

MINUTES OF 19th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY) HELD DURING 28TH 30TH
MAY 2014

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

19.0 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.

19.1 Confirmation of the Minutes of the 18th Reconstituted Expert Appraisal Committee (Industry) held during 28-30th April 2014

The minutes of the 18th Reconstituted Expert Appraisal Committee (Industry) meeting held during 28-29th April 2014 were confirmed.

Wednesday, 28th May 2014

19.3 Environmental Clearance

19.3.1 Proposed (2 x 9 MVA) Submersed Electric Arc Furnace for manufacturing (Ferro Manganese - 35,175 TPA, Silico manganese - 23,450 TPA, Ferro Silicon -11,585 TPA) of **M/s Embee Ferro Alloy (P) Limited** at West Bengal Industrial Development Corporation (WBIDC), Plot No. 2687 (P), Mouza, Ghatgoria, JL No. 24, P.S. Barjora, District Bankura, West Bengal (EC)

M/s Embee Ferro Alloy (P) Limited (*herein after Project Proponent –PP*) and their EIA-EMP consultant M/s Grass Roots Research & Creation India (Private) Limited - Noida gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken based on the Terms of Reference (TORs) recommended during the 27th meeting of the Expert Appraisal Committee (Industry -1) held on 26-27th August 2011 accorded by MoEF vide F.No. J-11011/410/2011-IA.II(I) dated 09.09.2011 for preparation of EIA-EMP report and extension of its validity vide MOEF letter dated 23.1.2014 until 07.09.2014. PP submitted the final EIA-EMP report for EC vide letter dated 08.01.2014 after conducting Public Hearing. 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.

2. The salient points of the proposed project as per the final EIA-EMP report submitted by PP are as given below:

M/s Embee Ferro Alloy (P) Limited have proposed to set up (2 x 9 MVA) Submersed Electric Arc Furnace for manufacturing (Ferro Manganese - 35,175 TPA, Silico manganese - 23,450 TPA, Ferro Silicon - 11,585 TPA) at West Bengal Industrial Development Corporation (WBIDC), Plot No. 2687 (P), Mouza, Ghatgoria, JL No. 24, P.S. Barjora, District Bankura, West Bengal. The land requirement is 5 acres which has been acquired by the proponent. The latitude and longitude of the site location is 23°26'11.21"N 87°15'09.43"E respectively. 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. No Protected forest/Reserved forest falls within the 10 km radius of the project site. Nearest railway station is Durgapur which is at a distance of 12km from the project site. River Damodar is located at 6.4 km from the project site. Total capital cost of the project is Rs. 57.752 crores. Rs. 2.08 crores and Rs.0.25 crores have been earmarked towards the capital cost and recurring cost per annum for environmental protection measures. Rs. 2.90 crores is earmarked towards the activities related to Enterprise Social Commitment based on the Public Hearing needs.

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

S. No.	Facility	Plant Configuration	Product	Production Capacity
1.	Submerge Arc Furnace	9 MVA X 2	Ferro-Manganese	35175 TPA
			Silico- Manganese	23450 TPA
			Ferro-Silico	11585 TPA
Total Production of Ferro Alloys				70210 TPA

The raw materials required are – Manganese Ore (121946 TPA), Coke (46902 TPA), Dolomite (14657 TPA), Quartz (44375 TPA) and mill scale (3475 TPA). The raw materials will be sourced from the mines located at Odisha, Jharkhand and Meghalaya and the said raw materials will be transported to the plant site by road. The power requirement is 20 MVA which will be obtained from the Damodar Valley Corporation.

Ambient air quality monitoring has been carried out at 8 locations during October 2011 to December 2011 and the data submitted indicated: PM₁₀ (80.9 – 89.6 µg/m³), SO₂ (8.7-10.6µg/m³) and NO_x (16.2-20.9 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 1.70 µg/m³ with respect to PM. The emissions from the furnaces will be passed through the bag filters. Dust suppression will be provided in the material handling area. Fume extraction system will be provided at the top of furnace and tapping points. Stack of adequate height will be provided.

The total water requirement shall be 50 KLD which shall be supplied by Barjora Panchyat Samity. PP has submitted a copy of conformation obtained from the Barjora Panchyat Samity. No process waste water is generated. The waste water generated from the plant is cooling tower blow down will be reused for dust suppression. Zero effluent discharge will be implemented.

Solid wastes generated from the unit include Slag (Fe-Mn slag: 24,000 TPA; Si-Mn slag: 22,000 TPA) from the Ferro alloy manufacturing unit which will be used for leveling, construction purpose or as a rail ballast or road construction. Dust from the bag filter will be send to the brick manufacturer. Used oil will be sold to registered recyclers.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by West Bengal Pollution Control Board on 4.12.2013, chaired by ADM, Bankura, West Bengal. The issues raised in the Public Hearing are – environmental pollution, infrastructure development regarding health services, street light and supply of drinking water in the area and employment to the local people. In response to this, PP informed that high efficiency bag filters are envisaged for primary and secondary emission control system. An amount of Rs.2.90 crores is earmarked towards the Enterprise Social Commitment based on the Public Hearing needs.

3. After detailed deliberations the Committee recommended the project for environmental clearance and stipulated 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/Nm³.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th 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 Bhubaneshwar, SPCB and CPCB.
- vi. The total water requirement shall not exceed 50 m³/day. The water requirement shall be met from Barjora Panchyat Samity. The unit shall obtain requisite permission from the concerned authorities for water drawl. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- 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 should be met from other sources.
- viii. 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.
- ix. No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.
- x. An action plan for control of Cr and As in air and water along with the trace element analysis of Mn Ore should be prepared of and submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xi. 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.
- xii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 4.12.2013 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 Bhubaneshwar.
- xiii. 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 Bhubaneshwar. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bhubaneshwar.
- 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. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

- xvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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.

19.3.2 Pellet Plant of 4.0 MTPA (1.2 MTPA x 3 lines + 10% up-gradation) along with Producer Gas Plant (72000 NM³/hr) of **M/s Rungta Mines Limited** at Village Dudhaposi and Balibeda, Tehsil – Banspal, Keonjhar District, Odisha (EC)

M/s Rungta Mines Limited and their EIA-EMP consultant M/s CTRAN Consulting Limited - Bhubaneswar gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 8th meeting of the Expert Appraisal Committee (Industry) held on 16-17th May 2013 for preparation of EIA-EMP report. PP submitted the final EIA-EMP report vide letter no. RML/MoEF/Dudhaposi/13-14/4914 dated 13.1.2014 after conducting Public Hearing for grant of Environmental Clearance. 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.

2. The salient points of the proposed project as per the final EIA-EMP report submitted by project authorities vide letter referred above in para 1 are as follows:

M/s Rungta Mines Limited have proposed to set up a 4.0 MTPA Pellet Plant (1.2 MTPA x 3 lines + 10% up-gradation) along with Producer Gas Plant (72000 NM³/hr) at Village Dudhaposi and Balibeda, Tehsil – Banspal, Keonjhar District, Odisha. The land requirement for the proposed project is 128.18 acres. Out of the total land of 128.18 acres, 37.03 acres have already been acquired and 91.15 acres (33.174 acres private land and 57.976 acres Govt. land) are under the process of acquisition through IDCO. The longitude and latitude of the project site is 85°24'50"- 85°25'30" E and 21°41'54" - 21°42'30" N respectively. 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. Protected Forests exists in the study area are – Raiguda PF(2.4 km S), Amuri PF(4.3km ESE), Jagar PF(5.9 km) and Ganghamardan PF(6.7km ESE). Reserve Forests exists in the study area are Ganghamardan RF(8.9 km SE), Nayagarh RF(7.2km NE) and Ichinda RF(9.7 km). No court case/litigation is pending against the proposed project. Baitrani river is located at a distance of 6km from the project site. Total cost of the project is Rs. 885 crores. Rs. 9.35 crores and Rs. 2.38 crores is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. Rs. 44.25 crores is earmarked towards the Enterprise Social Commitment based on Public Hearing issues.

3. The raw materials required are iron ore fines (48,47,040 TPA), bentonite (33,929 TPA), coke breeze/coal fines (72,706 TPA), limestone/dolomite (48,470 TPA), coal (2,80,000 TPA) furnace oil (17,820 KL) and producer gas. The iron ore will be sourced from PP's Jajang iron ore mine (5.5 MTPA) for which EC has been accorded by MoEF vide letter no. J-11015/36/2005-IA.II(M) dated 14.6.2005. Iron ore will be transported to the plant site by truck/rail. Coal will be imported from South Africa. The ash and sulphur content in the coal would be 21-22% and 0.6% respectively. The calorific value of the coal is 5500-5700 kcal/kg. Other raw materials will be sourced from the open market. The power requirement is 40 MW which will be met from 132 KV line from Palaspanga grid of M/s NESCO, Odisha.

4. Ambient air quality monitoring has been carried out at 8 locations during March – May 2013 and the data submitted indicated: PM₁₀ (46.97 to 54.22 µg/m³), PM_{2.5} (27 to 31.65 µg/m³), SO₂ (5.31 to 7.67 µg/m³) and NO_x (6.59 to 9.83 µg/m³). AAQ modeling study indicates that the maximum cumulative incremental GLCs would be 1.54 µg/m³, 2.74 µg/m³ and 50.57 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. Bag filter will be provided to raw material handling, coke grinding, flux grinding and finished product handling section. Bag filter and dry fog system will be provided to the coal handling plant. All trucks used for transportation of raw material and finished product will be covered with tarpaulin, maintained, optimally loaded and have PUC certificates. High efficiency electrostatic precipitators will be used in the

furnace to limit PM level below 50 mg/Nm³. Dust extraction system with bag filters shall be provided at different places and stack emission will be below 50 mg/Nm³.

5. Water requirement for the project would be 3600 KLD (150 m³/hr) and it will be met from Baitrani river. For this purpose, application has been submitted by the PP to the Department of Water Resources, Odisha. The final approval for the water drawl is yet to be obtained by the PP. No industrial waste water will be generated in the Plant except cooling water blow down. Domestic waste water generated from Plant will be treated in Septic Tank followed by Soak Pit. The Cooling water blow down will be utilized for Greenbelt Development.

6. Coal Tar generation would be 16800 TPA and it will be used in the pellet plant itself. The ash generation is 100000 TPA and it will be used for the brick manufacturing and road making. Part of the fly ash will be used as raw material in in-house company's own making plant. Dust collected from various pollution control equipments will be recycled back to the process. Out of the total plant area, 33% of total plant area will be developed under green belt / plantation in a scientific manner around the plant boundary, roadside, office buildings and stretches of open land.

7. The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by Odisha Pollution Control Board on 24.12.2013 under the chairmanship of Addl. District Magistrate at Jambhirkuan chowk, Dudhaposi village, Keonjhar, Odisha. The issues raised during Public Hearing are compensation for the boundary wall constructed at the site, pollution control, employment opportunities, provision of drinking water facility and establishment of a health centre etc. In response to this, PP informed that an amount of Rs.44.25 crores is earmarked towards the Enterprise Social Commitment based on the Public Hearing needs.

8. After detailed deliberations the Committee recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering accord of environmental clearance.

- i. Rehabilitation and Resettlement (R&R) Plan shall be prepared and submitted to the State Government of Odisha. This shall be implemented as per the R & R Policy of the State Government of Odisha. 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.
- ii. Measures shall be taken to reduce PM levels in the ambient air. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- v. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- vi. Total fresh water requirement from ground water source shall not exceed 3600 m³/day which will be met from River Baitrani. Prior permission shall be obtained from the Competent Authority for water drawl from river Baitrani. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

- vii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.
- viii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB.
- ix. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- x. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Bhubaneshwar.
- xi. A Risk and Disaster Management Plan (including Earth quake and Seismic hazard) shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xii. As proposed, green belt shall 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.
- xiii. All the commitments made to the public during Public Hearing/public consultation meeting held on 24.12.2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- 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 Bhubaneshwar. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bhubaneshwar.
- xv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

Reconsideration for Environmental Clearance

- 19.3.3 Expansion of Steel Plant to 1.5 MTPA along with Waste Gas based CPP (17 MW) of **M/s Uttam Galva Metallics Limited** at Village Barbadi, District Wardha, Maharashtra (EC)

1. The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 18th meeting held during 28-30th April 2014 for grant of Environmental Clearance. As per the minutes of the meeting, the Committee had sought the following documents from the proponent for reconsideration of the proposal:

- i. Trace element analysis of iron ore;
- ii. Names of the iron ore suppliers and the status of environment clearances of the iron ore mines;
- iii. Coal linkage document along with the coal characteristics;
- iv. Action plan for rainwater harvesting in terms of the permission accorded by the Water Resources Department, Govt. of Maharashtra;
- v. Revised water balance diagram for the ISP project;
- vi. Note on de-sulphurisation in the coke oven plant;
- vii. Commitment for the use of dry quenching method in the coke oven;
- viii. Audiometric/spirometric test of the existing workers; and
- ix. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared over a period of ten years and shall be submitted.

2. The proponent vide letter No.UGML/EAC/2014 dated 2.5.2014 furnished the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s Mecon Limited: Ranchi made a presentation before the Committee.

3. The Committee noted that iron ore of 6.66 MTPA will be supplied to M/s UGML by different suppliers for which MoU made between UGML and the supplier concerned. Coking coal (2.10 MTPA) from Australia will be supplied by the M/s Glencore Coal Sales Pte Ltd. Singapore and M/s Okay Creek Coal Sales Pre. Limited, Singapore. The ash and sulphur content in the coal would be 9.5% and 0.65% respectively. The daily make up water requirement after the proposed expansion would be 21,195 m³/day. UGML has already constructed water storage reservoir for the existing operation and proposes to construct an additional water reservoir for 15 days make up water storage in the plant premises. UGML agreed to adopt dry quenching for the coke oven plant. The proposed expansion project has an area about 3,60,000 m² for rain water harvesting. Rain water to the extent of 1,80,000 m³ will be harvested. Rs.145.05 crores and Rs.44.50 crores is earmarked towards the capital cost and recurring cost per annum towards the Enterprise Social Commitment (ESC) related activities based on local needs. Action plan for the ESC related activities have been submitted. The committee noted that other additional information submitted by the PP is satisfactory.

4. After detailed deliberations the Committee recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering accord of environmental clearance.

- i. The company shall adopt dry quenching of coke. The prescribed emission standards for coke oven plants, as notified vide notification no. GSR 46 (E) dated 3rd February 2006 and subsequently amended shall be complied with.
- ii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.

- v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- vi. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office at the Bhopal, CPCB and SPCB.
- vii. 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.
- viii. Total make up water requirement shall not exceed 21,195 m³/ day. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.
- ix. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.
- x. All the effluent shall be treated and used for dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.
- xi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. 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.
- xii. The sulphur and ash content of coal shall not exceed 0.65% and 9.5 % respectively.
- xiii. In case source of coal supply is to be changed at a later stage (now proposed imported coal from Australia) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.
- xiv. 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 3 months of issue of environment clearance letter.
- xv. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Flue dust from pellet plant, sinter plant, DRI and SMS and sludge from BF shall be re-used in sinter plant. Coke breeze from coke oven plant shall be used in sinter and pellet plant. SMS slag shall be given for metal recovery or properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- xvi. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- xvii. Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The sinter dust shall be recycled in the sinter plant. The waste oil shall be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.

- 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 Steel Plants and Coke Oven Plants shall be implemented.
- xx. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 21.11.2013 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.
- 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.

19.3.4 Proposed Greenfield 1.2 MTPA Pelletisation Plant of **M/s Essel Mining & Industry Limited** located at village Nuagaon, Tehsil Bonai, Sub-division Bonai, District- Sundergarh, Odisha (**EC**)

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 15th meeting held during 29-30th January 2014 for grant of Environmental Clearance. As per the minutes of the meeting, the Committee sought following documents from the proponent for reconsideration of the proposal:

- i. Letter from District Collector regarding status of possession of the 17.843 ha of government land.
- ii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and village wise action plan with financial and physical break-up/details shall be prepared in consultation with village panchayats and the same shall be submitted.
- iii. The Committee sought a CSR Plan for life of the project – village-wise and activity-wise for internal consideration.

The proponent vide letter dated 28.4.2014 submitted the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s B.S. Envi-Tech Private Limited - Hyderabad made a presentation before the Committee.

The Committee noted as per the letter of the Industrial Promotion and Investment Corporation of Odisha Ltd (IPICOL) dated 24.4.2014, "The company has to obtain all statutory clearance as may be required before start of the land acquisition/ alienation process and abide by the conditions made by Statutory Bodies of Govt., of India & Govt., of Odisha". In view of this, the Govt. Land alienation process can only be started after all the statutory clearance. An amount of Rs. 2061 lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of ten years. CSR action plan for life of the project village wise and activity wise have been submitted. The committee noted that the additional information submitted by the PP is satisfactory.

After detailed deliberations the Committee recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering accord of environmental clearance.

- i. Measures shall be taken to reduce PM levels in the ambient air. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- ii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- iv. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- v. Total fresh water requirement from ground water source shall not exceed 960 m³/day which will be met from the proposed rain water harvesting reservoir of storage capacity of 3,50,000 m³. No ground water will be tapped. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- vi. 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.
- vii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- viii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- ix. A Risk and Disaster Management Plan (including Earth quake and Seismic hazard) shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
- x. As proposed, green belt shall 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 Public Hearing/public consultation meeting held on 26.9.2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xii. 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 Bhubaneswar. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bhubaneswar.
- xiii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to being into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

- 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, 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.

19.4 Terms of Reference (TOR) Cases

- 19.4.1 Proposed expansion project of Manufacturing of Asbestos Cement Pipes from 115 MT/Month to 400 MT/Month of **M/s Ambica Pipes** at plot no 90+91, village Vadagam, tehsil Dhansura, district Sabarkantha, Gujarat (TOR)

The Committee deferred the consideration of the aforesaid proposal seeking the salient features of the existing as well as the proposed project. After detailed deliberations, the Committee sought the following additional information from the proponent for fresh consideration of the proposal:-

- i. Data on asbestos fibre count in stack emissions, work zone and ambient air
- ii. Copy of the Environmental Clearance, Consent To Establish and Consent To Operate obtained for the existing unit.

- 19.4.2 Proposed for expansion project of Manufacturing of Asbestos based Cement Pipes from 115 MT/Month to 750 MT/Month of **M/s Ahmedabad Cement Pipes** at plot no 90+91, village Vadagam, tehsil Dhansura, district Sabarkantha, Ahmedabad, Gujarat (TOR)

The Committee deferred the consideration of the aforesaid proposal seeking the salient features of the existing as well as the proposed project. After detailed deliberations, the Committee sought the following additional information from the proponent for fresh consideration of the proposal:-

- i. Data on asbestos fibre count in stack emissions, work zone and ambient air
- ii. Copy of the Environmental Clearance, Consent To Establish and Consent To Operate obtained for the existing unit

- 19.4.3 Expansion of manufacturing of Carbon steel, Alloys Stainless Steel Billets, Pickled & Non-Pickled Bars & Rods & Bright Bars from 220 TPD to 750 TPD of **M/s Jailaxmi Casting & Alloys Pvt. Limited** at Gat no:74 & 75, Village : Farola, Tal & Dist: Aurangabad, Maharashtra (TOR)

1. The PP along with their EIA consultant – M/s Ultra-Tech 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. All Secondary metallurgical processing industry involving toxic and heavy metal producing units $\geq 20,000$ tonnes /annum is listed at S.No. 3(a) under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

2. M/s Jailaxmi Casting & Alloys Private Limited have proposed to expand the manufacturing of Carbon steel, Alloys Stainless Steel Billets, Pickled & Non-Pickled Bars & Rods & Bright Bars from 220 TPD to 750 TPD at Gat no:74 & 75, Village : Farola, Tal & Dist: Aurangabad, Maharashtra. The existing plant obtained Consent To Operate from Maharashtra Pollution Control Board vide letter dated 9.3.2010. The company was established in 2004-05 as SSI Unit. The proposed expansion will be carried out within the existing plant premises of 50000m² and no additional land is required for the proposed expansion. The latitude and longitude of the project site is 19°44'02.22"N & 75° 17'37.72" E respectively. No Forest land is involved. No National Park, Wildlife Sanctuary exists within 10 km radius of the project site. No court cases/litigation is pending against the project. Nearest State Highway: Ahmedabad –Paithan SH-30 is located at a distance of 0.5 km from the project site. The power requirement after the proposed expansion would be 30000KW (Existing: 10000 KW and Expansion: 20000 KW). Two D.G. sets with a capacity of 600 KVA each is envisaged as a standby arrangement. The water requirement after the proposed expansion

would be 470m³ (Existing: 220 m³ and Expansion: 250 m³). The raw materials required for the proposed expansion are metal scrap (600 MTD), sponge iron (50 MTD) and DRI(20 MTD). To control air emissions, stack of adequate height will be provided. Total cost of the proposed expansion would be Rs. 50 crores.

3. The details of existing and proposed production capacities are as below:-

#	Product	Existing	Additional	Total Quantity
1	Carbon steel, Alloys Stainless Steel Billets, Pickled & Non-Pickled Bars & Rods & Bright Bars.	220 TPD	530 TPD	750 TPD

The Committee requested the PP to submit the copy of the CTE and CTO obtained from the Maharashtra Pollution Control Board to the Ministry before the award of ToR.

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

1. Air quality modelling for the proposed plant as well as the existing unit for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
2. P.H. shall be conducted by the Maharashtra Pollution Control Board as per the generic TOR.

The aforesaid TOR would be issued after furnishing of CTE and CTO obtained from the Maharashtra Pollution Control Board.

19.4.4 Proposed Ferro Alloys Plant through setting up of 4x9 MVA Submerged Arc Furnaces for manufacturing Ferro Silicon (Fe-Si) – 26,400 TPA of **M/s Meghalaya Power Limited** at Lumshnong, P.O: Khaliehriat, Dist. East Jaintia Hills, Meghalaya (**TOR**)

1. The PP along with their consultant – M/s Envirotech East - Kolkatta 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 proposed project activity is 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.

2. M/s Meghalaya Power Limited have proposed to establish an Ferro Alloys Plant by setting up of 4x9 MVA submerged Arc Furnaces for manufacturing Ferro Silicon (Fe-Si) – 26,400 TPA at Lumshnong, P.O: Khaliehriat, Dist. East Jaintia Hills, Meghalaya. The land requirement for the proposed project is 16 acres. The longitude and latitude of the project site is 92°23'44" E and 25°10' 35" N respectively. There are no National Park, Bird sanctuaries and biosphere reserve existing within 10 km radius of the project site. No forest land is involved. Rivers Um Lunar, Umtryngai & Lubah flow within 5km of the project site. NH-44 is located at a distance of 1km from the project site. The make up water requirement is 150 KLD and it will be met from Umtryngai River & Lubah River. The power requirement is 31 MW which will be met from the power plant of 43 MW for which EC has been accorded by MoEF vide letter no. J-13012/33/2011-IA.II(T) dated 3.6.2011. To control air emissions, adequate control measures like installation of Dry Fog Dust Suppression System, Dust Extraction System, Bag Filters and stacks of adequate height at relevant points will be provided. There will be no discharge of Industrial Effluent (zero discharge plant). Treated wastewater will be used in dust suppression and greenery purposes. Domestic wastewater will be treated in Septic tank – Soak pit system. No Slag will be generated during Ferro Silicon production. Total cost of the project is Rs.81 crores.

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

1. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
2. P.H. shall be conducted by the Meghalaya Pollution Control Board as per the generic TOR.

19.4.5 Proposed manufacture of Manganese Oxide, Manganese Dioxide and various Ferro Alloys of **M/s Noble Minerals Private Limited** at B-21, MIDC, Butibori, Dist. Nagpur, Maharashtra (**TOR**)

1. The PP along with their consultant – M/s Pollution and Ecology Control Services: Nagpur 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 proposed project activity is 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.

2. M/s Noble Minerals Private Limited have proposed to manufacture manganese oxide, Manganese Dioxide and various Ferro Alloys at B-21, MIDC, Butibori, Dist. Nagpur, Maharashtra. The total land available is 1800 sq ft. The latitude and longitude of the project site is 20°56'7.108 "N and 78°57'24.9762"E respectively. Chichkotha Village is located at a distance of 1km from the project site. No R&R involved. No Forest land involved. No national park/wild life sanctuary/ecologically sensitive area located within 10 km radius of the project site. Reserved Forest exist in the study area are - Degma Reserved Forest 9.0 km(NW), Dongargao Reserved Forest 5 km (SE) and Junapani Reserved Forest 7 km(S), and Bid Sukli RF (4km NW). The water bodies exists in the study area are River Vena (2.5km E), Krishna nala (3km ES), and Khadki lake (10 km NW). No court cases/litigation is pending against the project. The raw materials required are Mn Ore (3750 TPA), Lime (390 TPA), Aluminium scrap (660 TPA), Molly oxide (700 TPA), Titanium Ore (1200 TPA) and coal (1500 TPA). Make up water requirement will be 5KLD and met from MIDC water. Water from jigging/quenching process will be reused. Domestic effluents will be discharged into the MIDC sewer line. Manpower requirement is 40. The power requirement is 125 HP which will be supplied by the State Electricity Board. Air emissions are mainly from production of ferro alloys and Mno and dust generated due to crusher/pulveriser, raw material storage and handling and during transportation. Cost of the project is Rs.90 lakhs.

3. The details of the proposed units are as given below:

By Thermite Process		
(5 Nos. of MS crucibles of 200kg each)		
1)	Ferro Alloys Low Carbon OR	1200 MTPA
2)	Ferro Alloys Medium Carbon OR	1800 MTPA
3)	Ferro Titanium OR	600 MTPA
4)	Ferro Molybdenum	600 MTPA
By installing Induction Furnace		
(1 No of 200kg each)		
5)	Aluminum Ingot	1200 MTPA
By installing Furnace		
(2 Nos. of 200kg each)		
6)	Manganese dioxide	3000 MTPA
7)	Manganese oxide	3000 MTPA

4. Adequate stack height will be provided to ensure wider dispersion of emissions. Water sprinkling system will be installed at various locations to control fugitive emissions. Proper care will be taken by installing Bag filters followed by Stack to control source emission. It is estimated that total effluent generation from the proposed installation will be from jigging operation and domestic effluent. The water from jigging will be treated in settling tank and will be reused in the process. Zero discharge condition from the proposed plant will be maintained. Slag generated from manufacturing of Ferro Alloys will be sold to manufacturer of Silico-manganese.

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

1. Details of solid waste management including management plan of disposal of boiler ash.
2. P.H. shall be conducted by the Maharashtra Pollution Control Board as per the generic TOR.

19.4.6 Proposal for Coke Oven Plant & 30 MV Waste Heat Recovery Power Plant of **M/s Sunder Coke and Energy Pvt.Ltd.** at Dist. Satara, Maharashtra **(TOR)**

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

19.4.7 Proposed 0.045 MTPA Mini Cement Grinding Unit of **M/s Koshal Cement Private Limited** at Village Nagaon, Tehsil-Sohela, Dist-Bargarh, Odisha **(TOR)**

1. PP along with their consultant – M/s Visiontek Consultancy Services Private Limited - Bhubaneshwar 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. As the project attracts general conditions it is being categorized as Category 'A' and is appraised at MoEF, New Delhi (Inter-state Boundary, Chhattisgarh-9.0 Km away from project site).

2. M/s Koshal Cement Private Limited have proposed to set up a 0.045 MTPA Mini Cement Grinding Unit at Village Nagaon, Tehsil-Sohela, Dist-Bargarh, Odisha. The unit will produce Portland Pozzolana Cement (PPC) 50% and Portland Slag Cement (PSC) 50% using the Ball Mill technology. The land requirement for the project is 2.22 acres. The latitude and longitude of the project site is 21° 18' 14.13" N and 83° 28' 34" E respectively. The site is at about 8.2 km away from nearest town Sohela. The national highway NH-6 is at a distance of 1.3 Km, 8.2 Km from SH-3 & 9.3 Km from SH-13 from the proposed site. Sambalpur City Station is at about 12.7 km from the site. The water bodies exists in the study area are Ranj Jhor Nala (3km), Jira river (7.38km) and Banjari nala (7.2km). No Forest land involved. No national park/wild life sanctuary/ecologically sensitive area located within 10 km radius of the project site. No court cases/litigation is pending against the project. The raw materials required are clinker, fly ash and gypsum. The water requirement is 5 KLD which will be met from borewells. The power requirement is 200 KW which will be met from WESCO. Cost of the project is Rs.330.80 lakhs. Rs. 27.30 lakhs and Rs.6.80 is earmarked towards the capital cost and recurring cost per annum towards the environmental pollution control measures.

3. The primary & secondary emission will be controlled by installing air pollution control equipments. Dust suppression will be done by water sprinkling to control fugitive emissions due to transportation activities. Dust extraction system (bag filters) will be used at all transfer points to curb fugitive dust emission. All the air slides, belt conveyors, weigh feeder & hopper vents will be connected to dust extraction system i.e. bag Filter. Moreover, the belt conveyors will be fully covered & will be connected to bag filter. The vent of cement mill will be connected to the reversible jet bag house and then to mill ventilation to curb fugitive dust emission. There will be no waste water generation from plant. Waste water generated only will be due to sanitary waste water which will be treated in septic tanks and routed through soak pit. No effluent will be discharged outside the premises. All solid waste such as dust from APC devices, will be completely reused in the manufacturing process. All domestic solid waste will be made vermin composting and will be used as manure for greenbelt development. Green belt will be developed in 0.74 Acres (33%) out of total 2.22 acres.

4. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I and Additional TORs at Annexure-3:**

1. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
2. P.H. shall be conducted by the Odisha Pollution Control Board as per the generic TOR.

19.4.8 Proposal for 1.2 MTPA Iron Ore Pellet Plant, 2.0 MTPA Iron ore beneficiation Plant and 15 MW Captive Power Plant of **M/s Grewal Associates Private Limited** at village Lasarda, Tehsil : Barbil, District : Keonjhar, Odisha (**TOR**)

1. PP along with their consultant – M/s Centre for Envotech & Management Consultancy Private Limited - Bhubaneshwar 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 proposed project activity is 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.

2. M/s Grewal Associates Private Limited have proposed to set up 1.2 MTPA Iron Ore Pellet Plant, 2.0 MTPA Iron ore beneficiation Plant and 15 MW Captive Power Plant at village Lasarda, Tehsil : Barbil, District : Keonjhar, Odisha. The land requirement is 65 acres. The latitude and longitude of the project site is 22° 03' 25.07" to 22° 03' 40.46" N & 85° 19' 13.24" to 85° 19' 27.38" E respectively. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. RF exists in the study area are Sidhamatha RF (1.2 km, SE), Lakraghat RF (2.1 km, S), Karo RF (1.6 km, WNW), Uliburu RF (4.0 km, SW), Karampada RF (5.2 km, WNW), Thakurani RF (7.6 km, E) and Baitarani RF (9.2 km, SE). Water bodies exist in the study area are Karo River (1.2 km, W), Gamle Nala (1.5km, S), Topadihi Nala (7.2km, S), Meghabatuburu Nala (7.0 km, NW), and Limtur Nala (8.3 km, NNE). Nearest railway siding is Bolan which is at a distance of 6.4km from the project site. The water requirement for the proposed project is 140m³/hr which will be met from the Karo river. The power requirement is 20 MW which will be met from CPP and balance from the State grid. The raw materials required are iron ore fines, bentonite, coke, coal and binder etc. Project cost is Rs. 450 crores.

3. Raw material handling area will be provided with dust suppression system comprising of bag filters, spray nozzles and piping network etc. Wastewater after adequate treatment used for the green belt development. Used oil will be sold to the registered recyclers.

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

- i. Iron ore and coal linkage documents
- ii. Air quality modelling for the proposed plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
- iii. P.H. shall be conducted by the Odisha Pollution Control Board as per the generic TOR.

19.4.9 Expansion of Integrated Steel Plant from 0.3 MTPA to 0.6 MTPA and proposed 0.3 MTPA coke oven plant (Non- recovery type) and 30 MW waste heat recovery power plant of **M/s Sona Alloys Private Limited** at C-1, MIDC Area, Lonand, Satara District, Khandala Taluka, Maharashtra (**TOR**)

1. The PP along with their consultant MITCON Consultancy & Engineering Services Limited – Pune gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. The proposed project activity is listed at S.No. 3(a) under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

2. M/s Sona Alloys Private Limited have proposed to expand their Integrated Steel Plant from 0.3 MTPA to 0.6 MTPA and proposed 0.3 MTPA coke oven plant (Non- recovery type) and 30 MW waste heat recovery power plant at C-1, MIDC Area, Lonand, Satara District, Khandala Taluka, Maharashtra. The existing plant obtained environmental clearance from MoEF vide letter no.J-11011/827/2007-IA.II(I) dated 5.2.2008. The land requirement for the proposed expansion is 137 acres. The latitude and longitude of the project site is 18° 3'20.61"N & 74°10'25.98"E respectively. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. Nearest habitation is Lonand and Karadwadi locaed at a distance of 2km and 3.20 km respectively from the project site. Nira river is located at a distance of 5.8km from the project site. There is an open scrub RF near Mariachiwadi located at a distance of 2km from the project site. The water requirement after the proposed expansion is 6687 KLD which will be met from Veer dam. The power requirement for the steel unit would be 110 MVA and coke oven plant is 40 KWH/MT of coke. No court cases/litigation is pending against the project. The raw materials required are Iron ore fines, Coke Breeze, coal, DRI, Mn ore, Limestone & Dolomite and Bentonite, etc. Total cost of the project is Rs.811.26 crores. Rs.35.93 crores and Rs.4.34 crores is earmarked towards the capital cost and recurring cost per annum towards the environmental pollution control measures.

3. The details of the existing and proposed production details are as given below:-

S.N.	Production Unit	No		Item	Production (TPA)		
		Existing	Proposed		Existing	Expansion/p roposed	Total
1	Sinter Plant	01	01	Sinter production	478900	478900	957800
2	Blast Furnace	01	It will expand	Hot metal	337000	177500	514500
3	Steel Melt Shop	01	01	Billets	302500	302500	605000
4	Rolling Mill	01	01	Rods	250000	250000	500000
5	Forging unit	--	01	Forged product	--	50,000	50,000
6	Coke Oven (Non Recovery type)	--	01	Coke	--	3,00,000	3,00,000
7	Waste heat recovery power plant	--	01	Electricity	--	30 MW	30 MW

PP requested the Committee to consider the baseline data collected during March – May 2014 for the preparation of EIA-EMP report, and the EAC agreed it.

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

- i. Iron ore and coal linkage documents
- ii. Air quality modeling for the proposed plant as well as the existing steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
- iii. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
- iv. P.H. shall be conducted by the Maharashtra Pollution Control Board as per the generic TOR.

19.4.10 Proposed Expansion of Low Carbon Ferro Alloy Plant from 2100 TPA (Existing) to 24000 TPA of **M/s National Ispat & Power Private Limited** at Village-Kharamangi, Tehsil Darpani, Po-Siha, District-Jajpur, Odisha (**TOR**)

1. The PP along with their consultant – M/s Visiontek Consultancy Services 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 Terms of Reference for preparation of EIA-EMP report. The proposed project activity is 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.

2. M/s National Ispat & Power Private Limited have proposed to enhance the production of Low Carbon Ferro Alloy Plant from 2100 TPA (Existing) to 24000 TPA at Village-Kharamangi, Tehsil Darpani, Po-Siha, District-Jajpur, Odisha. The existing plant (Ferro-Chrome: 90 MT/Month and Ferro Manganese: 90 MT/Month) obtained CTE and CTO from Odisha Pollution Control Board vide letters dated 13.7.2009 and 17.4.2013 respectively. Proposed expansion will be carried out in an area of 20 acres. The longitude and latitude of the project site is $86^{\circ} 03' 17''\text{E}$ and $20^{\circ} 43' 36''\text{N}$ respectively. There are no National Park, Bird sanctuaries and biosphere reserve existing within 10 km radius of the project site. No forestland is involved. The site is about 12 km away from nearest town Chandikhole. Nearest railway station is Dhanmandal about 13.5 km from the project site. Nearest airport is Bhubaneswar about 72 km away from the project site. Nearest river is Bramhani about 9.5 km away from the project site. Power requirement is 1000 KVA which will be met from NESCO. Water requirement is $50\text{m}^3/\text{day}$ which will be met from Groundwater Source & through proper rain water harvesting. Reserve Forests/Protected Forests exists in the study area are Nischinta RF – 5.2km, Barlnia PF – 3.5km, Bandhapalli PF – 4.8km and Kalokala PF – 8.6km. Raw materials required for the proposed expansion are Mn ore, Chrome Ore, Aluminium, sponge iron & scrap, illmenite sand, mill scale, Fe-Si, coal, pyrochlore ore and boric acid etc. No court cases/litigation is pending against the project. Total proposed project area is of 20.0 acres. Total cost of the project is Rs. 1287.63 Lakhs. Rs. 52.0 Lakhs and Rs.13.0 Lakhs will be earmarked towards capital cost and recurring cost for environmental pollution control measures. A budget of Rs. 64.4 Lakhs has been envisaged for CSR activities.

3. The details of the proposed production details are as given below:-

S.N.	PRODUCTS	PRODUCTION CAPACITY(TPA)
1	Fe-Cr	6000
2	Fe-Mn	6000
3	Fe-Ti	3000
4	Fe-Mo	1500
5	Fe-V	1500
6	Fe-T	1500
7	Fe-Nb	1500
8	Fe-B	1500
9	Fe-Al	1500
TOTAL		24000 TPA

4. Gaseous emission will be controlled by installing air pollution control equipments. Dust suppression will be done by water sprinkling to control fugitive emissions due to transportation activities. Gas Cleaning Plant consisting of scrubber with 30m stack height will be installed for the Exhaust gas cleaning and neutralization of Sulphur Dioxide Gas from the Reaction Vessels. Particulate Matter of Exhaust gas from the roaster will be cleaned by bag filters installed at Gas Cleaning Plant. Water sprinkling will be done along the haul roads to control dust arising from vehicular movement. Settling tank will be installed for the treatment of wastewater and the treated water will be used for dust suppression, plantation etc.

The process cooling water from vessel or roaster will be re-used and required make-up water added in the system. Domestic wastewater will be treated in septic tank and discharged to soak pit. Zero discharge norms will be maintained in the proposed plant. Solid waste i.e. slag generated from production unit will be sold to outside parties for low land filling and road making after metal recovery and TCLP test. Sludge from scrubber will be reused in production. Dust from APC devices will also be reused in production. Hazardous waste generated will be collected, handled, stored and disposed as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008 amended till date. Green belt will be developed in 33% of the total plant area. Ear muffs/ear plugs will be provided to workers working in high noise prone areas.

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

- i. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
- ii. P.H. shall be conducted by the Odisha Pollution Control Board as per the generic TOR.

19.4.11 Proposed 6 MTPA Integrated Steel Plant along with captive power generation of 893 MW of **M/s Uttam Galva Ferrous Limited** at villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Taluka & District: Bellary, Karnataka (**TOR**)

1. The PP along with their consultant M/s Mecon Limited – Bangluru 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. All integrated steel plant projects are listed at S.No. 3(a) under Category ‘A’ of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

2. M/s Uttam Galva Ferrous Limited has proposed to set up 6 MTPA Integrated Steel Plant along with captive power generation of 893 MW at villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Taluka & District: Bellary, Karnataka. The land admeasuring 4948 acres is notified for land acquisition for industrial use by Karnataka Industrial Area Development Board (KIADB). Out of which 3966 acres of contiguous land is already handed over to UGFL by KIADB. The latitude and longitude of the project site is 15° 13’ 00” N & 76° 48’ 00” E respectively. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No water bodies, rivers / drainage passing through the project site and No rehabilitation / resettlement issues are involved. River Tungabhadra downstream is located at a distance of 40 km from the project site. NH-63 is at about 1.5 Km & SH-132 runs parallel to the western boundary of the site. Kuduthini and Kollagalu Railway Station are about 2.0 km from plant site. The nearest airport is Hubli& Bangalore at a distance of about 217 & 310 km respectively. Iron ore and other additives being the major raw materials for integrated steel & power plant the same is abundantly available in the nearby area of the proposed steel plant project site Low ash metallurgical coal will be imported through Mormugao port, Goa or Krishnavaram port, Andhra Pradesh and will transported through rail for which rail network is available up to site. The average power requirement for the plant is around 893 MW and out of 893 MW power generations 3 X 200 will be coal based and balance 293 MW will be generated from the waste heat recovery and by-product of ISP like coke oven gas. Total fresh water requirement is about 3,10,322 KLD (12,930 m³/hr) Government of Karnataka (GoK) has sanctioned 4 TMC (3,10,322 KLD) of water for this 6.0 Million TPA ISP. Its availability from river Tungabhadra is identified & approval from Water Resouces Dept, Govt. of Karnataka in final stage. Project cost is Rs.36,000/- Crores. Rs.380 crores and Rs.39.50 crores is earmarked towards the capital cost and recurring cost per annum towards the environmental pollution control measures.

3. The details of the existing and proposed production details are as given below:-

S. N.	Facilities	Total capacity
1	Coke Oven and By-product plant	2.74 MTPA

2	Beneficiation & Pellet plant	4.00 MTPA
3	Sinter plant	8.532 MTPA
4	Blast Furnace	6.464 MTPA
5	BOF	6.00 MTPA
6	CCM	5.88 MTPA
7	Rolling Mill	5.615 MTPA
8	Captive Power Plant(WHR /Coal based)	893 MW
9	Oxygen Plant	4000 TPD
10	Lime Plant	0.524 MTPA
11	Dolo Plant	0.150 MTPA
12	CDQ Process (Additional power)	40 MW

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

- i. Iron ore and coal linkage documents
- ii. Status of environmental clearance of iron ore mines
- iii. Air quality modelling for the proposed plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
- iv. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
- v. P.H. shall be conducted by the Karnataka Pollution Control Board as per the generic TOR.

19.4.12 Proposed expansion of existing (1x9 MVA) Ferro Alloys Plant (13,360 TPA) with additional inclusion of 1x9 MVA SAF (Total plant capacity after expansion would be 27,423 TPA) of **M/s Grids Steel and Power Limited** at village Kapursingh, Tehsil Athagarh, District Cuttack, Odisha **(TOR)**

1. The PP along with their consultant – M/s Visiontek Consultancy Services 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 Terms of Reference for preparation of EIA-EMP report. The proposed project activity is 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.

2. M/s Grids Steel and Power Limited have proposed to expand the existing (1x9 MVA) Ferro Alloys Plant (13,360 TPA) with additional inclusion of 1x9 MVA SAF (Total plant capacity after expansion would be 27,423 TPA) at village Kapursingh, Tehsil Athagarh, District Cuttack, Odisha. The existing plant (1x9 MVA, SAF-13.360 TPA) obtained EC from MoEF vide letter no.J-11011/9/2010-IA.II(I) dated 13.5.2011. Proposed expansion will be carried out in an area of 30 acres. The longitude and latitude of the project site is 85 ° 47 ' 5.5 " E and 20 ° 32 ' 34.6 " N respectively. There are no National Park, Bird sanctuaries and biosphere reserve existing within 10 km radius of the project site. No Forest land is involved. NH-42 connecting Sambalpur-Bargarh & Cuttack passing just 550 meters away from the site. Mahanadi River at 2.0 Km from the site. Oringa Reserve Forest is located at a distance about 2.5Km from the project site. Power requirement is 8 MW which will be met from OPTCL. Water requirement is 80m³/day which will be met from groundwater source. Chrome Ore, Quartzite, Anthracite Coal, Metallurgical Coke, Hydrated Lime and Molasses are the major raw materials used in the plant process. Total cost of the project is Rs. 1250 Lakhs.

Rs. 184.0 Lakhs and Rs.37.0 Lakhs will be earmarked towards capital cost and recurring cost for environmental pollution control measures. A budget of Rs. 62.5 Lakhs has been envisaged for CSR activities.

3. Following are the details of the existing and proposed plant details:

PRODUCTS	EXISTING FURNACE CAPACITY	EXISTING PRODUCTION CAPACITY	PROPOSED FURNACE CAPACITY	PROPOSED PRODUCTION CAPACITY	TOTAL PRODUCTION CAPACITY
H.C Fe-Cr H.C Fe-Mn H.C Fe-Si H.C Si-Mn M.C Si-Mn	9 MVA (Submerged Arc Furnace)	13,360 TPA	9 MVA (Submerged Arc Furnace)	14,063 TPA	27423 TPA

4. Gaseous emission will be controlled by installing air pollution control equipments. Dust suppression will be done by water sprinkling to control fugitive emissions due to transportation activities. Gas Cleaning Plant consisting of ventury scrubber will be installed for the flue gas cleaning from furnace. Air pollution from briquetting plant and raw material processing unit will be controlled by pulse jet bag filters. Water sprinkling will be done along the haul roads to control dust arising from vehicular movement. Settling tank will be installed for the treatment of wastewater and the treated water will be used for dust suppression, plantation etc. Cooling Blow down from Plant will be routed to Common Basin. The process cooling water from furnace will be re-used and required make-up water added in the system. Domestic wastewater will be treated in septic tank and discharged to soak pit. Zero discharge norms will be maintained in the proposed plant. Solid waste i.e. slag generated from production unit will be sold to outside parties for low land filling and road making after metal recovery and TCLP test. Sludge from scrubber will be reused in briquetting plant. Dust from APC devices will also be reused in briquetting plant. Green belt will be developed in 33% of the total plant area.

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

- i. Air quality modelling for the proposed plant as well as the existing steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
- ii. P.H. shall be conducted by the Odisha Pollution Control Board as per the generic TOR.

19.4.13 Proposed expansion of Integrated cement project (clinker 4.42 to 7.62 MTPA, Cement 3.5 to 6 MTPA, CPP – 63 to 96 MW and WHRB of 12 MW) by installation of line –III of **M/s Ambuja Cements Limited** at village Rawan, Tehsil Balodabazar, District Balodabazar-Bhatpara, Chhattisgarh **(TOR)**

1. The PP along with their consultant (M/s J.M.EnviroNet Private Limited - Gurgaon) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is 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.

2. M/s Ambuja Cements Limited have proposed to expand the Integrated cement project (clinker 4.42 to 7.62 MTPA, Cement 3.5 to 6 MTPA, CPP – 63 to 96 MW and WHRB of 12 MW) by installation of line –III at village Rawan, Tehsil Balodabazar, District Balodabazar-Bhatpara, Chhattisgarh. Environmental Clearance for Clinker Production (2.7 to 4.42 MTPA) has been obtained from MoEF, New Delhi vide MoEF letter no. J-11011/355/2005-IA-II (I) dated 13.4.2007, Cement Production (2.4 to 3.5 MTPA) vide MoEF letter no. J-11011/72/2009-IA-II (I) dated 15.5.2009 & for Captive Power Plant for capacity (15 & 33 MW)

vide MoEF letter no. J-11011/355/2005-IA-II (I) dated 13.4.2007. Total Plant area is 238.97 hectare and the proposed expansion will be done within the existing plant premises itself. No additional land will be acquired for the proposed expansion project. Out of the total plant area, 57.75 ha has already been developed under green belt/ plantation and the same will be further maintained & additional 21.32 ha will be developed. There is no National Park, Bird sanctuaries and biosphere reserve exists within 10 km radius of the project site. No Forest land is involved. The longitude and latitude of the project site is 82° 04' 22.02'' E to 82° 05' 46.15'' E and 21° 39' 57.25'' N to 21° 41' 4.41'' N respectively. Reserved Forests exist in the study area are Dhabadih RF (~ 4.0 km in S), Latwa & Sonbarsa RF (~ 5.5 km in NE) and Mohtara RF (~ 8.5 km in NE). Water bodies exists in the study area are Jamuniya River (~6 km in NW direction), Banjari Nala (~5 km in W direction), Khorsi Nala (~8 km in SSE direction), Kukurdi Talav (~2 km in SSE direction) and Mahanadi Canal (Adjacent in S direction). Raw materials required for the proposed expansion of cement plant are Limestone which will be procured from Captive Mines; Chemical Gypsum which will be procured from Paradeep Phosphate, Koromandal International Limited; Mineral Gypsum from Thailand, Oman; Fly Ash from CPP, BALCO Korba, NTPC Korba, Sipat, & Bhilai, KSK Bilaspur & GMR Kharora; Sand stone & Iron ore will be purchased from local supplier. Existing water requirement for the project is 5800 KLD. Additional 4385 KLD water will be required for proposed expansion, which will be sourced from Ground Water and Mine Pits. Total power requirement after proposed expansion project will be 119.6 MW which will be sourced from Captive Power Plant, Chhattisgarh State Electricity Board (CSEB), WHRB & D.G. Set (for back-up). No court cases/litigation is pending against the project. Total cost of the project is Rs. 2000 crores. Capital cost for Environmental Protection Measures is Rs. 130 crores and Recurring cost is Rs. 5 crores/annum.

3. The details of the existing and proposed production facilities are as below:-

Units	Existing Capacity	Proposed Expansion Capacity	Total Capacity after Expansion
Clinker (MTPA)	4.42	3.2	7.62
Cement (MTPA)	3.5	2.5	6.0
Captive Power Plant (MW)	63 (2 x 15 & 1 x 33)	33	96
WHRB (MW)	Nil	12	12
D.G. Set (MW)	14 (1 x 10 & 1 x 4)	Nil	14

4. All major sources of air pollution are being / will be provided with bag house, bag filters & ESP to maintain particulate matter emissions within permissible limit. No major water, noise & soil pollution is envisaged from the project activity. Various mitigation measures are being undertaken to take care of the environment in respect of air, water, noise, soil & the green cover of the plant site & nearby villages. Same practices will be followed for proposed expansion project. No industrial waste water is being/will be generated in the Cement Plant. Domestic waste water generated from Colony will be treated in STP. Treated water is being/will be used for Green Belt Development. Rain water harvesting is being /will be done at plant area. No solid waste is being/will be generated in cement manufacturing process. Dust collected from various pollution control equipments is being/will be recycled back to the process. Fly ash generated from CPP is being / will be utilized in manufacturing of PPC grade cement and Coarse Ash is being/will be used as Raw Material for construction of internal roads. STP Sludge is being/will be utilized as manure for green belt development within the plant premises. Used oil & grease generated from plant machinery/ gear boxes as hazardous waste are being / will be sold out to the SPCB authorized recycler.

5. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3:**

- i. Limestone and coal linkage documents
- ii. Status of environmental clearance for lime stone mines

- iii. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
- iv. Air quality modeling for the proposed plant as well as the existing plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB shall also be included to control emissions within 50 mg/Nm³.
- v. P.H. shall be conducted by the Chhattisgarh Environment Conservation Board as per the generic TOR.

19.4.14 Revival and Mill Development Plan to produce 46800 TPA Printing & Writing Paper and 36200 TPA Newsprint Paper by renovation of existing Paper Machines #1 & #2 and 12.27 MW Captive Power Plant along with Installation of new 300 TPD De-inking Plant and 9 MW Captive Power Plant of **M/s NEPA Limited** (A Govt. of India undertaking) at Neapanagar, District Burhanpur, Madhya Pradesh (**TOR**)

1. The PP along with their consultant – M/s Envirotech East Private Limited, Kolkatta gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. All the Pulp & Paper Units are listed at S.N. 5 (i) under Category “A” of the Schedule of EIA Notification, 2006 and appraised at the Central Level.

2. M/s NEPA Limited (A Govt. of India undertaking) have proposed to revive and develop the mill to produce 46800 TPA Printing & Writing Paper and 36200 TPA Newsprint Paper by renovation of existing Paper Machines #1 & #2 and 12.27 MW Captive Power Plant along with Installation of new 300 TPD De-inking Plant and 9 MW Captive Power Plant at Neapanagar, District Burhanpur, Madhya Pradesh. The entire proposed project will be installed within the available land of the existing plant area of 166.50 Acres (67.38 Hectares). No additional land is required for the proposed project. The existing plant obtained environmental clearance from MoEF vide letter no.J-11011/5/89-IA.II dated 29.6.1990. Nearest town is Neapanagar located adjacent to the project site. Neapanagar railway station is located at a distance of 3.5km away from the project site. River Tapti is located at a distance of 4km from the project site. After Revival & Mill Development Plan, the daily make up water requirement will be reduced to around 18000 KLD including 5000 KLD being supplied to township. The water source is River Tapti. The power requirement is 16.32 MW which will be met from the CPP. No forestland 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. Total cost of the project is Rs. 285 crores.

3. The existing and proposed product details are as below:-

EXISTING PLANT SCENARIO		
Paper Plant (Paper Machines #1 & #2)	88,000 TPA	Newsprint Paper
Captive Power Plant	1x5 MW + 1x12.27 MW	Power
PROPOSED PLANT		
<u>Paper Plant</u> - Renovation of Paper Machine #1 & #2 - Installation of new 300 BD TPD De-inking Plant	46,800 TPA 36,200 TPA	Printing & Writing Paper Newsprint Paper
<u>Captive Power Plant</u> - Renovation of existing 12.27 MW Captive Power Plant - Installation of new 9 MW Captive Power Plant - De-commissioning of existing 5 MW Captive Power Plant	- 12.27 MW (Existing installed capacity) - 9 MW (New addition) - 5MW (De-commissioning)	Power

4. Adequate control measures like installation of bag filters, dust suppression system, Electrostatic Precipitator (ESP) and stacks of adequate height at relevant point will be provided. Entire Industrial Effluent will be treated in the existing ETP and the treated effluent after meeting prescribed standards will be utilized for cultivation and horticulture after maximum recycling inside the plant to meet zero discharge condition. Domestic wastewater will be treated in Septic tank – Soak pit system. Fly ash (around 165 Ton per day) is expected to be generated from the coal fired boiler, which will be supplied to the Brick/ Cement Manufacturing Units or any other use as per the Environmental norms (directives of MoEF). The sludge from the Wastewater Treatment Plant will be sold to the Board Manufacturers after getting dried in the Sand Drying Bed. The sludge, generated from the De-inking Plant shall be disposed of as per the Environmental norms.

5. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-4:**

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

19.5 Any Other Items

19.5.1 Modernization-cum-expansion of Bhilai Steel Plant (4.00 to 7.00 MTPA) along with Captive Power Plant (72 MW) of **M/s Steel Authority of India Limited (SAIL)** at Bhilai, Chhattisgarh (**Amendment in EC**)

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. Thereafter, Ministry vide letter dated 5.7.2013 extended the validity of the EC dated 31.3.2008 for a period of five years with effect from 30.3.2013 subject to environmental safeguards. Project Proponent (PP) vide letter dated 4.9.2013 sought for the amendment in the EC dated 31.3.2008 in respect of capacity of oxygen plant. PP made a presentation before the Committee.

The amendment sought by the PP is as below:

As per the EC dated 31.3.2008	Revision sought
Oxygen Plant – 650 TPD	Oxygen Plant – 700 TPD

It was submitted by the PP that changing capacity of the oxygen plant from 1x650 TPD to 1x700 TPD was necessary due to standard module capacity of units of manufactures/ suppliers and there will not be increase in pollution load due to the increase in capacity of the oxygen plant.

After detailed deliberations, the Committee recommended for the amendment in the EC dated 31.3.2008 as referred above subject to environmental safeguards.

19.5.2 Expansion of Cement Plant from 0.66 MTPA to 1 MTPA of **M/s South India Cements Ltd.** at village Malkhed, dist. Gulbarga, Karnataka (**Extension of validity of TOR**)

Terms of Reference (TORs) to the above proposal was accorded by MoEF vide letter no. J-11011/127/2011-IA II (I) dated 5.5.2011. Thereafter, Ministry vide letter dated 12.11.2013 extended the validity of the TOR until 03.05.2014.

The Project Proponent (PP) has vide letter No. SICL/MOEF/2013-14 dated 1.4.2014 again requested MoEF to extend the validity of the TOR for one more year i.e until 02.05.2015. PP along with their consultant M/s B.S.Envi-Tech – Hyderabad made a presentation before the Committee. It was informed that Gulbarga DC had originally fixed the hearing on 29.03.2014 and the contents of the same were duly published in the newspapers on 27.02.2014. Due to sudden declaration of election Model Code of Conduct by the election commission, the Public Hearing had to be postponed by the Gulbarga DC and the matter regarding the postponement was published by KSPCB on 24.03.2014. Gulbarga DC has now fixed the Public Hearing on 09.06.2014 and the contents of the same have been duly published in the newspapers on 09.05.2014.

The Committee noted that as per the Ministry's O.M. No. J-11011/41/2006-IA.II(I) dated 22.3.2010, the validity of the aforesaid TOR has expired on 03.05.2014. The Committee further noted that the delay is due to the conduct of Public Hearing by the Karnataka State Pollution Control Board because of introduction of Model Code of Conduct. The EAC recommended that the MOEF may take final decision on the matter.

19.6 Consideration of TORs (contd.)

19.6.1 Molasses Based Distillery (45KLPD) alongwith Sugar Plant (5000 TCD) and Cogen Power Plant (24 MW) of **M/s Shri Ramgiri Sugars Ltd.**, at Village Savargaon, Tahsil- Tujiapur, District Solapur, Maharashtra (**TOR**)

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 Shri Ramgiri Sugars Ltd. has proposed for setting up of Molasses Based Distillery (45KLPD) alongwith Sugar Plant (5000 TCD) and Cogen Power Plant (24 MW) at Village Savargaon, Tahsil- Tujiapur, District Solapur, Maharashtra. Total plot area is 76 acre. Total cost of project is Rs. 315.60 Crore. Sugar plant will be operated for 160 days. Cogeneration power plant will be operated for 270 days and Distillery will be operated for 270 days.

Water requirement from Savargaon reservoir will be 700 m³/day for sugar, 2000 m³/day for cogen and 450 m³/day for distillery. Spent wash will be treated in bio-methanation, evaporation and concentration in seven step evaporation system followed with bio-composting of press mud with primary treated spent wash. The Cogeneration boiler will be designed to handle multifuels like bagasse, imported coal, biomass fuels as biogas. The turbine will be double extraction cum condensing machine with air cooled condenser.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

19.6.2 Expansion of Sugar Factory from 3500 TCD to 5500 TCD and addition Cogeneration Power Plant (28 MW) of **M/s Sahakarmaharshi Bhausaheb Thorat Sahakari Sakhar Karkhana Ltd.** at Village Smrutnagar, Post Sangamner SK, Tehsil Sangamner, District Ahmed nagar, Maharashtra (**TOR**)

M/s Sahakarmaharshi Bhausaheb Thorat Sahakari Sakhar Karkhana Ltd. has proposed for expansion of Sugar Factory from 3500 TCD to 5500 TCD and addition of Cogeneration Power Plant (28 MW) at Village Smrutnagar, Post Sangamner SK, Tehsil Sangamner, District Ahmed nagar, Maharashtra. Total plot area is 200 acre of which greenbelt will be developed in 23 acre. Plant will be operated for 145 days. Cogeneration

power plant will be operated for 145 days during season and 20 days for off season. No eco-sensitive area is located within 10 Km distance. ESP will be provided to Bagasse fired boiler (2 x 80 TPH) to control particulate emissions. Fly ash generation will be 4466 MT. Total water requirement for sugar will be 200 m³/day and Cogen power will be 2095 m³/day. Effluent generation will be 338 m³/day from cogeneration and treated in ETP. Bagasse will be used as fuel in boiler. Ash will be sold to brick manufacturer. Molasses will be sold. Pressmud will be sold to farmer/bio-composting.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure7.

19.6.3 Molasses base Distillery Plant (45 KLPD) along with Co-generation Power Plant (30 MW) of **M/s Jaihind Sugar Pvt. Ltd.** at Trhsil Kotnisnagar, District Solapur, Maharashtra (**TOR**)

M/s Jaihind Sugar Pvt. Ltd. has proposed for setting up of Molasses base Distillery Plant (45 KLPD) along with Co-generation Power Plant (30 MW) at Tehsil Kotnisnagar, District Solapur, Maharashtra. Total land in possessing is 84 acres. Total cost of the project is Rs. 185 Crore. No national park, biosphere reserve, wildlife sanctuary and coral formation reserve are located within 10 Km distance.

Bagfilter and stack height of 80 m will be provided to bagasse fired boiler (160 TPH). Total water requirement from Bhima River and surface water source will be 867 m³/day. Sober effluent will be treated in PCT. Moderately polluted effluent stream will be treated in bio-oxidation. High BOD effluent stream will be treated through digester, MEE, compost. Power requirement from MSEDCL will be 1000 KVA. DG set (2x 1000 KVA) will be installed. Fly ash will be sent to brick kiln. Lubricant oil drums and spent oil will be sent to authorized recyclers.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

19.6.4 Molasses based Distillery (60 KLPD), Power Generation (22.5 MW) and Sugar Unit (4400 TCD) of **M/s Swaraj India Agro Ltd.** at Gut No. 332 A, 332 B/2, 332 C, 221, Village Upalve, Tehsil Phaltan, District Satara, Maharashtra (**TOR**)

M/s Swaraj India Agro Ltd. has proposed for setting up of Molasses based Distillery (60 KLPD), Power Generation (22.5 MW) and Sugar Unit (4400 TCD) at Gut No. 332 A, 332 B/2, 332 C, 221, Village Upalve, Tehsil Phaltan, District Satara, Maharashtra. Total plot area is 63 acre of which greenbelt will be developed in 18 acres.. The cost of project is Rs. 283.00 Crore. No. of working days of distillery is 270 days. No. of working days of Cogen Power plant during season is 160 days and off season is 55 days. No of working days of sugar is 160. It is reported that there is no ecological sensitive area and protected areas within 10 Km distance. Open scrub RF near Palvan Stony waste PF near Uplave is located within 10 Km distance. ESP will be provided to boiler to control particulate emissions. Water requirement for sugar unit will be 130 m³/day; for Cogen power will be 1770 m³/day during season and 2100 m³/day during off season and for distillery will be 643 m³/day. Spent wash generation will be 480 m³/day and concentrated in MEE and incinerate in the spent wash fired boiler.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

19.6.5 Molasses based Distillery unit (30 KLPD) by **M/s Siddhi Sugar and Allied Industries Ltd.**, Village Mahesh Nagar, A/p Ujana, Taluka Ahmednagar, District Latur, Maharashtra. (**TOR**)

M/s Siddhi Sugar and Allied Industries Ltd. has proposed for setting up of molasses based Distillery unit (30 KLPD) Village Mahesh Nagar, A/p Ujana, Taluka Ahmednagar, District Latur, Maharashtra. Total plot area is 15.5 acres of which greenbelt will be developed in 4.0 acres. Distillery will be operated for 270 days. Cost of project is Rs. 37 crores.

ESP along with stack height of 60 m will be provided to bagasse /biogas fired boiler. Total water requirement from River Manyad (Manar) will be 305 m³/day. Spent wash will be treated through bio-methanation followed by multi effect evaporator (MEE) followed by bio-composting. Land earmarked for composting is 6 acres. Yeast sludge will be sent to member farmer. Ash will be sold to farmer. ETP sludge will be sold to member farmer.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

19.6.6 Molasses based Distillery (45 KLPD) of **M/s Indreshwar Sugar Mills Ltd.** at Gat no. 313/1, 313/2, Village Bhagwantnagar, Tehsil Barshi, District Solapur, Maharashtra. **(TOR)**

M/s Indreshwar Sugar Mills Ltd. has proposed for setting up of Molasses based Distillery (45 KLPD) at Gat no. 313/1, 313/2, Village Bhagwantnagar, Tehsil Barshi, District Solapur, Maharashtra. Total plot area is 43.80 acres of which distillery is proposed in plant area of 10 acre. There is existing 2500 TCD sugar plant and Co-generation Power Plant (12.5 MW). Total cost of project is Rs. 84 Crore. Plant will be operated for 330 days. No eco-sensitive zone, national park, sanctuaries or bio-sphere reserves are located within 10 Km around the project site. Pimpalwadi Dam is located at a distance of 9.49 Km.

ESP will be provided. Total fresh water requirement from ground water source will be 360 m³ /day. Spent wash will be treated in multi effect evaporator followed by the spent wash fired boiler so as to achieve zero effluent discharge.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

19.6.7 Proposed a new project for manufacturing of API (Bulk Drug & Intermediates) of **M/s Sri Krishna Pharmaceuticals Ltd.** at Dist. Solapur, Maharashtra **(TOR)**

The project was not taken up as it is a Category B project. The file is to be transferred to SEIAA, Maharashtra.

19.6.8 Expansion of Sugar Unit (from 3300 TCD to 6500 TCD), Cogeneration Power Plant (from 15 MW to 38 MW) and inclusion of Molasses based Distillery (60 KLPD) of **M/s Shri Ambalika Sugar Pvt. Ltd.** at Ambalika Nagar, A/P Jagdamba Factory, Taluka Katjat, District Ahmednagar, Maharashtra **(TOR)**

M/s Shri Ambalika Sugar Pvt. Ltd. has proposed for expansion of Sugar Unit (from 3300 TCD to 6500 TCD), Cogeneration Power Plant (from 15 MW to 38 MW) and inclusion of Molasses based Distillery (60 KLPD) at Ambalika Nagar, A/P Jagdamba Factory, Taluka Katjat, District Ahmednagar, Maharashtra. Total plot area Cost of project is Rs. 283.7 Crore. Land in possession is 300 acre. River Bhima is flowing at a distance of 6.6 Km. No wildlife sanctuary/national park is located within 10 Km distance. Following are the details of existing ad expansion project:

S.N.	Production Unit	Existing	Additional Capacity	Total
1	Sugar Unit	3300 TCD	4200 TCD	7500 TCD
2	Cogeneration Power Unit	15 MW	23 MW	38 MW
3	Distillery	--	60 KLPD	60 KLPD

ESP will be provided to bagasse fired boiler. Water requirement from Bhima River and water reservoir will be 2545 m³/day. Spent wash will be concentrated in MEE and concentrate will be incinerated in incineration boiler. For sober wastewater will be treated in Ultra filtration and RO system, treated water will be reused for process and rejects again re-circulated to MEE to achieve Zero discharge.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-1 read with Additional TORs at Annexure-7.

- 19.6.9 Expansion of molasses based distillery unit from 40 KLPD to 140 KLPD and 4.5 MW captive co-generation power plant of **M/s S.V. Distillery Pvt. Ltd.** at Plot no. 112,113 and 114, Village Malchapur, Thsil Bhalki, District Bidar, Karnataka **(TOR)**

M/s S.V. Distillery Pvt. Ltd. has proposed for expansion of molasses based distillery unit from 40 KLPD to 140 KLPD and 4.5 MW captive co-generation power plant at Plot no. 112,113 and 114, Village Malchapur, Thsil Bhalki, District Bidar, Karnataka. Total plot area is 46134.16 m². Karanja reservoir is located at a 8 km distance. Cost of project is Rs 139.86 crores. Total water requirement from ground water source will be 1430 m³/day. Spent wash generation will be 1200 KLPD. Spent wash will be concentrated from 12% to 40-60 %. Concentrated spent wash will be sprayed on coal bed of specially designed incineration boiler. No effluent will be discharged outside the plant premises.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7 and following specific TORs:

- i. Explore the possibility of usage of surface water
- ii. MEE treatment should be adopted.
- iii. No Bio composting is allowed.

- 19.6.10 Molasses based Distillery (100 KLPD) alongwith CPP (5.0 MW) of **M/s Gularia Chini Mills** at Village Gularia, Tehsil Khiri, District Lakhimpurkhiri, U.P. **(TOR)**

M/s Gularia Chini Mills has proposed for setting up of Molasses based distillery (100 KLPD) alongwith CPP (5 MW) at Village Gularia, Tehsil Khiri, District Lakhimpurkhiri, U.P. Total plot area is 25 acres. Total cost of the project is Rs. 102.16 Crore. No eco-sensitive area is located within 10 Km distance. Forest patches occur at distance 2Km and 6.33 km in southeast and south direction. ESP alongwith stack (60 m) will be provided to boiler (32 TPH) to control particulate emissions. Water requirement will be 1534 m³/day. Spentwash generation will be 1000 KLPD. Spentwash will be concentrated in MEE followed by incineration to achieve zero discharge. Bagasse ash and slop ash will be used in filling of low lying areas or in manufacturing of briquettes. Greenbelt will be developed in 40 % of the total project area.

After detailed deliberations, the Committee recommended the proposal for TOR as per Generic TOR at Annexure-7.

- 19.6.11 Proposal for Establishment of new Distillery 200 KLPD capacity of **M/s Rana Sugars Ltd.** at Dist. Moradabad, U.P. **(TOR)**

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

- 19.6.12 Proposed Cochin Coimbatore Pipeline project of **M/s Petronet CCK Ltd.** at Cochin, Kerala **(TOR)**

M/s Petronet CCK Ltd. has proposed for augmentation of Cochin Coimbatore pipeline capacity from 3.3 MMTPA to 7.0 MMTPA. The length of the pipeline from Cochin to Karur is 295 km. Petronet CCK Ltd. has obtained Environmental Clearance (EC) for existing pipeline vide letter no. J-11011/11/96-IA II (I) and also EC for re-alignment of the same pipeline has been obtained vide letter no J-11012/11/96-IA II dated 08.10.2001. Forest land (0.758 ha.) is involved. PP informed that the forest clearance has been obtained during the laying of existing pipeline vide letter no. F .2A /11.2/99/KER/MiSC/3585 Dated 15.02.2001.

After deliberations, the Committee noted that since proposed project is neither located in ecologically sensitive nor critically polluted area as confirmed by the PAs, proposed pipeline project does not attract the provisions of EIA Notification, 2006. However, other statutory clearances from the State Government/State Forest Department/State Pollution Control Board etc. should be obtained as applicable. All the necessary safety precautions should be adopted during laying of the pipeline.

19.6.13 Expansion of existing capacity of Phosphoric Acid Plant of **M/s Greenstar Fertilizers Ltd.** at Dist. Tuticorin, T.N. **(TOR)**

M/s Greenstar Fertilizers Ltd. has proposed for expansion of phosphoric acid plant (from 125000 MTPA to 216000 MTPA) to meet the production capacity of Di Ammonium Phosphate capacity. Existing unit of M/s Greenstar Fertilizer Ltd. is engaged in the manufacturing of Sulphuric acid plant (270000 MTPA), Phosphoric Acid Plant (125000 MTPA) and DAP (606100 MTPA). The Committee noted that the status of environmental clearance for the existing unit is not clear. The Committee deferred the proposal of expansion of Phosphoric Acid Plant of M/s Greenstar Fertilizers Ltd until the status of EC for the existing project is furnished.

19.6.14 Proposal for Changeover of Feedstock and Fuel from Naphtha to Natural Gas by **M/s Southern Petrochemical Industries Corp. Ltd. (SPIC)** at Dist. Tuticorin, T.N. **(TOR)**

M/s Southern Petrochemical Industries Corp. Ltd. (SPIC) has proposed for Changeover of Feedstock and Fuel from Naphtha to Natural Gas at Dist. Tuticorin, T.N. However, the Committee noted that the proposal is incomplete in several technical aspects. Therefore, the Committee recommended to submit revised proposal alongwith complete technical details and proposed is deferred till revised proposal is submitted.

19.6.15 Technical Grade Pesticides Manufacturing Unit of **M/s Maheshwari Biochemical Pvt. Ltd.** at Kaalanwali, Dist. Sirsa, Haryana **(TOR)**

M/s Maheshwari Biochemical Pvt. Ltd. has proposed for setting up of Technical Grade Pesticides Manufacturing Unit at Village Kaalanwali, Tehsil Dubwali Road, District Sirsa, Haryana. However, the Committee noted that the proposal is incomplete in several technical aspects. Therefore, the Committee recommended to submit revised form I and PFR for fresh consideration of the proposal and proposed is deferred till revised proposal is submitted.

Thursday, 29th May 2014

19.7 Consideration of EC cases

19.7.1 Expansion of Bulk Drug Manufacturing Unit of **M/s Lupin Laboratories Ltd. (formerly M/s Rubamin Laboratories)**, at Block No. 21, Village Dabhansa, Tahsil Padra, District Vadodara, Gujarat **(EC)**

The project authorities and their consultant (EQMS India Pvt. 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 1st Meeting of the Expert Appraisal Committee (Industry) held during 24th to 25th September, 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 Lupin Laboratories Ltd. (formerly M/s Rubamin Laboratories) has proposed for expansion of Bulk Drug Manufacturing Unit at Block No. 21, Village Dabhansa, Tahsil Padra, District Vadodara, Gujarat. Total plot area is 1,17,293 m² of which greenbelt will be developed in 38921 m². No forest land is involved. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Mahisagar River, Padra Pond, Dabhansa Pond, ECP Channel, Narmada Canal etc are located within 10Km. Cost of the project is Rs. 270 Crore. GPCB vide their letter no. GPCB/CCA-VRD-331 (10)/ID-22562/67880 dated 06/12/2013 has

recommended the proposal for expansion with condition prescribing total wastewater generation after expansion shall not exceed 871 m³/day out of which 110 m³/day (existing) shall be sent to CETP of EICL and remaining quantity of effluent i.e. 761 m³/day shall be treated in-house and shall be recycled and reused within the premises. Following products will be manufacturing:

GROUP	SR.NO	FINAL NAME OF PRODUCT LIST	EXISTING PRODUCTION (TPA)	TOTAL PROPOSED PRODUCTION (TPA)
A		Category : I		800
	1	1-(3-CHLOROPHENYLE)-4-(3-CHLOROPROPYLE)PIPERAZINE HYDROCHLORIDE	42	
	2	1-[4-CHLOROPHENYL](PHENYL) METHYL] PIPERAZINE	48	
	3	1-CHLORO-4-[CHLORO(PHENYL)METHYLE]BENZENE	30	
	4	(4-CHLOROPHENYL) (PHENYL) METHANOL	9	
	5	2-BENZHYDRYLSULPHINYLAACETIC ACID	0	
	6	S-(+)-2-AMINO BUTYRAMIDE HYDROCHLORIDE	153	
		Total	282	
B		Category : II		200
	7	1-AMINO INDANE	2.4	
	8	LACOSAMIDE	1.2	
	9	4-IMINO-3-AMINO RIFAMYCIN-S	0	
	10	AMISULPRIDE	0	
	11	FLUPIRTINE MALEATE	1.2	
	12	QUETIAPINE FUMARATE	0.6	
	13	ATORVASTATIN CALCUIM	12	
	14	SIMVASTATIN	0	
	15	DESVENLAFLAXINE SUCCINATE		
	16	DESVENLAFLAXINE BENZOATE	0	
	17	PRASUGREL HYDROCHLORIDE	1.2	
	18	ILAPRAZOLE	0	
	19	ESLICARBAZEPINE ACETATE	1.2	
20	FENOFIBRATE	0		
21	ARIPIRAZOLE	0.6		
	Total	20.4		
C		Category : III		300
	22	LEVETIRACETAM	6	
	23	RANOLAZINE	0	
	24	DULOXETINE HYDROCHLORIDE	0	
	25	IRBESARTAN	0	
	26	VENLAFLAXINE HYDROCHLORIDE	0	
	27	PENTOPRAZOLE SODIUM	0	
	28	AMLODIPINE BESYLATE	0	
29	LEVOFLOXACIN	0		

30	ESOMEPRAZOLE MAGNESIUM	0	
31	PREGABALIN	0	
32	OLMESARTAN MEDOXOMIL	0	
33	CANDESARTAN CILEXETIL	2.4	
34	ILOPERIDONE	1.2	
35	FEBUXOSTAT	1.2	
36	PROGLUMETACIN MALEATE	0	
37	NIMORAZOLE	10	
38	ENTACAPONE	0.6	
39	ITOPRIDE HYDROCHLORIDE	0.3	
40	ETIRACETAM	0.6	
41	RIVASTIGMINE	0.6	
42	EFLETIRIZINE	1.2	
43	CARVEDILOL	1.2	
44	RASAGILINE MESYLATE	1.2	
45	PRAMIPEXOLE DIHYDROCHLORIDE	1.2	
46	FLUPIRTINE BASE	0	
47	TRIMETHOBENZAMIDE HYDROCHLORIDE	0	
48	FASUDIL HYDROCHLORIDE	0	
49	RAMOSETRONE HYDROCHLORIDE	1.2	
50	LURASIDONE HYDROCHLORIDE	1.2	
51	CICLETANINE HYDROCHLORIDE	0	
52	CELECOXIB	0	
53	OMEPRAZOLE MAGNESIUM	0	
	Total	30.1	
D	Category : IV		80
54	CLOPIDOGREL BISULFATE	2	
55	DESLORATADINE	0	
56	SEVELAMER CARBONATE	0	
57	CLINDAMYCIN PALMITATE HYDROCHLORIDE	0	
58	ARMODAFINIL	0	
59	AZITHROMYCIN MONOHYDRATE	0	
60	SERTRALINE HYDROCHLORIDE	6	
61	LANSOPRAZOLE	0	
62	DIACEREINE	0	
63	MEMANTINE HYDROCHLORIDE	0	
64	ESZOPICLONE	0	
65	TOLTERODINE TARTRATE	0	
66	DRONEDARONE HYDROCHLORIDE	1.2	
67	FEXOFENADINE HYDROCHLORIDE	3	
68	TRAZODONE HYDROCHLORIDE	1.2	
69	CONIVAPTAN HYDROCHLORIDE	1.2	
70	MIRABEGRON	0	
71	EFAVIRENZ	0	

	72	TELMISARTAN	0	
	73	PIOGLITAZONE HYDROCHLORIDE	0	
	74	EMTRICITABINE	0	
	75	MESALAMINE	0	
	76	ZIPRASIDONE HYDROCHLORIDE	0	
	77	BAZEDOXIFENE ACETATE	1.2	
	78	RABEPRAZOLE SODIUM	0	
	79	NABUMETONE	0	
	80	NAFTOPIDIL	0	
	81	TENOFOVIR DISOPROXIL FUMARATE	0	
	82	RITONAVIR	0	
		Total	15.8	
E	83	R & D PILOT PLANT TRIAL RUN PRODUCTS (BULK DRUGS AND INTERMEDIATES)	37	100
F	84	1-PHENYL PIPERAZINE	18	0
	85	1-ACETYL-4-(4-HYDROXYPHENYL) PIPERAZINE	0.6	
	86	1-(2,3-DICHLOROPHENYL) PIPERAZINE HCL	2.4	
	87	N-(HYDROXY ETHOXY ETHYL) PIPERAZINE	12	
	88	4,4'-DIFLUOROBENZHYDRYL PIPERAZINE	6	
	89	2-CHLOROETHOXY ACETIC ACID	6	
	90	2-CHLOROETHYL AMINE HCL 70% AQUEOUS SOLUTION	18	
	91	1-METHYLAMINE METHYL NAPHTHALENE HCL	0.6	
	92	ETHYLMETHYL CARBAMOYL CHLORIDE	0.6	
	93	ANTHRACENE-9-CARBOXYLIC ACID	0.3	
	94	1,2,4-TRIAZOLO(4,3-A) PYRIDIN-3-(2H)-ONE	18	
	95	1-[2,5-BIS(2,2,2-TRIFLUOROETHOXY)PHENYL]ETHANONE.	12	
	96	PARA-NITRO-BENZOYL MALONATE.	12	
	97	DIPHENYLIODINIUM CHLORIDE.	1.2	
	98	4-IODO-2, 6-DIMETHYLANILINE	6	
	99	N-(HYDROXY ETHOXY ETHYL) PIPERAZINE.2HCL	6	
	100	BOC-VALINE	18	
	101	T2954	12	
	102	1-(2-PROPHENYL)-2-BENIMIDAZOLEIDINONE	12	
	103	RIFABUTENE	3	
	104	CAMOSTAT MESYLATE	1.2	
	105	MECLOFENAMATE SODIUM	1.2	
	106	LOSARTAN POTASSIUM	24	
	107	VALSARTAN	2.4	
	108	IRBESARTAN	2.4	
	109	RIFAXIMINE	1.2	
	110	SMM	12	
	111	SILODOSIN	1.2	
	112	PANIPENEM	1.2	
	113	FIDALRESTAT	1.2	

	114	CEFOTIAM	1.2	
	115	NIMESULIDE	48	
	116	MONTELUKAST SODIUM	1.2	
	117	FLUCONAZOLE	7	
		TOTAL	270.1	
		TOTAL QUANTITY OF PRODUCTION	655.4	1480

LIST OF BY-PRODUCTS

SR.NO	NAME OF BY-PRODUCT LIST	EXISTING PRODUCTION (T/A)	TOTAL PROPOSED PRODUCTION (T/A)
1.	SODIUM CHLORIDE	45.6	-
2.	ALUMINIUM CHLORIDE	111	-
3.	POTASSIUM BROMIDE	372	-
4.	AMMONIUM CHLORIDE	30	-
5.	AMMONIUM SULPHATE	40	-
	POTASSIUM CHLORIDE	10.70	-
6.	MANGANESE DIOXIDE	72	1785
7.	PIPERAZINE + WATER	10	1667
8.	POTASSIUM SALTS	-	3575
9.	SODIUM SALTS	-	6918
10.	AMMONIUM SALTS	-	424
11.	DIAMMONIUM TARTARTE	-	800
12.	2,3- DICHLORO 5,6-DI CYANO BENZOQUINOL	-	440
	TOTAL QUANTITY OF BY-PRODUCTS	691.30	15609

Ambient air quality monitoring was carried out at 6 locations post monsoon season 2012 and submitted data indicates as PM10 (53–142 ug/m³), PM2.5 (17–79 ug/m³), SO₂ (7.5 – 18.7 ug/m³) and NO_x (10.7-23.6 ug/m³). Predicted value of ground level concentration due to proposed project is PM (0.09 ug/m³), SO₂ (5.22 ug/m³) and NO_x (0.20 ug/m³). The resultant concentrations are within the NAAQS. Stack of adequate height will be provided to furnace oil fired boiler 4, boiler 5 and thermic fluid heater (TFH-2) and DG Set (2x1010 KVA and 1 x 600 KVA). Scrubber will be provided to control process emissions viz. HCl, SO₂, NH₃, NO, Bromine and Ethyl Chloride. Total water requirement will be increased from 360m³/day to 1459m³/day after expansion. Out of which, fresh water requirement from ground water will be 711m³/day after expansion. Effluent generation will be increased from 225m³/day to 871m³/day after expansion. PP has proposed to dispose 110m³/day of effluent to CETP after treatment in ETP and balance effluent (761 m³/day) will be treated in RO, MEE and ATFD for recovery of water and reuse. The Committee desired that the unit adopt an in-house zero-discharge treatment system and sought details of a plan for complete effluent treatment scheme by considering high/low COD/TDS effluent streams. It was clarified by PP that since they have a membership with CETP, they would like to continue to send some quantity of the pre-treated effluents to CETP, which itself is undergoing further upgradation to treat high COD effluents. It was informed that ETP sludge, Ash from incineration, spent ion exchange resin containing toxic metals will be sent to TSDF. Process residue and Spent carbon will be sent to TSDF. Used /spent oil will be sent to re-processors/recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 17th January, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding awareness regarding Public Hearing, to establish ITI, school, fire station, local employment to local educated youth, effluent channel, to use surface water instead of ground water, CSR, etc.

The Committee also discussed the compliance status report dated 7th February, 2014 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's regional office, Bhopal. It is reported that two processing units having all the requisite facilities have been completed. These units were presently used for development of molecules and can be used for production. PA has not informed for change of product mix. The Committee sought compliance report on action taken on the non/partial compliance of specific issues reported by RO, Bhopal. The Committee noted that PP has not applied for transfer of existing EC in the name of Lupin. It was clarified that change of name details along with Court Order was submitted. The Committee had reservations about the baseline data presented in the EIA-EMP Report particularly w.r.t groundwater, which requires to be re-analysed. The Committee recommended that a Sub-Committee of EAC (I) shall visit the project site to assess the existing status of the Unit and ground reality.

After deliberations, the Committee desired following additional information:

- 1 To prepare complete effluent treatment scheme by considering high/low COD/TDS effluent streams.
- 2 Permission from CGWA/SGWA for the drawl of 716 m³/day ground water.
- 3 Transfer of existing EC in the new name of unit.

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

19.7.2 Chemical manufacturing Unit of **M/s Flow Tech Chemicals Pvt. Ltd.** at PACL Campus, Naya Nangal, Dist. Ropar, Punjab (EC)

The project authorities and their consultant (Vardan Environet, S.N. 158, List of Accredited Consultant Organizations (Alphabetically)/ Rev. 20/ May 05, 2014) 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 4th Meeting of the Expert Appraisal Committee (Industry) held during 8th to 9th January, 2013 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 Flow Tech Chemicals Pvt. Ltd. has proposed for setting up of chemical manufacturing unit (Secondary plasticizers like Chlorinated Paraffin Plasticizer and By products Hydrochloric acid) at Punjab Alkali Chemical Limited Campus, Naya Nangal, District Ropar, Punjab. M/s Flowtech has entered into a MoU with PACL for using chlorine gas to be supplied. River Satluj is flowing at a distance of 3.5 km. Inter-state boundary is at a distance of 4 Km. PP vide letter dated 29th May, 2014 has confirmed that no notified national parks/wildlife sanctuaries are located within 10 Km distance. Nearest sanctuary "Takhani Rehampur" is located at a distance of 51 Km from the project site.

The following products will be manufactured:

S.N.	Products	Quantity (MTPA)
1	Chlorinated Paraffin Wax	19200 MTPA
2	Hydrochloric Acid (HCl) By-products	38400 MTPA

Ambient air quality monitoring was carried out at 8 locations during January-March, 2013 and submitted data indicates as PM₁₀ (64–81 ug/m³), PM_{2.5} (34–46 ug/m³), SO₂ (6.3 – 8.1 ug/m³) and NO_x (20.1-22.2 ug/m³). The resultant concentrations are within the NAAQS.

All the processes are closed circuits. Alkali scrubber has been already installed by PACL at the exit point to neutralize the acid mist. It is proposed to install 3 Nos. graphite blocks absorber of size 20 m³ each for phase-I reactors and two cooler of 9 graphite tubes for control of HCl fumes. Chlorine will be scrubbed. Chlorine alarm system will be installed for early warning on action of chlorine control. Chlorine will be supplied through pipeline directly to the unit. No storage of chlorine is proposed in the premises. The PP

has an MOU with PACL for supply of Chlorine. Total fresh water requirement will be 90 m³/day. There is no generation of effluent. Cooling blow down water will be treated to maintain TDS level of 1500 mg/l.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Punjab Pollution Control Board on 3rd April, 2013 under the Chairmanship of Additional Deputy Commissioner. The issues raised during Public Hearing were regarding awareness regarding wildlife sanctuary, use of ground water, quality of ground water, location of school within 500m, ground water contamination etc. In response, PP assured that the entire water will be re-circulated and no effluents would be discharged outside the unit.

After detailed deliberations, the Committee, based on the EIA-EMP Report and presentation made recommended the project for EC and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- ii) Chlorine shall be supplied through pipeline. Chlorine alarm system shall be installed for early warning on action of chlorine control. No chlorine shall be stored in the plant premises. An adequate safety and Risk Assessment Plan for use of Chlorine shall be prepared based on which an On-site and Off-site Emergency Preparedness and Disaster Management Plan shall be prepared and implemented.
- iii) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- iv) Total fresh water requirement from ground water source shall not exceed 90 m³/day and prior permission shall be obtained from the competent Authorities.
- v) Effluent from utilities shall be treated in ETP and recycled and reused within plant premises. No effluent shall be discharged outside the plant premises.
- vi) The company shall 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 SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- vii) Alarm for chlorine leakage if any in the liquid chlorine storage area is provided along with automatic start of the scrubbing system.
- viii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 3rd April, 2013 shall be satisfactorily implemented.
- x) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.

The Committee sought an authenticated map of the shortest (aerial) distance of the project from Nangal Wetland and with a clarification from PCCF (WL), Govt. of Punjab whether it is a Ramsar Site/eco-sensitive area/WL Sanctuary for record of the Ministry before according EC.

19.7.3 Resin (PF Resin 30 MTPM & MF Resin (100 MTPM) of M/s Prabhu Creation Pvt. Ltd., at Plot No. 9, Village Chandarda, Taluka Kadi, District Mehsana, Gujarat (EC)

The project authorities and their consultant (San Envirotech Pvt. 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 25th Meeting of the Expert Appraisal Committee (Industry) held during 28th to 30th 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 Prabhu Creations Pvt. Ltd. has proposed for setting up of Resin (P.F. Resin (30 MTPM) & M.F. Resin (100 MTPM) Manufacturing Unit at Plot No. 9 (Prabhuds Patel Industrial Estate), Village Chandarda, Near Nandasan, Kalol-Mehsana Highway, Taluka Kadi, District Mehsana, Gujarat. Kalor town is 10 km. Total project area is 6,000 m² of which greenbelt will be developed in 1980 m². Total cost of the project is Rs. 48 Lakhs.

Following products will be manufactured:

S.N.	Name of the products	Production Capacity (MTPM)
1.	Phenol Formaldehyde Resins	30
2.	Melamine Formaldehyde Resins	100

Ambient air quality monitoring was carried out at 6 locations during May 2011 to June 2011 and submitted data indicates as PM10 (52–84 ug/m³), SO₂ (13.6 – 22.4 ug/m³) and NO_x (14.4-23.9 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (0.566 ug/m³), SO₂ (0.281 ug/m³) and NO_x (0.142 ug/m³). The resultant concentrations are within the NAAQS. Coal/bio-fuel fired boiler /thermic fluid heater with common stack will be installed. The Committee emphasized for installation of bagfilter to the boiler/thermic fluid heater to control particulate emissions. Total water requirement from ground water source will be 15.5 m³/day. Effluent generation will be 2.7 m³/day, which will be treated in ETP and evaporated in evaporation system to achieve zero discharge No effluent will be discharged outside the premises and 'Zero' discharge will be adopted.. ETP sludge will be sent to TSDF site for final disposal while residue will send to CHWIF. Waste oil will be sent to registered recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 19th June, 2012 under the Chairmanship of Additional District Magistrate. The Committee observed that the issues raised during Public Hearing were regarding resin manufacturing and regarding pending past dues of old units of Madhu Textile and Madhu Fabrics, which existed at the same premises and are presently closed. The Committee noted that M/s Prabhu Creations Pvt. Ltd. has now taken up the premises to set up resin manufacturing unit and they have no role in the payment of dues by earlier units.

After detailed deliberations, the Committee based on the EIA-EMP report and presentation made recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out.
- ii) Bagfilter along with stack of adequate height shall be provided to Coal/bio-fuel fired boiler /thermic fluid heater to control particulate emission.

- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- iv) Total ground water requirement shall not exceed 15.5 m³/day and prior permission shall be obtained from the Central Ground Water Authority/State Ground Water Board.
- v) Industrial effluent will be treated in ETP based on photo fenton process followed by tertiary treatment to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vi) The company shall 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 shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- vii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- viii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 19th June, 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.
- x) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility 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.

19.7.4 Proposed Resin manufacturing Unit of **M/s Rajkripal Exim Pvt. Ltd.**, at Plant No.5, Sy. No. 1/1, NH-8A, Varsana, Gandhidham, Kutch, Gujarat (EC)

The project proponent and their consultant (Anacon Laboratories Pvt. 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 2nd Meeting of the Expert Appraisal Committee (Industry) held during 29th to 31st October, 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 Rajkripal Exim Pvt. Ltd. has proposed for setting up of Resin manufacturing Unit at their existing Plant No.5, Sy. No. 1/1, NH-8A, Varsana, Gandhidham, Kutch, Gujarat. It was informed that the existing unit manufactures plywood. Total plot area is 6000 m². Cost of project is Rs. 70 lakhs. No forestland is involved. No national park /wildlife sanctuary is located within 10 Km distance. Following products will be manufactured:

List of Existing products

S.N.	Name of Product	Quantity in Sq. m/month
1	Plywood and block board	16,70,000

List of Proposed intermediate Product

S.N.	Name of Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin	350
2	Urea Formaldehyde Resin	100
3	Melamine Urea Formaldehyde Resin	50

Ambient air quality monitoring was carried out at 6 locations during December 2012 to February 2013 and submitted data indicates as PM₁₀ (30.3–35.6 ug/m³), PM_{2.5} (18.6–38.9 ug/m³), SO₂ (7.50 – 20.10 ug/m³) and NO_x (12.5–29.80 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (1.77 ug/m³), SO₂ (3.42 ug/m³) and NO_x (1.11 ug/m³). The resultant concentrations are within the NAAQS.

Multi cyclone followed by dust collector will be provided to agro waste /lignite fired boiler (10 TPH). However, the Committee suggested providing bagfilter to the boiler to control particulate emissions. Fresh water requirement from Narmada Water Supply from Gujarat Water Infrastructure Ltd. will be 8 m³/day. Industrial effluent generation will be 0.5m³/day and treated in ETP based on photofenton process followed by evaporation to achieve zero discharge. ETP waste will be sent to TSDF. Used oil/spent oil will be sent to authorized recycler. Total power requirement for PGVCL will be 475 KVA. Fuel used in boiler will be agro waste / lignite. DG sets (1X 600 + 1x 25 KVA) will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 26th November, 2013 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing regarding EIA report /study, source of water supply, social development activities, local employment etc were discussed.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out.
- (ii) Bag filter along with stack of adequate height shall be installed to agro waste / lignite fired boiler to control particulate emission.
- (iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- (iv) Wet scrubber shall be provided to control process emissions. Methanol shall be recovered from the process area.
- (v) Total ground water requirement shall not exceed 33.87 m³/day and prior permission shall 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 shall 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 shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- (viii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- (ix) Occupational health surveillance of the workers shall 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 26th November, 2013 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.
- (xii) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility 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.

19.7.5 **Polyester Resin Manufacturing Unit of M/s Satyam Chemicals Industries.** at Block No. 441, Plot No. 12/A-1 to 12 /A-7, Village Pipodara, Taluka Mangrol, District Surat, Gujarat (EC)

The project proponent and their consultant (Precitech Laboratories Pvt. 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 1st Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 24th to 25th September, 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 Satyam Chemical Industries have proposed for setting up of Polyester Resin (3 MTPD) Manufacturing Unit at Block No. 441, Plot No. 12/A-1 to 12/A-7, village Pipodara, Taluka Mongral, District Surat, Gujarat. Currently project proponent is engaged in manufacturing of polyester resin @ 300 MTPM by mixing. The Company now proposes to manufacture polyester resin @ 300 MTPM at their existing unit. Total project cost is Rs. 25.5 lakhs. No national park/reserve forest is located within 10 Km. River Tapi is flowing at a distance of 8 Km. Total plot area is 816 m² and no additional land is required. PP informed that CTE was obtained from GPCB vide letter no GPCB/CTE/SRT-2543/ID-35822/119617 dated 27th July, 2012 for mixing of polyester resin (300 MTPM). PP informed that CTO was obtained from GPCB consent order no WH-51608 dated 18th January, 2013 for mixing of polyester resin (300 MTPM). PP informed the Committee that EC is not required for the existing mixing unit of polyester resins.

Ambient air quality monitoring was carried out at 6 locations during March 2013 to May 2013 and submitted data indicates as PM₁₀ (68–92 ug/m³), SO₂ (17 – 26 ug/m³) and NO_x (19-27 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (0.02 ug/m³), SO₂ (3.68 ug/m³) and NO_x (0.68 ug/m³). The resultant concentrations are within the NAAQS. Stack of adequate height will be provided to LDO fired thermopac boiler. It is envisaged that no generation of process emissions. Total fresh water requirement from ground water source will be 1.735 m³/day. Condensate generation will be 165 LPD, which will be recycled back to the cooling tower as make up water. Used oil will be sent to registered recyclers/re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 7th February, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding manufacturing process of resins, local employment, permission for construction of block no. 441, wastewater flowing in the drain etc.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out.
- (ii) Stack of adequate height shall be provided to LDO fired thermopak heater to control particulate emission.
- (iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- (iv) Total ground water requirement shall not exceed 1.75 m³/day and prior permission shall be obtained from the Central Ground Water Authority/State Ground Water Board.
- (vi) As proposed, no effluents shall be generated from process and utilities.
- (vii) The company shall 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 shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

- (viii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- (ix) Occupational health surveillance of the workers shall 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 7th February, 2014 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.
- (xii) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility 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.

19.7.6 Expansion of existing manufacturing of Drug Coat and other Synthetic Organic Chemicals of **M/s Vikram Thermo (India) Ltd.** at Plot No. 131/1, 131/2, Village Dhanot, Tehsil Kalol, District Gandhinagar, Gujarat (EC)

The project authorities and their consultant (Ramans Enviro Services Pvt. 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 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 4th to 5th April, 2013 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 Vikram Thermo (India) Ltd., (Unit-1) have proposed for expansion of synthetic organic chemicals at Plot no. 131/1, 131/2, Village Dhanot, Tehsil Kalol, District Gandhinagar, Gujarat. Total plot area is 18000 m² of which greenbelt will be developed in 6000 m². Cost of expansion project is Rs. 25 Crore. Project proponent has informed that unit was established in 1986 and that no EC was required to be obtained for the existing activities. A copy of Consent order no. 5136 dated 24.01.2005 issued by GPCB for manufacturing of drug has been submitted. No national park/wildlife sanctuary/reserve forest is located within 10 km distance.

The following products will be manufactured:

S.N.	Product	Capacit (MTPM)		
		Consented	Additional	After Expansion
1	Water based Drugcoat Liquid (Avg. concentration 20-40%)	210	790	1000
2	Water Base Drugcoat powder	35	165	200
3	Solvent Base Drugcoat powder	NIL	20	20
4	Drugsol Series (Hydrogenated Castrol Oil)	NIL	25	25
5	Solvent Base Drugcoat Series	NIL	10	10
6	Ready mix powder/liquid through blending	NIL	200	200
7	Divinyl Benzene based Co-polymers	NIL	10	10
	Total	245	1220	1465

Ambient air quality monitoring was carried out at 6 locations during March 2013 to May 2013 and submitted data indicates as PM10 (41–99 ug/m³), PM2.5 (10–27 ug/m³), SO₂ (3 – 39 ug/m³) and NO_x (2.9-

32.3 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (2.41 ug/m³), SO₂ (2.31 ug/m³) and NOx (0.62 ug/m³). The resultant concentrations are within the NAAQS. Multi cyclone separator along with stack (40 m) will be provided to wooden waste/coal/biocoal fired thermic fluid heaters to control particulate emissions. Multi-cyclone separator followed by bagfitler will be provided to spray dryer. Fresh water requirement from Narmada Canal/ ground water source will be increased from 51 m³/day to 147 m³/day after expansion. Effluent generation will be increased from 6 m³/day to 85.5 m³/day after expansion. Effluent will be treated in ETP and treated effluent will be recycled and reused in process. Distillation residue will be sent to common incineration facility. ETP sludge and process waste residues will be sent to TSDF. Waste oil will be sent to authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 21st January, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding greenbelt, environment management system, hazardous waste, risk assessment study, storage of ethylene oxide etc.

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

- i) Bag filter shall be provided to wooden waste/coal/biocoal fired thermic fluid heaters to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines. Multi-cyclone separator followed by bagfitler shall be provided to spray dryer.
- ii) Total fresh water requirement from Narmada Canal/ ground water source shall not exceed 147 m³/day and prior permission shall be obtained from the competent Authorities.
- iii) Effluent shall be treated in ETP and treated effluent will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- iv) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- v) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge and process inorganic shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers.
- vi) The company shall 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 shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- vii) Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- viii) Adequate safety precautions shall be taken for the E₂O₅ tank as per regulations.
- ix) Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

- Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- x) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 21st January, 2014 shall be satisfactorily implemented.
- xi) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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 Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.7.7 Proposed bulk drug manufacturing unit of **M/s Shruti Drugs Pvt. Ltd.** at Dist. Raichur, Karnataka (EC)

The Committee noted that Public Hearing was exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006 but status of environmental clearance for the whole industrial area namely Raichur Growth Centre Industrial Area is not known.

As per this Ministry's OM No. J-11013/36/2014-IA-I dated 16th May, 2014, individual units may be exempted from Public Hearing in cases where the industrial areas/estates have obtained prior environmental clearance under EIA Notification, 2006 as provided for under 7 (c) of the schedule. Since the industrial area has not obtained an EC with conduct of Public Hearing, Public Hearing for the aforesaid project cannot be exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006. It is, therefore, the Committee recommended conduct Public Hearing /public consultation for the project as per the provisions of EIA notification, 2006. The final EIA-EMP report prepared as per TORs and incorporating all the issues raised during Public Hearing / Public Consultation may be submitted to the Ministry for considering the proposal for environmental clearance.

19.7.8 Chlorinated Organic Products Manufacturing unit of **M/s Deedy Chemicals Pvt. Ltd.**, at Sy No. 69, vill. Dhanot, Taluka Kalol, Dist. Gandhinagar, Gujarat (EC)

The project authorities and their consultant (San Envirotech Pvt. 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 3rd Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 3rd to 5th December, 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 Deedy Chemical Pvt. Ltd. has proposed for setting up of Chlorinated Organic Products Manufacturing Unit at Sy. No. 69, Village Dhanot, Taluka Kalol, District Gandhinagar Gujarat. The unit will have Chlorine handling facility with 15 cylinders at any given time as per Explosives, Rules. The unit is located within a cluster of laminated resin, paper and ceramic units. Finished products would be sent to Pharma units. Total cost of project is Rs. 8 crores. No National Park/ Wildlife Sanctuary/ Reserve Forest is located within 10 Km distance. Total plot area is 14870 m² of which greenbelt will be developed in 7440 m².

The following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	Chloro Acetyl Chloride (CAC)	400
2	Tri Chloro Acetyl Chloride (TCAC)	100
3	Tri Chloride Acetic Acid (TCAC)	40
4	Mon Chloro Acetic Acid (MCA)	200
5	Sodium Mono Chloro Acetate (SMCA)	100
6	Sulphur Mono Chloride	220
7	Acid Chlorides like a) Chloro Benzoyl Chloride b) Propionyl Chloride c) Octenyl Chloride d) Iso Phthaloyl Chloride e) Isobutyryl Chloride f) Valeryl Chloride g) Pivaloyl chloride h) 3 Chloro Propionyl Chloride i) 2 Chloro Propionyl Chloride j) 4 Chloro butyryl chloride k) Chloro Pivaloyl Chloride	200
8	Chlorinated Paraffin Wax (50 %- 70%)	200
Total		1460
S.N.	Name of Products	Quantity (MTPM)
By product		
1	Mother Liquor of MCA	40
2	Hydrochloric Acid (30%)	2400
3	Sodium bi Sulphite (20-30%)	900
4	Sodium hypochlorite (20 %)	7.0
4	Total by product	3347

Ambient air quality monitoring was carried out at 6 locations during December 2012 to February 2013 and submitted data indicates as PM₁₀ (53.7–72.8 ug/m³), SO₂ (11.1 – 21.1 ug/m³) and NO_x (14.2-21.5 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (0.702 ug/m³), SO₂ (0.219 ug/m³) and NO_x (0.167 ug/m³). The resultant concentrations are within the NAAQS.

Cyclone followed by Bagfilter along with stack of 30m height will be provided to biofuel fired steam boiler (2x1000 Kg/hr) and Thermic fluid heater (2 Nos. x 400000 Kcal). 4 stage water scrubber followed by 2 stage alkali scrubber followed by caustic ventury will be provided to reaction vessels (MCA). 2 stage graphite scrubber followed by alkali scrubber followed by caustic ventury will be provided to reaction vessels. Five-stage water scrubber followed by 2 stage alkali scrubber followed by caustic ventury will be provided to reaction vessels (CAC, TCAC, TCAA and SMC). Two-stage HCl scrubber followed by alkali scrubber followed by caustic ventury will be provided to Reaction vessels (CPW). Total fresh water requirement will be 134m³/day and met from ground water source. Total effluent generation will be 6.5m³/day and treated in ETP. Treated effluent will be recycled / reused for scrubbing. Process waste will be sent to TSDF. Distillation residue will be sent to common incineration facility. Used oil will be sent to registered recyclers. It was clarified that there are no chlorine units within 5km radius of the Plant. It was stated that the impact zone of chlorine leakage is about 2.5 km radius. An on-site emergency preparedness plan has been prepared. Sensors have been installed in chlorine handling and storage areas.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 28th January, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding local employment, steps taken to control air pollution, greenbelt etc.

After detailed deliberations, the Committee recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) As proposed, 4 stage water scrubber followed by 2 stage alkali scrubber followed by caustic ventury will be provided to reaction vessels (MCA). Two-stage graphite scrubber followed by alkali scrubber followed by caustic ventury will be provided to reaction vessels. Five-stage water scrubber followed by 2-stage alkali scrubber followed by caustic ventury will be provided to reaction vessels (CAC, TCAC, TCAA and SMC). Two- stage HCl scrubber followed by alkali scrubber followed by caustic ventury will be provided to Reaction vessels (CPW). The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- ii) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- iii) An on-site and off-site emergency plan including mock drills along with awareness campaigns for villagers/local communities in the impact zone shall be prepared and implemnetd.
- iv) Total fresh water requirement from ground water source shall not exceed 134m³/day and prior permission shall be obtained from the competent Authorities.
- v) Total industrial effluent generation shall not exceed 6.5m³/day. Effluent shall be treated in ETP. Treated effluent will be recycled / reused for scrubbing.
- vi) The company shall 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 SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- vii) The levels of PM10, SO₂, NO_x, VOC, Cl₂ and HCl shall be monitored in ambient air.
- viii) Continuous monitoring system for chlorine shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.
- ix) Proper hood along with suction facility and scrubbing arrangement shall be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided along with automatic start of the scrubbing system.
- x) As proposed, green belt over 7440 m² out of total plant area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 28th January, 2014 shall be satisfactorily implemented.
- xii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.

19.7.9 Proposed Bulk Drugs and Fine Chemicals Manufacturing Unit of **M/s Horster Biotek Pvt. Ltd.**, at Khasra No. 259, Plot No.1, 2, village Sukhliya, Sanwer Road, Indore, M.P. (EC)

The project authorities and their consultant (en-vision Enviro Engineers Pvt. 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 6th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 5th to 6th March, 2013 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 Horster Biotek Pvt. Ltd has proposed for setting up of Bulk Drugs and Fine Chemicals Manufacturing Unit at Khasra No. 259, Plot No. 1,2, Village Sukhliya, Tehsil Sanwer, District Indore in Madhya Pradesh. Total land requirement is 1118.02 m². Ral Mandel Sanctuary and Rala Mandel Fort are located at a distance of 13.0 Km. The Committee noted that no wildlife sanctuary is located within 10 Km distance. River Khan is flowing at a distance of 0.20 Km. As per Ministry's OM dated 17.09.2013, moratorium on consideration of project proposal in the CPA 'Indore' has been re-imposed. As per OM dated 15th March, 2010, industrial areas of Sanwar road Indore falls under CPA. PP vide undertaking dated 29.05.2014 has submitted undertaking that the project site is approximately 61.46 m away from the boundary of nearest Critical Polluted Area/cluster i.e. Sanwar Road Industrial Area. Therefore, project site falls outside the CPA.

The following products will be manufactured:

S.N.	PRODUCTS	QUANTITY
1	Betamethasone Valerate	7 MTPA
2	Betamethasone dipropionate	
3	Clobetasol propionate	
4	Clobetasone Butyrate	
5	Betamethasone sodium phosphate	
6	Beclomethasone dipropionate	
7	Dexamethasone sodium phosphate	
8	Fluticasone propionate	
9	Hydrocortisone hemi succinate	
10	Hydrocortisone Acetate	
11	Mometasone Furoate	
12	Prednisolone Sodium Phosphate	
13	Prednisolone Acetate	
14	Dexamethasone acetate	
15	Betamethasone acetate	
16	Methylprednisolone hemi succinate	
17	Methylprednisolone acetate	
18	Halobetasol propionate	
19	Deflazacort	
20	Flucinolone acetonide	
21	Triamcinoloe acetonide	
22	Budesontde	
23	Desoximetasone	

Ambient air quality monitoring was carried out at 6 locations during 19th March, 2013 to 18th June, 2013 and submitted data indicates as PM10 (38.4–128.4 ug/m³), SO₂ (6 – 27 ug/m³) and NOx (10-29 ug/m³). Predicted value of ground level concentration due to proposed project is PM₁₀ (2.07 ug/m³), SO₂ (5.67 ug/m³) and NOx (17.44 ug/m³). The resultant concentrations are within the NAAQS except PM₁₀.

Alkali scrubber along with Stack of adequate height will be provided to control process emissions. Stack of adequate height will be provided to oil fired boiler. Water requirement from ground water source will be 4.815 m³/day. Industrial effluent will be segregated into high COD effluent stream and low COD effluent stream. High COD effluent stream will be sent to nearest incineration facility for treatment. Low COD effluent stream will be treated in ETP followed by tertiary treatment. Treated effluent will be used for

horticulture and greenbelt purpose. No effluent will be discharged outside the plant premises. Electricity consumption will be 140 KVA (150 HP) and sourced from Madhya Pradesh State Electricity Board. HSD will be used as fuel in boiler.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the MP Pollution Control Board on 24th January, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding air pollution control measures, noise pollution, local development, ground water requirement, type of solid waste, social development etc.

After detailed deliberations, the Committee recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) The gaseous emissions from oil fired boiler shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- ii) Scrubbers shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii) Total fresh water requirement from ground water source shall not exceed 4.815 m³/day and prior permission shall be obtained from the competent Authorities.
- iv) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- v) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vi) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- vii) The company shall 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii) Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- ix) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 24th January, 2014 shall be satisfactorily implemented.

- x) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.
- xi) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.7.10 Proposed Synthetic Organic Chemical Unit of **M/s Kosher Pharmaceuticals Pvt. Ltd.** at Sy No. 286, 289 (Part) & 297 (Part), Village and Mandal Jagadevpur, District Medak, A.P. **(EC)**

The project authorities and their consultant (TEAM Labs and 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 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 4th to 5th April, 2013 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 Kosher Pharmaceuticals Pvt. Ltd. has proposed for setting up of Synthetic Organic Chemical Unit at Sy No. 286, 289 (Part) & 297 (Part), Village and Mandal Jagadevpur, District Medak, A.P. Total plot area is 6.5 acres of which greenbelt will be developed in 2.15 acres of land. Cost of project is Rs. 7 crores. No forest land is involved. No national park/wildlife sanctuary is located within 10 Km distance. Narasapuram RF, Daulpuram RF, Kondapuram RF, Singaram RF, Virareddipalli RF and Vasalamarri RF are located within 10 Km distance.

The following products will be manufactured:

S.N.	Name of Product	Capacity (kg/day)	Capacity (TPM)
1	Aliskiren Hemifumarate	200	6
2	Azacitidine	120	3.6
3	Esomeprazole Mg	300	9
4	Irbesartan	150	4.5
5	Montelukast Sodium	150	4.5
6	Ranolazin diHCl	250	7.5
7	Sildenafil Citrate	100	3
8	Tadalafil	300	9
9	Topiramate	300	9
10	Udenafil	45	1.4
11	Venlafaxine Hydrochloride	250	7.5
12	Letrozole	30	0.9
13	Losartan Potassium	300	9
14	Metformin Hydrochloride	1000	30
15	Robeprazole Sodium	150	4.5
	Total (Worst Case Scenario –Only 4 products will be in production at any given time.)	1900	57
By-products			
1	Acetic Acid	118	3.5
2	Trimethyl Silylalcohol	88.5	2.7
3	Tri-Fluoro Acetic Acid	135.6	4.1
4	Diethylamine HCl	287.4	8.6
5	Dicyclohexyl Urea	234.4	7

Ambient air quality monitoring was carried out at 6 locations during March to June, 2013 and submitted data indicates as PM₁₀ (28–48 ug/m³), PM_{2.5} (10–19 ug/m³), SO₂ (5 – 11 ug/m³) and NO_x (6-13 ug/m³). Predicted value of ground level concentration due to proposed project is PM₁₀ (0.51 ug/m³), SO₂ (1.21 ug/m³) and NO_x (2.02 ug/m³). The resultant concentrations are within the NAAQS.

Multi-Cyclone separator will be provided to coal fired boilers (3 TPH and 2 TPH). However, the Committee suggested for bagfilter instead of multi-cyclone separator. Scrubbers will be provided to control process emissions viz. HCl, NH₃ and SO₂. Total water requirement will be 88.7m³/day. Out of which fresh water requirement of 48.7m³/day will be met from ground water source and remaining will be met from recycled water. Industrial effluent generation will be 45.44m³/day. Industrial wastewater will be segregated into High TDS/COD 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. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Ash from boiler will be sold to brick manufacturers. Evaporator salts, inorganic residue and ETP sludge will be sent to TSDF. Solvent will be sent to recycler. Waste oil and used batteries will be sent to authorised recyclers. DG set (1x 500 KVA) will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 31st January, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding land issues, water and waste management, CSR etc.

After detailed deliberations, the Committee recommended the project for EC and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- ii. The levels of PM₁₀, SO₂, NO_x, VOC, NH₃ and HCl shall be monitored in ambient air.
- iii. Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO₂. Two stage scrubber with chilled water media shall be provided to process vents to control NH₃. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv. Total fresh water requirement from ground water source shall not exceed 48.7m³/day and prior permission shall be obtained from the competent Authorities.
- v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

- viii. The company shall obtain Authorisation 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- x. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi. All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 31st January, 2014 shall be satisfactorily implemented.
- xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.
- xiii. As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.7.11 Proposed Scientific Organic Chemical & Bulk Drugs and Intermediates of **M/s Virchow Agrochemical Pvt. Ltd** at Sy. No. 636-642, Village Peddapally, Mandal Jadchela, District Mehboobnagar, A.P. (EC)

The project authorities and their consultant (TEAM Labs and 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 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 4th to 5th April, 2013 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 Virchow Agrochemical Pvt. Ltd has proposed for setting up of Bulk Drugs Manufacturing Unit at Village Peddapally, Mandal Jadcherla, District Mehabubnagar, Andhra Pradesh. Plot area is 100.375 acres. Out of which greenbelt will be developed in 35.2 acres. Cost of the project is Rs. 150 crores. Rs. 20.08 crores and Rs 10.15 crores are earmarked towards capital cost and recurring cost per annum for pollution control measures. No national park/ wildlife sanctuary is located within 10 Km distance. Tigalapalli RF and Appannapalli RF are located within 10 Km.

The following products will be manufactured:

S.N.	Product	Capacity	
		TPM	Kg/day
Phase-I			
1	P-methoxy Benzyl 2-(p-toluene sulphonyl thio) a-(1-Chloromethyl ethenyl-4-oxo-3-phenacetamido-1-azetidine acetate (GCLE)	200	6666.67
2	Meta-Chloro Anisol	150	5000
3	Cefdinir	50	1666.67
4	Cefixime	100	3333.33
	Total (Phase 1)	500	16666.7
Phase –II			
1	Aciclovir	50	1666.67
2	Amoxicillin	100	3333.33
3	Cefalexine	100	3333.33
4	Ibuprofen	100	3333.33
5	Tremadol Hydrogen Chloride	100	3333.33
	Total (Phase II)	450	15000
	Total after Phase – II	950	31666.7
	Co-generation Plant		4 MW

S.N.	Products	Stage	Name of the By-product	Capacity	
				Kg/day	TPM
Phase-I					
1	P-methoxy Benzyl 2-(p-toluene sulphonyl thio) a-(1-Chloromethyl ethenyl-4-oxo-3-phenacetamido-1-azetidine acetate (GCLE)	I	Potassium Chloride	1154.1	34.6
			Spent HCl	1519.4	45.6
2	Meta-Chloro Anisol	I	Sodium Hydroxide (48%)	2924	87.7
3	Cefdinir	I	2-mercapto benzothiazole	705	21.1
4	Cefixime	I	Tri phenyl phosphine oxide	2489.9	74.7
		II	Phenyl Acetic Acid	999.5	30
		III	2-mercapto benzothiazole	1228.8	36.9

Phase –II					
1	Aciclovir	I	Acetic Acid	998.3	29.9
		III	Di-methyl ammonium acetate	3112.1	93.4
2	Amoxicillin	III	Trimethylsilanol	822.8	24.7
			Methyl acetoacetate	1059.1	31.8
			Pivalic acid	931.7	28
3	Cefalexine	III	Pivalic acid	980	29.4
			Ethyl aceto acetate	1123.9	33.7
4	Ibuprofen	III	Chromic sulfate	2114.3	63.4

Ambient air quality monitoring was carried out at 6 locations during March to June, 2013 and submitted data indicates as PM₁₀ (25–47 ug/m³), PM_{2.5} (9–17 ug/m³), SO₂ (7 – 13 ug/m³) and NO_x (9-15 ug/m³). Predicted value of ground level concentration due to proposed project is PM₁₀ (1.12 ug/m³), SO₂ (4.54 ug/m³) and NO_x (6.71 ug/m³). The resultant concentrations are within the NAAQS.

Scrubber will be installed to control process emissions. Bagfilter/ESP will be provided to Coal fired boiler (12 TPH and 30 TPH) to control particulate emissions, DG sets (2 x 1000 KVA) will be installed in two phases. Water requirement will be 706.9 m³/day after phase II. Out of which, 493.9 m³/day water will be met from ground water source and remaining 213 m³/day water will be met from recycled water. Industrial effluent generation will be 239.4 m³/day. Industrial wastewater will be segregated into High TDS/COD 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) followed by RO. RO rejects will be sent to MEE. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Ash from boiler will be sold to brick manufacturers. Evaporator salts, inorganic residue and ETP sludge will be sent to TSDF. Solvent will be sent to recycler. Catalyst, waste oil and used batteries will be sent to authorised recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 24th October, 2013 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding apprehension about water pollution, impact on agricultural activity, local employment, etc. The Committee took note of the opposition on the assumption that it may pollute. The Committee took note of the details of Effluent Treatment scheme provided by the PP and subsequent letter given by some people that they support the project, if pollution is properly controlled, and also implement other measures outlined in the EMP.

After detailed deliberations, the Committee recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- ii) The levels of PM10, SO₂, NO_x, VOC, NH₃ and HCl shall be monitored in ambient air.
- iii) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO₂. Two stage scrubber with chilled water media shall be provided to process vents to control NH₃. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Total fresh water requirement from ground water source shall not exceed 494 m³/day and prior permission shall be obtained from the competent Authorities.
- v) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- viii) The company shall 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.

- ix) Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- x) Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 24th October, 2013 shall be satisfactorily implemented.
- xii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.
- xiii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.7.12 Bulk Drugs Active Pharmaceuticals Ingredients, Bulk Drug Intermediates and Fine Chemicals Manufacturing Unit of **M/s LR Life Sciences** at APIIC Industrial Park, Village Annarugudem, Mandal Tallada, District Khammam, A.P. **(EC)**

The project proponent and their consultant (TEAM Labs and 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 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 4th to 5th April, 2013 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 LR Life Sciences has proposed for setting up of Bulk Drugs Active Pharmaceuticals Ingredients, Bulk Drug Intermediates and Fine Chemicals Manufacturing Unit at APIIC Industrial Park, Village Annarugudem, Mandal Tallada, District Khammam, A.P. Total plot area is 2.278 acres of which greenbelt will be developed in 0.31 ha. Cost of project is Rs. 870 Lakhs. Rs. 1.5 crores and Rs 1.3 crores are earmarked towards capital cost and recurring cost per annum for pollution control measures. It is reported that no national parks/wildlife sanctuaries are located within 10 km distance. Two reserve forests viz. Kannegiri and Gobbagurti are located within 10 km distance. Water bodies (Nasarpu Vagu, Lal Bhadur Canal and Wyr Lake) are located within 10 Km distance.

The following products will be manufactured:

S.N.	Product	Capacity (TPA)
1	Gualifenesin	180
2	Methocarbamol	60

3	Fluconazole	18
4	Ciprofloxacin HCL Monohydrate	36
5	Enrofloxacin	240
6	Citalopram HBR	12
7	Qacid	36
8	Pyridine Anime	6
9	CIS Bromo Benzoate	24.00
10	CIS Triazole Alcohol	18.00
11	5-Cyano Thalide	24.00
12	Magnesiumk Tertiary Butaoxide	24.00
13	Homo Pthalic Acid	24.00
	Campaign Based Products	
14	Imatinib	2
15	Sertraline Hydrochloride	12
16	Itraconazole	6
17	Acyclovyr	12
18	levofloxacin	9
19	Valsartan	6
20	Telmisartan	6
21	Geftinib	1
22	Poly Vinyl Pyrrolidone	30
23	1-Benxyl Piperazine	30

Ambient air quality monitoring was carried out at 8 locations during Summer Season 2013 and submitted data indicates as PM₁₀ (26–44 ug/m³), PM_{2.5} (14–24 ug/m³), SO₂ (8 – 13 ug/m³) and NO_x (10-16 ug/m³). Predicted value of ground level concentration due to proposed project is PM₁₀ (2.7 ug/m³), SO₂ (5.5 ug/m³) and NO_x (2.4 ug/m³). The resultant concentrations are within the NAAQS.

Multi-cyclone dust collector followed by bagfilter and stack height of 30 m will be provided to coal fired boilers (3 and 1.5 TPH) and 2 Lac Kcal/hr HSD fired thermic fluid heater for controlling the particulate matter and effective dispersion of flue gas. DG sets (180 KVA x 2 Nos.) will be installed. Scrubbers will be provided to control process emissions. Total water requirement will be 141.3m³/day. Out of which, fresh water requirement from ground water source will be 99.1 m³/day and remaining water requirement will be met from recycled/treated water. Industrial wastewater will be segregated into High TDS/COD 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) followed by RO. RO rejects will be sent to MEE. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Ash from boiler will be sold to brick manufacturers. Evaporator salts, inorganic residue and ETP sludge will be sent to TSDF. Solvent will be sent to recycler. Waste oil and used batteries will be sent to authorised recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 27th November, 2013 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding impact of unit on surrounding, odour problem from other surrounding unit, local employment, etc.

After detailed deliberations, the Committee recommended the project for EC and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- ii) The levels of PM₁₀, SO₂, NO_x, VOC, HBr and HCl shall be monitored in ambient air.

- iii) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO₂. Two stage scrubber with caustic lye media shall be provided to process vents to control HBr. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Total fresh water requirement from ground water source shall not exceed 99.1m³/day and prior permission shall be obtained from the competent Authorities.
- v) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- viii) The company shall 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix) Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- x) Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 27th November, 2013 shall be satisfactorily implemented.
- xii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.
- xiii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project

area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.7.13 Setting up of Organic Titanates Plant (50 MTPM) of **M/s Om Titanates** at GIDC Estate, Sarigram, Dist. Valsad, Gujarat (**EC**)

The Committee noted that Public Hearing was exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006 but status of environmental clearance for the whole industrial area namely GIDC Sarigram is not known. As per this Ministry's OM No. J-11013/36/2014-IA-I dated 16th May, 2014, individual units may be exempted from Public Hearing in cases where the industrial areas/estates have obtained prior environmental clearance under EIA Notification, 2006 as provided for under 7 (c) of the schedule. In view of the fact that the GIDC Sarigram has not obtained an EC along with Public Hearing, conduct of Public Hearing for the above mentioned project cannot be exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006. The Committee recommended conduct Public Hearing /public consultation as per the provisions of EIA notification, 2006. The final EIA-EMP report prepared as per TORs and incorporating all the issues raised during Public Hearing / Public Consultation may be submitted to the Ministry for considering the proposal for environmental clearance.

19.8 Further Consideration Cases

19.8.1 Proposed Expansion Project of Single Super Phosphate (1,81,000 to 3,15,000 TPA) and 300,000 TPA converted in Granular SSP), NPK (60,000 TPA), and Additional Boronated SSP (25,000TPA), and LABA (20,000 TPA) of **M/s Rama Phosphates Ltd.**, at Plot No. 4807/11, Jhamarkotra Road, village Umra, Tehsil Girwa, Dist. Udaipur, Rajasthan (**Further Consideration of EC**)

Project proposal was considered in the 10th Expert Appraisal Committee (Industry) meeting held during 29th-31st July, 2013 and the Committee desired following information:

- 1 Water harvesting details of the existing unit and proposed unit.
- 2 Greenbelt layout plan of the existing and proposed expansion.
- 3 Fluoride monitoring from the stack of existing unit.
- 4 Details of handling and disposal of H₂SiF₆ liquor and separation of SiO₂ in existing unit and proposed expansion.

Project proponent vide letter dated 17th September, 2013 (received in the Ministry on 13.03.2014) has submitted the above mentioned information.

After detailed deliberations, the Committee recommended the project for EC and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Silicon Fluoride gases shall be passed through three stage-wet scrubbers before discharging into atmosphere through adequate stack height to control fluorine content within 15 mg/m³. After three stages, if fluorine content in emission is not meeting the prescribed norms then efficiency of scrubber shall be improved by adding additional stage of scrubber. Scrubbing shall have interlocking system with main plant.
- ii) Cyclone followed by bag filter shall be provided to SSP plant and grinding section for controlling fugitive emissions. Cyclone dust collector will be provided to dryer in GSSP manufacturing and NPK manufacturing.
- iii) The gaseous emissions (SO₂, NO_x, CO and Fluoride) and particulate matter from process stacks shall conform to the norms prescribed by the CPCB/ MP Pollution Control Board (RSPCB) from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.

- iv) Fluoride monitoring through continuous fluoride analyzer shall be carried out in ambient air as well as stack.
- v) Total fresh water requirement from water tanker supply shall not exceed 313.5m³/day. No ground water shall be used.
- vi) Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. As proposed, Check dams with water storage capacity 3780 m³ and 4500 m³ respectively shall be created near plant premises.
- vii) As proposed, industrial effluent shall be treated in effluent treatment plant (ETP) and recycled back in the process.
- viii) No effluent shall be discharged outside the premises and 'Zero' discharge shall be ensured.
- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) As proposed, H₂SiF₆ liquor shall be filtered through filter press and clear liquor shall be reused to plant premises for acid dilution. The SiO₂ shall be used as filler material for SSP final products. Adequate pollution control system shall be provided.
- xi) All the commitments made to the public during Public Hearing/public consultation meeting held on 25th April, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) 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 Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner.
- xiii) A comprehensive Green belt development plan shall be developed in at least 33 % area in and around the plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. The plan shall be submitted to the Regional Office of the Ministry at Lucknow 3 months of issue of environment clearance letter.

19.8.2 Expansion of Pesticide Manufacturing Unit of **M/s Ambey Lab. Ltd.** at Village Sotanala, Tehsil Behror, District Alwar, Rajasthan (**Further consideration of TOR**)

The project proposal was considered in the 14th Expert Appraisal Committee (Industry) meeting held during 19th-20th December, 2013 and the Committee desired to obtain compliance report of existing environmental clearance from the Regional Office. The proposal was deferred till the inspection report of the Regional Office was received.

The project proponent vide letter dated 24th February, 2014 furnished a copy of certified compliance report dated 21.02.2014. The Committee deliberated upon the certified compliance report issued by MoEF Regional Office Lucknow and found the status of compliance satisfactory. After detailed deliberations, the Committee recommended TOR as given in Annexure-1 read with Annexure-5 for EIA-EMP report preparation along with Public Hearing.

19.8.3 Pesticide Manufacturing Unit of **M/s Agrow Allied Ventures Pvt. Ltd** at SP 3-7/B, Keshvana Industrial Area, Tehsil Kothputli, District Jaipur, Rajasthan (**Further consideration of EC**)

The project was reconsidered in the 13th Meeting of the Expert Appraisal Committee (Industry) held during 18th to 20th November, 2013 and the Committee recommended the proposal for the grant of environmental clearance subject to the specific conditions. In the meantime, some representation regarding construction activity has been received. Ministry sought clarification from the Regional Office. Regional Office Clarified

that PP involved in the construction work for the pesticide formulation plant, for which “ Consent to Establish” has already been obtained from Rajasthan Pollution Control Board vide letter no. 2013-2014/Jaipur/3623 dated 22.10.2013. Pesticide formulation is a non EC product. Therefore, it was reported that this is not a case of violation.

The Committee noted that though Public Hearing exemption was granted under 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006 but status of environmental clearance for the whole industrial area namely Keshvana Industrial Area is not known. As per this Ministry’s OM No. J-11013/36/2014-IA-I dated 16th May, 2014, individual units may be exempted from Public Hearing in cases where the industrial areas/estates have obtained prior environmental clearance under EIA Notification, 2006 as provided for under 7 (c) of the schedule. In view of the above, Public Hearing for the above mentioned project cannot be exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006. The Committee recommended conduct of Public Hearing /public consultation as per the provisions of EIA notification, 2006. The final EIA-EMP report incorporating all the issues raised during Public Hearing / Public Consultation shall be submitted to the Ministry for considering the proposal for environmental clearance.

19.8.4 CBM in Block SP (NE)- CBM-2008/IV Sohampur CBM Block, of **M/s Essar Oil Ltd** (E&P) Division, M.P. & Chhattisgarh (**Further consideration of EC**)

The project proposal was considered in the 13th Expert Appraisal Committee (Industry) meeting held during 18th-20th November, 2013 and the Committee desired following information:

- 1 Status of forest clearance. Stage-I forest clearance to be submitted.
- 2 Produced water treatment scheme along with influent and effluent characteristics to be submitted.
- 3 Enterprises social responsibility considering 5 % of project cost for five years to be submitted.
- 4 Clarification /reply on the issues raised in the representation made by Smt. Sulakshana Nandi.

PP vide letter dated EIL/CBM-IV/SP (NE)/Env/2014-03 dated 14.03.2014 has submitted addl. information. PP informed that the project involves 54ha forestland in Sahdol district and 0.27 ha forest land in Koriya district. Joint forest survey is in progress. Regarding water treatment, it was informed that in case TDS level exceeds the norms, EOL will install the RO facility to treat the CBM produced water to meet standards prescribed by CPCB. The Committee desired that the PP submit a sustainable scheme for effluent water treatment and reuse. The Committee deliberated upon the issues raised in the representation made by Smt. Sulakshana Nandi and issues therein addressed in the EIA-EMP Report.

After deliberations, the Committee sought the following additional information:

- (i) Stage- I forest clearance.
- (ii) Sustainable scheme for treatment of produced water along with treated water management plan.
- (iii) Detailed need based Enterprise Social Responsibility Plan for 5 % of project cost providing details of village-wise activities of various sectoral socio-economic measures. ESR Plan shall be drawn up in consultation with the local district administration and panchayat(s) of the villages concerned falling within the study area.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The response of the PP will be discussed internally without calling project proponent.

19.8.5 Expansion of Synthetic Organic Chemicals (from 75 MTPM to 650 MTPM) of **M/s Phamson Chemicals** at village Rajpura, Dist. Mehsana, Gujarat (**Further consideration of EC**)

Project proposal was considered in the 11th Expert Appraisal Committee (Industry) meeting held during 26th-27th August, 2013 and the Committee desired following information:

- 1 Recheck one month data for hydrocarbon and VOCs
- 2 Details of safe chlorine storage and handling system to be submitted.
- 3 Note on Cl₂ leakage and preparedness.

4 Compliance report of existing CTE/CTO from GPCB.

Project proponent vide letter dated 23rd January 2014 has submitted the above mentioned information. A copy of GPCB letter no. GPCB/CCA-MH-636/ID:18341/201796 dated 22.01.2014 indicating compliance status of the 'consent to operate' has been submitted. It is reported that overall the unit is in compliance of the consent conditions specified by GPCB.

After detailed deliberations, the Committee recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Bag filter shall be provided to the Biofuel fired boiler/ thermic fluid heater to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- ii) Graphite scrubber followed by 3 stage glass water scrubbing system and alkali scrubber along with ventury scrubber shall be provided to control process emissions viz. HCl and Cl₂. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii) Total fresh water requirement from ground water source shall not exceed 66m³/day and prior permission shall be obtained from the competent Authorities.
- iv) Industrial effluent generation shall not exceed 6.5 m³/day. Industrial effluent shall be treated in ETP and treated effluent shall be recycled/reused within plant premises.
- v) Continuous monitoring system for VOCs and chlorine, shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible.
- vi) Proper hood along with suction facility and scrubbing arrangement shall be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided along with automatic start of the scrubbing system.
- vii) The company shall 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 17th July, 2012 shall be satisfactorily implemented.
- ix) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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.
- x) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

19.8.6 Modification in Manufacturing Process for Carbon Fibre and addition of New Products related to Epoxy Resins, Hardener & Prepreg Plant of **M/s Kemrock Industries & Exports Ltd** at Plot No. 112, 114, 116/P/1, 116.P/2, 117, 118, 128, 192/1, 194/2, 195, 196, 197/1, 199, 201, 202, 203, 206 and 205/2, Village Asoj, Tehsil Vaghodiya, District Vadodara, Gujarat **(EC)**

MoEF vide letter dated 13th March, 2013 had sought a copy certified compliance report. The Committee discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's regional office, Bhopal on 8th September, 2013. It is reported that about 204 KLPD effluent is generated and 102 KLPD treated effluent is recycled. Greenbelt of 40.17 % of project area has been developed. Plantation was found impressive within the premises. 25 recharge borewells were installed for rainwater harvesting. Compliance reports seem to be satisfactory.

After detailed deliberations, the Committee recommended the proposal for amendment to the existing environmental clearance with the following specific conditions:

- i. Monitoring report of vent attached to solvent recovery plant, incinerator, HC & VO, noise levels AAQ and common stack attached to Thermic Fluid heater shall be submitted regularly.
- ii. Copy of the Policy under PLI Act, 1991 shall be submitted to MoEF regional Office, Bhopal within 1 month from date of issue of letter.
- iii. Uploading of EC and compliance report along with analytical report shall be uploaded on the Company's Website.
- iv. Adequate stack height shall be provided to Gas/LDO fired thermic fluid heater and boilers (1x8 TPH + 2 x 8 TPH).
- v. As proposed, bagfilter shall be provided to belt conveyor in polymer plant.
- vi. Additional incinerator (2 Nos) shall be installed at carbon fibre plant as per CPCB guidelines.
- vii. Total fresh water requirement from Sardar Sarovar N armada Canal/ground water source shall not exceed 1535.5 m³/day.
- viii. Industrial effluent generation shall not exceed 321.6 m³/day. As proposed, industrial effluent shall be treated in the ETP and treated water shall be recycled/reused within the factory premises. No effluent shall be discharged outside the factory premises.
- ix. ETP sludge and evaporation salt shall be sent to TSDF. Recovered solvent shall be sent to common incineration facility.

19.9 Consideration of TORs

19.9.1 Drilling of 19 wells of Exploratory/Appraisal/Development and Setting up of Production Facilities of **M/s GSPC Ltd.** in CB-ONN-2000/1 Block at Gandhinagar, Gujarat **(TOR)**

M/s GSPC Ltd. has proposed for drilling of 19 wells of Exploratory/Appraisal/Development and Setting up of Production Facilities in CB-ONN-2000/1 Block at Gandhinagar, Gujarat. The block CB-ONN-2000/1 covering an initial area of 1424 km² was awarded in 2001 to the GSPC-GAIL consortium under the NELP – II bid round by the Government of India. The production Sharing Contract (PSC) was signed on 17.07.2001 and PEL was granted on 07.01.2002. The 5-year exploration phase expired in January, 2007 and extension was granted for four years (2007-2011) for exploration in an area of 425 sq. km. Ring fenced PSC of 425 sq. km has been signed on 14.06.2012. Ring fenced PSC of 425 sq. km & ML area 14.03 sq. km of block CB-ONN-2000/01 falls in Ahmedabad District of Gujarat State and covers Dholka, Sindhrej, Rupal, Rasan, Pipan, Ingoli, Kauka, Soyala, Badarkha, Salijida, Rampur, Transad, Dholka, Juval Rupavathi, Bavla, Rasam, Sari, Pipal Villages. Depth of well to be drilled is 3000 m. Coordinates of of Exploratory/Appraisal/Development wells are as given below:

S.N	Well	Latitude	Longitude	Village Google Earth	District
1	GSAH#5A2	22° 44'53.7289"N	72° 25'0.4655"E	Dholka & Sindhrej	Ahmedabad
2	GSAH#6	22° 48'48.8372"N	72° 23'11.8752"E	Rupal & Rasan	Ahmedabad
3	GSAH#7	22° 45'46.9940"N	72° 23'53.7594"E	Sindhrej	Ahmedabad

4	GSAH#8	22° 56'34.4766"N	72° 21'37.5351"E	Pipan	Ahmedabad
5	PK1-Dev1	22° 36'52.7570"N	72° 28'29.5672"E	Ingoli & Kauka	Ahmedabad
6	PK1-Dev2	22° 36'48.9800"N	72° 28'25.9995"E	Ingoli & Kauka	Ahmedabad
7	P#1	22° 57'48.4882"N	72° 21'45.7932"E	Soyala	Ahmedabad
8	P#2	22° 50'38.7202"N	72° 27'55.7456"E	Badarkha	Ahmedabad
9	P#3	22° 48'9.4638"N	72° 23'48.4265"E	Salijida	Ahmedabad
10	P#4	22° 47'31.5730"N	72° 23'53.4164"E	Salijida	Ahmedabad
11	P#5	22° 45'25.6396"N	72° 29'7.3293"E	Sindhrej	Ahmedabad
12	C-1	22° 43'20.1414"N	72° 29'7.3293"E	Rampur	Ahmedabad
13	C-2	22° 40'42.0414"N	72° 26'54.5081"E	Transad	Ahmedabad
14	C-3	22° 42'37.8775"N	72° 25'42.1279"E	Dholka	Ahmedabad
15	C-4	22° 43'47.6277"N	72° 25'40.6484"E	Dholka	Ahmedabad
16	C-5	22° 46'31.2337"N	72° 24'3.0014"E	Juval Rupavathi & Sindhrej	Ahmedabad
17	C-6	22° 49'43.2453"N	72° 23'4.4147"E	Bavla & Rasam	Ahmedabad
18	C-7	22° 53'22.7409"N	72° 24'8.3953"E	Sari	Ahmedabad
19	C-8	22° 56'28.9438"N	72° 22'31.2651"E	Pipal & Pipen	Ahmedabad

The PP informed that a P.H. is being conducted for the same Block w.r.t another project and sought exemption from conduct of P.H. for this project. After detailed deliberations, the Committee recommended TOR as given in Annexure-6 for EIA-EMP report preparation along with Public Hearing. The Committee however, decided that for granting exemption from conduct of P.H., the proceedings of the P.H. for the same Block for another project should be furnished for taking a decision for granting of P.H. for this project.

19.9.2 Proposed for manufacturing laminate sheets of **M/s Brosis Lam Pvt. Ltd.** at Gandhinagar, Gujarat (TOR)

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 References for the preparation of EIA-EMP. 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 Brosis Lam Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No. 774/1, Village Vasna Rathod, Taluka Dehgam, District Gandhinagar, Gujarat. Total plot area is 4816 m². Cost of resin plant is Rs. 1 crore. Following products will be manufactured:

S.N.	Details	Capacity
	Laminated sheets:	2,50,000 Sheets/Month
1	P. F. Resin	750
2	M. F. Resin	250
3	U. F. Resin	100

Multi cyclone dust collector will be provided to Coal/white coal/ agro waste fired boiler/thermic fluid heater. DG set (350 KVA) will be installed. Total fresh water requirement from ground water source will be 25.76m³/day. Effluent generation will be 14.45m³/day and treated in ETP. Treated effluent will be evaporated to achieve zero discharge. ETP sludge will be sent to TSDF. Used oil will be sold to registered recycler.

After detailed deliberations, the Committee recommended TOR as given in Annexure-8 for EIA-EMP report preparation along with Public Hearing.

19.9.3 Expansion of Pigment Manufacturing Unit of **M/s Jyoti Industries** at Shed No. C-1/B-3229 & 3230, GIDC Sarigram, Tehsil Umargam, District Valsad, Gujarat (**TOR**)

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

19.9.4 Proposed to manufacturing Phenol Formaldehyde Resin, Melamine Formaldehyde Resin and Urea Formaldehyde Resin of **M/s Gayatri Polymers** at Dist. Kutch, Gujarat (**TOR**)

Cat.B Project. Since the application was received, the Ministry has constituted SEIAA, Gujarat and the application can be forwarded to SEIAA, Gujarat for further action.

19.9.5 Pigment Manufacturing Unit of **M/s PPL Parshwnath Pigments Ltd.** at Sy. No. 409, 410, 411-416, 549, 550, 551, 560, 561, 562, 563-569, 571, Village Piludra, Taluka Jambusar, District Bharuch, Gujarat (**TOR**)

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 References for the preparation of EIA-EMP. 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 PPL Parwhwnath Pigments Ltd. has proposed for setting up of Pigment Manufacturing Unit at Sy. No. 409, 410, 411-416, 549, 550, 551, 560, 561, 562, 563-569, 571, Village Piludra, Taluka Jambusar, District Bharuch, Gujarat. Cost of project Rs 100 Crore. Total land available is 108052 m². Out of which 28531 m² will be used for current proposal and balance land will be used for future expansion. No wildlife sanctuary /reserve forests falls within 10 Km radius.

The following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	Solvent Dyes	279
2	Optical Brightening Agent	25
3	Alpha Blue	300
4	Beta Blue	500
5	CPC Blue	1000
6	High Performance Pigment	450
7	Pigment Green	300
8	Azo Pigment	323
9	Ultra Marine Blue	300
10	Intermediate	80
11	Fluorescent Plant	50
12	Pearl Pigment Plant	100
13	Fluch Pigment Plant	500
BY-PRODUCTS		
1	Liq. Ammonia (20%) Ammonium Sulphate	1635/1200
2	HCl-20-25%	150

Multi cyclone along with bagfilter will be provided to biofuel briquettes/coal fired boiler /hot air generator /thermic fluid heater. Scrubber will be provided to the process stack to control process emissions. Bagfilter will be provided to spin flash dryer. DG set (375 KVA) will be installed. Total water requirement will be 2239 m³/day. Out of which, 914 m³/day water requirement will be met from fresh water and 1325 m³/day water requirement will be met from recycle /treated water. Effluent generation will be 983 m³/day and treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Sewage will be treated in STP. Power requirement from PGVCL will be 1125 KVA. ETP sludge and salt from MEE will be sent to TSDF.

Copper containing sludge will be sent to TSDF site after recovery of copper or sold to registered recycler, solvent residue will be incinerated at CHWIF. Waste/used oil will be sold to registered /authorized recyclers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing.

19.9.6 Synthetic Organic Chemicals Manufacturing Unit of **M/s Kandla Formalin Ltd.** at Sy. No. 153/Part, Village Vasna-Chaniyar, Taluka Detroj-Rampura, District Ahmedabad, Gujarat (**TOR**)

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 References for the preparation of EIA-EMP. 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 Kandla Formalin Ltd. has proposed for setting up of Synthetic Organic Chemicals Manufacturing Unit (211000 MTPA) at Sy. No. 153/Part, Village Vasna-Chaniyar, Taluka Detroj-Rampura, District Ahmedabad, Gujarat. Cost of the project is Rs. 200 crores. There is no protected area notified under the wild life (protection) Act (1972) & Eco- Sensitive Area notified under section 3 of the EP (A), 1986 exists within 10 Km distance. Wild Ass Wildlife Sanctuary and Nal Sarovar Bird Sanctuary are located at a distance 50 Km.

The following products will be manufactured:

S.N.	Product	Capacity (MTPA)
1	Aqueous Formaldehyde (37% to 55% Concentration)	115,000
2	Urea Formaldehyde Concentrate (UFC-85)	20,000
3	Hexamine	3,000
4	Paraformaldehyde (96%)	10,000
5-A	Urea Formaldehyde (UF) & Melamine Formaldehyde (MF) (Liquid Resin)	15,000
AND/OR		
5-B	Urea Formaldehyde (UF) & Melamine Formaldehyde (MF) (Liquid Resin)	7,500
6-A	Resol type Phenol Formaldehyde (PF) (Powder resin)	5,000
AND/OR		
6-B	Resol type Phenol Formaldehyde (PF) (Powder resin)	2,200
AND/OR		
6-C	Novolac type Phenol Formaldehyde (PF) (Powder resin)	5,000
7-A	Sulphonated Naphthalene Formaldehyde (SNF) Superplasticizers (Liquide)	20,000
AND/OR		
7-B	Sulphonated Naphthalene Formaldehyde (SNF) Superplasticizers (Liquide)	7,000
8	Methylal (99.5%)	18,000
9-A	Polycarboxylates (liquid)	5,000
AND/OR		
9-B	Polycarboxylates (Powder)	2,200
TOTAL (MAXIMUM)		2,11,000
S.N.	By-products	Capacity (MTPA)
1	Gypsum (Calcium Sulphate)	8900

Process scrubber/caustic scrubber/water scrubber/cyclone separator/water scrubber will be provided to control process emissions. Fresh water requirement from SSNNL water supply/ ground water source will be 220m³/day. Effluent generation will be 235m³/day. Out of which process effluent (130m³/day) generated from Paraformaldehyde, UF/MF liquid resin and methylal plant. The process water will be directly recycled to the formaldehyde plant in the process. Industrial effluent (90 m³/day) will be treated in the RO followed

by MEE. Mother liquor from MEE will be recycled back to MEE after salt/sludge separation. Effluent (15m³/day) from the various industrial activities and utilities like washing, boiler blow down & cooling purge will be collected and treated in the ETP. No effluent will be discharge outside the plant premises. ETP sludge and MEE slat will be sent to TSDF. Spent oil and used oil will be sent to authorised recyclers. Spent resin will be sent to co-processing in cement kiln.

After detailed deliberations, the Committee recommended Genric TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing.

19.9.7 Resin manufacturing unit of **M/s P-Design Laminates Studio Ltd.** at Sy. No. 297/1, Village Vadu, Tehsil Kadi, District Mehsana, Gujarat **(TOR)**

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 References for the preparation of EIA-EMP. 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 P-Design Laminates Studio Ltd. has proposed for setting up of Resin manufacturing unit at Sy. No. 297/1, Village Vadu, Tehsil Kadi, District Mehsana, Gujarat. Plot area is 4994 m². Cost of the project is Rs. 10 crores. No wildlife sanctuary/reserve forests is located within 10 Km distance.

The following products will be manufactured:

S.N.	Product	Quantity
1	Decorative Laminates Sheets	1,50,000 Sheets/month or (750 MTPM)
2	Industrial Laminates Sheets	60,000 Sheets/month or 720 MTPM)
3	Phenol Formaldehyde REsin	90 MTPM
4	Phenol Urea Formaldehyde REsin	275 MTPM
5	Melamine Formaldehyde REsin	111 MTPM
6	Urea Formaldehyde REsin	315 MTPM

Cyclone and wet scrubber will be provided to saw dust/ agro waste/briquettes/coal/lignite fired boiler and thermic fluid heater. DG set (65 KVA) will be installed. Fresh water requirement will be 24.5 m³/day. Effluent generation will be 9.45 m³/day. Effluent will be treated in ETP and treated effluent will be evaporated to achieve zero discharge. ETP sludge, MEE evaporation salt/residue will be disposed off at TSDF site. Waste oil will be sent to registered recyclers/re-processors. .

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-8 for preparation of EIA-EMP report along with Public Hearing.

19.9.8 Resin manufacturing unit of **M/s Aatmajyot Chem Pvt. Ltd.** at Sy. No. 219 Paiky, 220 & 223 Paiky-1, Village Junasadulka, Opposite Dadashrinagar, Taluka Morbi, District Rajkot, Gujarat **(TOR)**

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 References for the preparation of EIA-EMP. 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 Aatmajyot Chem Pvt. Ltd. has proposed for setting up of Resin manufacturing unit at Sy. No. 219 Paiky, 220 & 223 Paiky-1, Village Junasadulka, Opposite Dadashrinagar, Taluka Morbi, District Rajkot, Gujarat. Total plot area is 26507 m². Cost of project is Rs. 5.30 crores.

The following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Formaldehyde	3000
2	Hexamine	150
3	Phenol Formaldehyde Resin	250
4	Melamine Formaldehyde Resin	250
5	Urea Formaldehyde	250

Multi cyclone dust collector will be provided to Coal/white coal/agro waste fired boiler and thermic fluid heater. DG set (300 KVA) will be installed. Effluent generation will be 2.625m³/day and treated in ETP. Treated effluent will be evaporated to achieve zero discharge. ETP sludge will be sent to TSDF. Used oil will be sold to registered recycler.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-8 for preparation of EIA-EMP report along with Public Hearing.

19.9.9 Expansion of Dye Intermediates Manufacturing Unit of **M/s Akshar Chem India Ltd.**, at Plot No. 166, 169, at Village Indrad, Tehsil Kadi, District Mehsana, Gujarat (**TOR**)

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 References for the preparation of EIA-EMP. 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 Akshar Chem India Ltd. has proposed for expansion of Dye Intermediates Manufacturing Unit at Plot No. 166, 169, at Village Indrad, Tehsil Kadi, District Mehsana, Gujarat. Now, the unit proposes to expand its production capacity by addition of Vinyl Sulphones- (PC VS/ OA VS/ DMS VS/ M-(Beta Sulphate Ethyl Sulphone) Aniline), Acetanilide, H- Acid, SSP (Single Super Phosphate) & Additional in existing capacity of byproducts. The expected cost of the proposed expansion project will be around Rs. 100 crores. Out of which, Rs. 10 crores will be earmarked for development of EMS. Existing plot area is 40,000 m² and after expansion plot area will be increased to 10000 m².

The following products will be manufactured:

S.N.	Name of Product	Capacity MT / Month		
		Existing	Additional	Total
1	Vinyl Sulphone	650	00	650
2	Vinyl Sulphone-(PCVS/OA VS/DMS VS/M-(Beta Sulfate Ethyl Sulphone Aniline)	00	100	100
3	Acetanilide	00	500	500
4	H-Acid	00	450	450
5	SSP (Single Super Phosphate)	00	8350	8350
By-Products				
1	Acetic Acid	126	15	141
2	Hydrochloric Acid	650	16	666
3	Spent Sulphuric Acid	2275	1105	3380
4	Glauber Salt	510	75	585
5	SBS (Sodium Bi-sulphite)	00	320	320

Cyclone separator followed by bagfilter will be provided to lignite fired thermic fluid heater and steam boiler. Alkali scrubber with caustic dosing will be provided to incinerator. Two stage alkali scrubbers will be provided to sulphonator reaction vessel and Nitration Reactor to control process emissions. Total water requirement will be increased from 185m³/day to 1140m³/day after expansion. Whereas fresh water requirement from ground water source will be increased from 145m³/day to 511m³/day after expansion. After expansion unit will continue to achieve zero discharge. Entire quantity of effluent will be treated in ETP and treated effluent will be passed through RO and condensate from MEE will be reused. ETP waste/

chemical Gypsum, iron sludge, MEE salt and incineration ash will be sent to cement industries or dispose to TSDF site. Used oil / plastic liners will be sold to authorized recyclers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing.

19.9.10 Expansion of Resin Manufacturing Unit of **M/s Windson Chemical Pvt. Ltd.** at Block No. 1834/P1 & P2, Chikhli Vansda Road, Opposite Khodiyar Quarry, Taluka Chikhali, District Navsari, Gujarat (TOR)

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 References for the preparation of EIA-EMP. 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 Windson Chemical Pvt. Ltd. has proposed for expansion of Resin Manufacturing Unit at Block No. 1834/P1 & P2, Chikhli Vansda Road, Opposite Khodiyar Quarry, Taluka Chikhali, District Navsari, Gujarat. Total plot area is 14422.64 m² of which greenbelt will be developed in 3783 m². Cost of expansion project is Rs. 6 crores.

The following products will be manufactured :

S. N.	Products	Existing Quantity (MTPM)	Additional (MTPM)	Total after Expansion (MTPM)
1	Formaldehyde	2200	9000	11200
2	Formaldehyde Based Resin (Powder)	--	900	900
3	Formaldehyde based Resin (Liquid)	900	300	1200
4	Para Formaldehyde	--	900	900
5	Hexamine	--	300	300

Multi cyclone dust collector will be provided to biomass fired boiler. Additional DG set (3 x 250 KVA) will be installed. Fresh water requirement from ground water source will be increased from 99.44 m³/day to 620 m³/day after expansion. It is envisaged that there will be no effluent discharge. Used oil will be sold to registered recycler.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-8 for preparation of EIA-EMP report along with Public Hearing.

19.9.11 Grain/Starch/Molasses Based Distillery Unit (150 KLPD) along with Co-generation Power Plant (6.5 MW) of **M/s Golden Infracon pvt. Ltd.**, at Plot no. 01, Sector-1, Phase-2, Integrated Ind. Estate, SIDCUL, Sitarganj, Uttarakhand (TOR along with **Change of Name from Delight Spirits to M/s Golden Infracon pvt. Ltd. in TOR**)

M/s Delight Spirits Pvt. Ltd. has proposed for setting up of Grain/Starch/Molasses Based Distillery Unit" (150 KLPD) along with Cogeneration Power Plant (6.5 MW) at Plot No.-01, Sector-1, Phase-2, Integrated Industrial Estate, SIDCUL, Sitarganj, Uttarakhand. Proposal was considered in the 11th Reconstituted Expert Appraisal Committee Meeting held during 26th-27th August, 2013 and the Committee recommended TOR along with Public Hearing for preparation of EIA-EMP report.

In the meantime, the project proponent vide letter dated 18th November, 2013 requested for change of name in TOR from Delight Spirits Pvt. Ltd. to Golden Infracon Pvt. Ltd. and furnished supporting documents.

After detailed deliberation, the Committee recommended the same TOR for preparation of EIA –EMP report along with Public Hearing as given in Annexure-7.

19.9.12 Expansion in exiting crude oil carrying capacity from 200,000 bopd to 300, 000 bopd and Natural gas carrying capacity from 6.3 mmscd to 40 mmscd in Existing **(Bhogat (Gujarat) pipeline) Project of M/s Cairn India Ltd., dist. Barmer, Rajasthan (TOR)**

An onshore crude oil and natural gas evacuation pipeline system (Barmer-Salaya Pipeline) has been laid from Mangala crude oil terminal in Rajasthan to Salaya via Viramgam in Gujarat. The crude oil pipeline system is the world's longest heated, insulated crude oil pipeline and serves the vital objective to transport the crude oil to the various Govt. of India nominated buyers. The current pipeline evacuation system has a crude oil carrying capacity of 200,000 bopd. The Rajasthan hydrocarbon field – Mangala field is expected to increase the current crude oil production from existing 200,000 bopd to 300,000 bopd in the year 2014. To evacuate 300,000 bopd, there is a need to augment the capacity of crude oil pipeline from 200,000 to 300,000 bopd in order to supply the crude to nominated refineries and support national energy securities. Further additional fuel gas will be required to generate power for crude oil pumping and heating requirements to support the increased crude oil flow in pipeline. Following additional facilities will be created:

- i) AGI 9 & 26- Installation of three crude oil pumps (2 W + 1 SB). The pumps will be having dedicated gas turbine derives of 4 MW each.
- ii) Viramgam Terminal – Installation of five (5) additional booster pumps (4 W + 1 S), two (2) main line pumps (2 W + 1 S) each of capacity 90, 000 bopd at the existing Viramgam terminal and addition of two (2) crude oil storage tanks each with holding capacity of 150,000 barrels (24,000 m3). To power the proposed additional facilities gas turbine generator of 16 MW capacity shall be installed.

The proposed increased Natural gas carrying capacity from 6.3 mmscfd to 40 mmscfd will be achieved by:

- i) The installation of gas compressor at total of 7 locations including Viramgam terminal. The 6 locations shall be selected from proposed tentative 8 locations. Approximate 8 MW power shall be required for proposed each location. The pipeline design conditions remain unchanged in terms of the pressure and temperature. There will be no change or additional to the existing crude oil or natural gas pipeline. The cost of proposed crude oil pipeline expansion project is estimated to be Rs. 850 crores & cost of project for the proposed augmentation of the gas flow to 40 mmfcd is currently estimated at 425 crores.

The additional land required at 2 locations (near AGI 9 & 26) is approximately 2.5 ha (25000 m2) each. At the Viramgam terminal, no additional land is required. The additional land required at 6 locations to be selected out of tentative 8 locations and shall be 2 ha each.

At the Viramgam terminal, it is proposed to add another 3 gas turbine generator (GTG) with cumulative captive power generation to 16 MW to the existing two (2 GRG's of 4 MW each. It is reported that the proposed project does not passes through any national park/wildlife sanctuary. The nearest sanctuary locations to the proposed pipeline facility modification locations are the Wild Ass Wildlife sanctuary located in Little Rann of Kutch, Gujarat, which is approximately 30 Km west from Viramgam terminal. Nalsarvor wet land bird sanctuary is situated 30 Km south west of existing pipeline route at 30 km. the Marine National Park which is located along the coastal area between Jamnagar and Salayais at a minimum 20 km north of the existing pipeline route. No coastal area is involved.

MoEF has granted the following environmental clearances for the project to Cairn (India) Ltd.:

S.N.	Subject	File No.
1	150,000 BOPD oil evacuation pipeline with associated facilities from Mangala Terminal in Barmer Destrict Rajasthan to Salaya Facilities in Jamnagar District, Gujarat via Viramgam.	J-11011/234/2007-IA II (I) dated 28 th April, 2008.
2	Crude Oil Pipeline capacity augmentation from 150,000 to 175, 000 BoPD	J-11011/444/2011-IA II (I) dated 5 th September, 2012.

3	CRZ & Environmental Clearance for the installation and operation of pipelines from Salaya to Bhogat, Bhogat storage terminal and two Single Point Mooring (SPM) with interconnecting pipeline.	F. N. 11-34/2009-IA III dated 24 th August, 2009
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After detailed deliberation, the Committee recommended the same TOR for preparation of EIA –EMP report along with Public Hearing as given in Annexure-7.

19.10 **ANY OTHER ITEMS**

19.10.1 Bulk drug unit of **M/s ELBS Pharma Pvt. Ltd.** at Dist. Nalgonda, A.P. (**Extension of validity of EC**)

MoEF vide letter no. J-11011/687/2007-IA –II dated 7th January, 2008 has issued environmental clearance for bulk drug unit at Sy. No. 412/A, Velemnedu Village, Chityal Mandal, District Nalgonda, AP. Project proponent vide letter dated 19th December, 2012 has requested for extension of validity of EC for five more years. PP informed that SPSCB had imposed moratorium on Nalgonda district, AP earlier for new industries. After intervention of the Hon'ble High Court, SPCB has issued CTE to them.

The Committee recommended the project proposal to extend the validity of environmental clearance for another 5 years subject to following additional specific condition:

- i. Products and production capacity shall remain same.
- ii. Bag-filter shall be provided to the boiler.
- iii. No effluent shall be discharged outside the factory premises and Zero discharge concept shall be adopted.
- iv. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water shall be recycled/reused within factory premises.
- v. Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

19.10.2 EC for Proposed expansion of Bulk Drug Unit of **M/s V.V.R. Organics Pvt. Ltd.** at Dist. Nalgonda, A.P. (**Extension of validity of EC**)

The proposal could not be considered in the meeting. The EAC decided that the MOEF may take a decision on the matter.

19.10.3 Setting up of an (R&D) Facility in their existing Chemical Company of **M/s BASF**, at Navi Mumbai (**Applicability of EC**)

M/s BASF has proposed for expansion of R & D activities at existing BASF Navi Mumbai site from 30 to 300 scientists and investing in world class R & D Centre for chemical synthesis, discovery chemistry, formulation research, polymer research, mathematical modelling & analytics. This also involves small scale chemical synthesis (mg to g scale) & purification techniques (Chromatography, filtration of mg to g) plus an up scaling lab (g- Kg). An estimated 300 new jobs will be created for scientist and administration. About 100 scientists will work in the office (modelling, information scouting & IP. Current R & D centre has consented capacity of 500 tons/year by MPPCB. In the New R & D Centre, 1 % of the consented R & D Capacity i.e. 5 tons/year will be utilized in future. Water demand of Current BASF site is 507m³/day. Additional water demand for proposed R & D centre will be 207 m³/day. Trade effluent generation from current BASF site is 300m³/day. Additional trade effluent generation from R & D Center will be 30m³/day. Sewage generation will be increased from 160 to 180 m³/day after installation of R & D labs.

The Committee after deliberations recommended that no EC is required for the R & D centre as it involves small scale chemical synthesis (mg to g scale) & purification techniques (Chromatography, filtration of mg to g) plus an up scaling lab (g- Kg).

19.10.4 Resin Manufacturing Unit of **M/s Pawan Formalin Pvt. Ltd** at Sy.No. 24 P, village Jambudiya Dist., Rajkot, Gujarat **(Amendment in TOR)**

M/s Pawan Formalin Pvt. Ltd has proposed for setting up of Resin Manufacturing Unit of at Sy.No. 24/ P, village Jambudiya Dist., Rajkot, Gujarat. Cost of the project is Rs. 3.6 Crore. Plot area is 10060 m² of which greenbelt will be developed in 3096 m².

The following products will be manufactured :

S.N.	Products	Capacity
1	Formaldehyde (37 %)	1800 MTPM
2	Urea Formaldehyde Resin	250 MTPM
3	Melamine Formaldehyde Resin	250 MTPM
4	U F Molding Powder	250 MTPM
5	Hexamine	90 MTPM

Multicyclone dust collector will be provided to steam boiler and thermic fluid heater. Scrubber will be provided to process emissions. Total water requirement from ground water source will be 66.45 m³/day. Effluent generation will be 7.61 m³/day and treated in ETP followed by evaporation to achieve zero discharge. DG set (300 KVA) will be installed. ETP sludge will be sent to TSDF. Used oil will be sent to authorized recyclers/reprocessors.

After detailed deliberation, the Committee recommended TOR for preparation of EIA –EMP report along with Public Hearing as given in Annexure-8.

19.10.5 Proposed 60KLD Mollasses/Grain Based Distillery Plant of **M/s United Spirits Ltd. (UB Group)**, located at Meerut, U.P.

MoEF vide letter no. J-11011/329/2007-IA –II dated 29th December, 2008 has issued environmental clearance for the above mentioned project. Project proponent vide letter no. USL/JML/28 dated 22nd August, 2013 has requested for extension of validity of EC for five more years. PP informed the reasons for delay are financial constraints due to the ongoing economic slowdown, the Company was forced to ration the limited financial resources. The Company has also undergone some fundamental changes in its ownership structure.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of five years with effect from 29.12.2013.

19.10.6 Proposed Expansion for Manufacturing of Polyester Chips of **M/s JBF Industries Ltd.** at Dist. Valsad, Gujarat **(Amendment in EC granted on 16.08.2012)**

Ministry vide letter no. J-11011/330/2010-IA II (I) dated 16th August, 2012 has issued environmental clearance to M/s JBF Industries for Expansion of Polyester Chips manufacturing from 36,000 MTPM to 49,500 and captive power generation from 4.5 MW to 8.7 MW.

Amendment obtained to include 1.2 MW dual fired power engine as a back up arrangement and increase the captive power generation capacity to 9.9 MW. Now, JBF is planning for obtaining a second amendment in change in existing fuel i.e. use coal instead of natural gas to be used in existing 4 Nos. of thermic fluid heating system. Cost of projection for the proposed amendment will be Rs. 41.40 crores.

The proposed coal fired system is also designed for 35 M K. Cal /Hr heat load as per process requirement. As coal based heaters need periodic shut down after every 6 months for 2 weeks to carry out the various maintenance activities, it was decided to go for a stand by provision of heater to cater the plant load requirement. Decision of procuring 2 Nos. of heater of 1410 MCal/hr and 2 nos. of heater of 10 MK Cal /hr was made so that 01 heater be installed as standby. Indian coal/Indonesian Coal will be used as fuel. Additional plot measuring of 13281.11 m² has been taken on lease for proposed installations. ESP along with stack height of 63 m will be provided to control particulate emissions. Unit will have covered storage of Coal, closed conveyor belt transfer, fly ash handling system to control pollution. There will be no change in water consumption, waste generation. Fly ash will be sent to brick manufacturers. The Committee noted that AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be 1.99 µg/m³, 5.77 µg/m³ and 4.13 µg/m³ with respect to SPM, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS.

After detailed deliberations, the committee recommended the proposal for change in the fuel from natural gas to coal subject to following specific conditions:

- i) ESP shall be provided to the coal fired Thermic Fluid Heater to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- ii) Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- iii) Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and 'Memorandum of Understanding' shall be submitted to the Ministry's Regional Office at Bhopal.

19.10.7 Manufacturing of 4 Methy Acetophenone, 4 Methyl Propiophenone, 2.4 Dichloro Acetophenone & Tiglic acid of **M/s Sun Industries** at Valsad, Gujarat (**Extension of TOR dated 24.07.2012**)

MoEF vide letter no. J-11011/55/2012-IA –II dated 24th July, 2012 has issued TOR for the above mentioned project.

TORs was granted vide MOEF letter dated 24th July, 2012 for four products namely, 4 Methyl Acetophenone, 4 Methyl Propiophenone, 2, 4-Dichloro Acetophenone, Tiglic Acid. The Company has planned to add new products for which amendment of TORs has been sought.

The details of existing products and new products are given below:

S.No	Name of Products	Proposed Quantity of Production		
		Quantity MT/Month		
		Existing Quantity	Proposed Quantity	Total
Existing Products				
1	Alphapipenene,4,3 carene & pine oil	99	--	99
2	Pine Tar	1	--	1
3	Ortho Bromo Toluene	25	--	25
4	Para Bromo Toluene	30	--	30
TORs obtained Products				
5	4 Methyl Acetophenone	--	70	70
6	4 Methyl Acetophenone	--	70	70
7	2,4 Dichloro Acetophenone	--	70	70
8	Tiglic acid	--	3	3

By-Products				
i	30% HCl	--	189	189
ii	AlCl ₃ Solution	--	844.5	844.5
iii	Chloroform	--	3.6	3.5
9	4-Tertiary Butyl Benzoic Acid	--	100	100
10	4-Bromo Benzoic Acid	--		
11	2-Bromo Benzoic Acid	--		
12	2-Chloro Benzoic Acid	--		
13	4-Nitro Benzoic Acid	--		
14	4-Nitro Benzamide	--	10	10
15	2-Methyl P-Phenylene Diamine	--	30	30
16	2-Amino phenol	-	10	10
17	4-Chloro 2-Amino Phenol	--	100	100
18	2-Chloro, 5-Nitro Benzoic Acid	--	25	25
19	2,5 Dibromo Nitro Benzene	--	25	25
20	2,5 Dibromo Nitro Benzene	--		
21	3-Nitro Phthalic Acid	--	25	25
22	Halquinol	--	100	100
Total	155	1755	1930	

Water requirement will be increased from 11.00 KLD to 136m³/day. Coal requirement will be increased from 1 MTPD to 7.36 MTPD after revised proposal. Additional utilities such as Thermopak, boiler and DG set will be installed. The Committee noted there is huge change in scope of the project.

After detailed deliberations, the committee recommended fresh TOR for preparation of EIA-EMP report and Public Hearing as given in Generic TOR at Annexure-1 read with additional TORs at Annexure-5.

19.10.8 Expansion of Sugar Mill Capacity from 2500 TCD to 5000 TCD and Expn. based Co-generation Power Unit of 16.2 MW of **M/s Bhavrao Chavan Sahakari Sakhar Karkhana Ltd.**, at Laxminagar, Degaon-Yelegaon, Tq. Aradhapur, Dist., Nanded, Maharashtra (**Extension of Validity of EC**)

MoEF vide letter no. J-11011/34/2009-IA-II dated 13th April, 2009 has issued environmental clearance for the above mentioned project. Project proponent vide letter no. BCSSKL/Expan./3572/2013-14 dated 23rd January, 2014 has requested for extension of validity of EC for five more years. PP informed the reasons for delay are due to severe drought conditions from 2010 to 2013, we could not find resources for expansion, and as such they could not undertake the expansion work. The financial situation of the industry is now improved considerably and proposed to undertake expansion of the projects.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of five years with effect from 13.4.2014.

19.10.9 Proposed Bulk Drug Unit of **M/s Praveen laboratories Pvt. Ltd.** at dist. Surat, Gujarat (**Amendment to EC**)

The Committee members informed that they have not received any documents for above mentioned project. Therefore, the proposal is deferred.

19.10.10 Proposed expansion of integrated Sugar Complex of **M/s Parrys Sugar Industries Ltd.** at Dist. Uttaru Kannada, Karnataka (**Name change in the ToR letter dt. 29/4/2013**)

M/s Parrys Sugar Industries Ltd. has informed that ToR letter has been issued in the name of PArrys Sugar Industries Ltd. but the name of company has been changed as EID Parry (India) Ltd. Parrys Sugar Industries Ltd's unit at Haliyal, Uttara Kannada District, Karnataka is demerged into EID- Parry (India) Ltd. by virtue of the order of the Hon'ble High Court of Karnataka dated 1.02.2013 and order of the Hon'ble High Court of Judicature, Madras dated 18.02.2013. The Committee noted that unit has also obtained environmental clearance for the existing unit. Therefore, the Unit shall submit requisite information/documents for transfer of EC of the existing unit and TOR for expansion.

19.10.11 Establishment of Synthetic Organic Chemical Industry of M/s Sesha Sai Organics Pvt. Ltd. at 159/1 (part), village Kandivalasa, Pusapatirega mandal, Dist. Vizianagaram, Dist. A.P. (Extension of TOR validity)

PP informed that TOR was issued vide MoEF letter no. J-11011/584/2011-IA II (I) dated 24.07.2012 for synthetic chemical Unit at Sy. No. 149/1 (Part), Village Kandivalasa. PP has requested for change in Sy. No. from 149/1 (Part) to 159/1 (Part) and extension of TOR validity.

Since there is change in Sy. No of the land, the Committee recommended that the PP apply afresh for TOR for preparation of EIA-EMP report along with Public Hearing.

19.10.12 M/s Sesha Sai Organics Pvt. Ltd. - Change in TOR Production capacity mentioned as 5400 kg/ day in place of 1000kg/day (Corrigendum)

PP informed that TOR was issued vide MoEF letter no. J-11011/585/2011-IA II (I) dated 24.07.2012 for synthetic chemical Unit at Sy. No. 149/1 (Part), Village Kandivalasa. Now , they have requested following :

- (i) Change in Sy. No. from 149/1 (Part) to 159/1 (Part)
- (ii) Change in production capacity from 5400 Kg/day to 1000 Kg/day.
- (iii) Extension of TOR validity.

Following products will be manufactured :

S.N.	Products	Capacity (Kg/day)
1	Abacaver Sulphate	180
2	Abacaver Base	50
3	Benezapril HCl	200
4	Ceforoxime Sodium	120
5	Cefoxitin Axetil	50
6	Esomeprazole Mg	50
7	Lansoprazole	50
8	Metaprolo Succinate	50
9	Nevirapine	50
10	Metformin Hydrochloride	500
11	TERbinafine HCl	50
Total (Worst case scenario- Only 4 products will be in production at any given time.		1000

Since there is change in Sy. No of the land, the Committee recommended fresh TOR for preparation of EIA-EMP report along with Public Hearing.

19.10.13 Bulk drug Unit of M/s V S K Laboratories Ltd. at dist. Nalgonda, A.P. (Extension of EC)

MoEF vide letter no. J-11011/589/2007-IA –II dated 21st February, 2008 has issued environmental clearance for bulk drug unit at Sy. No. 406, Velemnedu Village, Chityal Mandal, District Nalgonda, AP.

Now, project proponent vide letter dated 3rd November, 2012 has requested for extension of validity of EC for five more years. PP informed that earlier SPSCB has imposed moratorium on Nalgonda district, AP for new industries. Now, after Hon'ble High Court intervention, SPCB has issued CTE to them.

The Committee recommended the project proposal to extend the validity of environmental clearance for another 5 years subject to following additional specific conditions:

- i. Products and production capacity shall remain same.
- ii. Bag-filter shall be provided to the boiler.
- iii. No effluent shall be discharged outside the factory premises and Zero discharge concept shall be adopted.
- iv. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water shall be recycled/reused within factory premises.
- v. Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

19.10.14 Manufacturing unit producing Natural Menthol and Essential oil products from Natural/Herbal extracts of M/s Jindal Drugs Ltd. at Plot No. T-22, MIDC Talaja, Dist. Raigad, Maharashtra (Letter dated 16.04.2014 on Applicability of EC)

M/s Jindal Drugs Ltd. vide letter dated 16th April, 2014 has sought clarification regarding applicability of EIA Notification, 2006 regarding manufacturing of Menthol and other essential oil products and proposed to set up plant at Plot No. T-22, MIDC Talaja, District Raigad, Maharashtra. PP informed that all the raw materials used are extract of natural products/herbs. The manufacturing process of all three products viz Menthol and other essential oil products like eucalyptol/cineole and Anethole does not involve use of any chemicals or adding of any solvents. There is no chemical reactions. The process used are a) fractional distillation, b) molecular distillation c) Crystallisation d) Blending and e) Filtration.

After deliberation, the Committee recommended the proposed activity does not fall under 5 (f) category of EIA Notification, 2006 and does not require an environmental clearance under the EIA Notification, 2006..

19.10.15 Replacement of Old Engines with new ones in the existing Pump Stations of the Existing Cross-country Pipelines of M/s Oil India Ltd., in Assam-Bengal-Bihar (Applicability of EC)

Project proposal was considered in the 9th Expert Appraisal Committee (Industry) meeting held during 10th June 2013 and the Committee desired following information:

- i. Pipeline route map with landuse clearly showing locations of facilities proposed to be upgraded.
- ii. Distance between facilities to be upgraded and eco-sensitive area/national park/wildlife sanctuary.

The project proponent vide letter no. OIL/PLP/UGP/4.4/404 dated 1st February, 2014 has submitted the above mentioned information. PP informed that they are not going for capacity enhancement in the existing pipeline infrastructure facilities nor there will be any facilities for storage tanks, inside the OIL receipt terminals. The storage tanks are inside the Refinery. In these installation, they are only going to replace the old engines and pump, which is a part of the routine operational activity. All the activities are limited within the operating premises of the OIL's existing pump & terminal stations only and it doesn't involve any acquisition of land or laying of new pipeline or construction of new pumping stations.

Following are the details of the pump station & terminals, which are in the enclosed proximity to the National Park/ Wildlife Sanctuary:

Name of the Pump Station/ Terminal Constructed	Distance from the National Park/ Wildlife Sanctuary
--	---

in 1962	
Sekoni, Assam (Pump Station No. 4)	2.5 Km from Kaziranga National Park (KNP) (Kukurakat Hill Forest Extn ofKNP)
Pipeline H Q Noonmati Guwahati, Assam (Pump Station No. 5)	4.0 Km from Amcheng Wild life Sanctuary.

After detailed deliberations, the Committee recommended that the proposal does not attract the provisions of Environmental Impact Assessment Notification, 2006. However, other statutory clearances under the Wildlife (Protection) Act, 1972, Air and Water Act and CRZ Notification as may be required in this case shall be obtained. All the necessary safety precautions shall be adopted during laying of the pipeline.

F
RIDAY, 30th May 2014

19.11 Environmental Clearances

19.11.1 Expansion of Brownfield Ammonia, Urea Plant, new Aniline, TDI-MDI Blend, Water Soluble Fertilizers (NPK) and CPSU Plants of **M/s Gujarat Narmada Valley Fertilizers & Chemicals Ltd.**, Narmadanagar, Bharuch, Gujarat (EC)

The project authorities and their consultant (Kadam Environmental 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 5th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 31st January, 2013 – 1st February, 2013 for preparation of EIA-EMP report. All fertilizer plant is listed at S.N. 5(a) under category 'A' and appraised at Central level.

M/s Gujarat Narmada Valley Fertilizers Company Ltd. have proposed for expansion of fertilizer plant at Narmadanagar, Village, Tehsil & District Bharuch, Gujarat. Total plot area in GNFC Unit 1 is 32,39,698m² and in GNFC Unit 2 is 6,50,000m². Expansion will be done in the existing unit. Total cost of expansion project is Rs. 4,463 crores. No protected areas, forest land/national parks/ wildlife sanctuaries are involved. River Narmada river flows at a distance of 4 Km.

The following products will be manufactured:

S.N.	Product	Existing Capacity (MTPA)	Proposed Capacity (MTPA)	Total Capacity (MTPA)
1	Ammonia	630000	1022000	1652000
2	Urea	720000	1405250	2125250
3	Aniline	48000	78000	126000
4	Acetic Acid	1,50,000	25,000	1,75,000
5	TDI-MDI Blends	---	7800	7800
6	Water Soluble Fertilizers	--	5000	5000
6	Power Generation	45 MW	45 MW	90 MW

Prilling tower is provided to the existing Urea unit. Packed bed absorption column is provided in the concentrated Nitric Acid. High efficiency cyclone separator & scrubbing system and bag filter are attached to calcium ammonium nitrate plant. Bag filter is provided to rock phosphate bines handling unit. Packed bend column and ammonia scrubber is provided to Rock dissolving reactor. Packed bed ammonia scrubber is provided to NP melt unit. Cyclone separator & scrubbing system is provided to ANP drying drum. Ammonia scrubber is provided to calcium nitrate unit. Acetic acid scrubber is provided to acetic acid plant. Vapour scrubbing tower is provided to ethyl acetate plant. Prilling tower will provided to proposed urea unit.

Venturi scrubber & packed bed scrubber is provided in aniline incinerator. Venturi scrubber & mist eliminator is provided in the TDI incinerator I & II. Caustic scrubber is provided in the phosgene plant as emergency scrubber. Caustic scrubber, water scrubber, absorption tower and flash tank are provided in the TDI plant. Absorption tower and scrubber are provided to the aniline plant. Scrubbers are provided to Hydrogen vent of proposed aniline plant. Scrubber will be provided to Nitrobenzene vent of NB plant. Absorption tower will be provided to SAC plant. Venturi scrubber & Packed bed scrubber are provided to aniline incinerator of Aniline plant.

Water requirement from Narmada River, Ukai Canal and Narmada Canal will be increased from 55068m³/day to 83654 m³/day after expansion. Industrial effluent generation in GNFC Unit -1 will be increased from 19703m³/day to 25283m³/day after expansion. Industrial effluent generation in GNFC Unit - 2 will be increased from 1470 m³/day to 2637m³/day after expansion. Industrial effluent will be treated in ETP and treated effluent will be discharged to River Bhukhi. Spent catalyst, used oil, waste oil and used batteries will be sent to CPCB authorized recyclers. ETP sludge, spent resin, silica gel and incinerator ash will be sent to TSDF.

The Committee noted that Public Hearing was exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006 but status of environmental clearance for the whole industrial area namely GIDC Narmadanagar is not known. As per this Ministry's OM No. J-11013/36/2014-IA-I dated 16th May, 2014, individual units may be exempted from Public Hearing in cases where the industrial areas/estates have obtained prior environmental clearance under EIA Notification, 2006 as provided for under 7 (c) of the schedule. In view of the above, Public Hearing for the above mentioned project cannot be exempted under 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006. It is, therefore, the Committee recommended to conduct Public Hearing /public consultation as per the provisions of EIA notification, 2006. The final EIA-EMP report prepared as per TORs and incorporating all the issues raised during Public Hearing/Public Consultation may be submitted to the Ministry for considering the proposal for environmental clearance.

19.11 TERMS OF REFERENCE (TORs)

19.11.2 Expansion of Bulk Drug Manufacturing Unit of **M/s Sreepathi Pharmaceuticals Ltd.** at Plot No. 163, Phase – V, IDA Jeedimetla, Dist. Ranga Reddy, A.P. (TOR)

The project authorities and their Consultant (M/s Pridhvi Envirotech Consultants Pvt. Ltd) 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 References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within 10 km distance nearest critically polluted area ie. IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Sreepathi Pharmaceuticals Ltd. has proposed for expansion of Bulk Drug Manufacturing Unit at Plot No. 163, Phase – V, IDA Jeedimetla, Dist. Ranga Reddy, A.P. Sreepathi Pharmaceutical Ltd. was established in 1986. Post facto EC was obtained in August, 2005 for the existing unit. Land area is 10668.06 m² of which greenbelt will be developed in 3520.46m². Cost of existing project is 36.5 crores and cost of proposed expansion is Rs. 10 crores. Water bodies i.e. Fox Sagar and Hussain Sagar are located within 10 Km distance. Dulapalli RF is located within 10 Km distance. There are 8 RFs in 10 Km study area.

The following products will be manufactured :

S.N.	Name of the Product	Existing Capacity (TPM)	After Expansion Quantity (TPM)
1	Ciprofloxacin HCL	11.75	110.0
2	Quinapyramine Sulphate	0.25	1.0
3	Quinapyramine Chloride	0.25	1.0
4	Enrofloxacin	1.5	25.0
5	Norfloxacin	2.0	5.0

6	Ofloxacin	3.0	3.0
7	Sparfloxacin	2.0	5.0
	Total	13.5	150.0

Existing products are manufactured in 2 groups such that any one group of products will be manufactured at a given time point of time. Total production capacity –worst case scenario is 13.5 TPM. Bagfilter along with stack height of 30 m will be provided to coal fired boiler (1 x 8 TPH). DG set (2 x 500 KVA) will be installed. Scrubber will be provided to control process emissions viz. HCl, DMA and SO₂. Water requirement will be increased from 24.379m³/day to 190.79 m³/day after expansion. Out of which fresh water requirement from tanker supply will be 145.79 m³/day and remaining water requirement will be met from recycled water. Wastewater generation will be increased from 10.846 m³/day to 89.95 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Spent paraffin, Spent Piperazine ML and N-Ethyl Piperazine ML will be sent to authorized recyclers for recovery.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing.

(i) Recommendation of APPCB

(ii) Zero-discharge.

19.11.3 Drug manufacturing unit (Unit-III) of **M/s S.M. Labs Ltd.** at Sy. No.s 1058 & 1059, Village Machanpally, Mandal Bommalramaram, District Nalgonda, A.P. (TOR)

The project authorities and their Consultant (M/s Rightsource Industrial Solution Pvt. Ltd) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s S.M. Labs Ltd. has proposed for setting up of Drug manufacturing unit (Unit-III) at Sy. No.s 1058 & 1059, Village Machanpally, Mandal Bommalramaram, District Nalgonda, A.P. Total plot area is 30068 m² (7.17 acres) of which greenbelt will be developed in 17864.94 m². Cost of project is Rs. 12.98 Crore. Following products will be manufactured:

S.N.	Product	CAS No's	Quantity Kg/Month	Quantity in Kg/Day
1	Metformin Hydrochloride	1115-70-4	20000.00	666.67
2	5-Cyano Pthalide	82104-74-3	10000.00	333.33
3	Atorvastain Calcium	134523-03-8	2000.00	66.67
4	Lansoprazole	103577-45-3	3000.00	100.00
5	Sildenafil Citrate	171599-83-0	2000.00	66.67
6	Zidovudine	30516-87-1	2000.00	66.67
7	Levocetirizine Di Hydrochloride	130018-87-0	2000.00	66.67
8	Escitalopram Oxalate	219861-08-2	2000.00	66.67
9	Lamivudine	134678-17-4	2000.00	66.67
10	Losartan Potassium	12470-99-8	3000.00	100.00
	Total		48000.00	1600.00
	By-product			
1	Thioacetic Acid			26.67
2	Trityl Alcohol			60.70

3	Triethyl Methane Sulfonate		26.67
4	Trityl Methyl Ether		35.89
	Total		149.93

Bagfilter along with stack height of 30 m will be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. HCl, ammonia and SO₂. Water requirement will be 128.56 m³/day. Wastewater generation will be 65.33 m³/day. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Fly ash will be sent to cement industries.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

(i) Zero-discharge.

19.11.4 Expansion of Bulk drugs & intermediates manufacturing Unit (Unit-II) (from 108 to 300 TPA) of **M/s Guna Sai Life Science (P) Ltd.**, at Sy. No. 464 & 465, Village D. Nagaram, Mandal Choutppal, District Nalgonda, A.P. (TOR)

The project authorities and their Consultant (M/s KKB Envircare Consultants) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s Guna Sai Life Science (P) Ltd. has proposed for Expansion of Bulk drugs & intermediates manufacturing Unit (Unit-II) (from 108 to 300 TPA) at Sy. No. 464 & 465, Village D. Nagaram, Mandal Choutppal, District Nalgonda, A.P. PP informed that the existing unit does not have environmental clearance since it is a bulk drug intermediates manufacturing unit established during June 2005. Consent to establish was issued on 22.06.2005. Consent to operate was obtained vide APCCB/RCP/NILG/HO/CFO/2012-2648 dated 01.09.2012 for manufacturing bulk drug (108 TPA). Total plot area is 3.65 ha and no addl. land will be required. No wildlife sanctuary /national park is located within 10 km distance. Meharnager RF, Malkapuram RF, Lakkaram RF and Chouppal RF are located within 10 km distance. Water bodies namely Chinnamusi, Malkapur tank, Pochampally tank, Nagaram tank, pipalpahad tank are located within 10 km distance. Cost of expansion project is Rs. 14.5 Crore. Rs. 3,0 crore and Rs. 4.0 Crore are earmarked towards capital cost and recurring cost per annum for environmental management plan. Following is the list of permitted bulk drugs with production capacity:

S.No	Name of the Product	Quantity (kg/day)	Quantity TPA
Group-A			
1	5-Bromo Phthalamide	150	54
2	Tetralone	150	54
Group-B			
1	Phthalamido Amlodopine	125	45
2	4-Hydroxy Carbozole	21	7.56

List of proposed bulk drugs with production capacity:

S.No	Name of the Product	TPA	Therapeutic Category
Proposed Bulk Drugs – Campaign Products			
1	Efavirenz	60	Antiviral
2	Cifixime Trihydrate	60	Antibacterial

3	Setraline Hydrochloride	90	Antidepressant
4	Glimepriide	90	Antidiabetic
5	Ososorbide-5-5Nitrate	90	Antianginal
6	Mixifloxacin Hydrochloride Monohydrate	48	Antibacterial
7	Clopidogrel Hydrogen Bisulfate	90	Abtithrombotic
8	Rabeprazole Sodium	48	Antiulcerative
9	Lasartan Potassium	123	Antihypertensive
Proposed By-product from Bulk Drugs Campaign Product			By-Product from the Bulk Drug
1	Triethylamine Hydrofluride	41.95	Mixifloxacin Hydrochloride Monohydrate
2	Spent Sulfuric Acid	227.04	Rabeprazole Sodium
3	Succinimide	36.97	Losartan Potassium

The infrastructure will be designed to manufacture all the above 9 proposed products on campaign basis (any 3 products will be manufactured at a time). Bagfilter along with stack height of 30 m will be provided to coal fired boilers (2x2 TPH & 1 TPH). Scrubber will be provided to control process emissions viz. HCl and SO₂. Water requirement will be 141 m³/day. Out of which fresh water requirement will be 86 m³/day. Wastewater generation will be 56.5 m³/day. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to cement industries.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

(i) Zero-discharge.

19.11.5 Expansion of Drug & Intermediate Manufacturing Unit of **M/s Tejashrri Intermediates Pvt. Ltd.** at Plot Nos. 133-142, Phase – II, Mandal Pashamailaram, Patancheru Mandal District Medak, A.P. (TOR)

The project authorities and their Consultant (M/s Rightsource Industrial Solution Pvt. Ltd.) 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 References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within 10 km distance nearest critically polluted area ie. IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Tejashrri Intermediates Pvt. Ltd. has proposed for expansion of Drug & Intermediate Manufacturing Unit (from 10.5 TPM to 300 TPM) at Plot Nos. 133-142, Phase – II, Mandal Pashamailaram, Patancheru Mandal District Medak, A.P. PP informed that the exiting unit was established before 2006 and Tejashrri intermediates is having CFE from APPCB vide CFE No. Pasha/78/PCB/ZO/RCP/CFE/2004-617 dated 20.08.2004. Cost of expansion project is Rs. 18.82 Crores. Total plot area is 10096.5 m² of which greenbelt will be developed in 3396 m². Following products will be manufactured :

S.N.	Name of the Product	CAS No's	Quantity Kg/Month	Quantity in Kg/ Day
1	Bromophenaramine	86-22-6	5000.00	166.67
2	Butaphosphan	17316-67-5	82000.00	2733.33

3	Carsiprodol	3053-63-2	15000.00	500.00
4	Ciprofloxacin hydrochloride	86483-48-9	11000.00	366.67
5	Ditiazem Hydrochloride	33286-22-5	85000.00	2833.33
6	Famotidine	76824-35-6	15000.00	500.00
7	Metformin Hydrochloride	1115-70-4	70000.00	2333.33
8	Risperidone	106266-06-2	2000.00	66.67
9	Terbinafine Hydrochloride	78628-80-5	5000.00	166.67
10	Topiramate	97240-79-4	10000.00	333.33
	Total		300000.00	10000.00
	By-products			
1	Piperazine Hydrochloride			151.58

Bagfilter along with stack height of 30 m will be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. ammonia. Water requirement will be 135.69 m³/day. Wastewater generation will be 58.32 m³/day. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

- (i) Recommendation of APPCB
- (ii) Zero-discharge.

19.11.6 Proposed expansion of drug intermediates unit of **M/s Shri Ram Chlorochem Ltd.** at Sy. No. 180/1 to 15, IDA Village Khazipally, Mandal Jinnaram, District. Medak, A.P. (TOR)

The project authorities and their Consultant (M/s Pridhvi Envirotech Consultants Pvt. Ltd) 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 References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within 10 km distance nearest critically polluted area ie. IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Shri Ram Chlorochem Ltd. has proposed for expansion of drug intermediates unit (from 15 TPM to 60 TPM) at Sy. No. 180/1 to 15, IDA Village Khazipally, Mandal Jinnaram, District. Medak, A.P. Existing unit was established in the year 1996. As the unit is drug intermediate category and not covered under 1994 EIA Notification, EC requirement was not there. Plot area is 10.34 acres of which greenbelt will be 5.3 acres. Cost of existing project is Rs. 11 crores and proposed expansion is Rs. 3 crores. Water bodies namely rain fed tank is at Gaddpotaram (1.8 Km from the site). Kazipalli RF is located at 0.2 Km. There are 19 reserve forests are located in 10 km study area.

The following products will be manufactured :

S.N.	Product	Existing Capacity (TPM)	After Expansion (in TPM)
Existing Product			
1	N-Methyl Piperidone Derivatives	0.5	Dropped
New Products			
2	Domperidone Pharma	--	9.0

3	Loperamide Intermediates	--	2.5
4	Dibenzosuberone	--	11.0
5	N-Carboxy 4 - Piperdone	--	4.0
6	N-Methyl 4- Piperidone	--	22.0
7	5 Chloro 1, 3 dihydro-1-(Piperidinyl) 2 H - benzimidazole-2-one	--	11.5
	Total	15.0	60.0

Bagfilter along with stack height of 30 m will be provided to additional coal fired boiler. Stack of adequate height will be provided to thermic fluid heater. Scrubber will be provided to control process emissions. Water requirement will be increased from 34.5 m³/day to 135.69 m³/day after expansion. Wastewater generation will be increased from 5.3 m³/day to 58.32 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

- (i) Recommendation of APPCB
- (ii) Zero-discharge.

19.11.7 Bulk Drug manufacturing unit of **M/s Vineet Life sciences Pvt. Ltd.** at Sy. Nos. 1019, 1020/I-2, 1020/B & 1021, Village Jangamaheswarapadu, Mandal Durgi, District. Guntur, A.P. (TOR)

The project authorities and their Consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s Vineet Life sciences Pvt. Ltd. has proposed for setting up of Bulk Drug manufacturing unit at Sy. Nos. 1019, 1020/I-2, 1020/B & 1021, Village Jangamaheswarapadu, Mandal Durgi, District. Guntur, A.P. Cost of project is Rs. 12.31 crores. Total plot area is 13760 m² (3.40 acres) of which greenbelt will be developed in 4790.55 m².

The following products will be manufactured:

S.N.	Name of the Product	CAS No's	Quantity Kg/Month	Quantity in Kg/ Day
1	Albendazole	54965-21-8	5000.00	166.67
2	Amlodipine Besylate	111470-99-6	2000.00	66.67
3	Efavirenz	154598-52-4	3000.00	100.00
4	Emtricitabine	143491-57-0	3000.00	100.00
5	Famotidine	76824-35-6	6000.00	200.00
6	Fluconazole	86386-73-4	2000.00	66.67
7	Lamivudine	134678-17-4	1500.00	50.00
8	Levosulpride	23672-07-3	2000.00	66.67
9	Lopinavir	192725-17-0	1000.00	33.33

10	n-Butyl Lithiumrazole	109-72-8	15000.00	500.00
11	Pantoprazole Sodium	138789-67-1	1500.00	50.00
12	Ritanovir	155213-67-1	1000.00	33.33
13	Triclabendazole	68786-66-3	5000.00	166.67
14	Valsartan	13786-2-53-4	1000.00	33.33
15	Zidovudine	30516-87-1	1000.00	33.33
	Total		50000.00	1666.67

Bagfilter along with stack height of 30 m will be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. ammonia. Water requirement will be 112.78 m³/day. Wastewater generation will be 53.34 m³/day. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. DG sets (380 & 250 KVA) will be installed.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

(i) Zero-discharge.

19.11.8 Expansion of Active Pharma ingredients from 162.5 TPM to 220.2 TPM of **M/s Sri Chaitanya Chlorides Pvt. Ltd.** at Plot No. 31-33, 39 – 42, Phase II, IDA, Village Pashamailaram, Mandal Patancheru, District Medak, A.P. (TOR)

The project authorities and their Consultant (M/s Team Labs and Consultants) 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 References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within 10 km distance nearest critically polluted area ie. IDA, Pattancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Sri Chaitanya Chlorides Pvt. Ltd. has proposed for expansion of Active Pharma ingredients from 162.5 TPM to 220.2 TPM at Plot No. 31-33, 39 – 42, Phase II, IDA, Village Pashamailaram, Mandal Patancheru, District Medak, A.P. Total plot area is 5.5 acres of which greenbelt will be developed in 1.5 acres. Cost of project is Rs. 5.2 crores. Water bodies (i.e. Nakkavagu stream and Isnapur Cheru) are located within 10 km distance. No national park/sanctuary is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Capacity (TPM)	
		Permitted	After Expansion
1	Trichloro Acetyl Chloride	150	100
2	Chloro Acetyl Chloride	5	5
3	Triphenyl Phosphine	7.5	--
4	Aceclofenac	--	36
5	Clopidogrel Bisulphate	--	4
6	Esomeprazole	--	18
7	Metachloro Nitrobenzene	-	54
8	Fluconazole	--	0.6
9	Ritonavir	--	3
	Total	162.5	220.0

S.N	Name of the by-Product		Name of the Product	Capacity(TPM)	
				Kg/ Day	TPM
1.	Aceclofenac	I	Sodium Chloride	166	4.98

Bagfilter along with stack height of 30 m will be provided to additional coal fired boiler (3 TPH & 2 TPH). Scrubber will be provided to control process emissions. Water requirement will be increased from 25.4m³/day to 146m³/day after expansion. Out of which fresh water requirement from APIIC water supply will be 98m³/day. Wastewater generation will be increased from 4.2m³/day to 54.3m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Additional DG set (500 KVA) will be installed.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

- (i) Recommendation of APPCB
- (ii) Zero-discharge.

19.11.9 Proposed expansion of our drug intermediates unit of **M/s Shri Ram Chlorochem Ltd.** at Dist. Medak, A.P. **(TOR)**

Considered at Item no. 19.11.6

19.11.10 Proposed for ToR for expanding out intermediate manufacturing unit of **M/s Plasma Labs Pvt. Ltd.** at Dist. Nalgonda, A.P. **(TOR)**

It was noted that form-1 and prefeasibility report has been submitted in the name of M/s Plasma Labs Ltd. But during presentation it was informed that the name of proposed unit is M/s Symed Labs Ltd. Unit VI. Therefore the Committee suggested that PP shall submit revised form-1. Accordingly, proposal is deferred till the revised form-1 is submitted.

19.11.11 Expansion of Bulk Drug Manufacturing of **M/s Vasudha Pharma Chem Ltd.** at plot no. 39 a & B, IDA Jeedimetla, District Ranga Reddy, A.P. **(TOR)**

The project authorities and their Consultant (M/s Pridhi Envirotech (P) Ltd) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s Vasudha Pharma Chem Ltd. has proposed for expansion of Bulk Drug Manufacturing unit-I at plot no. 39 a & B, IDA Jeedimetla, District Ranga Reddy, A.P. Total plot area is 12144 m² of which greenbelt will be developed in 1338.4 m². Cost of existing project is Rs. 31.4 Crore and proposed expansion is Rs. 5.5 crores. Water bodies namely Kotha Cheruvu is located within 10 km distance. No national park/sanctuary is located within 10 km distance. Dulapa RF is located at a distance of 1.6 Km. There are 8 reserve forests in 10 km study area.

The following proposed products will be manufactured :

S.N.	Name of the Product	Quantity (in TPM)	Product Description Drug/ Intermediate/ Multipurpose Chemicals
1	Amitriptyline Hydrochloride	1.50	Bulk Drug
2	Cisapride Monohydrate	0.30	Bulk Drug
3	Cyclobenzaprine Hydrochloride	1.50	Bulk Drug
4	Cyrohetadine Hydrochloride	0.15	Bulk Drug
5	Des Loratadine	0.70	Bulk Drug
6	Domeridone	3.00	Bulk Drug
7	Domeridone Maleate	1.50	Bulk Drug
8	Donepezil Hydrochloride	0.15	Bulk Drug
9	Ebastine	0.30	Bulk Drug
10	Fexofenadine Hydrochloride	3.00	Bulk Drug
11	Ketorolac Tromethamine	2.00	Bulk Drug
12	Loperamide Hydrochloride	1.50	Bulk Drug
13	Loratadine	2.50	Bulk Drug
14	Nebivolol Hydrochloride	0.70	Bulk Drug
15	Olmisartan	1.00	Bulk Drug
16	Oxatomide	0.17	Bulk Drug
17	Pimobendan	0.01	Bulk Drug
18	Pimozide	0.03	Bulk Drug
	Total	20.00	Bulk Drug

Bagfilter along with stack height of 30 m will be provided to additional coal fired boiler (4 TPH). Scrubber will be provided to control process emissions. Water requirement will be increased from 27.8 m³/day to 128.12 m³/day after expansion. Out of which fresh water requirement from tanker water supply will be 92.5m³/day. Wastewater generation will be increased from 16m³/day to 55.44m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing: The EAC agreed to collection of their baseline data from March-May 2014.

(i) Recommendation of APPCB

(ii) Zero-discharge.

19.11.12 Proposed expansion of our Bulk Drug Manufacturing unit-II of **M/s Vasudha Pharma Chem Ltd.** at Dist. Ranga Reddy, A.P. (TOR)

Porposal considered at Agenda Item 19.11.11

19.11.13 Capacity Expansion of (5f) organic chemicals and Intermediates manufacturing unit (Unit-I) of **M/s Neuland Laboratories Ltd.** at Dist. Medak, A.P. (TOR)

Category 'B' project. Proposal will be placed in the next meeting for appraisal as per MoEF's OM.

- 19.11.14 Bulk Drugs & Intermediates manufacturing of **M/s Inchem Laboratories Pvt. Ltd.**, at Madhura Nagar, A.P. **(TOR)**

Category 'B' project. Proposal will be considered in the next meeting for appraisal as per MoEF's OM.

- 19.11.15 Establishing a Drug manufacturing unit of **M/s Rani Life Sciences Pvt. Ltd.** at Dist. Krishna, Andhra Pradesh **(TOR)**

Category 'B' project. Proposal will be considered in the next meeting for appraisal as per MoEF's OM.

- 19.11.16 Expansion of Durg & Intermediate Manufacturing Unit of **M/s Tejashri Intermediates Pvt. Ltd.** at Dist. Medak, A.P. **(TOR)**

Considered at Agenda Item no. 19.11.5

- 19.11.17 Expansion of Bulk Drugs Intermediates Manufacturing Unit of **M/s Vegesna Laboratories Pvt. Ltd.** at plot No.34/A, S.V. Cooperative Industrial Estate, Jeedimetla, Ranga Reddy District A.P. **(TOR)**

The project authorities and their Consultant (M/s KKB Envirocare consultants Pvt. Ltd.) 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 References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within 10 km distance nearest critically polluted area ie. IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Vegesna Laboratories Pvt. Ltd. has proposed for expansion of Bulk Drugs Intermediates Manufacturing Unit at plot No.34/A, S.V. Cooperative Industrial Estate Jeedimetla, Ranga Reddy District A.P. Existing unit does not have environmental clearance (EC) since it was intermediates manufacturing unit established in November, 2003. Total plot area is 0.41 ha (4178 m²). Cost of project is Rs 6.2 crores (including Rs. 4.7 crores existing investment & Rs. 1.5 crores proposed investment). Rs. 1 crore and Rs. 1.27 crores are earmarked towards capital cost and recurring cost per annum for environmental management plan. Water bodies (Fox sagar tank, Veneelagadda lake, IDL lake and ambir lake) are located within 10 km distance.

Permitted bulk drug intermediates with production capacities are given below:

S.N.	Name of Product	Quantity (Kg/day)	Quantity (TPA)
Group A			
1	Tetralone amine	75	27
2	Formamidine Acetate	10	3.6
3	Triphenyl amine	10	3.6
4	N-methyl Naphthyl Methylamine HCl	25	9.0
Group B			
1	Tetralone Amine	120	43.2

Proposed bulk drugs & Intermediates with their Capacities are as given below:

S.N.	Name of Product	Quantity (TPA)
1	Tetralone amine	192
2	Formamidine Acetate	18
3	N-methyl Naphthyl Methylamine HCl	36

4	2,3- Dihydroxy Benzonitrile	18
5	Sertraline HCl (API)	18
6	Moxifloxacin Hydrochloride Monohydrate	6
	Maximum production any 4 products at a time	264
	Byproduct	
1	Alluminum Chloride solution	640
2	Dil. HCl (15 %)	208.8

Bagfilter along with stack height of 30 m will be provided to additional coal fired boiler. Scrubber will be provided to control process emissions viz. HCl and SO₂. Water requirement will be increased from 13.53 m³/day to 55.7 m³/day after expansion. Wastewater generation will be increased from 4.87 m³/day to 23.1 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams and given primary treatment in ETP. After segregation, effluent will be sent to CETP for further treatment. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

- (i) Recommendation of APPCB
- (ii) Zero-discharge.

19.11.18 Expansion of Fine Chemicals & Bulk Drugs Intermediates manufacturing Unit of **M/s Denisco Chemicals Pvt. Ltd.** at plot No. D-24,D-25 & D-32, Phase-I, IDA Jeedimetla, Ranga Reddy District A.P. **(TOR)**

The project authorities and their Consultant (M/s KKB Envirocare consultants Pvt. Ltd.) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s Denisco Chemicals Pvt. Ltd. has proposed for expansion of Fine Chemicals & Bulk Drugs Intermediates manufacturing Unit at plot No. D-24,D-25 & D-32, Phase-I, IDA Jeedimetla, Ranga Reddy District A.P. Existing industry does not have EC and unit established in December 2003 (CFO issued on 23.12.2003). Existing land area will be extended from 0.167 ha to 0.25 ha. No nation park/sanctuaries are located within 10 km distance. Water bodies such as Forx sagar tank, Vennelagadda lake, IDL lake and Ambar lake are located within 10 km distance. Total cost of existing project is Rs. 3.9 crores. Rs. 0.85 crore and Rs. 0.73 crore are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan.

The following products will be manufactured :

S.N.	Product	Quantity (TPA)
1	Phenyl Boronic Acid	10.00
2	2- Bromo-4 cyano Acetophenone	2.00
3	3- Amino Phenyl Acetylene	2.00
4	2- bromoethylamine Hydrobromide	2.00
5	Pyrrrole-2-Carbonitrile	2.00
6	6-Btomindazole	2.00
7	Pyridine-2,4-dicarboxylic acid	10.00
8	4-Formyl phenyl Boronic Acid	4.00
9	4-Fluoro Phenyl Boronic Acid	2.00

10	3-Formyl Phenyl Boronic Acid	1.00
11	3- Methylphenyl Acetylene	2.00
12	6-Chloro-3- Methyl Uracil	10.00
13	4-Bromo-1- Methyl-1 H- Phytazole	2.00
14	Isobutyl Boronic acid	2.00
15	2,3-Dihydroxy-4- Methoxyacetophenone	1.00
16	Tri (O-tolyl) Phosphine	1.00
17	Trimethyloxonium Tetrafluoroborate	1.00
18	3-Bromothiophene -2- Carboxylic Acid	1.00
19	5-Bromothiophene-2- Carboxylic acid	1.00
20	4-Chlorophenylboronic acid	2.00

The infrastructure will be designed to manufacture all the above 20 proposed products on campaign basis (any 6 products will be manufactured at a time) with supporting R & D facility.

Multicyclone followed by Bagfilter along with stack height of 30 m will be provided to diesel fired boiler. Scrubber will be provided to control process emissions viz. HCl and ammonia. Water requirement will be increased from 2.0 m³/day to 38.7 m³/day after expansion. Wastewater generation will be increased from 1.5 m³/day to 14.2 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams and given primary treatment in ETP. After segregation, effluent will be sent to CETP for further treatment. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

- (i) Recommendation of APPCB
- (ii) Zero-discharge.

19.11.19 Expansion of Bulk Drugs and Its Intermediates Manufacturing Unit of M/s Maithri Drugs Pvt. Ltd. at Sy. No. 205, 222-226 village Bonthapally, Tehsil Jinnaram, District Medak, AP (TOR)

The project authorities and their Consultant (M/s KKB Envirocare consultants Pvt. Ltd.) 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 References for the preparation of EIA-EMP. 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 by Expert Appraisal Committee (I).

M/s Maithri Drugs Pvt. Ltd. has proposed for expansion of Bulk Drugs and Its Intermediates Manufacturing Unit at Sy. No. 205, 222-226 village Bonthapally, Tehsil Jinnaram, District Medak, AP. Existing unit has obtained Ex-Post Facto EC for manufacturing of bulk drugs of 300 TPA vide MoEF letter no. F. No. J-11011/295/2006-IA II (I) dated 11.09.2006. No wildlife sanctuary/national park is located within 10 km distance. Bontapally RF, Wavilal RF, Nawapet RF, Kanukunta RF and Dablipur RF are located within 10 km distance. Total plot area is 4.76 ha. Out of which greenbelt will be developed in 1.6 ha. Cost of proposed expansion project is Rs. 8 crores. Rs. 3.85 crores and Rs. 3.1 crores are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan.

The following products will be manufactured :

S.N	Name of the Product	Quantity (in TPA)	Therapeutic Category
1	Atorvastatin Calcium	48	Anti-Hyper Lipoproteinemic
2	Voriconazole	24	Antifungal
3	Moxifloxacin Hydrochloride	39	Anti- Bacterial
4	Esmolo Hydrochloride	6	Antiarrhythmic and Antihypertensive

5	Sumatriptan Succinate	6	Antimigraine
6	Aripiprazole	81	Antipsychotic
7	Telmisartan	12	Anti-Hypertensive
8	Gemifloxacin Medoxomil	60	Antibiotic
9	Olmesartan Medoxomil	24	Antihypertensive
10	Duloxetine Hydrochloride	48	Antidepressant
11	Pregabalin	24	Analgesic & Antipyretic
12	Nebivolol Hydrochloride	6	Anti- Hypertensive
13	Dapoxetine Hydrochloride	6	Antidepressant
14	Ibuprofen	0.6	Anti-inflammatory
15	Azilsartan Medoxomil Potassium	3	Antihypertensive
16	Eprosartan Mesylate	48	Antihypertensive
17	Valsartan	2.04	Antiotensin
18	Mesalamine	2.04	Anti-inflammatory
19	Talipexole	6	a-Adrenergic Agonist
20	Cabergoline	6	Antiparkinsonian
21	Ecabapide	6	Antiulcer
22	Eletriptan Hydrobromide	6	Antimigraine
23	Rasagiline Mesylate	6	Anti parkinsonian
24	Tiotropium Bromide Monohydrate	9	Antimuscarinic
Maximum Production capacity of various combinations (i.e. any 5 products at a point of time)		285	

Scrubber will be provided to control process emissions viz NH₃, HCl and HBr. Water requirement will be increased from 18 m³/day to 229.2 m³/day after expansion. Out of which fresh water requirement will be 161.5 m³/day. Wastewater generation will be increased from 13 m³/day to 69 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD 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 effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee recommended Generic TOR as given in Annexure-1 read with additional TORs at Annexure-5 for preparation of EIA-EMP report along with Public Hearing:

(i) Zero-discharge.

19.12 DISCUSSION ON GENERIC AND SECTOR SPECIFIC TORs

The EAC discussed the framework of the Generic TORs and sector specific TORs to be annexed to the minutes.

The meeting ended with a Vote of Thanks to the Chair.

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

1. Executive summary (*maximum 2-3 sheets in A4 size paper*) of the project covering project description, description of the environment, anticipated environmental impacts & its mitigation measures, environmental management plan, environmental monitoring programme, public consultation, project benefits, Social impacts including R&R.
2. **Site Details:**
 - i. Location of the project site covering village, Taluka/Tehsil, District and State on Indian map of 1:1000,000 scale.
 - ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet.
 - iii. Co-ordinates (lat-long) of all four corners of the site.
 - iv. Google map-Earth downloaded of the project site.
 - v. A map showing environmental sensitivity [land use/land cover, water bodies, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc.] and from critically/severely polluted area(s) and Eco-sensitive Areas within 10km radius of the project site vis-à-vis shortest (aerial) distance from the project. If the project is located within 10km of CPAs/severely Polluted Areas, confirm whether moratorium has been imposed on the area.
 - vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. In addition, if located within an Industrial area/Estate/Complex, layout of Industrial Area and location of unit within the Industrial area/Estate/Complex, layout of Industrial Area.
 - vii. Photographs of the proposed and existing (if applicable) plant site. If existing, in addition to site map, provide photographs of plantation/greenbelt in the existing project. If fresh EC application, photographs
3. Landuse break-up of total land of the project site (identified and acquired) – agricultural, forest, wasteland, water bodies, settlements, etc shall be included.
4. A copy of the mutual agreement for land acquisition signed with land oustees.
5. Proposal shall be submitted to the Ministry for environment clearance only after acquiring at least 60% of the total land required for the project. Necessary documents indicating acquisition of land shall be included.
6. **Forest and wildlife related issues:**
 - i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department.
 - ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)
 - iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
 - iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
 - v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
 - vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
7. **Expansion/modernization proposals:**
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of

Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

Details of Industrial Operations

8. A list of major industries with name and type within study area (10km radius) shall be incorporated.
9. Details of proposed raw materials and products along with production capacity. If expansion project, details for existing unit, separately for existing and new (proposed) unit.
10. Details of manufacturing process, major equipment and machinery. If expansion project, details of existing unit, separately for existing and new (proposed) unit.
11. List of raw materials required and its source along with mode of transportation shall be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
12. Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished
13. 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 shall be included.
14. Manufacturing process details of all the plants including captive power plant if any along with process flow chart shall be included.
15. Mass balance for the raw material and products shall be included.
16. Energy balance data for all the components of the plant shall be incorporated.

Environmental Status

17. Geological features and Geo-hydrological status of the study area shall be included.
18. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of RL of the project site and mRL of the river should also be provided.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO 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.
20. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations to be provided.
21. Ground water monitoring minimum at 8 locations shall be included.
22. Noise levels monitoring at 8 locations within the study area.
23. 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.
24. Detailed description on flora and fauna (terrestrial and aquatic) exists in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
25. Emissions (g/second) with and without the air pollution control measures.
26. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modeling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

27. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
28. Details of water requirement, water balance chart for new unit or for existing unit as well as proposed expansion (in case of expansion).
29. Source of water supply and quantity and permission of withdrawal of water (surface/ground) from Competent Authority.
30. Details regarding quantity of effluents generated, recycled and reused and discharged to be provided. Methods adopted/to be adopted for the water conservation shall be included. Zero discharge effluent concepts to be adopted.
31. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
32. Action plan for control of ambient air quality parameters as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x, etc as per GSR 826(E) dated 16th November, 2009.
33. 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 30th May, 2008.
34. Action plan for solid/hazardous waste generation, storage, utilization and disposal. Copies of MOU regarding utilization of solid waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
35. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. A detailed plan of action should be provided.
36. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated. All rooftops/terraces shall have some green cover.
37. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. 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.
38. 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 shall be included.
39. Details of Rehabilitation & Resettlement (R & R) involving the project. R&R shall be as per policy of the State Govt. and a detailed action plan shall be included.
40. Action plan for post-project environmental monitoring shall be submitted.
41. Disaster Preparedness and Emergency Management Plan including Risk Assessment and damage control needs to be addressed and included.
42. Occupational health:
 - i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
 - ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - iv. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - v. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
43. Corporate Environment Policy
- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
44. 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.
45. 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 included. Socio-economic development activities need to be elaborated upon.
46. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
47. The questionnaire for industry sector (available on MOEF website) shall be submitted as an Annexure to the EIA-EMP Report.
48. 'TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.
49. A tabular chart with index for point wise compliance of above TORs.
50. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

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

- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

ADDITIONAL TORS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
 2. Quantum of generation of coal and iron ore from coal & iron ore mines and the projects they cater to
 3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
 4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
 5. Respirable Suspended particulate matter (RSPM) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analysed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
 6. 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. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ.
 7. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer shall be included.
 8. If the site is within 1 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 based on peak rainfall data of the past 30 years. Details of RL of the project site and mRL of the river.
 9. End use of solid waste and its composition shall be covered. Toxic metal content in the waste material and its composition particularly of slag should also be covered. A time bound action plan should be submitted to reduce solid waste, its proper utilization and disposal.
 10. 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.
 11. Details of evacuation of ash, details regarding lining/impermeability of ash pond, if so details of the lining etc. need to be addressed.
 12. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
 13. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
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ADDITIONAL TORs FOR CEMENT INDUSTRY

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
 2. Quantum of generation of coal and limestone from coal & limestone mines and the projects they cater to;
 3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
 4. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
 5. Topography of the area shall be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. shall be given. In case the site is located on a hilly terrain, a 3-dimesional view of the location vis-à-vis major landuse features and locations such as Critically Polluted Area(s) and Eco-sensitive Area(s) found within the study area, indicating shortest distance from the site shall be provided. If within 10km of CPA, to indicate if the CPA is under moratorium.
 6. If the raw materials used have trace elements, an environment management plan shall also be included.
 7. Source analysis of Respirable Suspended Particulate Matter (RSPM) present in the ambient air for-natural dust/generated from plant operations (for eg. Cement dust)/flyash/coal dust/trace metals/etc. Chemical characterization of RSPM and incorporating of RSPM data.
 8. 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. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ.
 9. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer shall be included.
 10. If the site is within 1 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.
 11. Details of storage of flyash, details regarding lining/impermeability of ash pond and whether it would be lined, if so details of the lining etc. need to be addressed.
 12. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
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ADDITIONAL TORs FOR PULP AND PAPER INDUSTRY

- i. For major Pulp and Paper Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
- ii. A note on pulp washing system capable of handling wood pulp should be included.
- iii. Manufacturing process details for the existing and proposed plant should be included. Chapter on Pulping & Bleaching should include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery should include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
- iv. Studies should be conducted and a chapter should be included to show that Soda pulping process can be employed for Eucalyptus/Casurina to produce low kappa (bleachable) grade of pulp.
- v. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be abolished within 2 years of issue of environment clearance.
- vi. A commitment that no extra bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.

ADDITIONAL TORs FOR SYNTHETIC ORGANIC CHEMICALS INDUSTRY

1. Manufacturing process details along with the chemical reactions and process flow chart.
 2. Name of all the solvents to be used in the process and details of solvent recovery system.
 3. Design details of ETP, incinerator, if any along with boiler, scrubbers/bag filters etc.
 4. The details of solid and hazardous wastes generation, storage, utilisation 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.
 5. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
 6. 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.
 7. Details of VOC monitoring in the working zone environment, and other hazardous emissions such as Chlorine, HCl, etc if any.
 8. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
 9. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
 10. 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) Liver function tests (LFT) during pre-placement and periodical examination.
 10. A Toxic management Plan shall be prepared.
 11. A write up on "Safe Practice" followed for handling, storage, transportation and unloading of chemicals to be submitted.
 12. What are onsite and offsite emergency plan during chemical disaster.
 13. A write up on "Treatment of workers affected by accidental spillage of chemicals".
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GENERIC TOR FOR ONSHORE OIL & GAS EXPLORATION, DEVELOPMENT & PRODUCTION

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. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
5. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
6. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
7. Details of project cost.
8. 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.
9. 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.
10. Topography of the project site.
11. Action plan for ambient air quality parameters as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x and Benzene, etc as per GSR 826(E) dated 16th November, 2009.
12. Details of Ambient Air Quality monitoring at 8 locations for PM₁₀, SO₂, NO_x, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
16. Measurement of Noise levels within 1 km radius of the proposed wells.
17. Vegetation and land use; flora/fauna in the study area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation.
19. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
21. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
22. Treatment and disposal of waste water.
23. Treatment and disposal of solid waste generation.
24. Disposal of spent oil and lube.
25. Storage of chemicals and diesel at site.
26. Commitment for the use of WBM only
27. Mud make up and mud and cutting disposal – all options considered shall be listed with selective option.
28. Hazardous material usage, storage accounting and disposal.
29. Disposal of packaging waste from site.
30. Oil spill emergency plans in respect of recovery/ reclamation.
31. H2S emissions control.

32. Produced oil handling and storage.
33. Details of scheme for oil collection system along with process flow diagram and its capacity.
34. Details of control of air, water and noise pollution in oil collection system.
35. Disposal of produced/formation water.
36. Whether any burn pits being utilised for well test operations.
37. Restoration and decommissioning plans which shall include mud pits and wastage restoration also and documentation and monitoring of site recovery.
38. Measures to protect ground water and shallow aquifers from contamination.
39. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
40. Environmental management plan.
41. Documentary proof of membership of common disposal facilities, if any.
42. 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 shall also include monitoring programme for the environmental.
43. Total capital and recurring cost for environmental control measures.
44. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
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.
47. Expansion/modernization proposals:
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
48. CRZ clearance/ recommendation from State Coastal Zone Management Authority, if applicable.
49. Approval of 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 shall be submitted.
50. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- (i) All documents shall be properly indexed, page numbered.
- (ii) Period/date of data collection shall be clearly indicated.
- (iii) Authenticated English translation of all material 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) A 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 where the above issues have been incorporated.
- (vii) 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.

The aforesaid TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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TORS FOR SUGAR DISTILLERY WITH CPP/CO-GENERATION UNIT

1. Executive summary of the project.
2. Justification of the project
3. Detailed break-up of the land area along with latest photograph of the area.
4. Present land use based on satellite imagery and details of land availability for the project along with supporting document.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
8. A copy of lease deed or allotment letter, if land is already acquired.
9. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
10. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc.
11. Details of proposed products along with manufacturing capacity.
12. Number of working days of the sugar unit, distillery unit and CPP.
13. Details of raw materials, its source with availability of all raw materials including cereal grains requirement in case of grain based distillery. If molasses based distillery, then give source and quantity available for molasses.
14. Manufacturing process details of Sugar , distillery and CPP along with process flow chart.
15. Sources and quantity of fuel (rice husk/bagasse/ coal etc.) for the boiler. Measures to take care of SO₂ emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
16. Storage facility for raw materials, prepared alcohol, fuels and fly ash.
17. Action plan for ambient air quality parameters as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009.
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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO and HC (methane & non methane) shall 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. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler's stack.
20. An action plan to control and monitor secondary fugitive emissions from all the sources.
21. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
22. Details of boiler and its capacity. Details of the use of steam from the boiler.
23. Ground water quality around proposed spent wash storage lagoon and the project area.
24. Details of water requirement, water balance chart for existing unit as well as proposed expansion (as applicable). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
25. Source of water supply and permission of withdrawal of water from Competent Authority.
26. Proposed effluent treatment system for grain/molasses based distillery (spent wash and spent lees) along with utility wastewater including CPP/Co-gen Unit (wherever applicable) as well as domestic sewage and scheme for achieving zero discharge. Details of treatment of effluent generation from sugar unit.
27. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
28. Capacity for spent wash holding tank and action plan to control ground water pollution.

29. Layout for storage of bagasse/biomass/coal.
30. Capacity for spent wash holding tank and action plan to control ground water pollution.
31. Dryer shall be installed to dry DWGS.
32. Layout for storage of rice husk/biomass/coal.
33. Details of solid waste management including management of boiler ash.
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. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
36. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
37. List of flora and fauna in the study area.
38. Noise levels monitoring at five locations within the study area.
39. 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.
40. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
41. 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.
42. Details of occupational health surveillance programme.
43. Details of socio-economic welfare activities.
44. Transportation of raw materials and finished products for the project (proposed/expansion) in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
45. Action plan for post-project environmental monitoring.
46. Corporate Environmental Responsibility
47. (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.
48. 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.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
50. Expansion/modernization proposals:
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB

shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

51. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.
52. The EIA-EMP report for the project shall be based on the aforesaid TORs in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.
53. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

GENERIC TORs FOR RESIN MANUFACTURE

1. Executive summary of the project
2. Justification of the project.
3. Photographs of proposed plant site.
4. Promoters and their back ground.
5. Regulatory framework.
6. A map indicating location of the project and distance from severely polluted area
7. Project location and plant layout.
8. Infrastructure facilities including power sources.
9. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location along with 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. Details of land availability for the project along with supporting document.
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 along with the production capacities.
15. Detailed list of raw materials required and source, mode of storage and transportation.
16. Manufacturing process details along with 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 16th 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 PM10, PM2.5, SO₂, NO_x 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.
20. Air pollution control measures viz. Multi-cyclone and bag filter etc. shall be proposed for the effective control of gaseous emissions within permissible limits.
21. Control methanol emission from drying section.
22. Details of VOC monitoring system in the working zone environment, if any.
23. Name of all the solvents to be used in the process and details of solvent recovery system.
24. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
25. Details of water and air pollution and its mitigation plan.
26. An action plan to control and monitor secondary fugitive emissions from all the sources.
27. 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.
28. Permission for the drawl of ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
29. Action plan for 'Zero' discharge of effluent shall be included.
30. Treatment of phenol in the effluent, if any.
31. 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).

32. The details of solid and hazardous wastes generation, storage, utilisation 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.
33. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
34. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
35. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
36. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
37. A write up on "Treatment of workers affected by accidental spillage of chemicals".
38. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
39. An action plan to develop green belt in 33 % area
40. 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.
41. 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.
42. Details of occupational health surveillance programme.
43. Socio-economic development activities shall be in place.
44. 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 incorporated.
45. 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.
46. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
47. 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 shall be detailed in the EIA report.
48. Expansion/modernization proposals:
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of

Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
49. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
50. A separate chapter on status of compliance of Environmental Conditions of Environmental Clearances granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions of all ECs on existing unit to be provided in EIA-EMP report.
51. A tabular chart with index for point wise compliance of above TORs.
52. The proponent shall prepare EIA-EMP Report based on the above TORs as per the generic structure given in Appendix-III of EIA Notification, 2006 and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Replies on the issues raised during the Public Hearing/ Consultation shall be incorporated in the EIA-EMP Report and the final EIA-EMP report submitted to the Ministry for obtaining environmental clearance.
53. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material 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 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. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

TORS FOR EXPLORATION & DRILLING OF OFF-SHORE WELLS

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. Project Description and Project Benefits;
4. Distance from coast line.
5. Commitment that no drilling would be carried within 1.0 Km of the coast.
6. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
7. Details of land area, land use and status of land acquisitions for land for on-shore facilities. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980, if applicable (for any facilities on shore).
8. CRZ clearance as per CRZ Notification dated 6th January, 2011, and/or for facilities on-shore.
9. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
10. 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.
11. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, waste water generation and discharge.
12. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
13. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
14. Procedure for preventing spills and spill contingency plans.
15. Procedure for treatment and disposal of produced water.
16. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
17. Procedure for handling solid waste and any waste segregation at source for organic, inorganic and industrial waste.
18. Storage of chemicals on site.
19. Commitment for the use of WBM and synthetic oil based mud in special case.
20. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices have been followed.
21. Handling of spent oils.
22. Handling of oil from well test operations.
23. Mud make up and mud and cuttings disposal procedures.
24. H2S emissions control plans, if required.
25. 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.
26. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
27. Documentary proof for membership of common disposal facilities, if required.
28. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
29. Total capital and recurring cost for environmental pollution control measures.
30. A tabular chart with index for point-wise compliance of above TOR.
31. The proponent shall prepare an EIA-EMP Report based on the above TORs. The EIA-EMP Report shall be prepared as per the generic structure given in Appendix-III of EIA Notification, 2006.
32. Expansion/modernization proposals:
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted.
- 33. Public Hearing is not required if project is located in off-shore. In case of on-shore projects, the proponent shall prepare EIA-EMP Report based on the above TORs as per the generic structure given in Appendix-III of EIA Notification, 2006 and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Replies on the issues raised during the Public Hearing/ Consultation shall be incorporated in the EIA-EMP Report and the final EIA-EMP report submitted to the Ministry for obtaining environmental clearance.
- 33. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points should 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 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. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.
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TORS FOR OIL REFINERY PROJECT

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th 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. Project Description and Project Benefits.
4. A separate chapter on environmental clearance accorded for all the existing plants along with point-wise compliance report.
5. Point-wise compliance report to the 'Consent to Establish' 'Consent to operate' and Authorization accorded by Punjab Pollution Control Board for all the existing units along with all the necessary annexure.
6. Existing data for the last 2 years for all the relevant parameters should be included.
7. Site details including satellite imagery for 5 km around the site.
8. A list of industries within 10 km radius of the project.
9. Details of facilities along with utilities to be provided for the proposed project.
10. Manufacturing process details along with the chemical reactions and process flow diagram.
11. List of products along with the production capacities and list of solvents and its recovery plan.
12. Detailed list of raw material required and source, mode of storage and transportation.
13. Details of the storage and technical specifications with safety aspects & standards.
14. Is there additional storage required for the proposed products mix.
15. Proposal for safety buffer zone around the proposed site with map.
16. Details indicating National Park/Wild life Sanctuary/Eco sensitive area/reserve forest within 10 Km.
17. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
18. Demography & socio-economics of the area.
19. Baseline data collection for air, water and soil for the period of 3 months (except monsoon season) for :
 - i. Ambient air quality monitoring for PM_{2.5}, PM₁₀, SO₂, NO_x, CO
 - ii. Background levels of hydrocarbons (methane & non-methane HC) and VOCs.
 - iii. Soil sample analysis.
 - iv. Base line underground and surface water quality in the vicinity of project.
 - v. Climatology & meteorology including wind speed, wind direction, temperature, rainfall etc.
 - vi. Measurement of noise levels.
20. Give existing status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management in the existing units.
21. Action plan to achieve smokeless flare should be included.
22. Details of Sulphur balance in the existing refinery unit. Additional SO₂ emissions due to the proposed product mix.
23. Unit-wise air pollution control devices to be installed.
24. Details of water consumption and source of water supply, waste water generation, treatment and utilisation of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire. Water balance chart for the existing unit and proposed expansion.
25. Details of existing and proposed effluent treatment plant along with water quality of inlet and outlet of ETP.
26. Action plan to reduce wastewater discharge from the all existing units.
27. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
28. Note on compliance to the recommendations mentioned in the CREP for oil refineries and petrochemical industries.

29. A note on implementation of new refinery standards for refineries.
30. Quantification of oil sludge generation from the existing and proposed refinery including management of the oil sludge in the existing refinery. Details of temporary storage for the oil sludge.
31. Details of catalyst waste generated from the refinery along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
32. Status of existing secured landfill sites. Design details as well as ground water monitoring around the project site.
33. Details of membership of TSDF for hazardous waste disposal.
34. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
35. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
36. Details of proposed preventive measures for leakages and accident.
37. Details of Vapour Recovery System.
38. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
39. Traffic management with adequate width of approach road to avoid congestion and to have safe exit in emergencies.
40. Type of seismic zone.
41. Full Quantitative Risk Assessment & Disaster Management Plan should include:
 - a. Identification of hazards
 - b. Consequence Analysis
 - c. Determination of Individual Risk and Societal Risk
 - d. List of last Major Refinery Incidents Globally in last 10 years
 - e. Proposed measures for risk reduction.
42. 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) Plan and fund allocation to ensure the occupational health & safety of all contracts and sub-contract workers.
43. Details including existing green belt developed. Action plan for development of green belt in 33%.
44. Total capital cost and recurring cost/annum for environmental pollution control measures. Break up details should also be included.
45. 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.
46. Environmental monitoring programme including online stack monitoring system as well as continuous ambient air quality monitoring system. Method/System to be adopted to ensure correct calibration of automatic monitoring system.
47. Details of Corporate Social Responsibility (CSR) including sufficient budgetary provision for health improvement, education, water and electricity supply etc. in and around the project.
48. 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.
- 49. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
- 50. A tabular chart indicating point-wise compliance of the TOR.
- 51. The aforesaid TORs 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 conducting public hearing/consultation. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.
- 52. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points should 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 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. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.