

MINUTES OF 24th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY)
HELD DURING 29th- 30th SEPTEMBER, 2014

VENUE: Conference Hall (Indus), Jal Wing, Ministry of Environment, Forests and Climate Change, Indira Paryavaran, Bhawan, Jor Bagh Road, Aliganj, New Delhi-110003

24.1 Opening Remarks of the Vice -Chairman

At the outset, Vice -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.

24.2 The following modifications/correction in the minutes of the 18th Reconstituted Expert Appraisal Committee (Industry) held during 28-30th April 2014 were confirmed:

1. **Agenda No.: 18.9.9:** title “Modernization and Expansion of Ammonia-Urea Fertilizer Plant of M/s Kanpur Fertilizer and Cement Ltd. at Udyog Nagar Industrial Area, Panki Kanpur, Uttar Pradesh” the word annexure -2 titled “Terms of Reference (TOR) for Manufacturing of Synthetic Organics” may be substituted with Annexure -1 titled “TOR for Fertilizer Unit” of 24th EAC Meeting held during 29th- 30th September, 2014

29th September 2014

24.3 Environmental Clearance:

24.3.1 Molasses based Distillery (30 KLPD) alongwith CPP (1 MW) at Village Pimpalgaon, Tehsil Shrigonda, District Ahmednagar, Maharashtra by M/s Kukadi Sahakari Sakhar Karkhana Ltd – regarding EC

The project proponent and their consultant (Mantras Green Resources 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 27th Meeting of the Expert Appraisal Committee (Industry) held during 21st -22nd September, 2011 for preparation of EIA-EMP report. All the molasses based Distillery Units are listed at S.N. 5(g) under Category ‘A’ and appraised at the Central level.

M/s Kukadi Sahakari Sakhar Karkhana Ltd has proposed for setting up of Molasses based Distillery (30 KLPD) alongwith CPP (1 MW) at Village Pimpalgaon, Tehsil Shrigonda, District Ahmednagar, Maharashtra. Proposed distillery unit will be installed adjacent to the sugar plant (2500 TCD). Existing unit has CPP of 13 MW with two number existing 40 TPH bagasse based boiler. The total land available for the integrated sugar complex is 2,15,900 m² out of which 51617 m² will be utilized for distillery project. Cost of project is Rs. 36.90 crore. Plant will be operated for 180 days during season / 90 days in off season. No sanctuaries/national parks/biospheres are located within 10 km distance. Moharwadi lake exists at a distance of 2 Km and Visapur dam exists at a distance of 5 km. the main products will be RS/ENA/Impure spirit /technical alcohol. The distillery will have an independent boiler of 10 TPH coupled to 1 MW turbo generator to operated when sugar plant is not operational.

It was noted that details regarding ambient air quality monitoring period and Ambient air quality data is not clearly mentioned in the EIA –EMP report. The Committee suggested

to incorporate the same. Bag filter will be provided to bagasse fired boiler (10 TPH). Fresh water requirement for the existing sugar and cogen power plant is 759 m³/day. Fresh water requirement for distillery unit will be 300 m³/day, which will be met from the Kukadi dam. Spent wash (240 KLPD) will be treated in biodigester for methane recovery followed by concentration in multiple effect evaporators upto 80 KLPD thereafter biocomposting with press mud (54 TPD). Bio-composting quality shall be done as per CPCB guidelines. Lean effluent (72 KLPD) will be treated in main ETP. Treated water will be used for greenbelt irrigation. Bottom ash will be used as manure. Greenbelt will be developed in 27990 m².

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 30th October, 2012 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were on local employment, effect of pollution, air pollution control management, disaster management plant/accident etc.

After deliberations, the Committee desired following additional information:

- 1 Certified compliance report from the MoEF's Regional Office at Bhopal for existing environmental clearance letter no. SEAC-2009/CR.465/TC.2 dated 31st January, 2011 issued by SEIAA, Maharashtra.
- 2 Plan for bio-composting as per CPCB guidelines.
- 3 Resubmission of complete EIA-EMP report incorporating details of monitoring period, ambient air quality data etc.
- 4 Fresh one month ambient air quality and surface as well as ground water quality data to be collected .
- 5 Video CD of public hearing proceedings to be submitted.

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

24.3.2 Development of North Karanpur CBM Block NK-CBM-2001/1 in Jharkhand by M/s ONGC Ltd. – regarding EC

The project proponent and their consultant (ONGC) 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 Expert Appraisal Committee (Industry) held during 3rd – 5th December, 2012 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC has proposed for development of North Karanpur CBM block NK-CBM-2001/1 in Jharkhand. The block falls in the districts of Hazaribagh and Chatra (271.8 sq. km) of Jharkhand State. No forest land, sensitive zone and bio-reserves are located within 10 Km distance. The block is bounded by latitude 23^o46'56" & 23^o54'57" and longitudes 85^o00'36" & 85^o20'44". In this block ONGC proposed to drill 74 development wells (68 Development Wells & 6 assessment wells). The present proposal is in 3rd phase of development. Average depth of drilling will be 1000 m and Maximum upto 1500 m. There will be 3 mini Gas collection stations (GCS) in Sector –C, one located in subsector -1 and other two in Sub-sector -2. Total capacity of gas processing is 0.15 MMSCMD. Produced water handling capacity will be 1500 m³/day.

The PP informed the Committee that ambient air quality monitoring was carried out at 10 locations during April, 2013 – May, 2013 and submitted data indicates PM₁₀ (24-97 ug/m³), SO₂ (8-49.3ug/m³) and NO_x (8- 55.1ug/m³). Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from surface water source will be 25m³/day. Wastewater generated during drilling operations will be 5-10 m³/day and 150-200 m³ per well. The effluent generated during drilling operations are recommended to be collected in lined waste pits to avoid groundwater contamination. The wastewater is solar evaporated and residual material on completion of well is removed and disposed in accordance with prevailing rules. The pit will be designed in such a fashion that there will not be any possibility of wastewater spills from waste pits to surrounding areas. The produced water from CBM wells of North Karanpura block will be used for inland application. However, it is recommended that disposal option of produced water will be reviewed on regular interval as the produced water quality may change during the life of the CBM well. The drill cuttings (approx. 40-45 m³ per well) are mostly inorganic in nature and may be used either for landfilling or road making. Upon completion of drilling, the rig and crew will demobilize from the site. Special care will be taken with solidification and sealing of the cuttings pit to ensure that there is no leaching of contaminants into the surrounding soils and that the fluid pit is buried to sufficient depth as not to interfere with existing land use.

The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Eastern regional office, Bhubaneshwar. It is reported that each of the wells located in an area of about 2.0 to 2.5 acres and have been fenced. The wells have been provided with Well Head Electric Submersible Pumps (ESP). Three large tanks with dimensions ranging from 30 m x 50 m x 2 m and 30 m x 70 m x 2m with minimum storage capacity of 150 m³ have been constructed in series to meet the requirement of storage of water that is pumped out from the well as per the depth of the well and have been lined with HDPE. Water from the well is pumped into a metal tank first from which it is sent into the three tanks in series and water overflows from one tank to the next after settling of the solids and no water is discharged outside. Drill cuttings –mostly consisting sub-grade coal shale-muck and silt has been removed from tanks and used for filling up the area in the project premises and in road making. R & R was not involved in the project as small patch of land is acquired from villagers. Water based mud has been used for drilling. Drilling has been completed and the well has been sealed. The Committee found compliance report satisfactory.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Jharkhand State Pollution Control Board on 25.02.2014 for Chatra District and on 26.02.2014 for Hazaribagh District. The issues raised were regarding socio-economic development of region, impact on land due to CBM, local development and education, land acquisition, non –availability of electric power and water supply, repairing of roads, local employment etc. In response, PP informed that ONGC will facilitate health facility, tubewell installation and creation of infrastructure for school and colleges. Local villagers will be given priority for the site work. Under CSR programme, bench –desk, computer, drinking water, electricity will be provided for school at Taleswar. There will be no impact on ground water table due to this project. Road will be repaired under CSR programme. The Committee was satisfied with the response.

After deliberations, the Committee found inconsistency in data and therefore, desired following additional information:

- 1 Reanalyzing the ambient air quality and water quality of surface & sub-surface data by conducting one month monitoring.

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

24.3.3 Grain based Distillery (100 KLPD) alongwith CPP (5 MW) at Village Hiranwali, Tehsil & District Fazilka, Punjab by M/s Savera Beverages Pvt. Ltd – regarding EC

The project proponent and their consultant (Ace Engineers and Consultants, stay order as per Court case No CWP No. 19598 of 2012) 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 8th Meeting of the Expert Appraisal Committee (Industry) held during 16th – 17th May, 2013 for preparation of EIA-EMP report. Grain based distillery are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Savera Beverages Pvt. Ltd. have proposed for setting up of Grain based Distillery (100 KLPD) alongwith CPP (5 MW) at Village Hiranwali, Tehsil & District Fazilka, Punjab. PP has acquired land of 114900 m² area. Of which area reserved for distillery project is 72850 m² and area earmarked for greenbelt development is 25840 m². Total cost of project is Rs. 125 Crore. No eco-sensitive area such as national park/wildlife sanctuary/biosphere reserves/ reserve forests within 10 km distance. Distillery will be operated for 330 days in a year. Rs. 14.5 Crore and Rs. 1.00 Crore are earmarked towards capital cost and recurring cost per annum for environmental management plan. Following products will be manufactured :

S.N.	Product	Capacity
1	Extra Neutral Alcohol /RS	100 KLPD
2	Power Generation	5 MW
3	Bottling of liquor	10000 cases /day
	By-products	
1	DDGS	60 MTPD
2	Fusel Oil	1 KLPD
3	CO ₂	80 MTPD

Ambient air quality monitoring was carried out at 7 locations during April, 2013 –May, 2013 and submitted data indicates as PM10 (39–83ug/m³), PM2.5 (21–50 ug/m³), SO₂ (3.0 – 12.9 ug/m³) and NO_x (5.1-29.1 ug/m³). Predicted value of ground level concentration due to proposed project is SPM (8 ug/m³) and SO₂ (3.5 ug/m³). The resultant concentrations are within the NAAQS. ESP will be provided to husk/coal fired boiler. Fresh water requirement from canal water (Kmal wala minor) will be 1300 m³/day. However, the Committee suggested that fresh water requirement should be restricted to 1000 m³/day for distillery including cogeneration power plant. Spent wash (700 m³/day) from grain based will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form Distiller's Wet Grains with Soluble (DWGS). DWGS will be dried in the dryer to form Distiller's Dry Grains with Soluble (DDGS). Spent lees (220 m³/day) will be generated and MEE condensate @ 390 m³/day. The spentlees and condensate will be treated in UASBR followed by aerobic treatment and sand filtration /charcoal filtration. Treated effluent will be used for make up water of cooling towers. Effluent will be generated from misc. other

streams @ 188 m³/day such as washing effluent @ 20 m³/day, cooling towers blow down @ 60 m³/day, domestic effluent @ 18 m³/day. Bottle wash/spillage @ 35 m³/day, DM plant reject @ 30 m³/day and boiler blowdown @ 25 m³/day. This effluent would be moderately polluted and after treatment would be used on land for irrigation purposes. No effluent will be discharged outside the plant premises and 'Zero' discharge concept will be followed. Ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Punjab Pollution Control Board on 14.12.2013. The issues raised were on source of water supply, wastewater treatment, local employment, impact on environment, odour problem, sale of product/liquor in other states etc. and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After deliberations, the Committee desired following additional information:

- 1 Resubmission of one month data for air quality monitoring w.r.t PM₁₀, PM_{2.5}, SO₂ and NO_x.
- 2 English version of water permission for usage of canal water.
- 3 Water balance to be rechecked and reduce upto 10 KL per KL of alcohol production.

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

24.3.4 Proposed LPG Pipeline from Kochi Refinery to Coimbatore at District Ernakulam, Kerala by M/s BPCL – reg. EC

The project proponent and their consultant (MECON) 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 10th Meeting of the Expert Appraisal Committee (Industry) held during 29th – 31st July, 2013 for preparation of EIA-EMP report. oil and gas transportation pipeline (crude and refinery/petrochemical products), passing through national parks/sanctuaries./coral reefs /ecologically sensitive areas including LNG Terminal is listed at S.N. 6(a) under category 'A' and appraised at Central level.

M/s BPCL has proposed for laying of LPG Pipeline from Kochi Refinery to Coimbatore at District Ernakulam, Kerala. BPCL intend to lay 12" dia pipeline, approx. 238 Km, long from KRL, Ambalmugal, Kochi terminal to BPCL's proposed new LPG loading gantry /bottling plant at Coimbatore, Tamil Nadu. Pipeline passes through different districts of Kerala (approx. 199 Km) and Tamil Nadu (approx. 39 Km) between take off and terminal point. Transportation of LPG gas through underground pipeline to the bottling terminals. Transportation and distribution of max. 1.53 MMTPA (including 25 % additional requirement as per regulations) of LPG from Kochi Refinery to Coimbatore. The flow-rate of LPG will be 328 m³/h. Length of the 12" NB pipeline between takeoff and terminal point of proposed pipeline is 238 km. there will be 3 Nos. mounded storage vessels of capacity 2000 MT each (total 6000 MT) at Coimbatore. Installation of LPG loading facility shall be at Coimbatore. The proposed pipeline passes through various forest stretch for total 1.285 km length in Thrissur district of Kerala state which comprises of reserved forest (Eucalyptus plantation), Kodumbankunnu Reserved Forest and Reserved Forest (Fairly Dense Mixed Jungle) for the length of 0.385 km, 0.368 km & 0.532 km length respectively. The pipeline route

acquired total area in forest land is 12849.10 sq. m i.e. 1.2849 ha. BPCL has already obtained for clearance of forest land and stage -1 clearance vide MoEF letter no. 4-KLB998/2014-BAN/4768 dated 31st January, 2014 for diversion of 1.441 ha of forest land. BPCL has also applied for wildlife board clearance as the project is passing at about 5.3 Km distance of Peechi-Vazhani Wildlife Sanctuary. Total cost of project is Rs. 623 Crore. Following facilities to be created :

- i. Dispatch terminal at Koch Refinery with pumping capacity vary from 0.5 MMTPA to 1.53 MMTPA.
- ii. Laying 12" dia pipeline, approx. 238 Km, long from KRL, Ambalmugal, Kochi terminal to BPCL's proposed new LPG loading gantry /bottling plant at Coimbatore, Tamil Nadu.
- iii. Installation of 3 Tap off points from mainline along with connectivity by pipeline to (i) IOCL's bottling plant, Udayaperoor, near Kochi Refinery (ii) HPCL's LPG Bottling plant located near Kanjokode, Palaghat in Kerala (near SV-19, Ch 182 Km) and (iii) ICOL's bottling plant at Coimbatore in Tamil Nadu.
- iv. Intermediate Pigging Station shall consist of Scrapper Launcher & Scrapper Receiver and Flare System.
- v. Receipt Terminal at Coimbatore.

Pipeline crosses various rivers namely Periyar, Chalakudi, Manali, Mangalam, Gayatri, Kannadi, Koraiyar, Valayar & Kummattipatti. For crossing the major rivers, pipeline shall be installed 2.5 m below scour depth.

Ambient air quality monitoring was carried out at 27 locations during October, 2013 – December, 2013 and submitted data indicates as PM₁₀ (71–106 ug/m³), PM_{2.5} (24–43 ug/m³), SO₂ (7.2 – 16.8 ug/m³) and NO_x (11.6-38.2 ug/m³). The baseline data are within the NAAQS except PM₁₀. The pipeline shall be laid underground with minimum 1.2 m cover in normal stretches, additional cover, wherever required, shall be provided depending upon the type of crossings and as per statutory requirements.

The Committee deliberated upon the issues raised during the Public Hearings/Public Consultation meeting conducted by the Kerala State Pollution Control Board on 18.04.2014 for Thrissur District; on 21.05.2014 for Palakkad District; on 22.05.2014 for Kakkannad, Kochi. The issues raised were regarding the details of survey nos. and paddy field will affected due to laying of pipeline, compensation for land acquisition, local employment etc. In response PP informed that details of drawing indicating pipe line route will be made available and reasonable compensation will be given to the land owners.

It was noted that Project proponent did not conduct public hearing for Coimbatore District in Tamil Nadu. It was learnt that M/s BPCL will set up Receipt Terminal at Coimbatore including installation of 3 Nos. mounded storage vessels of capacity 2000 MT each (total 6000 MT). As per EIA Notification, 2006, Isolated storage & handling of hazardous chemicals are listed at S.N. 6(b) under Category 'B' and appraised by the SEIAA/SEAC at the State level. However, receipt terminal at Coimbatore is an integrated facility with the pipeline, the project is treated as category 'A'. Therefore, the Committee recommended that the project proponent needs to conduct public hearing for Coimbatore district. 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.

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

24.3.5 Bulk Drug Manufacturing Unit of M/s MVL Medisynth Pvt.Ltd located at Plot No.F-13, MIDC Chincholi, Tehsil Mohol, District Solapur, Maharashtra – regarding EC

In the above project, 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 MIDC Chincholi 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. The Committee is, therefore, recommended to 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.

24.3.6 Expansion in Dye Chemicals Plant (from 10 MTPM to 136 MTPM) at Plot No.125/2, Ravi Industrial Estate, Village Bileshwarpura, P.O.Chhatrai, Taluka Kalol, District Gandhinagar, Gujarat by M/s Bharat Dye Chem – regarding EC

M/s Bharat Dye Chem has proposed for expansion in Dye Chemicals Plant (from 10 MTPM to 136 MTPM) at Plot No.125/2, Ravi Industrial Estate, Village Bileshwarpura, P.O.Chhatrai, Taluka Kalol, District Gandhinagar, Gujarat. The PP informed that water requirement is 19.5 m³/day. Fuel requirement is 1240 scm/day of natural gas. Chemicals to be used are not covered in MAH category. As per amended EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category 'B' project. Small units are defined as with water consumption less than 25 m³/day; fuel consumption less than 25 TPD; and not covered in the category of MAH units as per management, storage, import of Hazardous Chemical Rules, 1989.

Considering the above information furnished by the PP, the Committee recommended that the project proposal may be sent to the respective SEIAA/SEAC as proposal falls under Category 'B' project.

Reconsideration for Environmental Clearance

24.3.7 Residue Upgradation and Distillate Yield Improvement Project with 11.0 MMTPA Crude Processing at Mathura Refinery by M/s Indian Oil Corporation Ltd - regarding EC

Project proposal was considered in the 18th Expert Appraisal Committee (Industry) meeting held during 28th-30th April, 2014 and the Committee desired following information:

1. To carry out comprehensive social impact assessment study indicating the past and present social status and developmental indicators in the 5 Km area around Mathura Refinery by any reputed party.
2. To include time series data for greenbelt development with support of area development and satellite imageries.

3. To get ambient air quality modelling data verified by IMD specialist. The inputs in terms of stack wise emission data, sulphur balance, metrological data and ambient air quality data to be provided to IMD specialist.
4. To recheck water quality analysis for BOD, DO, COD at Yamuna River.
5. Recheck the ambient air quality data in terms of methane and non methane HCs. The AAQ data need to compare with historical data available with Mathura Refinery.
6. To submit the final recommendation of risk assessment report enclosed by IOCL.
7. Details of national parks/wildlife sanctuaries/reserve forests within 10 km distance.
8. Details of water bodies within 10 km distance.
9. Reasons for exceeding AAQM values in respect of particulate matters. Management plan to be proposed.
10. Details of air pollution control equipments to be installed.
11. As per TOR compliance table of EIA report "prediction of impact of air emissions in TTZ Region Agra by conducting air quality modelling" is incorporated as Annexure – XVII. However, Annexure –XVII is not enclosed with EIA report.

Project proponent vide letter dated 5th September, 2014 has submitted the above mentioned information.

The Committee, however, found that there is lack of consistency in data and other important information. Therefore, after deliberations, the Committee desired following additional information:

- 1 One month data for Methane and non-methane to be reanalyzed.
- 2 Maximum predicted impact due to SO₂ emissions to be ascertained and modeling developed for SO₂ to be correlated with the CPCB data.
- 3 Item-wise details along with time bound action plan for ESR for construction phase to be prepared and submitted.

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

24.3.8 Expansion of Bulk Drug Unit (2551.5 MTPA to 3322.0 MTPA) at Sejavta, Ratlam, Madhya Pradesh by M/s Ipca Laboratories Ltd - regarding EC

Project proposal was considered in the 8th Expert Appraisal Committee (Industry) meeting held during 16-17th May, 2013 and the Committee recommended the proposal for environmental clearance. Further, MoEF & CC examined the application in light of MoEF's OM no J-11013/41/2006 IA II (I) dated 3rd June, 2009. It was noted that public hearing for the existing unit was conducted on 24.10.2007. There is significant increase in the production capacity of unit as well as pollution load. Therefore, MoEF vide letter no J-11011/169/2011 dated 29th August, 2013 has directed to conduct fresh public hearing for the above mentioned project.

In compliance of MoEF letter dated 29.08.2013, PP vide letter dated 21.07.2014 has submitted final EIA report along with public hearing report. The Committee deliberated upon the issues raised during the Public Hearings/Public Consultation meeting conducted by the MP Pollution Control Board on 20.02.2014. The issues raised were on the air pollution, ground water contamination, health camp, local employment etc. In response PP informed that ground water has been contaminated by the H- Acid manufacturers for which, CPCB has started working on remediation contaminated sites near Ratlam. They also furnished a letter from Collector Office, Ratlam mentioning that ground water contamination may be

occurred from Illegal dumping site of Dosi Village Industrial area. The Committee found satisfactory response from the PP.

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

- i) All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. Company shall not start operation of the expansion unit unless the pollution control equipment are ready and running. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipment have been installed.
- ii) Multi-cyclone followed by bag filter should be provided to the boilers to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- iii) The levels of PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, CO and HCl shall be monitored in ambient air.
- iv) Two stage chilled water/caustic scrubber should be provided to process vents to control HCl. Two stage scrubbers with caustic lye media solution should be provided to process vents to control SO₂. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- v) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by APPCB.
- vi) Fresh water requirement from ground water source should not exceed 786 m³/day and fresh water requirement from municipal supply should not exceed 786 m³/day. Prior permission should be obtained from the CGWA/SGWA.
- vii) Trade effluent should be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through stripper followed by MEE. Low TDS effluent stream should be treated in ETP and then passed through RO system. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- viii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- ix) As proposed, process organic residue and spent carbon should be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The fly ash from boiler should be sold to brick manufacturers/cement industry.
- x) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPPCB should be obtained for disposal of

solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.

xi) Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.

xii) Solvent management should be as follows :

- Reactor should be connected to chilled brine condenser system
- Reactor and solvent handling pump should have mechanical seals to prevent leakages.
- The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
- Solvents should be stored in a separate space specified with all safety measures.
- Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
- Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

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

xiv) Till the remediation of the area is achieved, the Unit shall provide water supply to the affected villages under CSR programme.

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

24.4 Terms of Reference (TOR)

24.4.1 Expansion of Bulk Drug Manufacturing Unit at Block No.203, Vaso – Alindra Road Village Alindra, District Kheda, Gujarat by M/s Maharshi Pharma Chem Pvt. Ltd. – regarding TOR

M/s Maharshi Pharma Chem Pvt. Ltd. has proposed for Expansion of Bulk Drug Manufacturing Unit at Block No.203, Vaso – Alindra Road Village Alindra, District Kheda, Gujarat. The PP informed that water requirement is 19 m³/day. Fuel requirement is 2 TPD. Chemicals to be used are not covered in MAH category. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category 'B' project. Small units are defined as with water consumption less than 25 m³/day; fuel consumption less than 25 TPD; and not covered in the category of MAH units as per management, storage, import of Hazardous Chemical Rules, 1989.

Considering the above information furnished by the PP, the Committee recommended that the project proposal may be sent to the respective SEIAA/SEAC as proposal falls under Category 'B' project.

24.4.2 Expansion of Bulk Drugs & Intermediate unit (from 6 TPM to 13.65 TPM) at Plot No.220, 239 & 248, Phase II, IDA, Pashamailaram, Tehsil Patancheru, District Medak, Andhra Pradesh by M/s Gensynth Fine Chemicals Pvt. Ltd. – regarding 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. 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'. It was informed critically polluted area i.e IDA, Pattancheru is located at a distance 6.5 km, which is more than 5 km. However, non-existent of SEIAA/SEAC, in Andhra Pradesh, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Gensynth Fine Chemicals Pvt. Ltd. has proposed for setting up of Bulk Drugs & Intermediate unit (from 6 TPM to 13.65 TPM) at Plot No.220, 239 & 248, Phase II, IDA, Pashamailaram, Tehsil Patancheru, District Medak, Andhra Pradesh. Plot area is 2.34 acres, of which greenbelt will be developed in 0.77 acre of land. Cost of project is Rs. 3 Crore. Water bodies such as Nakka Vagu (8 Km), Kotta Cheru (0.9 Km) and Lakdaram Cheru (5.1 Km) are located within 10 Km distance. Following products will be manufactured:

S.No	Name of the Product	Capacity	
		TPM	Kg/Day
1	(-)-1-[(4-Chlorophenyl)(phenyl) Methyl] piperazine	1.8	60
2	1-Chloro-6,6-dimethyl hept-2-en-4-yne	1.95	65
3	N-Benzyl-N-Methyl-2-Benzoyl Ethane Amine HCL	2.28	76
4	3-ethoxy-4(ethoxy carbonyl) phenyl] acetic Acid	0.39	13
5	4-Chloro-6-ethyl-5-fluro piperdine	0.63	21
6	Methyl-4-[(5-amino-1-methyl-1H-indole-3-yl)-3-methoxy benzoate	2.52	84
7	N-Methyl-Napthyl Amine HCL	5.1	170
8	Trityl Candesartan Celextil	1.08	36
9	Atrovastatin Calcium	0.8	25
10	Ketorolac Tromethamine	0.9	30
11	Levocertirizine Hydrochloride	0.8	25
12	Levofloxacin Hydrochloride	0.6	20
13	Moxifloxacin Hydrochloride	0.75	25
14	Valsartan	0.6	20
15	2-(2-ethoxyphenyl)-5-methyl-7-propyl-3H-imidazo[5,1-f][1,2,4]-triazin-4-one	1.5	50
16	3-methyl-1-(2-piperidin-1-yl phenyl) butan-1-amine glutarate salt	1.2	40
	Total – Worst Case 5 Products on campaign basis	13.65	455

List of By-Products

S.No	Name of the Product	Stage	Name of the By-Product	Capacity	
				Kg/day	TPM
1	(-)-1-[(4-Chlorophenyl)(phenyl)Methyl] piperazine	II	Tartaric acid	38.5	1.2
2	3-ethoxy-4(ethoxy carbonyl) phenyl] acetic acid	I	Potassium Sulfate	24.2	0.7
3	Methyl-4-[(5-amino-1-methyl-1H-indole-3-yl)-3-methoxy benzoate	II	Succinimide	27	0.8
		IV	Silver Bromide	59.4	1.8
			Silver hydroxide	39.5	1.2
4	2-(2-ethoxyphenyl)-5-methyl-7-propyl-3H-imidazo[5,1-f][1,2,4]-triazin-4-one	III	Di methyl Sulphate	42.3	1.3

List of Utilities

S.No	Utility	Existing	Proposed	Total after Expansion
1	Coal Fired Boiler	1 TPH	2 TPH	1x2 TTPH and 1 x 1 TPH
2	FO Thermic Fluid Heater	1.2 lac K. Cal/hr	--	1.2 Lac K. Cal/hr.
2	DG Set*	140 KVA	500 KVA	500 KVA and 140 KVA

* DG set will be used during load shut down.

Cyclone Separator along with stack of adequate height are provided to the existing coal fired boiler. Committee suggested that bagfilter should be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. HCl, HBr, SO₂ & NH₃. Water requirement will be increased from 10.35 m³/day to 62.9 m³/day after expansion. Out of which 38.9 m³/day will be fresh water and 24 m³/day is recycled water. Fresh water is sourced from APIIC Water Supply. The effluents are treated in "Zero Liquid Discharge" system. The high TDS effluents in the order of 16.5 KLD will be sent to Stripper followed by MEE, AFTD. The condensate from MEE and AFTD is treated along with LTDS effluent from process, washings, scrubbers, DM plant, SRS system, detoxification, ZLD washings, domestic usage and utility blow downs of 9 m³/day in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers. 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. CTE obtained on 29.10.2004 for the existing from APPCB. Existing unit was engaged in manufacturing of fine chemicals. No EC was required for fine chemical manufacturing at that time. A copy of Consent Order No. APPCB/RCP/SR-I/11959/CFO&HWM/HO/2014-6447 dated 13.02.2014 is submitted.

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

A. Standard TOR:

1. Executive summary of the project
2. Justification of the project.

3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the APPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
24. 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.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM_{2.5}, PM₁₀, SO₂, NO_x, CO, NH₃ 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.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.

33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.
36. 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).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
 - a) To which chemicals, workers are exposed directly or indirectly.
 - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - c) What measures company have taken to keep these chemicals within PEL/TLV.
 - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - e) What are onsite and offsite emergency plan during chemical disaster.
 - f) Liver function tests (LFT) during pre-placement and periodical examination.
 - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
45. 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.
46. Note on compliance to the recommendations mentioned in the CREP guidelines.
47. 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.
48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. 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.
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.

B. Additional TOR

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. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of AP Pollution Control Board for proposed expansion.

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.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Andhra Pradesh Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.4.3 Manufacturing of Particle Boards (4000 m³/month) with Captive Resin Unit (Urea formaldehyde Resin (600 MTPM), Phenol Formaldehyde Resin (300 MTPM) and Melamine Formaldehyde (100 MTPM)] at Sys.No.160/P1/P2, Village Lalpur, Taluka Morbi, District Rajkot, Gujarat by M/s Rainbow Laminate Pvt. Ltd – regarding TOR

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

M/s Rainbow Laminate Pvt. Ltd have proposed for setting up of Manufacturing of Particle Boards (4000 m³/month) with Captive Resin Unit (Urea formaldehyde Resin (600 MTPM), Phenol Formaldehyde Resin (300 MTPM) and Melamine Formaldehyde (100 MTPM)] at Sys.No.160/P1/P2, Village Lalpur, Taluka Morbi, District Rajkot, Gujarat. The PP informed that MoEF has already granted TOR vide letter no J-11011/209/2012 IA II (I) dated 1st February, 2013 for manufacturing of Urea Formaldehyde. Now, they requested for amendment in TOR. Cost of project is Rs. 4.5 Crore. No ecologically sensitive area located within 10 Km distance. Total plot area is 16289 m². Following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin	300 MTPM
2	Melamine Formaldehyde Resin	100 MTPM
3	Urea Formaldehyde Resin	600 MTPM
4	Particle Boards	4000 Nos./Month

Multicyclone dust collector will be provided to coal/lignite fired steam boiler thermic fluid heater. Fresh water requirement from ground water source will be 11.5 m³/day. Industrial effluent (2.5 m³/day) will be treated in ETP. ETP sludge will be sent to TSDF. Used oil will be sent to registered recyclers. PP informed that formaldehyde storage will be 120 Ton, which is covered in the category of MAH units as per management, storage, import of Hazardous Chemical Rules, 1989. PP informed that they have collected three months environmental quality data. The Committee suggested to recheck the data by collecting additional one data.

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

A. Standard TOR:

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 alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location alongwith 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 alongwith 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 alongwith the production capacities.
15. Detailed list of raw materials required and source, mode of storage and transportation.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 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 11.5 m³/day 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, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
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 methanol/phenol".

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 have taken to keep these chemicals within PEL/TLV.
 - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v. What are onsite and offsite emergency plan during chemical disaster.
 - vi. Liver function tests (LFT) during pre-placement and periodical examination.
42. Details of occupational health surveillance programme.
43. Socio-economic development activities shall be in place.
44. 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.
45. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
46. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
47. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Since three months environmental data already monitored, one month additional environmental data to be monitored and revalidated.

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Gujarat Pollution Control Board for

public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.4.4 Expansion of intermediate manufacturing unit –VI at Survey Nos.750, 753/1, 753/2 & 753/4, Mandollagudem & Chinakonduru Villages, Choutuppal Mandal, Nalgonda, District, Telangana by M/s Symed Labs Limited – regarding TOR

The PP did not attend the meeting as the Proposal was already considered in the 22nd EAC (I) meeting held during 30th July 2014 to 1st August 2014 at item no. 21.12.9 (ii).

24.4.5 Standby Reactor installation, use of Natural Gas, Decanter system installation and construction of 4000 KL raw material storage tank Near Patalganga Industrial Area, Village Talvali and Lohop, Taluka Khalapur, District Raigad, Maharashtra by M/s SKI Carbon Black India Pvt Ltd – regarding TOR

Environmental clearance was accorded by the Ministry vide letter no. J-11011/35/2007-IA II (I) dated 22nd March, 2013 to M/s Hi-Tech Carbon to M/s SKI Carbon Black (India) Pvt. Ltd. for setting up of Carbon Black Plant (1,20,000 TPA) at Patalganga, District Raigad, Maharashtra. MoEF vide letter no J-11011/288/2011 IA II(I) dated 28.08.2014 has transferred the existing environmental clearance in the name of M/s SKI Carbon Black (India) Pvt. Ltd. Now, project proponent has informed that they have installed 3 reactors which put together can produce 7000 tonnes per month of carbon black. The reactors need periodic maintenance for various reasons like wear and tear of refractory, Calibration and turning control for implementation, raw material/fuel injection piping /nozzles etc. which results in idling of capacity. In order to overcome the above problem, the unit proposes to install a fourth reactor as standby which will be put to use if any of the existing reactors is shut down for maintenance. They informed that in any operating scenario of current manufacturing stream, they will be running only 3 reactors out of the 4 reactors and one reactor will always be either standby or under maintenance. The installation of the 4th reactor will not result in any increase in the approved capacity of 1,20,000 tonnes per annum. PP also informed that following additional facilities to be created without adding any capacity:

- a). Installation of Decanter System: At present, unit is using imported feedstock oil which adds to import burden. The problem of imports can be mitigated to a great extent if they try and use indigenously available alternative feedstock oil which needs to be centrifuged for removing impurities and water to make it fit for use as raw materials in the reactors. The decanter system also include 1 no. 4000 KL oil storage tank which will be used for storage of centrifuged oil.
- b). Natural Gas Conveying System: Liquid fuels are burnt in reactor for raising the temperature of combustion zone before the feedstock oil is entered for thermal cracking. Since liquid fuels are less cleaner and less environmental friendly, they propose to set up a system to use Natural Gas in the reactors as fuel. Use of natural gas will replace the liquid fuel usage and help reduce the emission levels in the environment.

Committee noted that there is no increase in pollution load as there is no increase in production capacity. After detailed deliberations, the committee recommended the project for the aforesaid amendment. The Committee also affirmed that the manufacturing capacity of plant and the sulphur content in the feed stock shall remain the same.

24.4.6 Expansion (30 KLPD to 100 KLPD) with change in feed stock from cane juice to fully Molasses based distillery at Herwad, Taluka Kolhapur, Maharashtra by M/s Karan Sugars Pvt.Ltd. – regarding TOR

Project proposal was considered in the 17th Expert Appraisal Committee (Industry) meeting held during 18th-19th March, 2014 and the Committee desired to submit revised Form-1 alongwith pre-feasibility report and based on documents further course of action will be decided. PP vide letter dated 21st July, 2014 has submitted the requisite information alongwith revised form-1. It was noted that ToR was issued by the MoEF vide letter no J-11011/857/2008-IA II (I) dated 25th February, 2009. PP has submitted EIA-EMP report on 7.5.2012. MoEF vide letter dated 9.05.2013 has asked the PP to conduct fresh public hearing report as existing public hearing meeting was supervised by the representative below the rank of Additional District Magistrate. Further PP vide letter dated 05.12.2013 has submitted a copy of fresh public hearing report conducted on 09.11.2013 under the supervision of Additional District Magistrate. Now, PP informed that this is new 100 KLPD molasses based distillery project and existing plant (30 KLPD) will be scrapped. After detailed deliberations, the Expert Appraisal Committee prescribed the following specific TORs for preparation of EIA/EMP report:

1. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc.
2. Details of proposed products along with manufacturing capacity.
3. Number of working days of the distillery unit.
4. Details of raw materials, its source with availability of molasses.
5. Manufacturing process details of distillery along with process flow chart.
6. 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.
7. Storage facilities for raw materials, prepared alcohol, fuels and fly ash.
8. 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.
9. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler's stack.
10. Details of boiler and its capacity. Details of the use of steam from the boiler.
11. Ground water quality around proposed spent wash storage lagoon and the project area.
12. Details of water requirement, water balance chart for proposed project. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
13. Source of water supply and permission of withdrawal of water from Competent Authority.
14. 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.
15. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
16. Capacity for spent wash holding tank and action plan to control ground water pollution.

17. Layout for storage of bagasse/biomass/coal.
18. Capacity for spent wash holding tank and action plan to control ground water pollution.
19. Dryer shall be installed to dry DWGS.
20. Layout for storage of rice husk/biomass/coal.
21. Details of solid waste management including management of boiler ash.
22. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
23. 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.
24. 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.
25. 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.
26. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
27. 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.
28. Details of occupational health surveillance programme.
29. 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.
30. Action plan for post-project environmental monitoring.
31. Corporate Environmental Responsibility
32. (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.
33. 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.

It was recommended that above 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as fresh public hearing was already conducted for the project on 09.11.2013.

24.4.7 Recovery of Styrene Project at Panipat Refinery & Petrochemical Complex of M/s Indian Oil Corporation Ltd. at Panipat, Haryana – regarding TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Petro-Chemical Complexes (Industrial based on processing) are listed at S.N. 5(c) under category 'A' and appraised at Central level.

M/s Indian Oil Corporation Ltd. has proposed for setting up of Recovery of Styrene Project at Panipat Refinery & Petrochemical Complex at Panipat, Haryana. Panipat refinery & Petro Chemical Complex consist of a 15 MMTPA Refinery, a PTA plant and a Nephtha Cracker Plant. This plant manufactures various grades of polymer and other speciality products. This new project of Styrene Recovery Unit of 20 KTA, costing around 190 Crores, would supply Styrene to M/s ISRL. The details of facility is as given below:

- i. The plant will not have any fired heater.
- ii. Water requirement is 150 m³/hr, which will be met within allocated limit of 3100 m³/hr.
- iii. About 0.2 m³/hr liquid effluent will be generated which will be treated in the existing ETP.
- iv. Gaseous emission will take place from Off gas during reactor regeneration in 1 -2 years for 3 days.

PP informed that recently they have conducted public hearing for Butene- I project on 23.08.2013. MoEF vide letter no J-11011/106/2012 IA II (I) dated 23rd May, 2014 has granted environmental clearance for Butene – I project.

After detailed deliberations, the Committee desired following information specific to the proposed 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. Environmental Statement for the year 2013-14.
3. Project Description and Project Benefits.
4. Manufacturing process details alongwith the chemical reactions and process flow diagram for the proposed project.
5. Is there additional storage required for the proposed project, if yes details thereof.
6. Baseline data for air, water and soil for last one year:
7. Ambient air quality monitoring data for PM_{2.5}, PM₁₀ SO₂, NO_x, (methane & non-methane HC) and VOCs.
8. Existing status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management in the existing units.
9. Status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management after proposed project.
10. Details of Sulphur balance in the existing refinery unit.
11. Additional SO₂ emissions due to the proposed project.
12. A note on how SO₂ and NO_x will be controlled at the existing level leading to no increase in pollution load.
13. Unit-wise air pollution control devices to be installed. For the proposed units.
14. Water Balance chart for the existing unit and due to the proposed project. Action plan for reduction of water requirement.
15. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
16. Details of membership of TSDF for hazardous waste disposal.
17. Details of proposed preventive measures for leakages and accident.
18. Environmental Management Plan

19. Risk Assessment & Disaster Management Plan
 - a. Identification of hazards
 - b. Consequence Analysis
 - c. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
20. Total capital cost and recurring cost/annum for environmental pollution control measures.
21. Environmental Monitoring programme. .

It was decided that project proponent should submit above mentioned information for consideration of the proposal by the Expert Appraisal Committee (Industry-2). Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was recently conducted on 23rd August, 2013 for Butene-1 project. Site Visit also to be conducted by the Sub-Committee of the EAC (I-2).

24.4.8 Proposed 45 KLPD Distillery unit alongwith sugar (5000TCD) alongwith CPP (28 MW) at Village Gopuj, Tehsil Khatav, District Satara, Maharashtra by M/s Green Power Sugar Ltd – reg. 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 Green Power Sugar Ltd has proposed for setting up of molasses based Distillery unit (45 KLPD) alongwith sugar (5000TCD) alongwith CPP (28 MW) at Village Gopuj, Tehsil Khatav, District Satara, Maharashtra. Total land in possess is 80 acres. Cost of project is Rs. 258.09 Crore. Yerala River is flowing at a distance of 9.7 Km. No tropical forest, national park, biosphere reserve, wildlife sanctuary, coral formation reserve is located within 10 km distance. Following facilities will be created:

S.N.	Unit	Existing	Proposed / Additional	Total Capacity	
1	Distillery	--	45 KLPD	45 KLPD	
2	Sugar	3500	1500 TCD	5000 TCD	
3	Co-Generation Power Plant	15 MW	13 MW	28 MW	

ESP alongwith stack height of 82 mt will be provided to bagasse fired boiler (100 TPH) to control particulate emissions. Fresh water requirement from Yeralwadi dam will be 1376 m³/day. Spentwash will be treated in anaerobic bio-digester followed by MEE and bio-composter. Effluent from sugar unit will be treated in the ETP. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. Capacity of spent wash lagoon will be 30 days. Fly ash will be sent to brick kiln and composting. Lubricating oil drums and spent oil will be sent to authorized recyclers.

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

A. Standard TOR:

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.

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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.

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.4.9 Resin Manufacturing Unit at Sy. No. 330, Village Ravapar Nadi, Taluka Morbi, District Rajkot, Gujrat by M/s Rajal Laminate Pvt.Ltd – regarding TOR

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

M/s Rajal Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No. 330, Village Ravapar Nadi, Taluka Morbi, District Rajkot, Gujrat. Total plot area is 10927 m² of which greenbelt will be created in 3812 m². Cost of project is Rs. 1 Crore. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin	360 MTPM
2	Melamine Formaldehyde Resin	120 MTPM

3	Urea Formaldehyde Resin	120 MTPM
4	Electrical Insulation Board and H P Decorative Laminated Sheets	1,50,000 Nos/Month

Multicyclone dust collector will be provided to coal fired boiler (4 MTH) and thermic fluid heater. However, the Committee suggested that bagfilter will be provided to coal fired boiler. DG set (250 KVA) will be installed. Total water requirement from ground water source will be 22.410 m³/day. Effluent will be treated in photo Fenton process based ETP. Treated effluent will be evaporated in evaporator and reuse into process to achieve zero discharge. ETP sludge will be sent to TSDF. Used oil will be sent to registered recycler/re-processor.

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

A. Standard TOR:

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, PM_{2.5}, 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.
 - vii. To which chemicals, workers are exposed directly or indirectly.
 - viii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - ix. What measures company has taken to keep these chemicals within PEL/TLV.
 - x. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - xi. What are onsite and offsite emergency plan during chemical disaster.
 - xii. 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. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
49. A tabular chart with index for point wise compliance of above TORs.

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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.

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.5 Any Other Items

24.5.1 Bulk Drug Manufacturing Unit (19.70 MTPM) at Plot No.29 P (I), Raichur Growth Centre Industrial Area, Village Chicksugur, District Raichur, Karnataka by M/s J.K.Chemlabs Pvt. Ltd. – correction in name

Environmental clearance was granted by the Ministry vide their letter no. J-11011/373/2011-IA.II (I) dated 7th January, 2014 for Bulk Drug Manufacturing Unit (19.70 MTPM) at Plot No.29 P (I), Raichur Growth Centre Industrial Area, Village Chicksugur, District Raichur, Karnataka by M/s J.K.Chemicals Pvt. Ltd. However, as per records, PP has applied in the name of M/s J K Chemlabs Pvt. Ltd. Now, the Committee has recommended for the corrections of the name in the environmental clearance as M/s J K Chemlabs Pvt. Ltd.

24.5.2 Setting up of 60 KLD Molasses/Grain based Distillery Plant at Meerut (Uttar Pradesh) by M/s United Spirits (A Unit of UB Group) – regarding extension of EC

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

24.5.3 Red Pigments (40 MTPM) and Yellow Pigments (40 MTPM) Manufacturing Unit at Old Survey No.81/2, Block No.142, Village Dabhasa, Taluka Padra, District Vadodara, Gujarat by M/s Globex Laboratories (R&D) Ltd. – regarding amendment in EC

Environmental clearance was granted by the Ministry vide letter no. J-11011/95/2010-IA.II (I) dated 26th September, 2012 for setting up of Red Pigments (40 MTPM) and Yellow Pigments (40 MTPM) Manufacturing Unit at Old Survey No.81/2, Block No.142, Village Dabhasa, Taluka Padra, District Vadodara, Gujarat. Now, PP requested for the followings:

- (i) Change of effluent disposal mode from 'Zero' Liquid discharge to Enviro Infrastructure Co. Ltd. (EICL), Umaraya (CETP).
- (ii) Fuel from LDO to Agro Waste Briquettes.
- (iii) Addition of one raw material i.e. Phosphoric IA.
- (iv) Addition of (i) Dilute Phosphoric acid (ii) Liquid Dyes as by-product.

The Committee noted that 'zero' effluent discharge condition was imposed based on the recommendation of GPCB. However, PP did not furnish the recommendation of GPCB for effluent discharge into CETP. The Committee noted that there is an increase in the production capacity due to product mix change. Therefore, the Committee desired that pp should submit status of pollution load due to change in product mix.

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

24.5.4 Bulk Drug manufacturing unit at Sy.No.406, Veleminedu village Chityal Mandal, Nalgonda District in Andhra Pradesh by M/s V.S.K.Laboratories Pvt Ltd – regarding extension of validity of EC

Project proponent has informed that environmental clearance was granted by the Ministry vide their letter no. J-11011/589/2007-IA.II (I) dated 21st February, 2008 for Bulk Drug manufacturing unit at Sy.No.406, Veleminedu village Chityal Mandal, Nalgonda District in Andhra Pradesh by M/s V.S.K.Laboratories Pvt Ltd.

Consent to establish was obtained from APPCB vide letter no. 264/PCB/CFE/RO-NLG/HO/2011-2268 dated 24th October, 2011. Meanwhile APPCB imposed a moratorium on Nalgonda District, Andhra Pradesh for new Industries.

Now project proponent has informed that the existing environmental clearance was valid upto 3rd November, 2012 and requested for extend the validity for another 5 years.

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.

MONDAY, 30th September, 2014

24.6 Terms of References (TOR)

24.6.1 Development Drilling (3 wells), Construction of GGS and laying of transportation pipeline at onshore block AAP-ON-94/1, Village Dirok Tea Estate,

Tehsil Marghrita, District Tinsukia, Assam by M/S Hindustan Oil Exploration Company Ltd.- reg TOR.

The project authorities and their consultant (M/s SENES Consultant 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) for preparation of EIA-EMP report. M/s HOEC on behalf of consortium proposed to construct and commissioned a Gas Gathering Station (GGC) and Gas processing plant in Block AAP-ON-94/1. Two parallel pipelines (High Pressure and Low Pressure) shall be laid to transport the unprocessed natural gas from manifold at the GGS to GPP and processed natural gas shall be transported from the GPP to sales gas of tech point at kusijan.

The following projects and facilities are planned:

- Three existing wells viz. Dirok 1, dirok 2 and Dirok 4 will be put on production.
- Drilling of three new development wells viz Dirok 5, 6, 7 in the Block;
- Setting up of Gas Gathering Station (GGS) with in the block areas
- Construction of pipeline for transportation of gas from the GGS to GPP and from the GPP to Kusijan
- Setting up of Gas Processing plant (GPP) outside 11km radius of the wildlife Sanctuary
- Gas Processing and Handling Capacity: 20mmscfd
- Condensate Storage and Handling Facility: 80 BPD (Barrels per day)

Coordinates of the proposed wells, GGS and GPP are as under:

DRK-5	95° 37' 03.74"/E; 27° 16' 12.14"/N
DRK-6	95° 37' 27.57"/E; 27° 16' 13.85"/N
DRK-7	95° 37' 48.18"/E; 27° 16' 13.85"/N
GGS	95° 37' 41.06"/E; 27° 15' 45.42"/N
GPP	95° 37' 42.99"/E; 27° 21' 49.97"/N

Total cost of the project is Rs. 329.40 crore. The river Burhi-Dihind is flowing near to project site included under the watershed of. Dehing Patkai Wildlife Sanctuary, Dehing Patkai Elephant Reserve, Golai-Powai Elephant Corridor is located within 10 km. a part of pipeline from GPP at Golai to Buyer's Offtake point at Kusijan passing through Forest land. PP informed that forest land (1.7 Km) involved. About 2 ha of land is covered for drilling site and GGS located at the existing drilling site (0.06 ha.). 25 km of pipeline shall be laid. The PP has proposed to meet water requirement from the surface water resources under which 45-50 KLD peek water requirement is for drilling of each well. Apart from this 25 KLD and 5 KLD of water will be required for constructing and operation of GGS respectively. Besides 150 KLD and 15 KLD of water will be used for construction and operation of GPP respectively. Four 670 KW of DG set will be installed for operation of rig. One 450 KVA DG set shall be used for construction and operation of GGS. With regard to GPP, 3670 KW DG set during construction and 2600 KVA captive gas generator will be installed during

production. At drilling sites 4.5-5 KLD of HSD will be arranged through tankers at drilling sites while 15-20 KLD of HSD will be required for GS & GPP during construction and operation phases. Total 250-260 persons per day shall be deployed for various activities such as site preparation, GGS, pipeline and GPP construction.

Drill cutting will be separated from drill fluid and washed temporarily stored in an impervious HDPE lined pit. Drilling waste water will be disposed through treatment in ETP to comply with the CPCB onshore effluent discharge standard for oil and gas industry. Sewage will be treated in a combination of septic tank and soak pit. Scrap metal, waste oil surplus chemical and lead acid batteries shall be disposed to authorized waste oil/used oil recyclers.

All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical Products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas (including LNG Terminal) are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

The PP was granted environmental clearance for two exploratory drill sites vide no. J-11011/50/2006-IA II (I) during August, 2007. Consent to establish and consent to operate was granted to the project by Assam pollution Control Board. During 2009 another EC granted to the project vide no. J-11011/112/2009-IA II (I) for drilling of three exploratory wells within the same Block and consent to establish and consent to operate was also obtained from SPCB.

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

B. Standard TOR:

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area.
4. Distance from nearby critically/severely polluted area as per Notification dated 13th January, 2010, if applicable.
5. Copy of CRZ map prepared by one of the agencies authorized by the MoEF for carrying out the CRZ demarcation, w.r.t. the project boundary and facilities.
6. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
7. A certified copy of the report of the status of compliance of the conditions stipulated in the Consent to Operate for the ongoing/existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
8. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s).
9. Comprehensive proposal covering surface facilities, pipeline/gas collection system, utilities etc.
10. Design details of all the facilities including CGS, GGS, pipe network, utilities and technology to be used for development project.
11. Details of project cost.
12. 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.
13. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.

- (i) Topography of the project site.
 - (ii) Ambient Air Quality monitoring at 8 locations for PM10, SO2, NOx, VOCs, Methane and non-methane HC.
 - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
 - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
 - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
 - (vi) Measurement of Noise levels within 1 km radius of the proposed wells.
 - (vii) Vegetation and land use; Animal resources
14. Incremental GLC as a result of DG set operation.
 15. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
 16. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
 17. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
 18. Treatment and disposal of waste water.
 19. Treatment and disposal of solid waste generation.
 20. Disposal of spent oil and lubes.
 21. Storage of chemicals and diesel at site.
 22. Commitment for the use of WBM only
 23. Mud make up and mud and cutting disposal – all options considered should be listed with selective option.
 24. Hazardous material usage, storage accounting and disposal.
 25. Disposal of packaging waste from site.
 26. Oil spill emergency plans in respect of recovery/ reclamation.
 27. H2S emissions control.
 28. Produced oil handling and storage.
 29. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
 30. Details of control of air, water and noise pollution in oil collection system.
 31. Disposal of produced/formation water.
 32. Whether any burn pits being utilized for well test operations.
 33. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
 34. Measures to protect ground water and shallow aquifers from contamination.
 35. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
 36. Environmental management plan.
 37. Documentary proof of membership of common disposal facilities, if any.
 38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environmental.
 39. Total capital and recurring cost for environmental control measures.
 40. 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
 41. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
42. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
43. A note on identification and implementation of Carbon Credit project if any should be included.
44. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

C. Additional TOR:

1. A separate chapter on status of compliance of Environmental Conditions earlier granted by 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. Permission from the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980) for the forestland should be submitted.
3. Since the project falls within 10km of Dehing Patkai Wildlife Sanctuary eco-sensitive area, a copy of application submitted to Standing Committee of the NBWL for Wildlife clearance shall be furnished.
4. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

It was recommended that ‘**TORs**’ along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the ‘Generic Structure of EIA’ given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Assam State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.6.2 Proposal for Manufacturing decorative laminated sheets and various resin located at Survey No. 121/p/2, Village Rohishala, Tehsil Maliya, District Morbi, Gujarat M/S Shinemica Laminates Pvt. Ltd.- reg. TOR

The project proponent 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 alongwith the draft Terms of References (ToR) for the preparation of EIA/EMP report. All Synthetic Organic Resin Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category ‘A’ and appraised at Central level.

M/s Shinemica Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 121/p/2, Village Rohishala, Taluka Maliya, District Morbi, Gujarat by M/s. Shinemica Laminate Pvt. Ltd. The estimated cost of the project is 7 crore, of which 05 crore will be used for Environmental Pollution Control measures. It is reported that no wildlife sanctuary/reserve forest, critically polluted area falls within 10 km radius of the unit. Following Products will be manufactured:

Sr. No.	Name of Product	Quantity (MT/Month)
1.	Decorative Laminates Sheets	4,00,000 sheets/month
2.	Phenol Formaldehyde Resin	600 MT/month
3.	Melamine Formaldehyde Resin	250 MT/month
4.	Urea Formaldehyde Resin	400 MT/month

. PP informed that formaldehyde storage will be 150 Ton, which is covered in the category of MAH units as per management, storage, import of Hazardous Chemical Rules, 1989. The unit has proposed to provide adequate stack height (30mt.) to control flue gas emission. Cyclone and back filter will be provided per boiler and thermic fluid heater which will finally be emitted through common stack. Unit will also install two DG set (capacity 250 KVA each) and one will be used as a standby in case of power failure. Effluent from the process will be collected in collection tank and then pumped into notched filter to transfer to Kettle type operator. Residue will be sent for incineration. Hazardous waste as ETP sludge and evaporation salt/residue will be disposed of at TSDF site. Used lubricating oil, discarded container/barrels/liners will be sent for recycling through registered trader.

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

A. Standard TORs

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

5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. Promoters and their back ground.
8. Regulatory framework
9. A map indicating location of the project and distance from severely polluted area
10. Project location and plant layout.
11. Infrastructure facilities including power sources.
12. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
13. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
14. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
15. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
16. Permission, if any, from the State Forest Department
17. Details of the total land and break-up of the land use for green belt and other uses.
18. List of products alongwith the production capacities.
19. Detailed list of raw materials required and source, mode of storage and transportation.
20. Manufacturing process details alongwith the chemical reactions and process flow chart.
21. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
22. 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.
23. 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 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.
24. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
25. Control methanol emission from drying section.
26. Details of VOC monitoring system in the working zone environment, if any.
27. Name of all the solvents to be used in the process and details of solvent recovery system.
28. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
29. Details of water and air pollution and its mitigation plan.
30. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
31. An action plan to control and monitor secondary fugitive emissions from all the sources.
32. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
33. Permission for the drawl of 28.5m³/day ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
34. Action plan for 'Zero' discharge of effluent shall be included.

35. Treatment of phenol in the effluent, if any.
36. 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).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Explore the possibility to use fuel other than wood.
39. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
40. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
41. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
42. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
43. A write up on "Treatment of workers affected by accidental spillage of methanol/phenol".
44. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
45. An action plan to develop green belt in 33 % area
46. 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.
47. 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.
48. Details of occupational health surveillance programme.
49. Socio-economic development activities shall be in place.
50. 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.
51. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
52. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the

company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

53. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
54. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

B. Additional TOR:

55. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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

24.6.3 Proposal for Expansion of Nylon chip (from 750 TPM to 3750 TPM) located at Plot No. 491, 492, Village Palsana, Tehsil Palsana, District Surat, Gujrat by M/S Gujarat Polyfilms Pvt. Ltd. -reg TOR

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

24.6.4 Proposal for manufacturing Formaldehyde, Resin & Adhesive at Survey No. 153/1 Village Chiskari, Tehsil Dahegam, District Gandhinagar, Gujarat by M/S Velson Resin Pvt. Ltd.- reg TOR.

The project proponent and their consultant (T.R. Associates- stay order No. U/6614/2013 dated 19.12.2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Terms of References (ToR) for the preparation of EIA/EMP report. All Synthetic Organic Resin Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s. Velsons Resin Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey NO. 153/1, village Chiskari, Taluka Dehgam, District Gandhinagar, Gujarat. The estimated cost of the project is 20 crore. Total area of the plot is 11635 m² of which 3850 m²

of area will be developed for green belt. Total 281.4 m³/day of fresh water will be withdrawn for bore well/surface water sources. River Meswo is flowing at a distance of 3.26km and Narmada Canal at 4.5km from the unit site. Reserve forest (name not indicated by PP) is located at a distance of 5km from project site. Following Products will be manufactured:

Sr. No.	Product	Quantity MT/M
1.	Formaldehyde	9000
2.	Adhesive	600
3.	Phenol Formaldehyde Resin	3000
4.	Melamine Formaldehyde Resin	3000
5.	Urea Formaldehyde Resin	3000

. PP informed that formaldehyde storage will be 300 Ton, which is covered in the category of MAH units as per management, storage, import of Hazardous Chemical Rules, 1989. The unit has proposed to provide adequate stack height (30mt.) to control flue gas emission. Multi Cyclone dust collector has been proposed to connect with steam boiler. DG set of 400 KVA using 35 lit./hour of HSD will be installed. Effluent from the process will be collected in collection tank and then pumped into oxidation vessel (Photo Phenton process) where oxidation will take place. Residue has ETP sludge will be sent for sludge drying bed and supernatant water will be transferred for evaporation. Industrial waste water generated due to boiler and cooling make up and resin manufacturing process will be treated for recycling and thus to achieve zero liquid discharge. Hazardous waste as ETP sludge and evaporation salt/residue will be disposed of at TSDF site. Used lubricating oil, discarded container/barrels/liners will be sent for recycling through registered trader.

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

A. Standard TORs

1. Executive summary of the project
2. Justification of the project.
3. Photographs of the existing and proposed plant area.
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. Risk assessment and toxic raw material/waste management plan to be worked out.
8. Promoters and their back ground.
9. Regulatory framework
10. A map indicating location of the project and distance from severely polluted area
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.

14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
17. Permission, if any, from the State Forest Department
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw materials required and source, mode of storage and transportation.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
23. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
24. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, PM_{2.5}, SO₂, NOx including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
25. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
26. Control methanol emission from drying section.
27. Details of VOC monitoring system in the working zone environment, if any.
28. Name of all the solvents to be used in the process and details of solvent recovery system.
29. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
30. Details of water and air pollution and its mitigation plan.
31. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
32. An action plan to control and monitor secondary fugitive emissions from all the sources.
33. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
34. Permission for the drawl of 281.4m³/day ground water from CGWA/irrigation department. Water balance chart including quantity of effluent generated recycled and reused and discharged.
35. Action plan for 'Zero' discharge of effluent shall be included.
36. Treatment of phenol in the effluent, if any.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).

38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Explore the possibility to use fuel other than wood.
40. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
41. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
42. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
43. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
44. A write up on "Treatment of workers affected by accidental spillage of methanol/ phenol".
45. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
46. An action plan to develop green belt in 33 % area
47. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
48. Details of occupational health programme.
 - i. To which chemicals, workers are exposed directly or indirectly.
 - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii. What measures company 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.
49. Details of occupational health surveillance programme.
50. Socio-economic development activities shall be in place.
51. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
52. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
53. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.

- (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
54. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
55. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

B. Additional TOR:

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made

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

24.6.5 Proposal for Synthetic organic chemicals industry (dyes & dye intermediates) located at Survey No. 180 paiki, Village Garmala, Tehsil Matar, District Kheda, Gujarat by M/S Mahi Formaline Ltd.-reg TOR.

The project proponent and their consultant (T.R. Associates- stay order No. U/6614/2013 dated 19.12.2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Terms of References (ToR) for the preparation of EIA/EMP report. All Synthetic Organic Resin Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s. Mahi Formaline Ltd. has proposed for setting up of Synthetic organic chemicals industry (dyes & dye intermediates) located at Survey No. 180 paiki, Village Garmala, Tehsil Matar, District Kheda, Gujarat. The estimated cost of the project is 5 crore. Total area of the plot is 7000 m² of which 2285 m² of area will be developed for green belt. It is reported to use 170 m³/day of ground water. As per the project proponent, no Reserve forest, eco sensitive

zone and critically polluted area is located at a distance of 5km from project site. Following Products will be manufactured:

Sr. No.	Product	Quantity MT/M
1.	Formaldehyde	6000
2.	Hexamine	300
3.	Phenol Formaldehyde Resin	500
4.	Melamine Formaldehyde Resin	500
5.	Urea Formaldehyde Resin (powder)	500
6.	Urea Formaldehyde Resin (liquid)	588

The unit has proposed to provide adequate stack height (30mt.) to control flue gas emission. Multi Cyclone dust collector has been proposed to connect with boiler. DG set of 300 KVA using 200 lit./hour of HSD will be installed. Effluent from the process will be collected in collection tank and then sent to multi effect evaporator. Zero liquid discharge will be achieved. Hazardous waste as ETP sludge and evaporation salt/residue will be disposed of at TSDF site. Used lubricating oil, discarded container/barrels/liners will be sent for recycling through registered trader.

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

A. Standard TOR:

1. Executive summary of the project
2. Justification of the project.
3. Photographs of the existing and proposed plant area.
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. Risk assessment and toxic raw material/waste management plan to be worked out.
8. Promoters and their back ground.
9. Regulatory framework
10. A map indicating location of the project and distance from severely polluted area
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
17. Permission, if any, from the State Forest Department
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products along with the production capacities.

20. Detailed list of raw materials required and source, mode of storage and transportation.
21. Manufacturing process details along with the chemical reactions and process flow chart.
22. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
23. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
24. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, PM_{2.5}, 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.
25. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
26. Control methanol emission from drying section.
27. Details of VOC monitoring system in the working zone environment, if any.
28. Name of all the solvents to be used in the process and details of solvent recovery system.
29. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
30. Details of water and air pollution and its mitigation plan.
31. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
32. An action plan to control and monitor secondary fugitive emissions from all the sources.
33. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
34. Permission for the drawl of 170m³/day ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
35. Action plan for 'Zero' discharge of effluent shall be included.
36. Treatment of phenol in the effluent, if any.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Explore the possibility to use fuel other than wood.
40. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
41. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
42. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
43. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.

44. A write up on "Treatment of workers affected by accidental spillage of methanol/ phenol".
45. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
46. An action plan to develop green belt in 33 % area
47. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
48. Details of occupational health programme.
 - I. To which chemicals, workers are exposed directly or indirectly.
 - II. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - III. What measures company 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.
49. Details of occupational health surveillance programme.
50. Socio-economic development activities shall be in place.
51. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
52. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
53. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
54. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
55. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

 - I. All documents shall be properly indexed, page numbered.
 - II. Period/date of data collection shall be clearly indicated.
 - III. Authenticated English translation of all material provided in Regional languages.

- IV. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- V. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- VI. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- VII. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

B. Additional TOR:

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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

24.6.6 Expansion of Synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at Plot No. 1088(B), Village Manjusar, Tahsil Savli, District Vadodara, Gujarat by M/s Universal Ester Ltd. - reg. TOR

The project proponents and their consultant (M/s Precitech Laboratory 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 report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A'. and appraised at Central level.

M/s. Universal Ester Ltd. has proposed for expansion of Synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at Plot No. 1088(B), Village Manjusar, Tahsil Savli, District Vadodara, Gujarat. The estimated cost of the project is 1.56 crore. Unit was established in **March 1996 vide NOC letter no. PC/NOC-VRD-1143/6910**. PP also confirmed that unit did not attract environmental clearance at that time. Total area of the plot is 3694.48 m² of which 600 m² of area will be developed for green belt. As per the project proponent, no Reserve forest, eco sensitive zone and critically polluted area is located at a distance of 5km from project site. Following Products will be manufactured:

Sr. No.	Product	Proposed Quantity (MT/M)		
		Existing Qty.	After phase-I	After phase-II
Existing Products				
1.	Methyl Anithranilate	1.50		
2.	Ethyl Salicylate	1.25		
3.	Ethyl Benzoate	1.60		

4.	Amyl Salicylate	3.00	NIL	NIL
5.	Benzyl Salicylate	8.00		
6.	Methyle Salicylate	0.50		
7.	Amyl acetate	2.00		
8.	Or any other type of chemicals in category of orange esters	--		
9.	Octyl Methoxy Cinamate	8.00	} 125.00	} 200.00
10.	Octyl Salicylate	6.00		
11.	Octyl Hydroxystearate	2.00		
Proposed products				
1.	Homosalate	-		
2.	Cosmetic emmolients	-		
3.	Ethyl Methoxycinamate	-	5.00	5.00
Proposed products (repacking & reselling)				
4.	Octocrylene	-	} 10.00	} 10.00
5.	Benzophenone-3	-		
6.	Benzophenone-4	-		
7.	Avobenzone	-		
Total		16.00	140.00	215.00

Total Water requirement from ground water source will be 37m³/day. Industrial effluent comprises waste from process, washing and cooling tower blow down will be diverted to collection tank cum neutralization tank and treated in primary settling tank for discharging to CETP of EICL. The salt residue from evaporation unit alongwith primary sludge will be disposed through TSDF site. Total power of 250 KVA after expansion will be purchased from MGVCL. Agro-waste/Briquettes will be used as fuel. Flue gas emission will be arrested through Cyclone separator as pollution control device. Various streams of Hazardous waste will be generated as ; used oil, process residue, spent carbon, discarded drum, ETP sludge etc. are proposed to be stored and managed as per norms of hazardous waste (management & Handling) Rules.

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

A. Standard TORs

1. Executive summary of the project. Unit was established in March 1996 vide NOC letter no. PC/NOC-VRD-1143/6910
2. Photographs of the existing and proposed plant area.
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
5. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
6. A line diagram/flow sheet for the process and EMP
7. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
8. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper

- longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
9. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
 10. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
 11. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
 12. Details and classification of total land (identified and acquired) should be included.
 13. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
 14. A list of industries containing name and type in 10 km radius shall be incorporated.
 15. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
 16. Manufacturing process details for the synthetic chemicals unit should be included.
 17. Mass balance for the raw material and products should be included.
 18. Energy balance data for all the components should be incorporated.
 19. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
 20. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
 21. 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.
 22. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
 23. 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.
 24. Air quality modeling for all the plants proposed for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included.
 25. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
 26. Ambient air quality monitoring should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of

- expansion project, the contribution should be inclusive of both existing and expanded capacity.
- viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance
 - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
27. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
 28. One season data for gaseous emissions other than monsoon season is necessary.
 29. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
 30. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
 31. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
 32. Action plan for rainwater harvesting measures at plant site 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.
 33. Permission for the drawl of water of 37 m³/day from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
 34. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
 35. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
 36. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
 37. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
 38. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
 39. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
 40. Disaster Management Plan including risk assessment & damage control needs to be addressed and included. Landslide hazard map and mitigation plan, Earthquake history and management plan should be submitted.
 41. Action plan for solid/hazardous waste generation, storage, utilization and disposal should be covered.
 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. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
- e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.

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 should be detailed in the EIA report.
44. Total capital cost and recurring cost/annum for environmental pollution control measures.
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.

B. Additional TOR

1. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance by the Regional Office of the Ministry of Environment and Forests and latest Consent to Operate for the ongoing / existing operation of the project by SPCB.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

The following general points should be noted:

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

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

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

24.6.7 Expansion of Active Pharmaceutical Ingredient (APIs) in Existing Unit at Survey No. 119, 120 & 121, At & Post village Panelav, Tehsil Halol, district Panchmahal, Gujarat by M/s Alembic Pharmaceuticals Limited (API Unit – I)-reg. TOR

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

M/s Alembic Pharmaceutical Limited (API Unit-I) have proposed for expansion of Active Pharmaceutical Ingredient (APIs) in Existing Unit at Survey No. 119, 120 & 121, At & Post village Panelav, Tehsil Halol, district Panchmahal, Gujarat. Total plot area is 68530.26 m², of which greenbelt will be developed on 24000 m² (i.e. 35% of total area). Total cost of project including cost of existing unit is Rs. 71.22 crore. Out of this, Rs. 4.32 crore is earmarked for environment management system. As per submission by the PP, no forest land and protected area is involved within 5 km radius of the unit. A river named Vishwaitri is flowing about 1 km distance from the project site. No court case is pending against the project. Following products will be manufactured:

Sr. No.	Product	Existing (MT/M)	Proposed (After Expansion) (MT/M)
1	Clarithromycin	25	75
2	Azithromycin		
3	Roxythromycin		
4	Venlafaxine		

5	Fenofibrate		
6	Irbesartan		
7	Valsartan		
8	Telmisartan		
9	Clonidine Hydrochloride		
10	Modafinil		
11	Leflunomide		
12	Alendronate Sodium		
13	O Desmethyl Venlafaxine		
14	Meprobamate		
15	Vildagliptin		
16	Rivastigmine Tartrate		
17	Topiramate		
18	Lacosamide		
19	Pramipexole Dihydrochloride Monohydrate		
20	Olmesartan Medoxomil		
21	Linezolid		
22	Lercanidipine Hydrochloride		
23	Fluxetine Hydrochloride		
24	Deferasirox		
25	Ropinirole Hydrochloride		
26	Hydrochlorothiazide		
27	Lamotrigine		
28	Metoprolol Tartrate		
29	Metoprolol Succinate		
30	Quetiapine Fumarte		
31	Pentosan Polysulphate Sodium		
32	Levetiracetam		
33	Famotidine		
34	Memantine HCL	0	
35	Pregabalin		
36	Ivabradine		
37	Azilsartan		
38	Etoricoxib		
39	Derifenacin		
40	Celecoxib		
41	Rabeprazole Sodium		
42	Clopidogrel Bisulfate		
43	Felodipine		
44	Prasugrel Hydrochloride		
45	Mexiletine Hydrochloride		
46	Warfarin		
47	Bazedoxifene		
48	Bosentan		
49	Febuxostate		
50	Dronedarone		
51	Dabigatran		
52	Rivaroxaban		
53	Asenapine		
54	Silosodine		
55	Zolmitritan		
56	Iloperidone		

57	Agomelatine		
58	Ticagrelor		
59	Metaxalon		
60	Vilazodone Hydrochloride		
61	Teriflunomide		
62	Nisoldipine		
63	Fesoterodine Furmarate		
64	Minodronic acid		
65	Erlotinib		
66	Gefitinib		

Total Water requirement from ground water source will be 397.5 m³/day. Industrial effluent generation will be 245 m³/day, which is proposed to be segregated into high COD/TDS and low COD/TDS effluent stream. High COD effluent will be neutralized, treated through solvent stripper and multi effect evaporator and then incinerated. Total power of 54225 KWH/day after expansion will be purchased from MGVCL. Also DG set of 750 KVA (1 no. existing and 1 no. additional proposed) for emergency power back up. Agro-waste/Briquettes , coal, HSD and LDO will be used as fuel. Emissions from boilers and incinerator will be connected to stack of adequate height. Bag filter shall be proposed to connect with boiler as air pollution control device. Flue gases from incinerator will be passed through alkali scrubber before release. Various streams of Hazardous waste will be generated as ; used oil, spent solvent, process residue, spent carbon & hyflow, spent mother liquor, discarded drum, ETP sludge and incineration ash which is proposed to be stored and managed as per norms of hazardous waste (management & Handling) Rules. Unit informed that environmental clearance was obtained for the existing unit.

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

A. Standard TOR:

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.

17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of total 397.5 m³/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged. Efforts shall be made to reduce ground water drawl.
27. Action plan for 'Zero' discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
33. A copy of 'Memorandum of Understanding' (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
35. 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.
36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
39. 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.
40. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.

- ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
41. Socio-economic development activities should be in place.
 42. Note on compliance to the recommendations mentioned in the CREP guidelines.
 43. 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.
 44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
 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.

B. Additional TOR

1. A separate chapter on status of compliance of Environmental Conditions earlier granted by 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. Public hearing to be conducted by SPCB and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
46. A tabular chart with index for point wise compliance of above TORs.
47. The following general points shall be noted:
- i. All documents shall be properly indexed, page numbered.
 - ii. Period/date of data collection shall be clearly indicated.
 - iii. Authenticated English translation of all material provided in Regional languages.
 - iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
 - v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
 - vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
 - vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

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

Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

24.6.8 Proposed Expansion of Active Pharmaceutical Ingredient & Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No 137, 144P & 145P, village Panelav, Tehsil Halol, District Panchmahal, Gujarat by M/s Alembic Pharmaceuticals Limited (API Unit-II). Reg. TOR

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

M/s Alembic Pharmaceutical Limited (API Unit-II) have proposed for expansion of Active Pharmaceutical Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No 137, 144P & 145P, village Panelav, Tehsil Halol, District Panchmahal, Gujarat Total plot area is 37332 m², of which greenbelt and other forms of greenery will be developed on 20194 m² (i.e. 54% of total area). Total cost of project including cost of existing unit is Rs. 32 crore. Out of this, Rs. 2.68 crore is earmarked for environment management system. As per submission by the PP, no forest land and protected area is involved within 5 km radius of the unit. A river named Vishwaitri if flowing about 1 km distance from the project site. No court case is pending against the project. Following products will be manufactured:

Sr. No.	Product	Existing capacity (MTPA)	Proposed After expansion (MTPA)
1.	Candesartan Cilexetil	5	300
2.	Celecoxib	12	
3.	Irbesartan	2	
4.	Losartan Potassium	12	
5.	MEF Chloride	6	
6.	Moclobemide	2	
7.	Olmesartan	2	
8.	Ropinorole	3	
9.	Valsartan	3	
10.	Bupropion Hydrochloride	-	
11.	Etoricoxib	-	
12.	O Des Venlafaxine S	-	
Total		47	300

Total Water requirement from ground water source will be 70.8 m³/day. Industrial effluent generation will be 30.5 m³/day. High COD effluent will be neutralized, treated through cascade chamber and allowed for settling and then pass through multi effect evaporator. Residue store separately then sent for incineration. Total power of 600 KWA after expansion will be purchased from MGVCCL. Also one DG set of 750 KVA will be kept for emergency power back up. Furnace oil, HSD will be used as fuel. Emissions from boilers will be connected to stack of adequate height. Ventury type alkali scrubber shall be installed to connect with boiler as air pollution control device. Various streams of Hazardous waste will be generated as ; used oil, spent solvent, process residue, spent carbon, spent mother

liquor, discarded drum and ETP sludge which is proposed to be stored and managed as per norms of hazardous waste (management & Handling) Rules. Unit informed that environmental clearance was obtained for the existing unit.

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

A. Standard TORs

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of total 70.8 m³/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged. Efforts shall be made to reduce ground water drawl.

27. Action plan for 'Zero' discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
33. A copy of 'Memorandum of Understanding' (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
35. 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.
36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
38. An action plan to develop green belt in 54% area. Layout plan for green belt shall be provided.
39. 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.
40. Details of occupational health programme.
 - i. To which chemicals, workers are exposed directly or indirectly.
 - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii. What measures company have taken to keep these chemicals within PEL/TLV.
 - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v. What are onsite and offsite emergency plan during chemical disaster.
 - vi. Liver function tests (LFT) during pre-placement and periodical examination.
 - vii. Details of occupational health surveillance programme.
41. Socio-economic development activities should be in place.
42. Note on compliance to the recommendations mentioned in the CREP guidelines.
43. 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.
44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
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.

B. Additional TOR

1. A separate chapter on status of compliance of Environmental Conditions earlier granted by 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. Public hearing to be conducted by SPCB and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

The following general points shall be noted:

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

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

24.6.9 Exploratory drilling and seismic survey of four (4 wells) in Block CB-ONN-2010/5 located at Patan and Mehsana districts, Gujarat by M/s Pan India-reg. TOR.

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

24.6.10 Proposal for synthetic organic chemicals industry (dyes & dye intermediates) at Plot No. 54P & 72P, Village Chiksugur, Tehsil Devadurga, District Raichur, Karnataka by M/S Vega Life Sciences Pvt.ltd- reg. TOR

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

24.6.11 Grass Root Refinery cum Petrochemical Complex(15 MMTPA) for unloading Crude Oil at Paradeep, Village Abhaychandrapur, Tehsil Kujang, District Jagatshingpur, Orissa by M/s IOCL-Amendment in Environmental Clearance to include rapid Rail Loading System (RRLS) for Pet Coke Evacuation and Minor revision in Secondary Unit Capacities without affecting the product mix.

MoEF vide letter no J-11011/70/2007 IA II (I) dated 6th June, 2007 has granted environmental clearance for Grass Root Refinery cum Petrochemical Complex(15 MMTPA) for unloading Crude Oil at Paradeep, Village Abhaychandrapur, Tehsil Kujang, District Jagatshingpur, Orissa. MoEF vide letter dated 18th September, 2014 has granted extension for validity of environmental clearance for five years w.e.f. 6.7.2012. Now, PP vide letter dated 22nd July, 2014 has informed that Unit has decided to install a rapid and environment friendly evacuation system for petcoke from the refinery. Accordingly, Rapid Rail Loading System has been envisaged which will evacuate 1.3 MMTPA pet coke through conveyor system from refinery's delayed coking unit and coke storage area to silos at RRLS from where petcoke shall be transported through railway rakes. With this proposed project, dispatch of petcoke through truck loading will be minimized thereby reducing the air pollution caused by vehicular emissions.

The grass roots refinery at Paradip is in advanced stage of completion. In order to have flexibility for processing of wide range of crude oils, some of the secondary unit capacities got marginally changed although the basic process configuration and overall refinery product pattern will remain same. NOC for the same has already been obtained from Orissa Pollution Control Board vide letter no. 12048/Ind-II- NOC-4600 dated 25th June, 2012. PP informed that after change in the project configuration, SO₂ emission will be within 1000 Kg/hr and effluent discharge within 8400 m³/day. Change in the plant configuration is as given below:

S.N.	Unit of Paradeep Refinery Project	Capacity as per EC dated 6 th July, 2007	Revised Capacity
Refinery Units			
1	Crude & Vacuum & Unit (AVU), MMTPA	15.0	15.0
2	Delayed Coker Unit, MMTPA	4.1	4.1
3	Diesel Hydro Treating Unit, MMTPA	5.8	5.2
4	VGO Hydro Treating Unit, MMTPA	5.2	5.4
5	Fluidised Catalytic Cracking Unit, MMTPA	3.9	4.2
6	Sulphur Recovery Unit, TPD	(2 + 1) x 450 TPD of Sulphur	2 x 525 TPD + 1 TGTU
7	Hydrogen Plant, TMTPA	Capacity not mentioned in the EC	72.8 (Hydrogen)
8	Various Treating Units	---	--
9	Alkylation Unit, TMTPA	500	650
Petro-chemical Units			
10	Polypropylene Unit, TMTPA	2x340	2x340
11	Para-Xylene Unit (Naphtha Hydrotreating Unit, Continuous Catalytic Reformer, Reformate Splitter Unit (I & II), Xylene Isomerisation Unit (2 trains) Parex	1200 TMTPA of Paraxylene	1200 TMTPA of Paraxylene

	Unit Capacity (2 Trains), Silfolane Extraction Unit, Benzene/ Toluene Factionation Unit, Tatoray Unit		
12	Ethyle Benzene and Styrene Monomer, TMTPA	600	631
13	Captive Power Plant and cooling Tower	Capacity not mentioned in the EC	GT with HRSG(3 x 102 MW) STG (2 x 30 MW), UB (4 x 300 T/Hr.) standby GT with HRSG of 1 x 30 MW (366 MW , 1200 TPH)
	Details of the treating and Other Unit Capacities		
	LPG Treater, TMTPA		210
	LPG Treater (Cracked LPG), TMTPA		1850
	LPG Treater (Coker LPG), TMTPA		165
	ATF (Merox), TMTPA		1200
	SWS-I + SWS-II, m3/hr		227 + 398 = 625
	ARU – Rich Amine Circulation Rate, m3/hr		1x454.6 + 1 x 898.5 = 1353
	Para- Xylene Unit, TMTPA -Naphtha Hydrotreating Unit, TMTPA -Continuous Catalytic Reformer, TMTPA -Reformate Splitter Unit (I & II), TMTPA -Xylene Isomerization Unit (2 Trains), TMTPA -Parex Unit capacity (2 trains), TMTPA -Sulfolane Extraction Unit, TMTPA - Benzene / Toluene Factionation Unit, TMTPA Tatoray Unit TMTPA	1200	1200 3941 2990 Part of Reformer 4246 (Isomerase) 1200 PX 963 Part of Sulfolane Unit 2183
	Proposed Facility		
	Pet Coke Evacuation through Rapid Railway Loading System (RRLS), MMTPA	--	1.3

The Committee noted that there is no change in overall production capacity and throughput. There is change in secondary pattern and yield improvement. There is reduction in the vehicular traffic, SO₂ emission, NO_x emission and fugitive emissions. The Committee exempted the project from EIA/EMP report preparation and public hearing as per section 7

(ii) of EIA Notification, 2006. After detailed deliberations, the Committee recommended for the amendment in the EC for as referred above subject to the specific and general environmental conditions.

24.6.12 Laying of Ennore-Trichy-Madurai LPG Pipeline by M/s IOCL – reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. oil and gas transportation pipeline (crude and refinery/petrochemical products), passing through national parks/sanctuaries./coral reefs /ecologically sensitive areas including LNG Terminal is listed at S.N. 6(a) under category 'A' and appraised at Central level.

M/s IOCL has proposed for laying of Ennore-Trichy-Madurai LPG Pipeline for feeding of bottling plants at Chengalpet, Pondicherry, Trichy and Madurai. The LPG received at Ennore will be transport to these bottling plants through Ennore-Trichy-Madurai LPG Pipeline of IOCL. It envisage considerable savings if a LPG pipeline system put in place from Ennore to Trichy and Madurai to substitute road movement. It will also lead to decongestion of road. Most environmental friendly and energy saving mode of transport. The length of the Pipeline will be 615 Km approx. the proposed pipeline passes through state Tamil Nodu and Union Territory of Pondicherry. The proposed pipeline from Ennore would follow an independent route for approximately 30 km, where it would meet existing right of way (RoW) of Chennai-Trichy-Madurai pipeline (CTMPL). Ennore-Trichy-Madurai LPG pipeline system broadly involves the following activites.

1. Installation of 2 booster pumps and 3 motor-driven mainline pumping units with variable frequency drive at Ennore
2. Scrapper Facilities at T-point locations for branches to Pondicherry and Trichy bottling plants
3. Laying of 10.75" OD x 0.25" WT, 419 km pipeline from Ennore to T-point location for Trichy bottling plant
4. Laying of 8.625" OD x 0.25" WT, 55 km pipeline from T-point to Pondicherry
5. Laying of 8.625" OD x 0.25" WT, 19 km pipeline from T-point to Trichy
6. Laying of 8.625" OD x 0.25" WT, 122 km pipeline from T-point location for Trichy to Madurai
7. Installation of delivery Facilities at Chengalpet, Pondicherry, Trichy and Madurai.

The pipeline has been designed for a capacity of 0.9 MMTPA with 2 shift operation per day basis under heart cut operation philosophy. Additional demand/ increase in throughput requirements in the future would be met either by operating the third shift and / or augmentation of the pipeline system. Cost of project is Rs. 711 Crore. Pipe of higher wall thickness are envisaged to be laid across rivers, water courses etc. At rail and road crossings, where casing pipe would be provided, the pipe wall thickness would remain same as that for the main pipeline. Pipeline will cross 21 Rivers crossing in Tamil Nadu and Puducherry. The proposed pipeline routs passes alongside of Karikili (1.5 km), Vedanthangal (2.25 km) bird sanctuaries in Kancheepuram (Tamil Nadu) and Osudu Bird Sanctuary (5. 17 Km) in Pondicherry. Proposed pipeline passes through 9 districts. But the Committee was of the view that public hearing should be conducted in three districts only from where it passes through protected area.

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

A. Standard TOR:

1. Justification of the project
2. Route map indicating project location
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Recommendation of SCZMA /CRZ clearance for the proposed pipeline.
8. Present land use based on satellite imagery for the study area of 10 km radius.
9. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
10. Process Description along with Process Flow Diagram.
11. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
12. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
13. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
14. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
15. At total of 30 locations, ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM10, SO₂, NO_x, CO, HC, VOC for one season (Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
16. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
17. At about 10 locations, water monitoring will be conducted including surface & ground water for one season (Non Monsoon)
18. At 15 locations, Soil sample analysis within the study area for one season (Non Monsoon).
19. At 30 locations, noise Monitoring will be taken up for one season (Non Monsoon)
20. Demography & socio-economics of the study area.
21. Ecological features (terrestrial & Aquatic) of the study area for one season (Non Monsoon)
22. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
23. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
24. Details of proposed preventive measures for leakages and accident.
25. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.
26. Corrosion Management of Pipeline
27. Details of proper restoration of land after laying the pipelines.
28. Details of proposed Occupational Health Surveillance program for the employees and other labour
29. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.

30. Public hearing to be conducted in three districts through which the pipeline passes. Pointwise comments/reply to the issues raised during Public Hearing / Public Consultation

D. Additional TOR:

1. Permission from the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980) for the forestland should be submitted.
2. Since the project falls within 10km of Vedanthankal lake Bird Sanctuary, Karikili Bird Sanctuary and Ussudipi Bird sanctuary, a copy of application submitted to Standing Committee of the NBWL for Wildlife clearance shall be furnished.
3. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the respective State Pollution Control Boards for public hearing in three districts. The issues emerged and response to the issues shall be incorporated in the EIA report.

24.6.13 Proposal for manufacturing of Bulk Drugs and its Intermediates Manufacturing unit (300TPA) at Sy. Nos. 21/A & 21 AA, Village Mambapur, Tehsil Jinnaram, District Medak, Telangana by M/s. MSN Life Sciences Pvt. Ltd., (formerly known as M/s. Vijeta Life Sciences Pvt. Ltd.)- reg. TOR

The unit at first instance to get the name change from M/s. Vijeta Life Sciences Pvt. Ltd., to M/s. MSN Life Sciences Pvt. Ltd., for which PP already attended the 17th EAC meeting for ToR on 18th March 2014.

In the above background, the project proponent did not attend the meeting. The Committee decided to consider the proposal after change of name.

24.6.14 Greenfield Manufacturing Facility of H-Acid, Intermediates and Reactive Dyes at UPSIDC Industrial Area, Village: Kosi Kotwan, District: Mathura, Uttar Pradesh by M/s S P S Processors (P) Limited- reg. TOR

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

24.6.15 Expansion of Distillery capacity from 100 KLPD to 250 KLPD with associated 5 MW Power at plot/survey no. 294, 295, Village Asmoli, Tehsil Sambhal, District Moradabad, Uttar Pradesh by M/s Dhampur Sugar Mills Limited Unit- reg. TOR

The project proponent 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 Terms of References (ToR) for the preparation of EIA/EMP report. During presentation the Committee observed that technology proposed by PP is not

as per the CPCB guidelines and documents submitted to the committee are different from the presentation. After detailed deliberations, the Committee desired, at first instance, to have spot assessment of existing unit and propose for the site visit of sub-committee of EAC. Prior to this following additional information are sought from the proponent for reconsideration:

- i. Submission of revised From-1 incorporating full details of existing units with copies of Environmental Clearance, Consent to Establish and latest Consent to Operate.
- ii. A copy of Environmental Clearance along with certified compliance report of the existing unit from the Regional Office of MoEF, if any.

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

24.6.16 Expansion of Distillery Capacity from 200 KLPD to 350 KLPD and 3.0 MW Power at Plot /Survey no. 1396 F, Village Allehapur, Tehsil Dhampur, District Bijnor , Uttar Pradesh by M/s Dhampur Sugar Mills Dhampur - reg. TOR

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

24.6.17 Proposed Grain based Distillery (60 KLD) at J.L. No. 104 & 105, Village Basudevpur, Tehsil (Block) Kulpi, District 24 Paraganas (South), West Bengal by M/S Transways Exim Pvt. Ltd.- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP. All the grain based Distillery Units are listed at S.N. 5(g) under Category 'A'.

M/s Transways Exim Pvt. Ltd. has proposed for setting up of Grain based Distillery at J.L. No. 104 & 105, village Basudevpur, Tehsil Kulpi, District 24 Paraganas (South), West Bengal by M/S Transways Exim Pvt. Ltd. Total plant area is 13 acre. No additional land is required for expansion. Project cost is Rs. 120.82 Crore. River Hoogly is flowing at a distance of 2km from project site. No national park/wildlife, wetlands, sanctuaries/bird sanctuaries are located within 10 Km distance. Following products will be manufactured:

Product	Quantity
ENA/Ethanol/Industrial Alcohol	60 KLD

Total quantity of 550 KLD of ground water will be used. About 2140 KWH of power will be purchased from WBSEDCL. Distiller dried grains and soluble so generated as bye-product will be sold as animal feed. ETP sludge will be used as land filling. Septic tank sluge will be disposed of in consultation with Local Municipality.

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

A. Standard TOR:

1. Executive summary of the project.
2. Detailed break-up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.

4. Details of site and information related to environmental setting within 10 km radius of the project site.
5. A copy of lease deed or allotment letter, if land is already acquired.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material, if any.
8. Details of proposed products alongwith manufacturing capacity.
9. Number of working days of the distillery unit.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Details of raw materials, its source & availability of all raw materials including cereal grains requirement.
12. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO₂ emission. Stack height should be based on maximum sulphur content in the coal. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
14. Action plan to control ambient air quality as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009.
15. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
17. An action plan to control and monitor secondary fugitive emissions from all the sources.
18. Details of the use of steam from the boiler.
19. Storage facility for raw materials, prepared alcohol, fuel and fly ash. Quantity of DGGs formed.
20. Ground water quality around proposed spent wash storage lagoon and the project area.
21. Details of water requirement, water balance chart for grain based Distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
22. Fresh water requirement should be restricted upto 10 KI/KI of alcohol for grain based distillery.
23. Permission of withdrawal of water from competent authority
24. Ground water quality around proposed spent wash storage lagoon and the project area.
25. Details of water requirement, water balance chart for grain based Distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
26. Fresh water requirement should be restricted upto 10 KI/KI of alcohol for grain based distillery
27. Proposed effluent treatment system for grain based distillery (spent wash and spent lees) alongwith utility wastewater including CPP and scheme for achieving zero discharge.
28. Spent wash generation should not exceed 6 KL/KL of alcohol production. Details of the spent wash treatment for grain based distillery based distillery.
29. Capacity for spent wash holding tank and action plan to control ground water pollution.

30. Dryer shall be installed to dry DWGS.
31. Layout for storage of rice husk/biomass.
32. Details of solid waste management including management of boiler ash.
33. Green belt development as per the CPCB guidelines.
34. List of flora and fauna in the study area.
35. Noise levels monitoring at five locations within the study area.
36. 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.
37. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
38. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
39. Alcohol storage and handling area fire fighting facility as per norms.
40. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
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 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.
 - vii) Details of occupational health surveillance programme.
43. Details of socio-economic welfare activities.
44. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
45. Action plan for post-project environmental monitoring.
46. 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.
47. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
48. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

B. Additional TOR:

1. Confirmation from Irrigation and Flood Control Department regarding project location does not fall in the flood zone of Hoogly River to be submitted.
2. Public hearing to be conducted by SPCB and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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

24.6.18 Proposed Pilot scale plant for manufacturing of 300 KG/D Zinc Poly Phosphate (Smart Zinc) in existing unit at Village Durgachak, District East Medinapur, West Bengal by M/S Tata Chemicals Ltd.- reg. TOR

The project proponents and their consultant (M/s Aqua Air Environment Engineers Pvt. Ltd.) 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 Chemical Fertilizer Industry located outside the notified industrial area/estate are listed at S.N. 5(a) under category 'A'. and appraised at Central level.

M/s Tata Chemicals Limited have proposed for setting up of pilot scale plant for manufacturing of 300 KG/D Zinc Poly Phosphate (Smart Zinc) in existing unit at Village Durgachak, District East Medinapur, West Bengal. During presentation, the Project Proponent has described about pilot project. Capital cost of the pilot project is 37 lakh. The proposed project is located at existing plant, situated at Haldia industrial complex which was earlier covered under critically polluted area. Hoogly river is flowing about 1.5km from the project side. No eco sensitive zone, wildlife sanctuary except critically polluted area is located within 5km radius from the project. No court case is pending against the existing unit.

Domestic solid and liquid waste will be treated in the existing ETP (capacity 100kl/d). The waste oil and lubricants from the proposed zinc polyphosphate during operational phase will be stored at identified place and sent to authorize recycler. Emission from the process as CO₂ and fluoride will be scrubbed dilute caustic solution and transferred to SAP plant. No liquid discharge is generated except discharge of treated sewage. PP informed that existing unit was established in 1998 for manufacturing of DAP/NPK. This project do not require EC from Centre because project cost was less than 50 Crore. Further the Unit had obtained NOC from EB SPCB for expansion well before EIA Notification, 2006 came into force. Therefore, It did not require EC from Centre.

The Committee after deliberation noted that the pilot project for establishing project is for studying the application of products as per the notification issued by the Ministry of Agriculture. The Committee, therefore, exempted the preparation of EIA-EMP report alongwith Public hearing as per para 7 (ii) of EIA Notification, 2006 due to pilot scale of the project and in compliance of notification dated 16 August, 2013 issued by Ministry of Agriculture in respect of provisional fertilizer zinc polyphosphate to be manufactured in India for period of two year from the date of publication.

Annexure -1 titled “ TOR for Fertilizer Unit”

- 1 Executive summary of the project
 - 2 Justification of the project.
 - 3 Promoters and their back ground.
 - 4 Regulatory framework
 - 5 A map indicating location of the project and distance from severely polluted area
 - 6 Project location and plant layout.
 - 7 Infrastructure facilities including power sources.
 - 8 Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
 - 9 Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
 - 10 Present land use based on satellite imagery for the study area of 10 km radius.
 - 11 Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
 - 12 Details of the total land and break-up of the land use for green belt and other uses.
 - 13 Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the UPPCB alongwith point-wise compliance report.
 - 14 List of products alongwith the production capacities and list of solvents and its recovery plan.
 - 15 Detailed list of raw material required and source, mode of storage and transportation.
 - 16 Availability of the raw materials e.g. gas
 - 17 Policy regarding Neptha use. Quantity to be used.
 - 18 A note on the viability of the project in absence of non availability of gas.
 - 19 Details of the existing fertilizer plant.
 - 20 Manufacturing process details alongwith the chemical reactions and process flow chart.
18. Action plan for the transportation of raw materials and products.
19. Ambient air quality monitoring and stack emission data for the relevant parameters including PM₁₀, PM_{2.5}, SO₂, NO_x, CO, NH₃, HC (Methane and Non-methane), Urea and VOCs for all the stacks for the existing fertilizer plant.

20. Data for surface and ground water, treated effluent quality data, noise pollution and solid waste management for the existing plant should also be included.
21. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
22. Plant-wise air pollution control measures proposed for the control of emissions from all the sources particularly uncontrolled NO_x emission and method to control NO_x.
23. Name of all the solvents to be used in the process and details of solvent recovery system.
24. Details of water and air pollution and its mitigation plan.
25. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
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. Details of water requirement for existing and proposed expansion. Water balance chart including water intake, effluent generated, recycled and reused and discharged is to be provided.
29. Action plan to reduce fresh water requirement. Methods adopted/to be adopted for the water conservation should be included.
30. 'Permission' for the drawl of existing and proposed water requirement from the Competent authority.
31. Design details of the ETP and STP as well as air pollution control equipments (Bag filters/ wet scrubber etc.). Installation of Continuous TOC analyzer to holding tank before discharge of effluent.
32. Action plan for 'Zero' discharge of effluent should be included.
33. Ground water monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
34. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
35. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
36. Plan for the implementation of the recommendations made for the fertilizer plants in the CREP guidelines must be prepared and included.

37. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
38. An action plan to develop green belt in 33 % area
39. 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.
40. Occupational health of the workers needs elaboration including evaluation of noise, heat, illumination, dust, any other chemicals, metals being suspected in environment and going into body of workers either through inhalation, ingestion or through skin absorption and steps taken to avoid musculo-skeletal disorders (MSD), backache, pain in minor and major joints, fatigue etc. Occupational hazards specific pre-placement and periodical monitoring should be carried out.
41. Socio-economic development activities should be in place.
42. 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.
43. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
44. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
45. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

**LIST OF PARTICIPANTS OF EAC (I) IN 24TH MEETING OF EAC (INDUSTRY) HELD ON
29TH - 30TH SEPTEMBER 2014**

S.N.	Name		
1	Shri M. Raman	Chairman	A
2	Shri R.K. Garg	Vice-Chairman	P
3	Prof. R.C. Gupta	Member	A
4	Dr. Prem Shankar Dubey	Member	A
5	Dr. R.M. Mathur	Member	A
6	Dr. S. K. Dave	Member	P
7	Dr. B. Sengupta	Member	P
8	Shri Rajat Roy Choudhary	Member	A
9	Dr. S.D. Attri	Member	A
10.	Dr. Antony Gnanamuthu	Member	P
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjan Raghunath Raje	Member	P
MOEF Representatives			
13.	Shri Lalit Bokolia	Additional Director & MS	
14.	Shri A.N.Singh	Joint Director	

