 96 TPM to 421.2 TPM) at Sy. No. 388 & 389, Village Borapatla, Mandal Hathnoor, District Medak, Andhra Pradesh by **M/s Aurobindo Pharma Ltd. (Unit-1)**– regarding TORs.

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A'. and appraised at Central level.

M/s Aurobindo Pharma Ltd. (Unit-1) have proposed forexpansion of Bulk Drugs Unit at Sy. No. 388& 389, Village Borapatla, Mandal Hathnoor, District Medak, Andhra Pradesh. Total plot area is 57 acres of which greenbelt will be developed in 23 acres. The cost of existing project is Rs. 222 Crore and additional cost will be Rs. 72 Crore. Manjeera River is flowing at a distance of 2.5 Km. Following products will be manufactured:

S.N.	Products	Production Quantity (TPM)
1	Metformin Hydrochloride	200.0
2	Gabapentin	40.0
3	Cefuroxime Axetil	23.5
4	Cephalexin Monohydrate	15.0
5	Gemfrozil	10.0
6	Metoprolol Tartrate	10.0
7	Simvastatin	7.0
8	Ciprofloxacin Hydrochloride	7.0
9	Nevirapine	5.0
10	Losartan Potassium	5.0
11	Irbesartan	5.0
12	Topiramate	5.0
13	Florfenicol	5.0
14	Atorvastatin	4.0
15	Cefprozil	3.0
16	Cefadroxil	3.0
17	Pantoprazole Sodium Sequihydrate	3.0
18	Paroxetine Hydrochloride	3.0
19	Entacapone	3.0
20	Cefazolin Sodium	3.0
21	Ceftiofur Hydrochloride	3.0
22	Ceftriaxone Disodium Hemiheptahydrate	3.0
23	Cefotaxime	3.0
24	Cefpodoxime Proxetil	3.0
25	Terbinafine Hydrochloride	3.0
26	Cefdinir	2.5
27	Citalopram Hydrobromide	2.5
28	Glyburide	2.5
29	Cefalothin Acid	2.0
30	Cefradin	2.0
31	Famcielovir	2.0
32	Mirtazapine	2.0

33	Metroprolol Succinate	2.0
34	Ceftibuten Dihydrate	2.0
35	Retanovir	2.0
36	Cefepime Hydrochloride	2.0
37	Ceftazidime Dihydrochloride	2.0
38	Escitaloprama Oxalate	2.0
39	Telmisartan	2.0
40	Cefixime Trihydrate	1.5
41	Cefaclor Monohydrate	1.0
42	Lamivudine	1.0
43	Stavudine	1.0
44	Lisinopril	1.0
45	Candesartan Cilexetil	1.0
46	Modafinil	1.0
47	Sevelamer Hydrochloride/Carbonate	1.0
48	Perindopril tert-Butylamine	0.5
49	BisoprololFumarate	0.5
50	Amisulpride	0.5
51	Donepezil Hydrochloride	0.5
52	Fluvastatin	0.5
53	Risperidone	0.5
54	Rabeprazole Sodium	0.5
55	Ribavirin	0.5
56	Bupropion Hydrochloride	0.5
57	DoxazosinMesylate	0.5
58	Aripiprazole	0.5
59	Cefoxitin Sodium	0.5
60	Cephapirin Benzathine	0.5
61	Ceftizomime Acid	0.5
62	CefditorenPivoxil	0.5
63	Cefsulodin Sodium	0.5
64	Terazosin Hydrochloride Dihydrate	0.3
65	Ondansetron	0.2
66	Cefpirome D;ihydroiodide	0.2
	<b>TOTAL</b>	<b>421.2</b>

Bagfilter has been provided to coal fired boiler (1x 27.5 TPH + 1x8 TPH). Stack of 30 m height has been provided to oil fired boiler (6 TPH). ESP will be provided to coal/husk fired boiler (39 TPH). Additional DG sets (3x750 KVA + 4 x1010 KVA) will be installed. Water requirement will be increased from 140.8 m<sup>3</sup>/day to 1295 m<sup>3</sup>/day after expansion. Out of which fresh water from ground water source will be 994 m<sup>3</sup>/day. Wastewater generation will be increased from 51.3 m<sup>3</sup>/day to 567.5 m<sup>3</sup>/day after expansion. Wastewater generated at the unit is segregated into three streams viz. process wastewater, utilities wastewater and domestic wastewater. Process wastewater is further segregated into low high strength streams based on characteristics of wastewater viz. TDS, COD etc. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and ATFD. Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) based biological treatment process followed by RO. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Ash from boiler will be sent to TSDF. MEE salt and process inorganic salt will be sold to TSDF. Spent mixed

solvents will be sent cement manufacturers. Power requirement will be 10 MW. It is proposed to establish captive cogeneration power plant.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the APPCB.
7. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
13. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
14. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
15. Details of the total land and break-up of the land use for green belt and other uses.
16. List of products alongwith the production capacities.
17. Detailed list of raw material required and source, mode of storage.
18. Manufacturing process details alongwith the chemical reactions and process flow chart.
19. Action plan for the transportation of raw material and products.
20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
21. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
22. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
23. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
24. Name of all the solvents to be used in the process and details of solvent recovery system.
25. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
26. Details of water and air pollution and its mitigation plan.

27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Source and Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
31. Attempt to be made for reduction for usage of water.
32. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
33. Zero discharge effluent concepts to be adopted.
34. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
35. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
36. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
37. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
38. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
39. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
40. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
41. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
42. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
43. Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
45. Note on compliance to the recommendations mentioned in the CREP guidelines.
46. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
47. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
48. Total capital cost and recurring cost/annum for environmental pollution control measures.

#### 49. Corporate Environmental Responsibility

- (a) 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.
- (b) Does the Environmental 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 report.
- (c ) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
- (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
50. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
51. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
52. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report should be submitted to the AP Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

#### 8.5.26 Expansion of Synthetic Organic Chemicals at Plot no. 126/1,2,3, PO Popatpura, TalukaGodhara, District Panchmahal, Gujarat by **M/s Kusa Chemical Pvt. Ltd.- Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A'. and appraised at Central level.

M/s Kusa Chemical Pvt. Ltd. have proposed for expansion of Synthetic Organic Chemicals at Plot no. 126/1,2,3, PO Popatpura, Taluka Godhara, District Panchmahal, Gujarat. Total cost of the expansion project is Rs. 492.25 Lakhs. Total plot area is 35 acres (141639 m<sup>2</sup>) of which greenbelt will be developed in 50,000 m<sup>2</sup>. Following products will be manufactured:

S.N.	Product	Existing Capacity (MTPM)	Additional Capacity (MTPM)	Total Capacity (MTPM)
1	Oil Additives	300	750	1050
2	Oil Additives Mix (Blending Products)	0	300	300
3	Emulsifier	250	700	950
4	Emulsifier Mix (Blending Products)	0	500	500
5	Monomer	0	150	150
6	ZDDP	0	100	100
7	Polyamides	0	50	50
8	Acrylic Emulsions	0	50	50
9	PIBSA	0	50	50

Alkali scrubber will be installed in ZDDP and PIBSA manufacturing unit to control process emissions. Water requirement will be increased from 9.4 m<sup>3</sup>/day to 100.5 m<sup>3</sup>/day. Industrial effluent will be increased from 9.4 m<sup>3</sup>/day to 56.9 m<sup>3</sup>/day. Effluent will be treated in ETP. ETP sludge, process waste (PIBSA, Acrylic emulsion, ZDDP) will be sent to TSDF.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.
7. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
13. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
14. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.

15. Details of the total land and break-up of the land use for green belt and other uses.
16. List of products alongwith the production capacities.
17. Detailed list of raw material required and source, mode of storage.
18. Manufacturing process details alongwith the chemical reactions and process flow chart.
19. Action plan for the transportation of raw material and products.
20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
21. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
22. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
23. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
24. Name of all the solvents to be used in the process and details of solvent recovery system.
25. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
26. Details of water and air pollution and its mitigation plan.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Source and permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
31. Attempt to be made for reduction for usage of water.
32. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
33. Zero discharge effluent concepts to be adopted.
34. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
35. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
36. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
37. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
38. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
39. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
40. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.

41. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
42. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
43. Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
45. Note on compliance to the recommendations mentioned in the CREP guidelines.
46. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
47. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
48. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 49. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c ) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
50. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
51. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
52. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report should be submitted to the Gujarat Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

#### **8.5.27 Exploratory Drilling (24 additional wells) in On-shore PEL Block L-II of Cauvery Basin, District Nagapattinam, Tamil Nadu by M/s Oil & Natural Gas Corporation Ltd. (ONGCL)- regarding Environmental Clearance**

The project authorities and their consultant (Ramky Enviro Engineers Ltd, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 20<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 3<sup>rd</sup> – 4<sup>th</sup> March, 2011 for preparation of EIA/EMP report. All the offshore drilling projects for oil & gas are listed at S.N. 1(b) under Category 'A' and appraised at the Central level.

M/s Oil & Natural Gas Corporation Ltd. (ONGCL) have proposed for the Exploratory Drilling (25 additional wells) in On-shore PEL Block L-II of Cauvery Basin, District Nagapattinam, Tamil Nadu. Environmental Clearance for 7 PEL Block of Cauvery basin to drill 16 wells have already been accorded by the Ministry vide letter No.J-11011/178/2008-IA(II)-I dated 28<sup>th</sup> April, 2008. Approximately, 4-5 acre land will be acquired on lease/rent for the drilling activity. The L-II PEL Block Cauvery with an area of 1545.02 sq.km is located in the central part of the Cauvery-on-land extending for Tulapattinam and Vadatheru in the South Karaikal High Flank and Mattur-Pundi in North. The L-II Pet Block falls in central part of the Cauvery Basin and constitutes parts of Nagapattinam, Tanjore and Southern part of Tanjor sub-basin. Exploration cycle starts w.e.f. 1<sup>st</sup> April, 2004 for 7 years and ends 31<sup>st</sup> March, 2011. Further extension for PEL is given for 2 years and will end 31<sup>st</sup> March, 2013. Project proponent informed that proposal for drilling activity in Thanjavur has been dropped as public hearing for the said district was not conducted. Therefore, only 24 exploratory drilling will be carried out. Location of 24 exploratory wells will be as follows:

<b>S. N.</b>	<b>Exploratory Locations Released / Under proposal</b>	<b>Coordinates/ Staked Location coordinates</b>	<b>Taluk</b>	<b>District</b>
1	PMAF (TD:4200)	LAT:10°48'24.56"N LONG:79°40'41.28"E	Thiruvarur	Thiruvarur
2	ASAE (TD:4000)	LAT:10°53'11"69"N LONG:79°43'48.051"E	Thirumaruga I	Nagapattinam
3	AYAC (TD:4500)	LAT: 10°56'49.58"N LONG: 79°34'06.67"E	Kodavasal	Thiruvarur

4	KPBC(ML) (TD:4500)	LAT: 10°46'33.67"N LONG: 79°35'54.28"E	Thiruvavarur	Thiruvavarur
5	VNAB (TD:3500)	LAT: 10°44'05.68"N LONG: 79°41'13.85"E		
6	PM5A(ML) (TD:3550m)	LAT: 10°45'53.82"N LONG: 79°40'45.82"E		
7	TVAU (TD:3750)	LAT: 10°46'13.78"N LONG: 79°45'06.14"E	Kivelur	Nagapattinam
8	TAAE (TD:3600m)	LAT: 10°24'44.92"N LONG: 79°37'49.72"E	Thituthuraipoo ndi	Thiruvavarur
9	MTAM (TD:2100)	LAT: 10°52'05.4"N LONG: 79°26'08.4"E	Valangaiman	
10	B-CY-EOT-1 (TD:3000)	LAT: 10°30'25.54"N LONG: 79°10'27.48"E	Tiruvonam	Thanjavur (Proposal dropped)
11	B-CY-WVDR-1 (TD:1750)	LAT: 10°24'03.88766"N LONG: 79°04'45.13311"E	Tiruvonam	Pudukootai
12	B-CY-NKK-1 (TD:2550m)	LAT: 10°36'21.77875"N LONG: 79°31'41.09905"E	Mannargudi	Thiruvavarur
13	B-CY-NKK-2 (TD:2550m)	LAT: 10°35'38.67833"N LONG: 79°32'15.61148"E		
14	B-CY-NKK-4 (TD:2450m)	LAT: 10°37'06.58527"N LONG: 79°30'42.17503"E		
15	B-CY-NVDR-3 (TD:3560)	LAT: 10°26'53.2"N LONG: 79°06'31.65"E	Karambakud i	Pudukottai
16	B-CY-NVDR-2 (TD:3375)	LAT: 10°26'29.61"N LONG: 79°06'30.31"E		
17	B-CY-NVDR-5 (TD:3825)	LAT: 10°28'10.8"N LONG: 79°07'25.7"E		
18	B-CY-AB-1 (TD:5500)	LAT: 10°52'33.83"N LONG: 79°36'25.69"E	Nannilam	Thiruvavarur
19	B-CY-VN-3 (TD:4500)	LAT: 10°43'19.23"N LONG: 79°38'52.30"E	Thiruvavarur	
20	B-CY-PM-4 (TD:4000)	LAT: 10°45'35.16"N LONG: 79°38'43.03"E	Needamangal am	
21	B-CY-PD-3 (TD:6000)	LAT: 10°41'22.23"N LONG: 79°32'50.65"E		
22	B-CY-PD-4 (TD:6500)	LAT: 10°39'16.64"N LONG: 79°35'25.27"E		
23	B-CY-PD-5 (TD:6000)	LAT: 10°41'30.05"N LONG: 79°37'38.29"E	Mannargudi	
24	B-CY-KK-3 (TD:2250)	LAT: 10°34'50.15"N LONG: 79°31'20.38"E		
25	B-CY-NKK-5 (TD:2250)	LAT: 10°34'43.73"N LONG: 79°31'59.50"E		

Total cost of the project is Rs. 575.05 Crore. Water based mud will be used for drilling. No forest land is involved.

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 24 locations during December, 2011-March, 2012 and submitted data indicates  $PM_{10}$  (32.8-52.4  $\mu\text{g}/\text{m}^3$ ),  $PM_{2.5}$  (11.9-24.5  $\mu\text{g}/\text{m}^3$ ),  $SO_2$  (5.2-13.7  $\mu\text{g}/\text{m}^3$ ) and  $NO_x$  (9.2- 21.1  $\mu\text{g}/\text{m}^3$ ). Incremental concentration due to proposed project was estimated to be  $PM_{10}$  (0.01  $\mu\text{g}/\text{m}^3$ ),  $SO_2$  (0.09  $\mu\text{g}/\text{m}^3$ ) and  $NO_x$  (0.08  $\mu\text{g}/\text{m}^3$ ). Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement will be 25  $\text{m}^3/\text{day}$ , which will be procured from tanker. Water based mud (WBM) and Synthetic based mud will be used. Total wastewater generation will be around 8  $\text{m}^3/\text{day}$ . Effluent will be treated in effluent treatment plant (ETP) comprising equalization, chemical coagulation, flocculation and clarification by settling and residual unusable mud will be collected in lined pits and solar evaporated. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30<sup>th</sup> August, 2005. Used oil will be sent to authorized recyclers.

HSD (5.5 KLD) will be used as fuel in rig and D.G. sets during drilling period. DG sets (3 x 1000 KVA) will be installed. Number of blow out prevention techniques will be part of drilling rig unit. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful the well bore will be cement plugged.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the TN Pollution Control Board on 5<sup>th</sup> December, 2012 for Thiruvavur District. The issues raised were regarding compensation, local employment, gas flaring, odour problem, gas leakage etc.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the TN Pollution Control Board on 12<sup>th</sup> March, 2013 for Nagapattinam District. The issues raised were regarding restoration of land after drilling, non-availability of drinking water, stagnant of wastewater, etc. In response, project proponent informed that public who got affected may give representation in writing and any representation received in this regard will be scrutinized by the committee and compensation will be decided. Regarding damaged road, project proponent informed that the survey of all roads will be carried out and necessary action will be taken. Regarding implementation of CSR, Project proponent informed that ONGC will carry out CSR activities like sanitations, drinking water facilities to schools etc. Restoration of site will be carried out. All the issues have been satisfactorily responded by the project proponent and incorporated in the final EIA/EMP report.

The committee noted that environmental clearance for the existing exploratory wells in Cauvery basin was accorded vide Ministry's letter no.J-11011/178/2008-IA(II)-I dated 28<sup>th</sup> April, 2008. The committee deliberated upon the compliance report submitted by the project proponent and project proponent responded satisfactorily.

After detailed deliberations, the Committee found the EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i. No drilling shall be carried out within 10 Km from the national park/wildlife sanctuary.
- ii. As proposed, no exploratory drilling shall be carried out in Tanjavur district of Tamil Nadu as M/s ONGC has dropped the proposal for drilling in the Tanjavur district.

- iii. This EC is only for Exploratory Drilling. In case Development drilling is to be done in future, prior clearance must be obtained from the Ministry.
- iv. Ambient air quality should be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, methane & Non-methane HC etc.
- v. Mercury should also be analyzed in air, water and drill cuttings twice during drilling period.
- vi. Approach road should be made pucca to minimize generation of suspended dust.
- vii. The company should make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
- viii. Total water requirement should not exceed 25 m<sup>3</sup>/day and prior permission should be obtained from the concerned agency.
- ix. The company should construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.
- x. Drilling wastewater including drill cuttings wash water should be collected in disposal pit lined with HDPE lining evaporated or treated and should comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill should be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Lucknow.
- xi. Good sanitation facility should be provided at the drilling site. Domestic sewage should be disposed off through septic tank/ soak pit.
- xii. Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorized recyclers.
- xiii. The company should comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- xiv. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during operation.

- xv. The company should develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xvi. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xvii. Blow Out Preventer (BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during drilling should focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xviii. Emergency Response Plan (ERP) should be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xix. The company should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site should be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan should be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xx. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
- xxi. Occupational health surveillance of the workers should be carried out as per the prevailing Acts and Rules.
- xxii. In case the commercial viability of the project is established, the Company should prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xxiii. Restoration of the project site should be carried out satisfactorily and report should be sent to the Ministry's Regional Office at Bangalore.
- xxiv. Oil content in the drill cuttings should be monitored by some Authorized agency and report should be sent to the Ministry's Regional Office at Bangalore.
- xxv. Under Corporate Social Responsibility (CSR), sufficient budgetary provision should be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxvi. An audit should be done to ensure that the Environment Management Plan is implemented in totality and report should be submitted to the Ministry's Regional Office.
- xxvii. A social audit shall be carried out for the whole operation area with the help of reputed institute like Madras Institute of Social Science etc.
- xxviii. All personnel including those of contractors should be trained and made fully aware of the hazards, risks and controls in place.

- xxix. Company should have own Environment Management Cell having qualified persons with proper background.
- xxx. Company should prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual should be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring should be available at the project site office.

#### **8.6.0 Reconsideration**

8.6.1 Molasses based Distillery (ENA/RS/AA, 70 KLPD) Unit alongwith Cogen Power Plant (2.5 MW) at Sy. No. 79/2, 79/4, 80/1, 80/4, 86/1 Village Kenganoor and Sy No. 84/2, Pattihal KB, Taluk Bailhongal, District Belgaum, Karnataka **by M/s. Lorvin Industries Ltd.–Regarding reconsideration for grant of Environment Clearance.**

Project proposal was considered in the 5<sup>th</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 31<sup>st</sup> January, 2013 – 1<sup>st</sup> February, 2013 and the Committee desired following information:*

- I. Confirmation needs to be obtained from the project proponent and the environmental Consultant whether EIA/EMP report and public hearing has been conducted for proposed site at Sy. No. 84/2 of Pattihal K B Village.
- II. A copy of lease deed or allotment letter, if land is already acquired.

Project proponent vide letter dated 28<sup>th</sup> March, 2013 submitted the following additional information:

- I. Project proponent and Consultant confirmed that the EIA/EMP report & public hearing has been conducted for the proposed site at Sy. No. 84/2 of Pattihal KB Village. The main manufacturing plant will be erected at sy. No. 84/2 of Pattihal KB Village.
- II. A copy of procurement papers of land is submitted. A copy of O.M. no. RB/LNA-SR-1-76/09-10 dated 13<sup>th</sup> August, 2009 issued by Revenue Department, Government of Karnataka is submitted.

After detailed deliberations, the Committee found the additional information satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i. Distillery unit shall be based on molasses based only and no grain based distillery unit shall be operated.
- ii. As proposed, bag filter alongwith stack of adequate height shall be provided to boiler to control particulate emission within 50 mg/Nm<sup>3</sup>.
- iii. Company shall follow good management practices viz. collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units; minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the

anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.

- iv. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- v. Total fresh water requirement from river should not exceed 10.5 KL/KL of alcohol (i.e. 735 m<sup>3</sup>/day) for distillery and cogeneration unit and prior permission for drawl of water should be obtained from the competent authorities.
- vi. Spent wash generation from molasses based distillery should not exceed 8 KI/KI of alcohol produced. Spent wash from molasses based distillery should be treated in biodigester. Treated effluent shall be concentrated in MEE. Concentrate will be mixed with other fuel to incinerate in the boiler to achieve zero discharge. Spentlees, effluent from utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/ reuse.
- vii. Spent wash for molasses should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should not be more than 30 days.
- viii. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge should be adopted.
- ix. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- x. Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.
- xi. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xii. All the commitment made regarding issues raised during the public hearing/ consultation meeting held on 22<sup>nd</sup> February, 2012 shall be satisfactorily implemented.
- xiii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise social responsibility based on public hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.
- xiv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.

- xv. Green belt should be developed in 6 ha. to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick green belt with suitable plant species should be developed around the proposed distillery to mitigate the odour problem.

**8.6.2 Expansion of Bulk Drug Unit (2551.5 MTPA to 3322.0 MTPA) at Sejavta, Ratlam, M.P. by M/s Ipca Laboratories Ltd.- Regarding reconsideration for grant of Environment Clearance.**

Project proposal was considered in the 4<sup>th</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 8<sup>th</sup> – 9<sup>th</sup> January, 2013* and the Committee desired following information:

1. 20 m distance to be maintained from high tension wire line.
2. Revised greenbelt layout plan.
3. Evacuation plan for the existing and proposed to be submitted.
4. Project proponent has to submit time frame for following:
  - a). Installation of sensor for VOC monitoring.
  - b). Installation of online ambient air quality monitoring station.
  - c). Uploading of six monthly compliance report.

Project proponent vide letter dated 24<sup>th</sup> April, 2013 submitted the above mentioned additional information. Regarding installation of sensor for VOC monitoring and online ambient air quality monitoring station, project proponent informed that they have already placed the order. Online AAQMS will be installed by June, 2013 and sensor for VOC monitoring will be installed within a period of one year. Necessary arrangements will be made to upload the compliance report on the website.

After detailed deliberations, the Committee found the additional information satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. Company shall not start operation of the expansion unit unless the pollution control equipments are ready and running. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments have been installed.
- ii) Multi-cyclone followed by bag filter should be provided to the boilers to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- iii) The levels of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO and HCl shall be monitored in ambient air.

- iv) Two stage chilled water/caustic scrubber should be provided to process vents to control HCl. Two stage scrubbers with caustic lye media solution should be provided to process vents to control SO<sub>2</sub>. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- v) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by APPCB.
- vi) Fresh water requirement from ground water source should not exceed 786 m<sup>3</sup>/day and fresh water requirement from municipal supply should not exceed 786 m<sup>3</sup>/day. Prior permission should be obtained from the CGWA/SGWA.
- vii) Trade effluent should be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through stripper followed by MEE. Low TDS effluent stream should be treated in ETP and then passed through RO system. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- viii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- ix) As proposed, process organic residue and spent carbon should be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The fly ash from boiler should be sold to brick manufacturers/cement industry.
- x) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- xi) Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xii) Solvent management should be as follows :
  - Reactor should be connected to chilled brine condenser system
  - Reactor and solvent handling pump should have mechanical seals to prevent leakages.
  - The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - Solvents should be stored in a separate space specified with all safety measures.

- Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
- Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

xiii) Green belt should be developed in 14.76 ha.out of total land 40.47 ha.

xiv)Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

#### 8.6.3 Pesticides Manufacturing unit at Plot No. 772 P, GIDC Industrial Estate, Jhagadia, District Bharuch Gujarat by M/s Yogleela Cropscience Pvt. Ltd.- **Regarding reconsideration for grant of Environment Clearance.**

Project proposal was considered in the 1<sup>st</sup>Reconstituted *Expert Appraisal Committee (Industry) meeting held during 24<sup>th</sup> -25<sup>th</sup>September, 2012and the Committee desired following information:*

1. BOD, DO and COD to be monitored in the surface water.
2. Ground water analysis shall be rechecked.
3. Effluent characteristics for toxic, high TDS and low TDS effluent stream shall be estimated. Effluent treatment scheme shall be provided based on the effluent characteristics.
4. Solvent residue to be given to cement plant.
5. Layout map indicating greenbelt shall be submitted. Greenbelt width to be mentioned.

Project proponent vide letter dated 24<sup>th</sup>April, 2013 submitted the above mentioned additional information.

After detailed deliberations, the Committee found the additional information satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i. National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3<sup>rd</sup> February, 2006 and amended time to time shall be followed by the unit.
- ii. Adequate stack height shall be provided to natural gas fired boiler and thermic fluid heater to disperse waste gases into atmosphere.
- iii. Adequate scrubbing system shall be provided to process vent to control process emissions viz. HCl and HBr emissions. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- vi. All necessary steps should be taken for monitoring of chlorine, HCl and HBr as well as VOCs in the proposed plant.
- vii. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines.
- viii. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- ix. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be followed.
- x. Total water requirement from GIDC water supply should not exceed 280.84 m<sup>3</sup>/day and prior permission should be obtained from the concerned Authority.
- xi. As proposed, industrial effluent generation should not exceed 261.79 m<sup>3</sup>/day. Effluent shall be segregated into toxic, High COD/TDS and low COD/TDS effluent streams. Toxic effluent stream shall be incinerated. High TDS effluent should be treated through stripper followed by MEE. Low COD/TDS effluent should be treated in ETP. Treated effluent shall be discharged to deep sea through a separate conveyance pipeline after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent shall be monitored regularly and monitoring report shall be submitted to the GPCB.
- xii. Treated industrial effluent shall be passed through guard pond. The guard pond shall have online pH, TOC analyser and flowmeter and data shall be online transmitted to the GPCB website.
- xiii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- xiv. As proposed, ETP sludge, MEE salt and incineration ash should be sent to TSDF site. High calorific value waste such as spent organic should be incinerated.
- xv. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xvi. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.

- xvii. Green belt should be developed in 9779.2 m<sup>2</sup> out of the plant area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xviii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

#### **8.7.0 Any other item**

##### **8.7.1 Hydrocarbon Development and Production of Guda Field in RJ-ON-90/1 block by M/s Cairn Energy India Pty. Ltd. - Regarding Extension of Validity of Environment Clearance.**

MoEF vide letter no. J-11011/175/2007-IA-II(I) dated 17<sup>th</sup> May 2007 has accorded environmental clearance for Hydrocarbon Development and Production of Guda Field in RJ-ON-90/1 block by M/s Cairn Energy India Pty. Ltd.

Project proponent informed that production capacity of Mangla Processing Terminal is going to increase from 175000 bopd to 200000 bopd. In order to achieve higher production rate of hydrocarbon from RJ-field within the already approved facility and infrastructure, CIL intend to develop GUDA field one of its potential minor field to achieve higher production and assess the prospective potentiality of other adjacent field in targeting maximum production. Now, project proponent has requested for extension EC validity for five years.

The Committee recommended the project proposal to extend the validity of EC for another 5 years.

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