

**FINAL MINUTES FOR 44<sup>th</sup> RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 20-21<sup>st</sup> July, 2015**

**VENUE:** Brahmputra Hall, Vayu Wing Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi -110003.

**Time : Meeting to be held at 10: 00 AM**

**44.1** Opening Remarks of the Chairman

**Time : 10: 00 - 10: 30 AM**

**44.2** Confirmation of the Minutes of the 42<sup>nd</sup> Reconstituted Expert Appraisal Committee (Industry-2) held during 16-17<sup>th</sup> June, 2015.

**20<sup>th</sup> July, 2015 (Day 1)**

**1<sup>st</sup> Session: Time: 10.30 AM**

**44.3 Environmental Clearance**

**44.3.1 Setting up of Resin Manufacturing Unit (130 TPM) at Plot no. 19, Sy. No. 52/P, Village Hadamtala, Taluka Kotda Sangani, District Rajkot, Gujarat by M/s Shri Sai Nath Décor Ltd. – EC reg**

The project proponent and their consultant (M/s Nisarg Enviro Consultants, Stay order no. C/SCA/12466/2013 dated 07/08/2013) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 14<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 19<sup>th</sup> to 20<sup>th</sup> December, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Shri Sai Nath Décor L.L.P has proposed for setting up of resin manufacturing unit at Plot no. 19, Sy. No. 52/P, Village Hadamtala, Taluka KotdaSangani, District Rajkot, Gujarat. Total plot area is 1465 m<sup>2</sup>, of which greenbelt will be developed in 198 m<sup>2</sup>.It is reported that no eco-sensitive area/ reserved forest/ wild life sanctuary is located within 10 km distance from the project site. The cost of project is Rs. 5.0 crore in which Rs. 15.4 Lakh and Rs. 0.95 Lakh are earmarked as capital cost and recurring cost per annum for implementation EMP respectively. Following products will be manufactured:

S.N.	Product	Production Capacity (TPM)
1	Phenol Formaldehyde	90
2	Melamine Formaldehyde	40

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during May, 2014 & November, 2014 and submitted baseline data which indicates that ranges of concentrations of PM<sub>10</sub> (39 µg/m<sup>3</sup> to 74 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18 µg/m<sup>3</sup> to 42 µg/m<sup>3</sup>), SO<sub>2</sub> (4 µg/m<sup>3</sup> to 19ug/m<sup>3</sup>), NOx (6 µg/m<sup>3</sup> to 22 µg/m<sup>3</sup>) and CO (648-1020 ug/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.6 µg/m<sup>3</sup>, 8 µg/m<sup>3</sup> and 2.9 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NOx. The resultant concentrations are within the NAAQS.

Multi-cyclone followed by bag filter will be provided to coal (imported) fired boiler to control particulate emissions. DG set (250 KVA) will be installed. Total water requirement will be 46.5 m<sup>3</sup>/day. Out of which, fresh water requirement from ground water source will be 15 m<sup>3</sup>/day. Industrial effluent generation will be 1.2 m<sup>3</sup>/day. Industrial effluent from resin unit will be passed through phenol recovery technologies based on resin adsorption followed by multiple effect evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to cement plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 7<sup>th</sup> November, 2014. The issues were raised regarding local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Multicyclone followed by bag filter or ESP alongwith stack of adequate height should be provided to imported coal fired boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 15 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be passed through phenol recovery technologies based on resin adsorption followed by multiple effect evaporator to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 198 m<sup>2</sup> area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 7<sup>th</sup> November, 2014 should be satisfactorily implemented and a

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

- xi) At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

#### **44.3.2 Proposed grain based Distillery (120 KLPD) along with Cogeneration Power Plant (3.5 MW) at Village Dhudhua, Tehsil Jandaha, District Vaishali, Bihar by M/s Globus Spirit Ltd. – EC regarding**

The project proponent and their consultant (M/s J M Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 13<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry-2) held during 18<sup>th</sup> to 20<sup>th</sup> November, 2013 for preparation of EIA-EMP report. Non Molasses based Distillery Units (60 KLPD and above) are listed at S.N. 5(g) (ii) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised at the Central level.

M/s Globus Spirits Limited have proposed for setting up of Grain based Distillery (120 KLPD) along with Co-Generation Power Plant (3.5 MW) at Village Dhudhua, Tehsil Jandaha, District Vaishali, Bihar. Total plot area is 25 acres. Out of which, greenbelt will be developed in 8.25 acre of land. Cost of project is Rs. 110 Crore. Out of which, Rs. 15 Crore and Rs. 1.5 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that no national parks/biosphere reserves/wild life sanctuaries are located within 10 Km distance. Nearest water bodies are Beli Tal (2.5 Km), Baya River (3.5 Km), SalahChaur (4.5 Km), HariyaCahur (5.2 Km), Ghaghra Nadi (6 Km). Total no of working days of distillery is 330 days per annum. During presentation, PP has requested to increase the working days of distillery from 330 days to 350 days.

Ambient air quality monitoring was carried out at 7 locations during December, 2013–February, 2014 and submitted data indicates as PM<sub>2.5</sub> (25.6– 37.4 ug/m<sup>3</sup>), PM<sub>10</sub> (57.1–84.8 ug/m<sup>3</sup>), SO<sub>2</sub> (6.3 – 10.4 ug/m<sup>3</sup>) and NO<sub>x</sub> (13.8-20.1 ug/m<sup>3</sup>). Predicted value of ground level concentration is estimated as PM<sub>10</sub> (0.88ug/m<sup>3</sup>), SO<sub>2</sub> (3.91ug/m<sup>3</sup>) and NO<sub>2</sub> (<0.5ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. ESP alongwith stack of adequate height will be provided to coal/rice husk fired boiler to control particulate matter. Total fresh water requirement from ground water source will be 1205 m<sup>3</sup>/day. Spent wash will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. No effluent will be discharged outside the plant premises and zero effluent discharge will be followed. Process condensate will be treated and recycled into process. DDGS will be used as cattle feed. Fly ash will be used for brick manufacturing and cement manufacturing. The ash collected from ESP will be sent to Silos where there will be loading arrangement with adequate enclosure system at least from three sides. All the roads will be asphalted.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Bihar State Pollution Control Board on 19<sup>th</sup> November, 2014. The issues were raised regarding local employment, supply of excess electricity to the village, pollution control management etc. The Committee was satisfied and found reasonable response from the PP.

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

- i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.
- ii. ESP alongwith stack of adequate height shall be provided to husk/coal fired boiler to control particulate emission within 50mg/Nm<sup>3</sup>.
- iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iv. Total fresh water requirement from ground water source/ surface water supply shall not exceed 1200 m<sup>3</sup>/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- v. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate will be treated in the ETP comprising neutralization and filtration (UF + RO). Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.
- vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring shall be carried out for parameters required for drinking water purposes.
- ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- x. Coal storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xi. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- xii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be

strengthened and the regular medical test records of each employee shall be maintained separately.

- xiii. Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv. As proposed, Green belt of 8.25 acre should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 19<sup>th</sup> November, 2014 shall be satisfactorily implemented.
- xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Ranchi. As informed, activities to be emphasized on sanitation, education and medical facilities of the area. Implementation of such program shall be ensured accordingly in a time bound manner.

**44.3.3 Resin Manufacturing Unit (130 MTPM) at Sy. No. 898/p, Village Susvas, Tehsil Ishwarnagar, District Surender nagar, Gujarat by M/s Parikshit Laminate Pvt. Ltd.-reg. EC**

The project proponent and their consultant (M/s Nisarg Enviro Consultants, Stay order no. C/SCA/12466/2013 dated 07/08/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 15<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 30<sup>th</sup> January, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Parikshit Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit (130 MTPM) at Sy. No. 898/p, Village Susvas, Tehsil Ishwarnagar, District Surendernagar, Gujarat. Total plot area is 10522 m<sup>2</sup>. Cost of project is Rs. 6 crores. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S.N	Products	Production Capacity (MTPM)
1	P F Resin	90
2	M F Resin	40

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (38 µg/m<sup>3</sup> to 66 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14 µg/m<sup>3</sup> to 40 µg/m<sup>3</sup>), SO<sub>2</sub> (3µg/m<sup>3</sup> to 17ug/m<sup>3</sup>)and NOx (9 µg/m<sup>3</sup> to 23 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project

would be 3.0 µg/m<sup>3</sup>, 5.2 µg/m<sup>3</sup> and 1.9 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. Multicyclone followed by bag filter will be provided to imported coal fired boiler to control particulate emissions. DG set (250 KVA) will be installed. Total water requirement will be 46.5 m<sup>3</sup>/day. Out which, fresh water requirement from ground water source will be 15 m<sup>3</sup>/day. Industrial effluent generation will be 1.2 m<sup>3</sup>/day. Industrial effluent from resin unit will be passed through phenol recovery technologies based on resin adsorption followed by multiple effect evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to cement plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 18<sup>th</sup> March, 2015. The issues were raised regarding steps to be taken to control pollution during operation phase and adequate measures to avoid any negative impact on environment due to project etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

Consequent to presentation, the committee observed that there are certain deficiencies in the proposal. Therefore, Committee sought following additional information:

- (i) Meteorological data in respect mixing height to be rechecked.
- (ii) River water quality data in respect of BOD, COD and DO to be reanalyzed by conducting one month sampling.
- (iii) Fluoride and nitrate in the ground water to be rechecked. Source of high nitrate shall be identified.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee found that consultant lack in defining proper monitoring and interpretation of data and accordingly the committee under rated the consultant.

#### **44.3.4 Manufacturing of Synthetic Organic Chemicals at Survey No. 1472, Village & Mandal Vinjamur, District SPSR Nellore, Andhra Pradesh by M/s Hatri Pharma Pvt. Ltd- reg EC .**

The project proponent and their consultant (M/s Team Lab) 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 16<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 20<sup>th</sup> to 21<sup>st</sup> February, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (bulk drugs) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Hatri Pharma Pvt. Ltd. has proposed for setting up of drug manufacturing unit at Sy. No. 1472, Village Vinjamur & Mandal Nellore, District SPSR Nellore, Andhara Pradesh. Total plot area of the site is 7.92 acres of which greenbelt will be developed in 2.6 acres. Cost of project is Rs. 7.5 crore. Out of which, Rs. 2.60 Crore and Rs. 2.21Crore are earmarked towards capital cost and recurring cost per annum for implementation of environment management plan. It is reported that no national park, sanctuary and reserve forest is located within 10 km distance. Vinjamur RF and Yerukollu Gundemadakala RF and Rajavulu Dubangunta RF are located within 10 Km distance. Water bodies such as

NerellaVagu and KaveruVagu are located within 10 km. The following products will be manufactured:

S.N.	Name of the Product	Capacity (TPM)
1	Atorvastatin Calcuim	15
2	Brinzolomide	1.5
3	Canagliflozin	0.9
4	Capacitabine	3
5	Cefsulodine Sodium	6
6	Dabigatran	1.5
7	DapoxetineHCl	1.2
8	DarunavirEthanolate	15
9	Dexlansoprazole	15
10	Diacereine	1.5
11	DorzolamideHCl	1.5
12	Dapagliflozin	0.9
13	Esomeprazole Magnesium	15
14	Irbesartan	9
15	Montelukast Na	22.5
16	Posaconazole	6
17	Quetiapine Fumerate	6
18	Residronate Na	6
19	Telmisartan	22.5
20	Vilazodone	1.5
	<b>Phase I (Worst Case 2 Products on campaign basis)</b>	<b>45</b>
	<b>Phase II (Worst Case 4 Products on campaign basis)</b>	<b>60</b>
	<b>Total (Phase I + Phase II)</b>	<b>105</b>

#### List of Byproducts

Name of the Product	Stage	By-product	Capacity	
			Kg/day	TPM
Cefsulodine Sodium	III	Acetic Acid	25.64	7.69
Dexlansoprazole	I	Sodium L (+) Mandelate	235.72	70.72
Diacerein	I	Sodium Sulphate	51.66	15.50
	II	Propanoic Acid	47.50	14.25
Irbesartan	I	Trityl Chloride	195.21	58.56
Montelukast Na	I	Methane Sulfonic Acid	118.42	35.53
Telmisartan	I	Potassium Bromide	305.18	91.55

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during February to May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (21 µg/m<sup>3</sup> to 42 µg/m<sup>3</sup>), PM<sub>2.5</sub> (13 µg/m<sup>3</sup> to 23 µg/m<sup>3</sup>), SO<sub>2</sub> (6.0 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup>) and NO<sub>x</sub> (9 µg/m<sup>3</sup> to 16 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.095 µg/m<sup>3</sup>, 0.132 µg/m<sup>3</sup> and 0.224 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS.

Multi-cyclone alongwith stack of adequate height will be provided to coal fired boilers (2TPH and 4TPH) in Phase I and Phase II respectively and standby DG set of capacity 500KVA and 1000KVA in Phase I and Phase II respectively. Scrubber will be provided to control process emissions viz HBr, HCl and SO<sub>2</sub>. Total water requirement will be 125.85 m<sup>3</sup>/day of

which, fresh water requirement from ground water source will be 39.55 m<sup>3</sup>/day and remaining water requirement will be met from 40 m<sup>3</sup>/day. Total effluent generation in two phases will be 52.5 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the State Pollution Control Board on 28<sup>th</sup> October, 2014. The issues were raised regarding local employment, installation of pollution control system, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the additional information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Bagfilter or ESP shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii. Scrubber shall be provided to control process emissions viz. HBr, HCl and SO<sub>2</sub>. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from ground water source shall not exceed 40 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.

- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
  - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - Solvents shall be stored in a separate space specified with all safety measures.
  - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. All the issues raised during the Public Hearing/consultation meeting held on 28<sup>th</sup> October, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xiii. As proposed, green belt of 2.65 acre shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

#### **44.3.5 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 EC**

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) 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 24<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 30<sup>th</sup> September, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the 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 m<sup>2</sup> of which 3850 m<sup>2</sup> of area will be developed for green belt. Total 281.4 m<sup>3</sup>/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 MTPM
1.	Formaldehyde	9000
2.	Adhesive	600
3.	Phenol Formaldehyde Resin	3000
4.	Melamine Formaldehyde Resin	3000
5.	Urea Formaldehyde Resin	3000

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 –December, 2013 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (60.36 µg/m<sup>3</sup> to 83.61 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20.60 µg/m<sup>3</sup> to 28.43 µg/m<sup>3</sup>), SO<sub>2</sub> (9.66 µg/m<sup>3</sup> to 13.36 ug/m<sup>3</sup>) and NO<sub>x</sub> (15.30 µg/m<sup>3</sup> to 21.14 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 13.75 µg/m<sup>3</sup>, 0.72 µg/m<sup>3</sup> and 3.34 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal/briquettes fired boiler& Thermic fluid heater to control particulate emissions. DG set (400 KVA) will be installed. Total fresh water requirement from ground water source will be 217 m<sup>3</sup>/day. Industrial effluent generation will be 11 m<sup>3</sup>/day. Industrial effluent will be treated in ETP with photo fenton oxidation process method followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 17<sup>th</sup> April, 2015. The issues were raised regarding manufacturing process, local employment, wastewater management, fly ash disposal plan, development activity for village etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Automatic PLC based system having interlocking with ETP operation to be provided.
- iii) Bag filter or ESP along with stack of adequate height should be installed to coal/briquettes fired boiler& Thermic fluid heater to control particulate emissions.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- v) Total fresh water requirement from ground water source should not exceed 217 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

- vii) To prevent bypassing of effluent during non-operation of ETP, software controlled interlocking facility should be provided on the basis of real time data from the plant control system.
- viii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- ix) Green belt of 3850 m<sup>2</sup> should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- x) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 17<sup>th</sup> April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xii) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

**44.3.6 Manufacturing of Formaldehyde, Hexamine alongwith Resin located at Survey No. 180 paiki, Village Garmala, Tehsil Matar, District Kheda, Gujarat by M/s Mahi Formaline Ltd. – reg EC**

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) 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 in the 24<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 30<sup>th</sup> September, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the 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 5.0 crore. Out of which, Rs. 75 Lakh and Rs. 39 Lakhs are earmarked towards capital cost and recurring cost per annum for implementation of EMP. Total area of the plot is 7000 m<sup>2</sup> of which 2285 m<sup>2</sup> 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	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

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during February – April, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (60.25 µg/m<sup>3</sup> to 84.01 µg/m<sup>3</sup>), PM<sub>2.5</sub> (19.88 µg/m<sup>3</sup> to 27.72 µg/m<sup>3</sup>), SO<sub>2</sub> (9.98 µg/m<sup>3</sup> to 14.74 µg/m<sup>3</sup>) and NO<sub>x</sub> (15.44 µg/m<sup>3</sup> to 21.11 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.0 µg/m<sup>3</sup>, 0.3 µg/m<sup>3</sup> and 1.49 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal/briquettes fired boiler & hot air generator to control particulate emissions. DG set (300 KVA) will be installed. Total fresh water requirement from ground water source will be 98.32 m<sup>3</sup>/day. Industrial effluent generation will be 11.92 m<sup>3</sup>/day. Industrial effluent will be treated in ETP. Treated effluent and RO rejects will be evaporated in MEE. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 1<sup>st</sup> April, 2015. The issues were raised regarding impact or probable damage occur due to setting up of plant; dust emissions etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Automatic PLC based process system having interlocking with ETP operation to be provided.
- iii) Bag filter along with stack of adequate height should be installed to coal/briquettes fired boiler & Thermic fluid heater to control particulate emissions.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- v) Total fresh water requirement from ground water source should not exceed 98 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent shall be treated in ETP. Treated effluent alongwith RO rejects shall be evaporated in the MEE to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Condensate water will be recycled and reused within plant process.

- vii) To prevent bypassing of effluent during non-operation of ETP, software controlled interlocking facility should be provided on the basis of real time data from the plant control system.
- viii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- ix) Green belt of 2285 m<sup>2</sup> should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- x) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 1<sup>st</sup> April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xii) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

**44.3.7 Expansion of Synthetic Organic Chemicals at Plot no. 126/1,2,3, PO Popatpura, Taluka Godhara, District Panchmahal, Gujarat by M/s Kusa Chemical Pvt. Ltd. – reg EC.**

The project proponent and their consultant (M/s Eco-Care Solutions) 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 17<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 18<sup>th</sup> to 19<sup>th</sup> March, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Kusa Chemical Pvt. Ltd has proposed for Expansion of Synthetic Organic Chemicals at Plot no. 126/1,2,3, PO Popatpura, Taluka Godhara, District Panchmahal, Gujarat. Total cost of the expansion project is Rs. 492.25 Lakhs. Total plot area is 132905 m<sup>2</sup> of which greenbelt will be developed in 55,000 m<sup>2</sup>. Water Bodies such as River Bapoi (0.2 Km), River Mesri (8.5 Km) and River Goma (7.5 Km) are located within 10 km distance. Following products will be manufactured:

S.N.	Product	Existing Capacity (MTPM)	Additional Capacity (MTPM)	Total Capacity (MTPM)
1	Oil Additives	300	700	1000
2	Oil Additives Mix (Blending Products)	0	300	300

3	Emulsifier	250	650	900
4	Emulsifier Mix (Blending Products)	0	480	480
5	Monomer	0	140	140
6	ZDDP	0	90	90
7	Polyamides	0	35	35
8	Acrylic Emulsions	0	40	40
9	PIBSA	0	40	40
10	Mix of Di Octyl Mono Tri Octyl Diphenylamine	0	175	175
	Mix of Di, Tri, Mono Octyl Phenyl-□□□aphtalamine			
	Nonylated Di, Tri Diphenyl Amin			
	Styrene Diphenyl Amine			
	Methyl Styrene Diphenyl Amine			
	Nonylated p-Cresol			
	Tri-Methyl Bisphenol-F			
	<b>Total</b>			

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during season (not mentioned) and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (18.9 µg/m<sup>3</sup> to 61.5 µg/m<sup>3</sup>), SO<sub>x</sub> (5.8 µg/m<sup>3</sup> to 22.7 µg/m<sup>3</sup>) and NO<sub>x</sub> (4.5 µg/m<sup>3</sup> to 28.4 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.08 µg/m<sup>3</sup>, 4.60 µg/m<sup>3</sup> and 0.8 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>.

Multicyclone followed by Bagfilter will be provided to briquette/wood/coal fired boiler. Adequate height will be provided to additional LDO fired Thermic fluid heater. Scrubber will be provided to control process emissions viz. H<sub>2</sub>S and HCl. Fresh water requirement from ground water source will be increased from 9.4 m<sup>3</sup>/day to 86 m<sup>3</sup>/day after expansion. Effluent generation will be increased from 9.4 m<sup>3</sup>/day to 57.4 m<sup>3</sup>/day after expansion. Industrial effluent will be treated in the ETP. Treated effluent will be recycled/reused for cooling tower make up. ETP sludge will be sent to TSDF. The Committee suggested them that Spent catalyst will be sent to authorized recycler.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 23<sup>rd</sup> December, 2014. The issues were raised regarding local employment, CSR carried out by the Company etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the additional information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Multi-cyclone followed by bag filter or ESP shall be provided to the biomass/coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii. Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from ground water source shall not exceed 86 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v. Trade effluent shall be treated in ETP and treated effluent shall be recycled/reused for cooling tower make up. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix. Solvent management shall be as follows :
  - Reactor shall be connected to chilled brine condenser system
  - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - Solvents shall be stored in a separate space specified with all safety measures.
  - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. All the issues raised during the Public Hearing/consultation meeting held on 23<sup>rd</sup> December, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xii. At least 5.0 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

- xiii. As proposed, green belt over 55,000 m<sup>2</sup> shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

### **Reconsideration for Environmental Clearance**

#### **44.3.8 Expansion of Bulk Drug Manufacturing Plant. At district Ahmedabad, Gujarat by M/s Intas Pharmaceuticals Ltd- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 22<sup>nd</sup> meeting held during 28<sup>th</sup>– 29<sup>th</sup> August, 2015 and the Committee sought following additional information:-

- (i) A Copy of certified compliance report to the environmental conditions prescribed in the existing EC. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.
- (ii) Location of representative water sampling points from water bodies to be indicated w.r.t. site location.
- (iii) Soil analysis report to be rechecked and analysed.

PP vide letter dated 17<sup>th</sup> March, 2015 has submitted the above mentioned additional information. However, the Committee observed that VOC data and water quality data are not satisfactory. The Committee noted that SPCB itself not clear whether the unit will get approval from EICL for discharge of treated effluent. After detailed deliberations, the Committee found EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Bag filter shall be provided to the agro waste fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- ii) Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii) 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 SPCB.
- iv) Total fresh water requirement from ground water source shall not exceed 511 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v) Industrial effluent generation will be 353 m<sup>3</sup>/day and treated in ETP followed by RO. RO rejects will be concentrated in MEE. Sewage will be treated in STP. Treated effluent and Condensate and recovered water shall be recycled/reused for cooling water make up and process. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

- vi) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- vii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.
- viii) 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 SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- ix) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- x) 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.
- xi) As proposed, green belt over 42,000 m<sup>2</sup> land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xii) At least 5.0 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

**44.3.9 Expansion of Pigment Manufacturing Unit (290 MTPM) at Sy. No.161, 162, 163, 164, 167 & 168, Village Indrad, Tehsil Kadi, District Mehsana, Gujarat by M/s Asahi Songwon Colors Ltd.- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38<sup>th</sup> meeting held during 20<sup>th</sup>– 21<sup>st</sup> April, 2015 and the Committee sought following additional information:-

1. Action taken report alongwith photographs for non complied points and partly complied points observed by the Regional Office.
2. Layout plan of existing unit as well as proposed expansion highlighting process area, storages, utilities, greenbelt etc.
3. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

PP presented the ATR alongwith photographs on the non-complied points and partly complied points observed by the Regional Office, Bhopal. PP confirmed that they have removed solar pond and MEE will be installed. They have gradually removed their entire quantity of sludge from plant premises and transferred to BEIL, Ankleshwar and shown photograph. It was informed that additional sludge storage facility with leachate collection system in the plant premises has been constructed. Further the mixes such as  $AlCl_3$  and HCl is sent to Arvind Mill. PP has submitted the action plan for 2.5 % of the project cost for agriculture training, medical camp, cattle camp, Women & Children Development, Educational Activities and Drinking Water Facility.

After detailed deliberations, the Committee, on the basis of the additional information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Bagfilter or ESP shall be provided to the coal fired boiler/thermic fluid heater and spin flash dryer to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii. Three stage water scrubber followed by alkali scrubber shall be provided to control process emissions viz. HCl and  $Cl_2$ . The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.
- iv. Total fresh water requirement from ground water source shall not exceed 460 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v. Trade effluent shall be segregated into two parts depending upon the concentration. Concentrated mother liquor containing Aluminum Chloride will be directly sold to

textile mill after copper recovery in the ETP. Dilute stream shall be taken to effluent treatment plant finally pass through micro filtration & Reverse Osmosis. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

- vi. MEE to be installed in place of Solar drying pond. No solar drying ponds shall be used.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- x. All the issues raised during the Public Hearing/consultation meeting held on 17<sup>th</sup> July, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xi. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xii. As proposed, green belt over 14000 m<sup>2</sup> land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

#### **44.3.10 Expansion of Petrochemical Unit at Plot No.73, 120 Wanachiwadi, Post Masur, Taluka Karad, District Satara, Maharashtra by M/s Satyam Petrochemical Ltd – reg. EC**

The project proponent and their consultant (Sadekar Enviro Engineers Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 15<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 30<sup>th</sup> January, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Satyam Petrochemical Ltd has proposed for expansion of Petrochemical Unit at Plot No.73, 120 Wanachiwadi, Post Masur, Taluka Karad, District Satara, Maharashtra. Plot area is 2200 m<sup>2</sup> of which 7000 m<sup>2</sup> area earmarked for greenbelt. Cost of expansion project is Rs. 12.50 Crore. Out of which Rs. 1.25 crore has been earmarked towards capitals cost for implementation of EMP. It is reported that no national park/wildlife sanctuary/reserve forest/tiger reserve is located within 10 km distance. PP has obtained environmental clearance vide MoEF letter no J-11011/41/2006 IA II (I) dated 12.12.12 for the existing unit. Following are the details of existing and proposed products :

S.N.	Product	Existing Quantity	Proposed Addl. Quantity	Quantity after Expansion
1	Di Acetone Alcohol	-	2250 MTPM	2250 MTPM
2	Ethanol	1800 Kl/month	--	1800 Kl/month
3	Ethyl Acetate	4500 KL/Month	--	4500 Kl/month
4	DEP	20 Mt/day	--	20 Mt/day
	Byproducts			
1	Mesityl Oxide (MO)	--	810 Kg/day	810 Kg/day

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (45 µg/m<sup>3</sup> to 82 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14 µg/m<sup>3</sup> to 26 µg/m<sup>3</sup>), SO<sub>2</sub> (6 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup>) and NOx (11 µg/m<sup>3</sup> to 17 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.0 µg/m<sup>3</sup>, 4.0 µg/m<sup>3</sup> and 0.6 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub> and NOx. The resultant concentrations are within the NAAQS. Bagfilter will be provided to the coal fired boiler (1x11TPH + 1 x 7 TPH + 20 TPH) to control particulate emissions. DG set ( 500 KVA + 1500 KVA) will be installed. Water requirement will be increased from 430 m<sup>3</sup>/day to 883 m<sup>3</sup>/day after expansion out of which fresh water requirement from canal water will be 737 m<sup>3</sup>/day and remaining water (73 m<sup>3</sup>/day) will be met from treated/recycled effluent. Effluent generation will be increased from 50.6 m<sup>3</sup>/day to 81.4 m<sup>3</sup>/day after expansion. Effluent will be segregated into solvent effluent stream and Low COD effluent stream. Solvent effluent stream will be distilled in the dedicated distillation unit. Low COD effluent stream will be treated in the ETP comprising primary, secondary and tertiary treatment facility. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Spent Catalyst will be sent to authorized recycler. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 29<sup>th</sup> October, 2015. The issues were raised regarding proposed air pollution control system, disposal of hazardous waste etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee also discussed the compliance status report dated 7<sup>th</sup> January, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. Multi-cyclone followed by bagfilter has been provided to existing coal fired boiler. Height of stack is 30m. Wastewater generation is 49 m<sup>3</sup>/day and Treated effluent (45 m<sup>3</sup>/day) has been reused/recycled in the process. Regarding storm water drain, PP committed that storm water channel will be fully developed within the premises. 7000 m<sup>2</sup> has been utilized to develop greenbelt. Few hundred saplings have been grown out the premises. In this regard, the PP action plan for greenbelt and committed to implement effectively. Rain water harvesting system was not developed. In this regard, PP informed that the same will be implemented. PP also committed that existing EC and compliance report will be uploaded on the Company's website. The Committee was satisfied with response of the PP.

After detailed deliberations, the Committee found EIA/EMP report 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. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, rain water harvesting structure, Greenbelt, uploading of compliance report on the website etc have been implemented.
- ii) Multicyclone followed by Bag filter or ESP shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- iii) The levels of PM10, PM2.5, SO2, NOx, VOC and CO shall be monitored in ambient air.
- iv) Total fresh water requirement from canal shall not exceed 737 m<sup>3</sup>/day and prior permission shall be obtained from the Competent Authority. No ground water shall be used without permission.
- v) Effluent generation shall not exceed 81.4 m<sup>3</sup>/day after expansion. Effluent shall be segregated into solvent effluent stream and Low COD effluent stream. Solvent effluent stream shall be distilled in the dedicated distillation unit. Low COD effluent stream shall be treated in the ETP comprising primary, secondary and tertiary treatment facility. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- vi) As proposed, ETP sludge shall be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- ix) As proposed, green belt over 7000 m<sup>2</sup> shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- x) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

#### **44.3.11 Expansion of Bulk Drugs Manufacturing Plant of M/s Oneiro Chemicals Ltd. at Village Ekalbara, Taluka Padra, District Vadidara, Gujarat.- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38<sup>th</sup> meeting held during 20<sup>th</sup>– 21<sup>st</sup> April, 2015 and the Committee sought following additional information:-

- (i) Recommendation from the GPCB in respect of proposed expansion.
- (ii) Layout map of existing project and proposed expansion indicating all the components as well as greenbelt .
- (iii) Effluent treatment scheme considering segregation of effluent into high COD/TDS streams.
- (iv) Geo-hydrological study of the area.

PP vide letter dated 10<sup>th</sup> June, 2015 has submitted the above mentioned additional information. GPCB vide letter no. GPCB/CCA-VRD-741(4)/ID 22368-314992 dated 21.05.2015 has recommended the project of M/s Onerio Chemicals Ltd. with condition that industrial effluent will be sent to Common Effluent Treatment Plant. Scheme of ETP and Geo- hydrological data were deliberated upon. Committee found satisfactory replies on the additional information.

After detailed deliberations, the Committee, on the basis of the additional information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Bagfilter shall be provided to the agro briquettes fired boiler/thermic fluid heater to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii. Scrubber shall be provided to control process emissions viz. HCl, Cl<sub>2</sub> and ammonia. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.
- iv. Total fresh water requirement from ground water source shall not exceed 176 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v. Trade effluent shall be treated in the ETP. Treated effluent from ETP shall be discharged into CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB.
- vi. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of

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

- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- x. All the issues raised during the Public Hearing/consultation meeting held on 21<sup>st</sup> January, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xi. At least 5.0 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xii. As proposed, green belt over 12700 m<sup>2</sup> land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

#### **44.4 Terms of Reference ( TOR)**

##### **44.4.1 Grain based Distillery Plant (100 KLPD) alongwith Cogeneration Power Plant (4.0 MW) at Village Narikampadu, Mandal Gampalagudem, District Krishna, Andhra Pradesh by M/s Taksheel Green Field Extracts Pvt. 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Taksheel Green Field Extracts Pvt. Ltd. has proposed for setting up of Grain based Distillery Plant (100 KLPD) alongwith Cogeneration Power Plant (4.0 MW) at Village Narikampadu, Mandal Gampalagudem, District Krishna, Andhra Pradesh. Plot area is 30 acres of which area earmarked for greenbelt is 12 acres. Cost of the project is Rs. 140 Crore. It is reported that there is no National park, Wildlife Sanctuary, Tiger reserve within 10km distance from project site. Water bodies i.e. Jamalapuram Major Canal – 2.3 Kms. NagarjunaSagar Left Bank Canal – 5.0 Kms. Kattaleru River – 9.0 Kms. IppalaVagu – 7.6 Kms. Konda Vagu – 9.4 Kms. PeddaVagu – 1.0 Kms. PeddaCheruvu – 5.5 Kms. RallaCheruvu – 7.0 Kms are located within 10 km distance. AtlapragadaKonduru RF, Bhimavaram RF, Chemalapadu North RF, Chemalapadu South RF, Ayyawarigudem RF, Krishnaraopalem RF exist within study area. Following are the configuration of plant:-

<b>S. No.</b>	<b>Product</b>	<b>Quantity</b>
1	Rectified Spirit / ENA / Ethanol / Industrial Alcohols / Potable Alcohol / Grain Impure Spirit with Denatured Spirit	100 KLPD
2	Cogeneration Power Plant	4.0 MW

Bagfilter will be provided to rice husk and coal (Indian / Imported) fired boiler to control particulate emissions. Water requirement from Ground Water sources and Kattaleru River will be 1200 m<sup>3</sup>/day. Thin slop generated will be concentrated in the Evaporation system up to 40% solids (w/w). This concentrated spent wash (40 % Solids) will be sent to the drier along with wet cake generated from Decanter for making DDGS with 90 % solids and the DDGS obtained will be sold as cattle feed / prawn feed / fish feed. No effluent will be discharged outside the plant premises. Ash from the boiler will be used as manure/ given to brick manufactures/cement plant. Sludge generated from ETP will be used as manure. DDGS will be sold as cattle feed / fish / prawn feed.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
6. Proposed effluent treatment system for grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
7. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
8. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
9. Action plan to control ground water pollution.
10. Details of solid waste management including management of boiler ash, yeast, etc.
11. Commitment to install dryer.
12. Action plan to control odour pollution.
13. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

## **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. Adequate air modelling to be worked out for impact on reserved forest.

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.

**44.4.2 Grain based Distillery plant (2 X 60 KLPD) along with Cogeneration Power Plant(2 X 2.5 MW) in phased manner at Village-Titerikata, Post – Ramvikata, Tehsil- Harabhanga, District: Boudh, Odisha by M/s Boudh Distillery Pvt. 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category ‘A’ and appraised at Central level.

M/s Boudh Distillery Pvt. Ltd. has proposed for setting up of Grain based Distillery plant (2 X 60 KLPD) along with Cogeneration Power Plant(2 X 2.5 MW) in phased manner at Village Titerikata, Post – Ramvikata, Tehsil- Harabhanga, District Boudh, Odisha. Total plot area is 35.58 Acres. Of which 1/3rd of the total area will be developed with greenbelt. It is reported that there is no national park, wildlife sanctuary, biosphere reserve, tiger/elephant reserve within the 10km radius. Water bodies such as Mahanadi River (4.0 Kms) and Hinamanda nallah (5.0 Kms) are flowing within 10 km distance. Reserve Forests namely Donga RF, Jajpur RF, Bankamundi RF, Aragarh RF, Parapata RF are located within 10 km distance. Following are proposed project configurations:-

S. No.	Products	Phase	
		Phase I	Phase II
1	Rectified Spirit / ENA / Pharma Alcohol / Industrial Alcohols	60 KLPD	60 KLPD
2	Cogeneration Power Plant	2.5 MW	2.5 MW
	By Products		
1	CO2	30 TPD	30 TPD
2	Fuse Oil	0.60 TPD	0.60 TPD
3	DWS	150 TPD	150 TPD
4	DDGS	49.5 TPD	49.5 TPD

ESP will be provided to biomass/imported coal/Indian coal fired boiler to control particulate emissions. Fresh water requirement from ground water source and Mahanadi River will be 1264 m<sup>3</sup>/day. Thin slop generated will be concentrated in the Evaporation system up to 40% solids (w/w). This concentrated spent wash (40 % Solids) will be sent to the drier along with wet cake generated from Decanter for making DDGS with 90 % solids and the DDGS obtained will be sold as cattle feed / prawn feed / fish feed. No effluent will be discharged outside the plant premises. Ash from the boiler will be given to brick manufactures/cement plant. Sludge generated from ETP will be used as manure. DDGS will be sold as cattle feed / fish / prawn feed.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.

6. Proposed effluent treatment system for grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
7. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
8. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
9. Action plan to control ground water pollution.
10. Details of solid waste management including management of boiler ash, yeast, etc.
11. Commitment to install dryer.
12. Action plan to control odour pollution.
13. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

## 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.

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.

### 44.4.3 Drilling of one Exploratory Well at MB-OSN-2005/3 (NELP-VII BLOCK), Mumbai offshore southwest of the Mumbai High-DCS platform by M/s ONGC 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 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 Ltd. has proposed for Drilling of one Exploratory Well at MB-OSN-2005/3 (NELP-VII BLOCK), Mumbai offshore southwest of the Mumbai High-DCS platform. The NELP-VII Block MB-OSN-2005/3 was initially allocated to consortium of M/s Essar Energy and M/s Noble Energy with 50% PI each. Now an agreement was signed by ONGC as operator with 70% PI. The cost of the project is Rs. 7000 lakh . It is reported that there is no national park, wildlife sanctuary, biosphere reserve, tiger/elephant reserve within the 10km radius. Total block area is 1685 Km<sup>2</sup>. Distance of proposed well from shore will be 137 nautical miles. Co-ordinates of the block MB-OSN-2005/3 are as given below:

Pt.	Longitude			Latitude		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
A	70	5	11.27	19	4	16.54

B	70	20	17	19	6	56
C	70	45	53.78	18	30	17
D	70	35	0	18	30	17
E	70	35	0	18	40	0
F	70	21	7.13	18	40	0
A	70	5	11.27	19	4	16.54

Depth of drilling will be 2500 m. WBM will be used for drilling. Water consumption will be 40 m<sup>3</sup>/ day. Captive Gen Set (5 Nos.) will be installed.

After detailed deliberations, the Committee prescribed the following TOR for preparation of EIA-EMP report without Public Hearing:

- 1) Executive summary of the project.
- 2) No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
- 3) Project Description and Project Benefits;
- 4) Cost of project and period of completion.
- 5) Employment to be generated.
- 6) Distance from coast line.
- 7) Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
- 8) Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6<sup>th</sup> January, 2011 ( if applicable).
- 9) Details on support infrastructure and vessel in the study area.
- 10) Climatology and meteorology including wind speed, wave and currents, rainfall etc.
- 11) Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NO<sub>x</sub> and background levels of hydrocarbons and VOCs.
- 12) Details on estimation and computation of air emissions (such as nitrogen oxides\*, sulphur oxides\*, carbon monoxide\*, hydrocarbons\*, VOCs\*, etc.) resulting from flaring, DG sets, combustion, etc. during all project phases
- 13) Base line data collection for surface water for one season leaving the monsoon

season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.

- 14) Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
- 15) Source of fresh water. Detailed water balance, waste water generation and discharge.
- 16) Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
- 17) Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
- 18) Procedure for preventing spills and spill contingency plans.
- 19) Procedure for treatment and disposal of produced water.
- 20) Procedure for sewage treatment and disposal and also for kitchen waste disposal.
- 21) Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its handling and disposal options during all project phases.
- 22) Storage of chemicals on site.
- 23) Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
- 24) Details of blowout preventer Installation.
- 25) Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followed.
- 26) Handling of spent oils and oil from well test operations.
- 27) H<sub>2</sub>S emissions control plans, if required.
- 28) Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
- 29) Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
- 30) Documentary proof for membership of common disposal facilities, if required.

31) Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.

32) Total capital and recurring cost for environmental pollution control measures.

The Committee noted that proposed project is offshore in nature so no public hearing is required. It was recommended that 'TORs' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

**44.4.4 Proposed Appraisal Wells ( 40 nos ) and Development/Production Wells: 372 nos with Gas Production & Processing facility: Four nos. of 65 mmscf/d (including four CO<sub>2</sub> removal facility) at RJ-ON/6 Block, Langtalla Village, Jaisalmer District, Rajasthan by M/s Focus Energy 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 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 Focus Energy Ltd. has proposed for Appraisal Wells (40 nos.) and Development/Production Wells (372 nos with Gas Production) & Processing facility (Four nos. of 65 mmscf/d) (including four CO<sub>2</sub> removal facility) at RJ-ON/6 Block, Langtalla Village, Jaisalmer District, Rajasthan. Environmental Clearance for exploratory drilling was obtained vide MoEF letter no. J-11011/1095/2007 IA II ((I) dated 20.08.2008. Total area of RJ-ON/6 is 2000 km<sup>2</sup>. Cost of project is Rs. 11050 Crores. Distance from International Boundary of Pakistan is approx. 8-10 km. Depth of development wells varies from 2400-2500 m. Quantity of drill cutting is 250-500 m<sup>3</sup>. The Committee suggested the PP to incorporate complete details of project including details of infrastructure alongwith utilities to be created, existing infrastructure, total water requirement at EPS, disposal of produced water etc in the EIA report.

After detailed deliberations, the Committee prescribed the following TOR for preparation of EIA-EMP report along with Public Hearing:

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. Details of the existing facilities.
4. Cost of project and period of completion.
5. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.

6. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
7. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980, if applicable.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 ( if applicable).
9. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
10. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
11. 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.
12. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
13. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
14. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM10, SO2, NOx, CO, VOCs, Methane and non-methane HC.
15. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
16. Ground and surface water quality in the vicinity of the proposed wells site.
17. Measurement of Noise levels within 1 km radius of the proposed wells.
18. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
19. Incremental GLC as a result of DG set operation, flaring etc.
20. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
21. Actual source of water and 'Permission' for the drawl of water from the Competent Authority.
22. Detailed water balance, wastewater generation and discharge.
23. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
24. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, etc. During all project phases.
25. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its disposal options during all project phases.

26. Disposal of spent oil and lube.
27. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
28. Commitment for the use of water based mud (WBM) only
29. Oil spill emergency plans for recovery/ reclamation.
30. H2S emissions control.
31. Produced oil/gas handling, processing and storage/transportation.
32. Details of control of air, water and noise pollution during production phase.
33. Measures to protect ground water and shallow aquifers from contamination.
34. Whether any burn pits being utilised for well test operations.
35. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.
36. Environmental management plan.
37. Total capital and recurring cost for environmental control measures.
38. Emergency preparedness plan.
39. Decommissioning and restoration plans.
40. Documentary proof of membership of common disposal facilities, if any.
41. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
42. 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.
43. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

#### **B. Additional TOR**

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 State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

**44.4.5 Expansion of Chlorinated Paraffin Plasticizers and Hydrochloric Acid Manufacturing Unit at Plot No. 336-338, 340,357 Khata no. 85,70,7,57,Village Dandila Khurd, Garhwa Road, Tehsil Bishrampur, P.O. Rehla, District Palamau , Jharkhand by M/s Manav Chemicals- reg TOR.**

At the first instance, the Committee noted that Unit has already carried out expansion in the year 2010 without obtaining prior Environmental Clearance. The aforesaid unit falls under 5 (f) category i.e. Synthetic Organic Chemicals and treated as Category 'A' project due to location of unit outside the industrial area. Therefore, the project proposal involves violation of the Environment (Protection) Act, 1986 or Environment Impact Assessment (EIA) Notification, 2006 will be considered as per Ministry's O.M dated 12.12.2012 and subsequent OM related to violation.

**44.4.6 Expansion of existing Resin Manufacturing Unit by adding new synthetic organic chemicals products at Sy. No. 1418, Village Rajpur, Tehsil Kadi, District Mehsana, Gujarat by M/s Shreenathji Rasayan Pvt. – reg TOR**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Shreenathji Rasayan Pvt. Ltd. has proposed for Expansion of existing Resin Manufacturing Unit by adding new synthetic organic chemicals products at Sy. No. 1418, Village Rajpur, Tehsil Kadi, District Mehsana, Gujarat. Total plot area is 19805.523 m<sup>2</sup>. Out of which, area earmarked for greenbelt is 6000 m<sup>2</sup>. It is reported that there is no national park, wildlife sanctuary, biosphere reserve, tiger/elephant reserve within the 10km radius. EC for the existing unit was obtained vide MoEF's letter J-11011/495/2007 IA II (I) dated 26.12.2007. Following products will be manufactured:

S. No.	Name of product	Existing (MT/Month)	Proposed Additional (MT/Month)	Total after Expansion (MT/Month)
1	Formaldehyde	2083	7084	9167
2	Urea Formaldehyde Concentrate (UFC-85)	0.00	1667	1667
3	Hexamine	0.00	833	833
4	Para formaldehyde (96%)	0.00	1667	1667
5	Urea Formaldehyde Concentrate (UF) (liquid resin & powder resin)	0.00	1250	1250
6	Melamine Formaldehyde (liquid resin & powder resin)	0.00	1250	1250
7	Resol type Phenol Formaldehyde (PF) (Liquid Resin)	0.00	417	417
8	Resol type Phenol Formaldehyde (PF) (Powder Resin)	0.00	183	183
9	Lovalc type phenol formaldehyde (PF) (Powder Resin)	0.00	417	417
10	UF Moulding powder	0.00	833	833
11	MF Molding powder	0.00	833	833

Three stage absorption column will be installed in formaldehyde absorption column to control process emissions. Steam will be used from the existing utility boiler. Water requirement from Narmada Water supply will be increased from 87 m<sup>3</sup>/day to 147 m<sup>3</sup>/day after expansion. Effluent generation will be increased from 5.5 to 9.5 m<sup>3</sup>/day after expansion. Industrial effluent will be treated in the ETP. Treated effluent will be used for gardening purpose. ETP sludge will be sent to TSDF.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

## **B. Additional TOR**

- i. 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.
- ii. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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.

#### **44.4.7 Expansion of Herbicide Manufacturing Plant ( 30 MTPA to 300 MTPA) at Plot No. C-6,7&8 UPSIDC Industrial Area, Phase-2, Gajraula , Amroha ,Uttar Pradesh by M/s Chemtura Chemical India 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 along with the draft Term of References for the preparation of EIA-EMP. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Chemtura Chemical India Pvt. Ltd. has proposed for expansion of Herbicide Manufacturing Plant (30 MTPA to 300 MTPA) at Plot No. C-6,7&8 UPSIDC Industrial Area, Phase-2, Gajraula , Amroha ,Uttar Pradesh. Total Plot Area is 54891.39 m<sup>2</sup>. Total cost of the project is Rs. 6.8 Crores. It is reported that there is no National park, Wildlife Sanctuary within 10km distance from the site. Reserve Forest is located at a distance 8.30 km. Ganga River is also flowing at a distance of 8km away from the site. The clodinafop-propargyl Technical (300 MTPA) will be manufactured. DG set 380KVA & 125KVA will be installed. The expansion project envisaged additional power requirement 500 KVA. Water requirement from ground water source will be increased from 2 m<sup>3</sup>/day to 3 m<sup>3</sup>/day after expansion. The Committee noted that water requirement presented is in lower side. The Committee suggested them to estimate correct figure in the EIA-EMP report. Process sludge will be sent to TSDF site. Waste Oil will be sent to Authorized recycler/re-processor.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include CS<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6) Inlet and outlet parameter of the ETP.
- 7) Action plan for odour control to be submitted.
- 8) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 9) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 10) Action plan for utilization of MEE/dryers salts.
- 11) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 13) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 14) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 15) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

#### **B. Additional TOR**

1. A Sub-committee of EAC shall visit the site to assess the existing performance of the said unit.

2. Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area.

#### **44.4.8 Distillery plant capacity enhancement from 60 KLPD to 75 KLPD at Avapadu Village, Nallajerla Mandal, West Godavari District, Andhra Pradesh by M/s Aroma Biotech Pvt Ltd. – reg TOR.**

Proposal was considered in the 34<sup>th</sup> EAC meeting held during 17<sup>th</sup>-19<sup>th</sup> February, 2015 and the Committee recommended for EC. But Authority referred the project proposal again to the Committee and suggested that the said proposal shall be treated as expansion. After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Use previous one year already collected baseline data alongwith one month fresh baseline data.

#### **B. Additional TOR**

1. Public hearing was exempted under section 7 (ii) of EIA Notification, 2006.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

It was recommended that '**TORs**' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP

report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

#### **44.5 Any other**

##### **44.5.1 Molasses based Distillery (30 KLPD), Expansion of Sugar Unit (2500 TCD to 3500 TCD) and Co-generation Power Plant (18 MW) at Village & Tehsil: Walwa, District: Sangli, Maharashtra by M/s Padmabushan Krantiveer DrNagnathanna Nayakawadi Hutatma Kisanahir Sahakari Sakhar Karkhana Ltd.– reg extension of EC.**

The proposal was considered in the 21<sup>st</sup> EAC meeting held during 30<sup>th</sup> July, 2014 and 1<sup>st</sup> August, 2014 and the Committee recommended the proposal for extension of validity of EC. However, the extension of validity could not be agreed to by the Competent Authority due to ambiguity in date of submission of proposal within valid time period. Now, the matter is again referred to EAC.

MoEF&CC has issued amendment notification no. SO 1141 (E) dated 29<sup>th</sup> April, 2015 for extension of validity of environmental clearance, wherein validity period of environmental clearance has been increased to seven years from five years. Further it will be extended upto another three years.

EC was granted on 17<sup>th</sup> September, 2007. PP confirmed that the spent wash from molasses based distillery will be treated in bio-methanation plant followed by bio-composting with press mud to achieve 'Zero' discharge. No effluent will be discharged outside the plant premises. ESP will be installed in the bagasse fired boiler to control particulate emissions.

After detailed deliberation, the Committee recommended the extension of validity of existing environmental clearance till 16.09.2017.

##### **44.5.2 Expansion by adding solvent and acid dyes products at Plot no.191, P-2/P-1, ChhatraKadi Road, Village Karanagar, Taluka Kadi, District Mehsana, Gujarat by M/s Arbuda Plastochem Pvt. Ltd.- reg clarification for considering project as 'B' category.**

The matter was referred to the EAC regarding clarification on category of project. The Committee noted that oleum will be used as raw material in the process and exceed the prescribed threshold limit for storage under MSIHCR, 1989 as information provided by the PP. Therefore, proposal will be treated as Category 'A' instead of category 'B' and appraised by the EAC (Industry -2).

##### **44.5.3 Expansion of Paint Unit (Paint 80,000 TPA to 1,00,000 TPA) and Resins 20,000 TPA to 30,000 TPA (Emulsion) at Industrial Development Area, Patancheru, District Medak, Andhra Pradesh by M/s Asian Paints Ltd.- reg Extension of validity of EC.**

Environmental clearance was granted to M/s Asian Paints Ltd. on 23<sup>rd</sup> June, 2008 for expansion of Paint Unit, which was valid upto 5 years i.e. upto 22<sup>nd</sup> June, 2013. PP has made reference of their application letter dated 5<sup>th</sup> March, 2013, which was not available in the project file. But they have submitted the copy of letter of Department of Post as documentary proof, wherein Suptd. of Post Office has mentioned that the said post was delivered.

PP explained the delay in project execution due to a State Govt. GO No. 95, issued on September, 9, 2007 restricting new establishment /modernization/expansion of project some of the identified Districts in Andhra Pradesh . PP informed that the ban has been lifted by the State Government.

PP informed that the effluent generation will 111 m<sup>3</sup>/day. Out of which industrial effluent is 41 m<sup>3</sup>/day. Industrial effluent will be treated in the ETP followed by RO and RO rejects will be evaporated in MEE followed by ATFD. Treated effluent will be used in process/cooling tower make and boiler feed. Evaporated salt will be sent to TSDF. Sewage will be treated in the STP and Treated sewage will be recycled/reused within plant premises.

After detailed deliberation, the Committee recommended the extension of validity of Environmental Clearance till 22.06.2018.

**44.5.4 Proposed caustic soda plant of 550 TPD and 100 MW captive power plant at GIDC Dahej, District: Bharuch in Gujarat by M/s Action Petrochem (P) Ltd.-reg Extension of validity of EC**

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

**44.5.5 Expansion project of single super phosphate ( 1,81,000 to 3,15,000 TPA) and 300,000 TPA converted in Granular SSP), NPK ( 60, 000 TPA) and Additional Boronated SSP ( 25 000 TPA ) and LABA ( 20,000 TPA ) of M/s Rama Phosphate Ltd., at Plot no. 4807/11, Jhamakotra Road, village Umra, Tehsil Girwa, district Udaipur, Rajasthan- amendment in EC.**

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

**21<sup>st</sup> July, 2015 (Day 2)**

**44.6 Environmental Clearance**

**44.6.1 Synthetic Organic Chemicals Manufacturing Unit (1500 MTPA) at Khasra No.59/1/2(1- 2), 2(3-14), 3(2-6), Village Nimbua, Tehsil DerraBassi, District Mohali, Punjab by M/s S. K. Solvochem Pvt. Ltd- regarding EC**

The project proponent and their consultant (M/s Vardan Environet) 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 10<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 30<sup>th</sup> July, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s S. K. Solvochem Pvt. Ltd. has proposed for setting up of Synthetic Organic Chemicals Manufacturing Unit (1500 MTPA) at Khasra No.59/1/2(1- 2), 2(3-14), 3(2-6), Village Nimbua, Tehsil Derra Bassi, District Mohali, Punjab. The plot area is 0.59 hectare of which green belt to be developed in an area of 0.18 hectare. Total cost of the project is Rs. 4.5 crore. Out of which Rs. 98 Lakh and Rs. 50 Lakh are earmarked towards capital cost and recurring cost per month for implementation of EMP. It is reported that there is no

National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the plant site but Narnaul RF (1.8km), Rasulpur PF (7km), BirKheri (3km), BirDadralla (4km), BirBaqarpura (7km) away from the site. Waterbodies such as Ghaggar River (3.8 km, NW) and Dangri River (8.0 Km, NE) are flowing within 10 km distance. Following are the existing and the proposed products to be manufactured:-

S. No.	Products	Capacity (MTPA)
1	2-Ethyl sodium hexonate	500
	Acelofenic	150
	Cloxacillin sodium	100
	Ofloxacin	150
	6-Amino pencillanic acid	150
	Cephalexin mono-hydrate	100
	Pentoprozole	50
	Atenolol	150
	Clarithromycin	150

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during February - April, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (50.10 µg/m<sup>3</sup> to 64.45 µg/m<sup>3</sup>), SO<sub>2</sub> (6.8 µg/m<sup>3</sup> to 10.32 µg/m<sup>3</sup>), NO<sub>2</sub> (14.08 µg/m<sup>3</sup> to 19.76 µg/m<sup>3</sup>) and CO (<0.5 mg/m<sup>3</sup> to 0.98 mg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.114 µg/m<sup>3</sup>, 0.668 µg/m<sup>3</sup> and 0.118 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. Total water requirement will be 77 m<sup>3</sup>/day. Out of which fresh water requirement from ground water source will be 40 m<sup>3</sup>/day and remaining water requirement (37 m<sup>3</sup>/day) will be met from recycled water. The Committee observed that there is lack of clarity in the proposed effluent treatment scheme. Therefore, the Committee suggested them to quantify the effluent generation based on segregation of effluent streams i.e. high TDS/COD and Low TDS/COD. High TDS/COD effluent stream will be passed through steam stripper followed by MEE and ATFD. Condensate and Low TDS/COD will be treated in the ETP followed by RO. The Committee suggested them to use RO instead of sand filter and carbon. RO rejects will be sent to MEE. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept.

Public Hearing / Public Consultation meeting conducted by the Punjab Pollution Control Board on 30<sup>th</sup> January, 2015. The Committee could not discuss the public hearing issues as illegible proceedings of public hearing were circulated. The Committee suggested them that legible copy of proceedings to be provided.

Consequent to presentation, the committee observed that there are certain deficiencies in the proposal. Therefore, Committee sought following additional information:

- (i) Quantify the volume of high TDS/COD and Low TDS/COD effluent streams to be generated per day.
- (ii) Cost of ZLD treatment.
- (iii) Details of process emissions and its control measures.
- (iv) Details of emissions generated from utilities and suggested air pollution control device.
- (v) Quantification and characterization of solid waste to be done.
- (vi) Details w.r.t Disaster Management Plan linked risk assessment of the project.
- (vii) Legible copy of public hearing proceedings issued by SPCB to be submitted.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee noted that data quality is poor and rated the Environmental Consultant under rated.

**44.6.2 Expansion in exiting crude oil carrying capacity from 200,000 bopd to 300, 000 bopd and Natural gas carrying capacity from 6.3 mmscd to 40 mmscd along with development of new gas pipeline from Raaqeshwari to Palanpur in Existing project to Bhogat (Gujarat) pipeline, dist. Barmer, Rajasthan by M/s Cairn India Ltd.**

The project proponent and their consultant (Engineers India 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 19<sup>th</sup> and 20<sup>th</sup> Meetings of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup> to 30<sup>th</sup> May, 2014 and 23<sup>rd</sup> June 2014 To 24<sup>th</sup> June 2014 respectively 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. Existing and proposed facilities do not pass through national parks/sanctuaries/coral reefs/ ecologically sensitive areas. Environment Clearance under project/activity 6(a) of Schedule of EIA Notification 2006 is not applicable to the new pipeline. However, Crude oil storage at Viramgam Terminal falls under 6 (b) under category 'B' in the schedule of the EIA Notification, 2006. Considering integrated project of pipeline, proposal was appraised by the EAC (I-2).

Cairn India Limited operates the Mangala Development Pipeline, consisting of an approx. 680 km long, 24 " heated, insulated and buried crude oil pipeline running from Mangala Processing Terminal in Barmer, Rajasthan to Bhogat Terminal in Devbhoomi Dwarka district, Gujarat with a permitted flow rate of 200,000 bopd and, an approx. 590 km long, 8" buried natural gas pipeline running from Raageshwari Gas Terminal (RGT) in Rajasthan to Bhogat Terminal to provide fuel for heating of crude oil pipeline with a permitted flow rate 6.3 mmscfd. There are 38 nos. of Above-Ground Installations (AGIs) located approx. every 18 km along pipeline route serving as pipeline heating installations and pigging stations. Viramgam Terminal (VGT) has intermediate storage capacity of 60,000 bbls, mainline pumps (3 x 90,000 bbls), 8 MW captive natural-gas based power generation and pigging facilities. Bhogat Terminal has intermediate storage capacity of 36,00,000bbls, marine export pumps and 18 MW captive natural-gas based power generation. Export facilities originating from Bhogat Terminal consist of 24" heated insulated crude oil pipeline and Single Point Mooring (SPM) in the Arabian Sea for export of crude.

Environmental Clearances for laying of pipeline and associated facilities were issued vide. J-11011/234/2007-IA II (I) dated 28<sup>th</sup> April 2008 and 11-34/2009-IA-III dated 24<sup>th</sup> August 2009. Amendments to these Clearances for increase in crude oil evacuation through existing pipeline was issued vide. J-11011/444/2011-IA II (I) dated 5<sup>th</sup> September 2012 and J-11011/444/2011-IA II (I) dated 23<sup>rd</sup> May 2014.

Further amendment is sought for the proposed Facility development of Mangala Development Pipeline, which includes the following:

- Increase in crude oil flow in existing pipeline from 200,000 to 300,000 bopd to evacuate 300,000 bopd using Drag Reducing Agent in crude oil pipeline at AGIs 9 & 26 and VGT; additional mainline crude oil pumps at AGI-9 and AGI-26 (3 x 160,000 bopd at each facility), and VGT (2 x 90,000 bopd); booster pumps at VGT (5 x 90,000 bopd), 5 TPH boiler; and additional crude oil storage at VGT of 300,000 bbls; and

- Increase in natural gas flow in existing pipeline from 6.3 to 40 mmscfd to meet captive power requirements for crude oil flow and sales, by addition of gas compressors (2W+1S) at 9 locations (AGIs 6, 7, 8, 11, 16, 18, 20 & 25 and VGT).

Now, PP informed that proposed project has the following two components:

- Component 1: Augmentation of existing Mangala Development Pipeline (MDP) from RJ-ON-90/1 Block (Barmer, Rajasthan) to Bhogat Terminal (Gujarat). This consists of the following:
  - Augmentation of 24" crude oil pipeline carrying capacity from 200,00-300,000bopd and 8" natural gas pipeline carrying capacity from 6.3-40 mmscfd; and
  - Augmentation of natural gas based captive power generation capacity of Bhogat Terminal from 18 to 40 MW.
- Component 2: Development of new 30" pipeline from Raageshwari Gas Terminal(RGT) to Palanpur for 280 mmscfd natural gas sales.

Cairn India also plans to lay a 30", 193 km pipeline, 135 km of which is in existing pipeline corridor of Mangala Development Pipeline and 58 km is in new Right of Use (ROU) from AGI-12 to Palanpur, Gujarat. Surface facilities include dispatch and receiving station, 9 Sectional Valves (SV) stations, intermediate pigging station and compressor Station. Existing and proposed facilities do not pass through national parks/sanctuaries/coral reefs/ecologically sensitive areas. Environment Clearance under project/activity 6(a) of Schedule of EIA Notification 2006 is not applicable to the new pipeline.

S.N.	Location	Facilities	Existing	Proposed additions
<b>Crude oil pipeline capacity augmentation</b>				
1	Adjacent to AGI-9 & AGI-26	Mainline crude oil pumps	Nil	3 pumps (2W+1S) x 160,000 bopd, run on natural gas turbine drives (capacity 14 MW) at each location
		Back-up captive power generation	0.39 KVA Gas Engine Generator	1 MW diesel generator
		DRA injection skids	Injection through skid planned to achieve 200,000 bopd	Injection skid to achieve 300,000 bopd
2	Inside Viramgam Terminal	Mainline crude oil pumps	3 (2W+1S) x 90,000 bopd	2 x 90,000 bopd
		Booster pumps	Nil	5 pumps (4W+1S) x 90,000 bopd
		Crude oil storage tanks	60,000 bbls (3 nos. tanks x 20,000 bbls)	300,000 bbls (2 nos. tanks x 150,000 bbls)
		Boiler for tank heating	1 x 1 TPH	1 x 5TPH
		Gas Turbine Generator	2 x 4 MW	2 x 6 MW and 1x4MW Standby

<b>Natural gas pipeline capacity augmentation</b>				
3	Adjacent to AGI 6, 7, 8, 11, 16, 18, 20 & 25 and inside Viramgam Terminal	Gas compressors & filtration skid	Nil	3 compressors (2W+1S) run by natural gas based turbine drives (capacity 9 MW) and gas filtration skid
		Back-up captive power generation	0.39 KVA Gas Engine Generator	1 MW diesel generator

The capital cost of the project is approx. 1400 crores. Approx. 50 hectares of land will be permanently acquired without causing resettlement and rehabilitation. The ROU for new pipeline will be acquired temporarily and restored and handed back after restoration. The water required for construction and operation phases of the project will be sourced from sources approved by CGWA/local authorities. There will be increase in captive power generation for augmentation at VGT (24 MW natural gas based and 1 MW emergency diesel based), AGI 6, 7, 8, 9, 11, 16, 18, 20, 25 & 26 (13.8 MW natural gas based and 1 MW emergency diesel based at each facility) and Bhogat Terminal (22 MW (Totaling to 40 MW) natural gas based emergency); and for new pipeline at receiver & despatch stations and SV station 1-9 (0.5 MW diesel based at each facility) and compressor station (15 MW natural gas based and 0.5 MW emergency diesel based).

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 28 locations during December 2013 – March 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (56 µg/m<sup>3</sup> to 187 µg/m<sup>3</sup>), PM<sub>2.5</sub> (32 µg/m<sup>3</sup> to 107 µg/m<sup>3</sup>), SO<sub>2</sub> (5.5 µg/m<sup>3</sup> to 18.3 µg/m<sup>3</sup>) and NO<sub>x</sub> (9.8 µg/m<sup>3</sup> to 30.7 µg/m<sup>3</sup>) respectively. During construction phase, water required for civil works and domestic use will be 15 m<sup>3</sup>/day and 135 litres/ day/ person at each site. Water required for hydro testing of tanks and pipelines will be 25525 m<sup>3</sup>/tank and 705 m<sup>3</sup> per km respectively. During operation phase, additional water required for industrial and domestic use at Viramgam Terminal is 15m<sup>3</sup>/day and 5m<sup>3</sup>/day respectively. At other facilities, there is no water requirement for industrial use and requirement for domestic use is 5m<sup>3</sup>/day. Additional water requirement at Viramgam Terminal will be met from existing approved ground water source and at other facilities will be met from local Panchayat or municipality or other approved sources. Effluent generated at VGT during operations phase will be handled in the existing treatment facilities. There will be no additional trade effluent generation at other facilities and sanitary effluent will be treated in STP/septic tank and soak pits.

Design of pipeline and associated facilities incorporate international standards such as ASME, ASTM & OISD. Automated systems such as SCADA & DCS, LDS & PIDS and cathodic protection have been installed for pipeline safety and integrity. CIL has developed robust Incident Response Plans and district-wise community-based Disaster Management Plans. The pipeline facilities are managed in accordance with OSHAS 18001 & ISO 14001. Occupational Health Surveillance is carried out through qualified industrial hygiene agency and specialists. Existing health, safety and environment management plans and systems will be extended to augmented and new facilities and EMP/QRA recommendations will be implemented.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12<sup>th</sup> December, 2014. The issues were raised regarding patrolling along pipeline, compensation paid to farmer against land acquisition etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee also decided that a Sub-committee comprising representative(s) of the MoEF should visit the site to assess the existing environmental scenario in and around the proposed project site and submit a report to the EAC(I-2) before further considering the proposal for the environmental clearance. The proposal is deferred till the desired information is submitted.

#### 44.6.3 Specialty Chemicals & Pesticide manufacturing plant ( Unit-IV) of M/s Hemani Intermediates Pvt. Ltd at GIDC Dahej-1, Taluka Vagra, District Bharuch, Gujarat- reg EC

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) 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 16<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 20<sup>th</sup>-21<sup>st</sup> February, 2014 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Hemani Intermediates Pvt. Ltd. has proposed for setting up of Specialty Chemicals & Pesticide Manufacturing Plant (unit –IV) at GIDC Dahej-1, Taluka Vagra District Bharuch, Gujarat. Total 9 units of the total 60-70 units in Dahej-I are pesticide units. Dahej – II and III were established after 2006. Total plot area is 9705 m<sup>2</sup> of which greenbelt area will be developed in 2400 m<sup>2</sup>. It is reported that no national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, reserve forests etc. are located within 10 km distance. Narmada River is flowing at a distance of 3.5 Km. Total cost of project is Rs. 30 crores. The following products will be manufactured:

S.N.	Products	Quantity (in MTPM)
1	Chlorination Derivatives (e.g. MCB, DCB, ODCB, PDCB, MDCB & TCB)	3500
2	Nitration of Chlorobenzene (ONCB, PNCB & MNCB)	4000
3	Calcium Chloride	1500
4	Di-Calcium Phosphate	1500
5	2,4 DNCB	1500
6	Fungicide	
a)	Hexaconzole (T)	300
b)	Tebuconzole (T)	
c)	Propioconzole (T)	
d)	Mancozeb (T)	
7	Herbicide	
a)	Dicamba (T)	300
b)	Metribuzine (T)	
c)	Metsulfuron Methyl (T)	
d)	Pendimethalin (T)	
8	Insecticide	
a)	Transfluthrin (T)	300
b)	Cyfluthrin & Beta Isomers (T)	
c)	Bifenthrin (T)	
d)	Cypermethrin (T) & beta/Zeta/Theta Isomers (T)	
e)	Chlorphyriphos ( T)	
f)	Imidacloprid (T)	
	<b>Total</b>	<b>12900</b>

## List of By-products

S.N.	Name of the Products	Quantity (in MTPM)
1	HCl (32%)	4000
2	Potassium Carbonate	175
3	Potassium Chloride	86
4	H <sub>2</sub> SO <sub>4</sub> (70%)	222
5	Sodium Sulphite/Sodium Bisulphite	300
6	Aluminium Chloride	167
7	Potassium Bromide	123
8	HBr	100

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March, 2014 to May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (32 µg/m<sup>3</sup> to 49 µg/m<sup>3</sup>), PM<sub>10</sub> (55 µg/m<sup>3</sup> to 81 µg/m<sup>3</sup>), SO<sub>2</sub> (13 µg/m<sup>3</sup> to 29 µg/m<sup>3</sup>) and NO<sub>x</sub> (16 µg/m<sup>3</sup> to 38 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.49 µg/m<sup>3</sup>, 0.86 µg/m<sup>3</sup>, 0.0308 µg/m<sup>3</sup>, 0.00074 µg/m<sup>3</sup> and 0.00016 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub>, NO<sub>x</sub>, HCl and Cl<sub>2</sub>. The resultant concentrations are within the NAAQS. Alkali scrubber will be provided to control process emissions viz. HCl, Cl<sub>2</sub> and SO<sub>2</sub>. ESP alongwith 50 m stack height will be provided to coal fired boiler (20 TPH). DG set (1000 KVA) will be installed. Fresh water requirement from GIDC water supply will be 858 m<sup>3</sup>/day. Effluent generation will be 437 m<sup>3</sup>/day. Effluent will be treated in the ETP. Treated effluent will be discharged into deep sea disposal through GIDC pipeline. ETP sludge will be sent to TSDF. Process sludge from CaCl<sub>2</sub> will be sold to agriculture use. Used oil/spent oil and spent catalyst will be sent to Authorized re-processors. Committee suggested them that some of waste to be covered into By-products such as HCl (32%), HBr, H<sub>2</sub>SO<sub>4</sub> etc. Fly ash to be sent to brick manufacturers.

However, after deliberation, the Committee sought following additional information and documents:

- (i) One of the specific TOR was "A clarification from GPCB whether addition of this unit would be absorbed by Dahej-1". However, PP has not submitted the clarification. Copy of the recommendation of GPCB for the proposed project to be submitted.
- (ii) Details of measures to be taken while handling NaCN.
- (iii) Chlorine handling and management system to be provided.
- (iv) Clarification regarding notification of GIDC Dahej -1 to be obtained from Industry Department.

The proposal was deferred for internal consideration till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee underrated the consultant and noted that Consultant needs improvement in monitoring and interpretation of data.

### **44.6.4 Specialty Chemicals & Pesticide Intermediate Products Plant (600 MTPM) of M/s BenzoChem Industries Pvt. Ltd. at Plot No. Z-103/D, Phase – II, Dahej SEZ, Taluka Vagra, District Bharuch, Gujarat- reg EC.**

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be

undertaken as per Draft Terms of References (TORs) awarded during the 20<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 23<sup>rd</sup>-24<sup>th</sup> June, 2014 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s BenzoChem Industries Pvt. Ltd. has proposed for setting up of Specialty Chemicals & Pesticide Intermediate Products Plant (600 MTPM) at Plot No. Z-103/D, Phase – II, Dahej SEZ, Taluka Vagra, District Bharuch, Gujarat. Plot area is 47,613.19m<sup>2</sup> of which greenbelt will be developed in 15,000 m<sup>2</sup>. Cost of project is Rs. 45 crores. Out of which Rs. 5 crores and Rs. 25 Lakhs/annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that no national park/wildlife sanctuary/reserve forest is located within 10 km distance. The following products will be manufactured:

S.N.	Product	Proposed Quantity (MTPM)
<b>A.</b>	<b>SPECIALTY CHEMICALS &amp; PESTICIDE INTERMEDIATES</b>	
1	2-Amino Benzo Nitrile	10
2	2-Amino-5-Bromo Benzo Nitrile	5.0
3	2,4,6-Trimethyl Benzaldehyde (Mesitaldehyde)/or 2,4,6-Trimethyl Benzaldehyde 84% in 16% Acetone (Mesitaldehyde 84% in 16% Acetone)	20
4	Indoline	20
5	2,4-Dichloro Phenyl Acetic Acid	25
6	2,4-Dichloro Phenyl Acetyl Chloride	25
7	2,4,6-Trimethyl Phenyl Acetyl Chloride	20
8	2,4-Dichloro Meta Cresol	4.0
9	Pivolonitrile (Trimethylacetoneitrile)	10
10	4,4-Dihydroxy Benzophenone	25
11	2-Chloro-4,6 Dimethoxy-1,3,5-Triazine	25
12	2-Coumaranone 30% Acetic Anhydride 70%	170
13	4-Bromo-2-Hydroxy Anisole/5-Bromo-2-Methoxy Phenol	4.0
14	5-Propiyl-2-Thiophenyl Phenyl Acetic Acid (PPP) /OR 2- Phenyl Thio-5-Propionyl phenyl Acetic Acid	2.0
15	2,3,4,5-Tetrachloro Benzyl Chloride	17
16	3,4,5 Trimethoxy Toluene	25
17	3,4,5 Trimethoxy Benzyl Chloride	2.0
18	3,4,5-Trimethoxy Benzyl Cyanide	2.0
19	3,4,5-Trimethoxy Phenyl Acetic Acid	2.0
20	3,4,5-Trimethoxy Benzoic Acid	4.0
21	3,4,5-Trimethoxy Benzaldehyde	17
22	4,4-Dimethoxy-2-Butanone	17
23	R-2-(2,4-Dichlorophenoxy) Propionic Acid	40
24	Para Methyl Benzaldehyde / 4-Methyl Benzaldehyde	25
25	2-5 Dimethyl Phenyl Acetyl Chloride	25
26	2-Amino-2-Phenyl Butyric Acid	4.0
27	1-(2,6 Dichloro Phenyl)-2-Indolinone	4.0
28	2-(3-Benzoyl phenyl)-Propio nitrile /Ketoprofen Nitrile	8.0
29	N-Methyl-1-Naphtahlene Methyl Amine Acetate	2.0
30	N-Methyl-1-Naphtahlene Methyl Amine Base	2.0
31	ParaChloroPhenylEthyl Amine / 2-(4-Chloro-Phenyl)-Ethylamine	5.0
32	Ortho Chloro Phenyl Ethyl Amine/2-Chloro Phenethyl Amine	5.0
33	2-Demethylamino-2 Phenyl Butanol /2- (N,N-Dimethylamino)-2-Phenyl-1-Butanol	4.0
34	Methyl-2-Dimethylalmino-2-Phenyl butyrate/2-(N,N-Dimethyl amino)-2-Phenyl-2-Butyrate	4.0
35	2-Phenyl Butyric Acid	4.0

36	5-Chloro-2-HydroxyBenzo Phenone	5.0
37	5-(1-Carboxy Ethyl)-2-(Phenylthio)phenyl Acetic Avid (DIACID)	2.0
38	N-Methyl 1-Napthalene Methyl Amine Hydrochloride	5.0
39	7-Methoxy 1 Tetralone	5.0
<b>Total</b>		<b>600</b>

#### List of By-Products

S.N.	By-products	Proposed Quantity (MTPM)
1	HCL(30%)	126
2	h2so4 (70%)	50
3	Liqour Ammonia (24%)	45
4	HBr	70
5	NaBr	76
6	Phosphuric Acid	60
7	Copper Sulphate	80
8	Sodium Chloride	80
9	Sodium Sulphate	60
10	Sodium Acetate	5
11	Sodium Sulfite	30
12	Potassium Chloride	5
13	Potassium Carbonate	12
14	Ammonium Sulphate	4

The Committee suggested them to mention the number of products to be manufactured at a time due to constraint of number reactors and other facilities. The Committee suggested them to provide measures to be taken for handling and management of NaCN in the process.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October to December, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (34 µg/m<sup>3</sup> to 50 µg/m<sup>3</sup>), PM<sub>10</sub> (57 µg/m<sup>3</sup> to 86 µg/m<sup>3</sup>), SO<sub>2</sub> (14 µg/m<sup>3</sup> to 30ug/m<sup>3</sup>) and NOx (17 µg/m<sup>3</sup> to 39 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.38 µg/m<sup>3</sup>, 5.97 µg/m<sup>3</sup>, 2.12 µg/m<sup>3</sup>, 0.0414 µg/m<sup>3</sup> and 0.0352 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub>, NOx, HCl and HBr. The resultant concentrations are within the NAAQS.

ESP along with stack will be provided to coal/briquette fired boiler (6 TPH). Stack height of 25 m will be provided to gas fired thermic fluid heater (2 Nos.). Two stage water alkali scrubber will be provided to control HBr and HCl. Two stage alkali scrubber will be provided to control HCl emissions. Fresh water requirement from GIDC water supply will be 154m<sup>3</sup>/day. Effluent will be segregated into High COD and Low COD effluent streams. High COD effluent stream will be evaporated in MEE and MEE salt will be sent to TSDF. The Committee suggested them to provide steam stripper and ATFD in the scheme. Low COD effluent stream will be sent to ETP comprising primary and secondary and tertiary effluent treatment facilities. Treated effluent will be discharged into GIDC drain. Power requirement will be 1500 KVA and sourced from DGVCL. DG set (1x500 KVA) will be installed. ETP sludge and MEE salt will be sent to TSDF. Residue from distillation will be sent to Co-processing in Cement industries or sent to nearest Common Incineration site. Inorganics salts will be sold to the end users. PP informed that HCl will be consumed in the plant.

After detailed deliberations, the Committee, on the basis of the additional information provided and presentation made recommended the project for

environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP should be provided to the coal/briquette fired boiler to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii) The levels of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, HBr and HCl should be monitored in ambient air.
- iii) Scrubbers shall be provided to control process emissions. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.
- v) Total fresh water requirement from GIDC should not exceed 154 m<sup>3</sup>/day.
- vi) Effluent shall be segregated into High COD and Low COD effluent streams. High COD effluent stream shall be passed through Stripper followed by evaporation in MEE and ATFD. MEE salt will be sent to TSDF. Low COD effluent stream shall be sent to ETP comprising primary and secondary and tertiary effluent treatment facilities. Treated effluent shall be discharged into GIDC drain after conforming to the standards prescribed by the SPCB/CPCB. Domestic sewage shall be treated in STP.
- vii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- viii) Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- ix) Process organic residue and spent carbon should be sent to cement industries. ETP sludge and process inorganic should be disposed off to the TSDF. The ash from boiler should be sent to brick manufacturers.
- 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 SPCB 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) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.

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 over 15,000 m<sup>2</sup> land should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xiv) At least 2.5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

**44.6.5 Expansion of the existing POL terminal with existing storage capacity 1,62,790 KL to 2,27,360 KL at Pyala at Tehsil Ballabhgarh, District Faridabad, Haryana by M/s BPCL – reg EC.**

The project proponent and their consultant (Development Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 108<sup>th</sup> Meeting of the State Expert Appraisal Committee, Haryana held during 22<sup>nd</sup> July, 2014 for preparation of EIA-EMP report. All the storage of petroleum products are listed at S.N. 6 (b) under category 'B'. However, due to non-constitution of SEIAA, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s BPCL has proposed for Expansion of the existing POL terminal with existing storage capacity 1,62,790 kl to 2,27,360 kl at Pyala at Tehsil Ballabhgarh, District Faridabad, Haryana. Total plot area is 61 acre. Cost of proposed expansion is Rs. 3798 Lakh. It is reported that no national park and wildlife sanctuary exists within 10 km distance. Details of existing and proposed capacity product wise is as given below:

S.N.	Product	Existing Capacity ( kl)	Proposed Additional Capacity (kl)	Total capacity after expansion (kl)
1	HSD	63,520	890	64,410
2	MS	82,670	27,640	1,10,310
3	SKO	16,600	0	16,600
4	ATF	0	36,040	36,040
5	Total	1,62,790	64,570	2,27,360

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during December, 2013- January, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (93.7µg/m<sup>3</sup> to 108.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (38.20 µg/m<sup>3</sup> to 58.20 µg/m<sup>3</sup>), SO<sub>2</sub> (7.0 µg/m<sup>3</sup> to 7.89 ug/m<sup>3</sup>) and NO<sub>2</sub> (20.50 µg/m<sup>3</sup> to 32.56 µg/m<sup>3</sup>) respectively. The resultant concentrations are within the NAAQS. DG sets (1750 kVA x 1+ 625kVAx1+250 kVAx1+ 125 kVAx1 + 25 kVAx1) are installed. Adequate height will be provided to DG set. Fresh water requirement from tanker supply will be 14 m<sup>3</sup>/day after expansion. All oily effluents will be passed through oily water separator (OWS). The treated effluent will be used for horticulture purpose. Tank bottom sludge will be generated once in five years and handed over to registered recycler namely M/s Gujarat Enviro Protection & Infrastructure Ltd. PP informed that environmental clearance was obtained vide letter no J-11011/1/2005 lall dated 11.03.2005.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Haryana State Pollution Control Board on 31<sup>st</sup>December, 2014. The concerns raised were regarding dumping of garden/kitchen waste; tree plantation, local employment, condition of approach road, wastewater treatment etc. The Committee noted that these concerns have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

However, after deliberation, the Committee sought following additional information and documents:

- (i) Certified compliance report from the Regional Office, Chandigarh for implementation of environmental conditions in the existing unit.
- (ii) Submit safety audit report of the existing depot.
- (iii) Status note on implementation of MB Lal Committee recommendation on safety.
- (iv) Conduct two weeks air quality monitoring for CO, VOC, methane and non-methane hydrocarbon etc.
- (v) Details w.r.t. Emergency preparedness plan.
- (vi) Photograph of green belt.

The proposal was deferred for internal consideration till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee noted that Consultant needs improvement in some area such as interpretation of data.

#### **44.6.6 Expansion of Sugar Plant (from 3500 to 6500 TCD), Molasses based Distillery Unit (45 KLPD to 90 KLPD) and Installation of Cogeneration Power Plant (18 MW) Ltd. at Village Alegaon, Tehsil Daund, District Pune, Maharashtra by M/s Daund Sugars - reg EC.**

The project proponent and their consultant (M/s Ultra Tech) 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 in the 21<sup>st</sup> Meeting of the Expert Appraisal Committee ( Industry -2) held during 30<sup>th</sup>-31<sup>st</sup>July and 1<sup>st</sup>August, 2014 for 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 Daund Sugars Ltd. has proposed for expansion of Sugar Plant ( from 3500 to 6500 TCD), Molasses based Distillery Unit ( 45 KLPD to 90 KLPD) and Installation of Cogeneration Power Plant ( 18 MW) at Village Alegaon, Tehsil Daund, District Pune, Maharashtra. Total plot area is 57.3 ha. It is reported that no national park/ wild life sanctuary/ biosphere reserve is located within 10 Km distance. River Bhima is flowing at a

distance of 3.5 Km. Cost of project is Rs. 117.82 crore. Out of which Rs. 52.41 crore and Rs. 11.24 Crore per annum towards capital cost and recurring cost per annum for implementation environmental management plan. Following are the configuration of plant after expansion:

S.N.	Plant	Existing	Additional	Expansion
1	Cane Crushing Capacity	3500 TCD	2500 TCD	6000 TCD
2	Co-gen Power Plant	18 MW	--	18 MW
3	Alcohol Distillery	45	45	90 KLPD

PP informed that total requirement of molasses will be 105,000 MTPA, out of which quantity 43,200 MTPA will be met from own sugar unit and balance quantity (61,800 MTPA) will be met from outsourced.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March -May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (64.86 µg/m<sup>3</sup> to 72.34 µg/m<sup>3</sup>), PM<sub>2.5</sub> (34.22 µg/m<sup>3</sup> to 39.58 µg/m<sup>3</sup>), SO<sub>2</sub> (12.32 µg/m<sup>3</sup> to 27.26 µg/m<sup>3</sup>) and NOx (18.71 µg/m<sup>3</sup> to 36.18 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.7 µg/m<sup>3</sup>, 19.3 µg/m<sup>3</sup> and 1.62 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NOx. The resultant concentrations are within the NAAQS. ESP will be provided to coal and concentrated spent wash fired boiler (40 TPH). ESP has been provided to existing coal/bagasse fired boiler (100 TPH & 15 TPH). DG sets (1010 KVA x 2 nos.) will be installed. The Committee suggested that fresh water requirement in the existing units shall be estimated with proposed expansion. PP informed that spent wash from the existing distillery unit (45 KLPD) will be treated in the bio-methantion followed by bio-composting. No of working day of distillery will be 270 days. Spent wash from new Distillery Unit (45 KLPD) will evaporated in the MEE. Concentrated spent wash will be burnt in the boiler. Condensate will be sent to condensate water for treatment. Domestic effluent will be treated in the STP. Fly ash will be handed over to farmers. Spent oil will be sent to authorized recyclers. Existing EC for the molasses based distillery (45 KLPD) was obtained vide MoEF letter no J-11011/249/2009-IA II (I) dated 20<sup>th</sup> November, 2009. The Committee discussed the certified compliance report issued by the MOEF&CC Regional Office dated 11<sup>th</sup> June, 2015. It is reported that EC related information was not uploaded on the website. Sampling and ground water monitoring of piezometers wells was not carried out. PP is monitoring SPM at three AAQMS instead of PM<sub>10</sub> and PM<sub>2.5</sub>. The Committee suggested to submit the compliance report on the non complied points.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 13<sup>th</sup> March, 2015. The issues were raised regarding greenbelt, effluent treatment scheme, supply of electricity to village etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information and documents:

- (i) Water requirement for the existing sugar unit, distillery plant and Cogen Power Plant need to be reanalyzed together.
- (ii) Details of effluent generation from existing plants (i.e Sugar, distillery and cogenpower plant). Effluent treatment facilities provided in the existing unit.
- (iii) Ground water monitoring report of piezometers wells located around compost yards and spent wash lagoon.

- (iv) Detailed Plan for Enterprise Social Commitment considering 2.5 % of project cost may be submitted.
- (v) Action Taken Report on non-complied points observed by the Regional Office.
- (vi) A note on work environment and health status of workers.

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

### **Reconsideration for Environmental Clearance**

#### **44.6.7 Proposed 30 KLPD Distillery at Village Watwate, Taluka Mohol, District Solapur, Maharashtra by M/s Jakraya Sugar Ltd – reg. EC**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 36<sup>th</sup> meeting held during 16<sup>th</sup>– 17<sup>th</sup> March, 2015 and the Committee suggested that surface water quality should be monitored again and data to be submitted.

PP vide letter no. JSL/Dist./234/2015-16 dated 29<sup>th</sup> April, 2015 has submitted the addl. Information and Committee found satisfactory response.

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

- i) As proposed, utility boiler of existing sugar unit shall be used and no additional boiler shall be installed.
- ii) Total fresh water requirement from Bima River for distillery unit shall not exceed 300 m<sup>3</sup>/day and prior permission shall be obtained from the Competent Authority.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation process and evaporated in MEE and concentrated spent wash will be Concentrated spent wash will be mixed with press mud generated from sugar unit for manufacturing organic manure to achieve 'Zero' discharge. Evaporator Condensate shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- iv) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- v) Spent wash shall be stored in impervious pucca lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report

submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and MPCB.

- viii) Bagasse/biomass storage in the existing sugar unit shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash in the sugar unit shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 29271.3 m<sup>2</sup> shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 24<sup>th</sup> February, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

#### **44.6.8 Residue Upgradation and Distillate Yield Improvement project with 11 MMTPA Crude Processing of Mathura Refinery of M/s Indian Oil Corp. Ltd., Mathura, Uttar Pradesh - reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38<sup>th</sup> meeting held during 20<sup>th</sup>– 21<sup>st</sup> April, 2015 and the Committee sought following additional information:

- 1 One month data for Methane and non-methane to be reanalyzed from reputed monitoring Organization.

PP vide letter dated 30<sup>th</sup> June, 2015 has submitted the addl. information. PP informed that there is slight change in the final figure of bitumen production and Sulphur generation, which is as given below:

Product Pattern after expansion are as given below:

<b>Refinery Input</b>	<b>Basecase</b>	<b>M-11</b>
BH	1,200	1,200
LS	2,800	0
HS	4,000	9,800
Total Crude	8,000	11,000
Natural Gas	450	1100
<b>Refinery Output</b>	<b>Basecase</b>	<b>M-11</b>
Propylene	200	200
LPG	430	675
NAPHTHA	525	1050
MS	1,150	1,150
SKO	400	400
ATF	560	1,200
HSD	2,750	4900
FO/PITCH	950	520/200
BITUMEN	750	900
SULFUR	53	240

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

- i. M/s IOCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18<sup>th</sup> March, 2008.
- ii. The process emissions [SO<sub>2</sub>, NO<sub>x</sub>, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- iii. As proposed, in the expansion case of 11 MTPA refiner, some old stacks shall be dismantled and new stacks will be installed in the units namely, SHU, New VDU, OHCU-1, HGU-III, New SRU's TGTU, GT-V and GT-VI.
- iv. Continuous on-line stack monitoring for SO<sub>2</sub>, NO<sub>x</sub> and CO of all the stacks shall be carried out. Low No<sub>x</sub> burners shall be installed. Fuel oil with Sulphur content less than 0.6 % shall be used.
- v. SO<sub>2</sub> emissions after expansion from the refinery shall not exceed 450 Kg/hr. NO<sub>x</sub> emissions after expansion from the Refinery shall not exceed 236 Kg/hr. Sulphur recovery units shall be installed for control of H<sub>2</sub>S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.
- vi. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored Sensors for detecting HC leakage shall be provided at strategic locations.

Leak Detection and Repair programme shall be implemented to control HC/VOC emissions.

- vii. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, by-product (elemental sulphur), atmospheric emissions etc.
- viii. Total water requirement after expansion shall not exceed 1870 m<sup>3</sup>/hr. Out of which, fresh water requirement from Koyala & Keetham water bodies will be 1370 m<sup>3</sup>/hr and remaining water (500 m<sup>3</sup>/hr) will be met from treated effluent/recycled water.
- ix. Industrial effluent generation shall not exceed 665 m<sup>3</sup>/day after expansion. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make up for the raw water cooling tower and remaining treated effluent shall be discharged into nallah.
- x. All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flowrate, pH and TOC shall be provided.
- xi. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the plant premises.
- xii. As proposed, Spent catalyst shall be sent to authorized recycler/re-processors. Oily Sludge shall be treated in the Sludge Centrifuge provided in the ETP and the cake generated from the centrifuge is further sent for bioremediation for disposal.
- xiii. The membership of common TSDF shall be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Lucknow. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
- xiv. Green belt over 10% of the total land area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xv. All the commitments made to the public during public hearing/public consultation meeting held on 23.12.2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi. At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.

**44.6.9 Proposed production of granule single phosphate of capacity 12000 TPA, sulphuric acid (98.5%)- 60000 TPA alongwith CPP of 1.2 MW proposed Mouza- Mantageriya, Chakturia, Sanmaninath, PS- Kharagpur (Local), Paschim Medinipur, West Bengal by M/s Ishika Fertilizer Ltd.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38<sup>th</sup> meeting held during 20<sup>th</sup>– 21<sup>st</sup> April, 2015 and the Committee sought following additional information:

- 1 Layout map of the proposed project as well as greenbelt plant.
- 2 5 % of the project cost shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated for 3 nearby villages in consultation of Gram Panchyat.
- 3 Exploring the feasibility of treated effluent from the nearby industrial area.
- 4 Location to be identified with Commitment to install piezometer well for fluoride monitoring alongwith other important parameters for drinking.
- 5 Soil monitoring report in respect of water holding capacity and bulk density.

PP submitted the above mentioned information. After deliberation, the Committee observed that artistic layout of greenbelt has been proposed without proper analysis and following CPCB guidelines. Therefore, the Committee desired to prepare greenbelt to the scale and submit the copy. Further, it was informed that an amount of Rs. 2.993 Crore has been earmarked towards ESR for investment in 5 years. However, proper mutual consultations with town panchyat/local people, where such schemes to be implemented, have not been exercised. Soil monitoring report was not satisfactory. Therefore, the Committee desired to submit following:

- 1 Layout map with adequate greenbelt plan to the scale. Development of green belt should be as per CPCB guidelines.
- 2 Reanalyzing the Soil with respect to water holding capacity and bulk density
- 3 Reassessment of ESR activities with mutual consultation.

The committee underrated the performance of the consultant w.r.t. monitoring of data.

**44.6.10 Manufacturing of organic chemicals products at village kala Talev, Tehsil, district Bhavnagar, Gujarat by M/s Archit Organics – reg. EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 36<sup>th</sup> meeting held during 16<sup>th</sup>– 17<sup>th</sup> March, 2015 and the Committee sought following additional information:

- 1 Whether any National Park/Wildlife Sanctuary/Reserve Forest is located within 10 km distance? If yes then give details thereof.
- 2 During presentation, it was informed that the total water requirement is 343.44 m<sup>3</sup>/day. However, as per page 2.24 of EIA report, water requirement is mentioned as 289.56 m<sup>3</sup>/day. Correct figure to be specified.
- 3 Source of water supply to be mentioned.
- 4 Give details of treatment scheme for domestic effluent and industrial effluent. Details of usage of treated effluent.
- 5 Details of measures to be taken for Chlorine leakage from working area and storage area.

- 6 Risk and Disaster preparedness and Management Plan be prepared.
- 7 At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details for 5 years. Time bound action plan to be submitted.

PP has submitted the above mentioned additional information. PP informed that there is no national park/wild life sanctuary within 10 km distance. Actual water requirement is 343.44 m<sup>3</sup>/day and source of water supply will be Nirma Industry. Domestic sewage will be treated in the sewage treatment plant. Treated sewage will be reused for horticulture purpose. Effluent generated from utilities will be treated in the ETP. Treated effluent will be evaporated in the MEE. Condensate will be recycled /reused as scrubbing media. PP informed that duct with opening along the periphery of the room attached with proper suction device will be provided to collect chlorine leakages in the work zone area. Duct will be routed through caustic scrubber consist two stage scrubbing system. Rs. 1.00 Crore has been allocated for ESR to be implemented during the period of 5 years of construction phase.

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

- i) In the first year, Chlorine shall be transported through tonner. 2<sup>nd</sup> Year onward, chlorine shall be transferred through pipeline.
- ii) HCl absorption tower followed by water scrubber followed by alkali scrubber shall be provided to Chlorinated paraffin wax vessel to control process emissions viz. HCl. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards. Scrubber shall be provided to control Cl<sub>2</sub> and SO<sub>2</sub>.
- iii) Continuous monitoring system for HCl and chlorine shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.
- iv) Proper hood alongwith suction facility and scrubbing arrangement shall be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided alongwith automatic start of the scrubbing system.
- v) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HCl, Cl<sub>2</sub>, VOCs in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.
- vi) Total water requirement from water supply of Nirma Industry shall not exceed 343.44 m<sup>3</sup>/day and prior permission shall be obtained from the Competent Authority.
- vii) Effluent from utilities shall be treated in ETP followed by MEE. Condensate from MEE shall be recycled/ reused in process and cooling tower make up water. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Water quality of treated effluent from ETP shall be monitored regularly. Sewage shall be treated and treated sewage shall be reused for horticulture purpose.
- viii) No effluent from the plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be followed.

- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xii) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 19<sup>th</sup> December, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xiii) As proposed, Rs. 1.0 Crore should be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

#### **44.7 Terms of Reference ( TOR)**

##### **44.7.1 Proposed Capacity Enhancement by Modernization in Existing Grain Based Distillery (100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village: Shyampur, Tehsil: Behror, District: Alwar (Rajasthan) by M/s Globus Sprit – reg TOR.**

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

##### **44.7.2 Setting up Sugar Unit(3500 TCD), Molasses based Distillery (45 KLPD) and Cogen Power Plant (19 MW) at Village Hoswal, Taluka and District Dharwad, Karnataka by M/s Sree Angadi Dutt Sugar and Distilleries Pvt. Ltd.- TOR**

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

M/s Sree Angadi Dutt Sugar and Distilleries Pvt. Ltd. has proposed for setting up Sugar Unit (3500 TCD), Molasses based Distillery (45 KLPD) and Cogen Power Plant (19 MW) at Village Hoswal, Taluka and District Dharwad, Karnataka. Cost of project is Rs. 288.57 crore. Total plot area is 49 acres. Greenbelt will be developed in 33% of plant area. It is reported that no national park/ biosphere reserve are located within 10 km distance. Reserve forest is located at a distance 2.5 km from the plant site. Malaprabha River is flowing at a distance of 25 km. Following is the configuration of unit :-

S. No.	Unit	Proposed Capacity
1	Distillery	45 KLPD
2	Sugar	3500 TCD

3	Co-Gen Power	19 MW
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ESP will be provided to bagasse fired boiler to control particulate emissions. DG sets (2 x 1010 KVA) will be installed for emergency back up. Water requirement from the surface water will be 1349 m<sup>3</sup>/day. Effluent from sugar unit will be treated in the ETP. Spent wash will be treated in the digester, MEE followed by bio-composting. No effluent will be discharged outside the plant premises. Spent oil will be sent to authorized recyclers. Fly ash will be sent to brick manufacturing unit.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report :

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and press mud.
23. Flyash management plan for coal based and bagasse and action plan

24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO<sub>2</sub>\*, NO<sub>x</sub>\*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (\*-As applicable)

## 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.

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.

### 44.7.3 Manufacturing Unit of Pharmaceutical/API (150 TPA) at Plot no. 332/10, 322/6B, 322/9 at Village Kaverirajapuram, Tehsil Thiruthani, District Thiruvallur, Tamil Nadu by M/s Sai Supreme Chemicals- reg TOR.

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

M/s Sai Supreme Chemicals has proposed for setting up of manufacturing Unit of Pharmaceutical/API (150 TPA) at Plot no. 332/10, 322/6B, 322/9 at Village Kaverirajapuram, Tehsil Thiruthani, District Thiruvallur, Tamil Nadu. The plot area is 2.86 acres with green belt area of 4036.08Sq.m (35%). The total cost of the project is Rs. 150 lacs. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve within the distance of 15km from the plant site. Interstate Boundary ( TN-AP) is located at a distance of 7.6 Km. Kusasthali River is flowing at a distance of 4.3 Km. Poondi Lake is at a distance of 12 km. Following are the existing and the proposed products to be manufactured:-

S.N.	Products	Capacity (in TPA)
1	Proparanolol HCl	50
2	Atenolol	45
3	Bronopol	48
Byproducts		
1	Sodium Bromide	30

Stack height will be provided to boiler. Wet scrubber will be provided to reactors. DG set (1x 40 KVA + 1x 62.5 KVA) will be installed. Fresh water requirement from ground water source will be 17.1 m<sup>3</sup>/day. Effluent generation will be 6.15 m<sup>3</sup>/day and segregated into high

TDS and low TDS effluent streams. High TDS effluent stream will be evaporated in the MEE. Low TDS effluent will be treated in the ETP followed by RO. No effluent will be discharged outside the plant premises. ETP sludge and process waste will be sent to TSDF facility. Spent solvent/carbon/used oil/waste oil will be sent to authorized recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

## **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.

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.

### **44.7.4 Manufacturing of resin for captive use for laminated sheets at Survey No. 4490/1, Visnagar - Umta Road, Opposite Getco Sub Station, Umata-384320, Taluka Visnagar, District Mehsana, Gujarat by M/s Moti Laminates Pvt. – reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals

Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Moti Laminates Pvt. Ltd. has proposed for setting up of resin manufacturing unit for captive use for laminated sheets at Survey No. 4490/1, Visnagar - Umta Road, Opposite Getco Sub Station, Umata-384320, Taluka Visnagar, District Mehsana, Gujarat. The plot area is 34248 m<sup>2</sup> and Greenbelt will be developed in 33 % of plant area. The total cost of the project is Rs. 95 lacs. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve is located within the distance of 15km from the proposed site. Following is the list of proposed products to be manufactured:

S.N.	Products	Quantity
1.	Urea Formaldehyde resin	260 MT/Month
2.	Phenol Formaldehyde resin	350 MT/Month
3.	Melamine Formaldehyde resin	192 MT/Month

Multi-cyclone separator followed by bagfilter will be provided tobio-fuel fired boiler and thermic fluid heater. For control of process gas emissions, from impregnator of laminated sheets manufacturing unit water scrubber has already proposed. DG set ( 100 KVA + 400 KVA) will be installed. The water demand will be satisfied through existing bore well. Water requirement for laminate manufacturing unit will be 107.0 m<sup>3</sup>/day and after addition of resin unit water requirement will be increased to 110.0 m<sup>3</sup>/day. Wastewater generation will be 7 m<sup>3</sup>/day. The proposed zero discharge system consisting of primary treatment units followed by evaporator will be adequate to additional discharge of waste water(@2 KL) from resin manufacturing plant. Evaporation residue will be sent to TSDF facility. Used oil will be sent to registered recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

#### **A. Specific TOR:**

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge. Treatment of Phenol in the wastewater.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.

- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

## B. Additional TOR

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 State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

### 44.7.5 Debottlenecking of Existing Petrochemical Complex along with Expansion of Coal / Pet coke based Captive Co-generation Power Plant (CCPP) (from 48 MW to 240 MW) at Khalapur Tehsil, Patalganga Manufacturing Division B1-B3 & B5, MIDC Industrial Area, district Raigarh, Maharashtra by M/s Reliance industries Limited (RIL) – reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petrochemical Complexes are listed at S.N. 5(c) under category 'A' and appraised by Expert Appraisal Committee (I). CPP > 50 MW (Pet Coke) are listed at S.N. 1 (d) under Category 'A' and considered as integrated project.

M/s Reliance industries Limited (RIL) has proposed for Debottlenecking of Existing Petrochemical Complex along with Expansion of Coal / Pet coke based Captive Co-generation Power Plant (CCPP) (from 48 MW to 240 MW) at Khalapur Tehsil, Patalganga Manufacturing Division B1-B3 & B5, MIDC Industrial Area, district Raigarh, Maharashtra. Existing unit is operating since 1985. The plot area is 65.6 hectares. The cost of the project is Rs. 179000 lakh. It is reported that Karnal Bird Sanctuary is about 7km away from the site and Patalganga river flows close to the site. Patalganga Manufacturing Division has following manufacturing units :

- i. Petrochemicals complex : PX, PTA, LAB
- ii. Polyester Complex : PFY, PSF, PIY, FDY
- iii. Power steam requirement is partly met by 48 MW gas based CCPP

It is proposed to increase the capacity of PTA & LAB by debottlenecking. The following are the existing and the proposed products to be manufactured:

Product	Existing Capacity (MT/M)	Post Debottlenecking
<b>LINEAR ALKYL BENZENE (LAB)</b>	<b>8340</b>	<b>11000</b>
Normal paraffin	51598	75000
Normal paraffin		
Heavy normal paraffin		
Light normal paraffin		
Tar polymer		

Heavy alkylate	840	840
Light ends	1110	1110
<b>PURE TEREPHTHALIC ACID (PTA)</b>	<b>25000</b>	<b>27500</b>
Paraxylene	20840	20840
Iso pentane	1042	1042
Normal pentane		
IG benzene		
Remax-1	50509	50509
Renine		
Liquefied petroleum gas (LPG) (sr grade)	2250	2250

Expansion of 48 MW CCPP to 240 MW, which is as given below:

- a) 24 MW GT to 33 MW by efficiency improvement initiatives.
- b) Addition of 174 MW based on coal/pet coke.
- c) Post commissioning of 174 MW, 66 MW GT will remain standby.

ESP will be installed. Lime injection will be done. High retention time in boiler. Covered storage of pet coke and transferred through closed conveying system. Water requirement from MIDC water supply will be increased from 18000 m<sup>3</sup>/day to 25000 m<sup>3</sup>/day after expansion. Effluent generation from the existing unit will be 6000 m<sup>3</sup>/day. Wastewater generation from CCPP will be 97 m<sup>3</sup>/hr. Ash will be used in cement & construction. No ash pond is proposed. PP requested to use the monitoring data collected during the year 2013. The Committee suggested that as per the practice, the monitoring should be done with issuance of TOR so that latest base line data can be evaluated at EC stage.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

#### **B. Specific TOR:**

1. Details on requirement of raw material (naphtha/gas feed stock), its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Brief description of equipments for various process ( cracker, separation, polymerization etc.)
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, etc.
6. Details on proposed LDAR protocol.
7. Ambient air quality should include hydrocarbon (methane and non methane ), VOC and VCM (if applicable).
8. Action plan to meet the standard prescribed under EPA for petrochemical complex.
9. Risk Assessment & Disaster Management Plan
  - Identification of hazards
  - Consequence Analysis

- Measures for mitigation of risk.

CPP:

- 1) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
- 2) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
- 3) Plan for recirculation of ash pond water and its implementation shall be submitted.
- 4) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
- 5) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc. should also be furnished.
- 6) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
- 7) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
- 8) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.

**B. Additional TOR**

1. The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.
2. Complete scheme for Effluent treatment and its disposal plan.
3. Latest data to be collected

It was recommended that '**TORs**' prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

**44.7.6 Setting up a new Synthetic Resin Manufacturing Unit within the existing Plyboard Plant located at Survey No. 145, 147 Paiky and 148, Village Motichirai, Taluka Bhachau, Gandhidham, District Kutch, Gujarat by M/s Century Plyboards India Limited. –reg TOR**

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

M/s Century Plyboards India Limited has proposed for setting up of Synthetic Resin Manufacturing Unit within the existing Plyboard Plant located at Survey No. 145, 147 Paiky and 148, Village Motichirai, Taluka Bhachau, Gandhidham, District Kutch, Gujarat. Plot area is 98482.94 sq. m. Total cost of the project is Rs. 105 lakh . It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 15km from the project site. The following is the list of the proposed products to be manufactured:-

S. No.	Name of the Products	Total (Ton/Annum)	Storage
1	Phenol Formaldehyde (PF) Resin	6000	40 MT
2	Melamine Formaldehyde (MF) Resin	1500	10 MT
3	Urea Formaldehyde (UF) Resin	1500	10 MT
4	Melamine Urea Formaldehyde (MUF) Resin	3000	20 MT
	Total	12000	80 MT

Water requirement for resin unit will be 7 m<sup>3</sup>/day and sourced from Gujarat Water Infrastructure Ltd. Sewage will be treated in the STP. Wastewater generated will be used for making caustic soda solution, which is used as catalyst. No effluent will be generated. The Committee suggested that water requirement in the existing unit should be elaborated in the EIA report to assess cumulative impact. Committee also suggested the Environmental Consultant to give factual information about air emissions from utilities, process, water requirement in totality, wastewater generation and its treatment, solid waste management greenbelt etc.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

**A. Specific TOR:**

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge. Treatment scheme for removal of phenol from wastewater.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.

- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

## B. Additional TOR

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 State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

### 44.7.7 Resin Manufacturing Unit at Survey No. 40, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Ever Shine Décor P. 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 along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Water consumption > 25 m<sup>3</sup>/day & Formaldehyde storage > 5 MT) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Ever Shine Décor P. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 40, Village Indrad, Taluka Kadi, District Mehsana, Gujarat. The plot area is 7588 m<sup>2</sup> of which greenbelt is will be developed in 2480 m<sup>2</sup>. The cost of the project is Rs.100 lacs. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere reserve is located within the distance of 15 km from the proposed project site. Following products will be manufactured:

No.	Name of Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	200 MT/Month
2	Melamine Formaldehyde Resin (M. F. Resin)	200 MT/Month
3	Urea Formaldehyde Resin (U. F. Resin)	240 MT/Month
4	Laminated Sheets	1,60, 000 Nos./Month

Cyclone separator followed by bagfilter will be provided to coal/briquettes fired boiler and thermic fluid heater to control particulate emissions. DG set (275 HP) will be installed. Total water requirement from ground water source will be 32 m<sup>3</sup>/day. Effluent

generation will be 9.5 m<sup>3</sup>/day. Effluent will be treated in the ETP based on photo fenton process. Treated effluent will be evaporated in the MEE to achieve zero discharge. ETP sludge and evaporator residue will be sent to TSDF. Used oil will be sent to registered recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

**B. Specific TOR:**

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge. Treatment scheme for removal of phenol from wastewater.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

**B. Additional TOR**

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 State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

**44.7.8 Resin manufacturing Unit at Survey No. 213, Village Bahutha, Taluka Savli, District Baroda, Gujrat by M/s. Sayaji Laminates 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 along with the

draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Water consumption > 25 m<sup>3</sup>/day & Formaldehyde storage > 5 MT) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s. Sayaji Laminates Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 213, Village Bahutha, Taluka Savli, District Baroda, Gujarat. The plot area is 7611.0 m<sup>2</sup>. Total cost of the project is Rs. 1.0 Crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve within the distance of 15km from the plant site. Mahi River is flowing at a distance of 7.5 km north-west direction. Following products will be manufactured:

S. N.	Name of Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	400 MT/Month
2	Melamine Formaldehyde Resin (M. F. Resin)	400 MT/Month
3	Urea Formaldehyde Resin (U. F. Resin)	400 MT/Month
4	Laminated Sheets	3,00,000 Nos./Month

Cyclone separator followed by bag filter will be provided to coal/briquettes fired boiler and thermic fluid heater to control particulate emissions. DG set (300 KVA) will be installed. Total water requirement from ground water source will be 35 m<sup>3</sup>/day. Effluent generation will be 9.5 m<sup>3</sup>/day. Effluent will be treated in the ETP based on photo fenton process. Treated effluent will be evaporated in the MEE to achieve zero discharge. ETP sludge and evaporator residue will be sent to TSDF. Used oil will be sent to registered recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report:

**A. Specific TOR:**

- 1) Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2) Details of process emissions from the proposed unit and its arrangement to control.
- 3) Ambient air quality data should include VOC, etc.,
- 4) Work zone monitoring arrangements for hazardous chemicals.
- 5) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge. Treatment scheme for removal of phenol from wastewater.
- 6) Action plan for odour control to be submitted.
- 7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9) Action plan for utilization of MEE/dryers salts.
- 10) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.

- 14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

## **B. Additional TOR**

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 State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

### **44.7.9 Establishment of Molasses based Distillery (90 KLPD) and Cogeneration Power Plant( 35 MW) alongwith Expansion of Sugar from 2500 TCD to 8000 TCD at Village Bambawade, Tahsil Shahuwadi, District Kolhapur, Maharashtra by M/s Athani Sugar Limited. –reg ToR.**

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

M/s Athani Sugar Limited has proposed for setting up of Molasses based Distillery (90 KLPD) and Cogeneration Power Plant( 35 MW) alongwith Expansion of Sugar from 2500 TCD to 8000 TCD at Village Bambawade, TahsilShahuwadi, District Kolhapur, Maharashtra. Total plot area is 90 acres. Cost of project is Rs. 378 Crore. Varna River is flowing at a distance of 4.1 km. It is reported that no ecological sensitive area is located within 10 km distance. Sugar plant will be operated for 160 days. Distillery unit will be operated for 270 days. Co-gen power plant will be operated for 210 days.

Air Pollution Control device, as dust collector, will be installed in the boiler. The Committee suggested them to install bagfilter to control particulate emission. Water requirement for sugar unit along with cogeneration power plant will be 2000 m<sup>3</sup>/day during season, which will be met from condensate of sugar unit. Water requirement for cogeneration power plant will be 1364 m<sup>3</sup>/day during offseason, which will be met from fresh water. Fresh water requirement for distillery unit will be 600 m<sup>3</sup>/day. The Committee suggested them to give source of fresh water requirement in the EIA –EMP report. Spent wash will be evaporated in MEE and evaporated spent wash will be incinerated in the incineration boiler. No effluent will be discharged outside the plant premises.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

## **A. Specific TOR**

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and press mud.
23. Fly ash management plan for coal based and bagasse and action plan
24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO<sub>2</sub>\*, NO<sub>x</sub>\*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (\*-As applicable)

## **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.

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.

**44.7.10 Proposed 30 TPH Fertilizer Blending Unit for Customized NPK Production, 25 MW along with MP stream (37 Kg/Cm2g) Gas Turbine (GT), Unfired capacity of 50 MT/Hr. (70 MT/Hr. with supplementary firing) Heat Recovery Steam Generator (HRSG) & 1X5000 MT Atmospheric Ammonia Storage Tank and Urea Granulation Plant (expansion of Urea production from 1500 MTPD to 1800 MTPD i.e. Urea Prilling: 1200 MTPD+ Urea Granulation Unit: 600 MTPD) at its existing facility at Zuari nagar, Goa by M/s Zuari Agro Chemicals Ltd. (ZACL) – reg TOR**

MoEF&CC has issued TOR alongwith public hearing to M/s Zuari Agro Chemicals Ltd. (ZACL) on 19<sup>th</sup> March, 2013 for preparation of EIA-EMP report was issued. Further amendment in TOR was obtained vide MoEF&CC letter dated 17<sup>th</sup> December, 2014 for 25 MW Gas Turbine alongwith Heat Recovery Steam Generator (HRSG) generating MP steam with unfired capacity of 50 MT/Hr. 1x 5000 MT atmosphere Ammonia Storage Tank will be installed.

Now, PP intends to make following modifications in the existing proposals:

- (i) Replacement of Turbo Generator (TG) and Steam Boilers with GT and HRSG due to the following reasons :
  - a) Boilers are 41 years old and can get de-rated in near future.
  - b) TG is a 60's designed inefficient machine planned to be replaced with GT.
  - c) Installation of GT (25 MW) and HRSG.
- (ii) Replacement of Existing Horton Spheres with atmospheric ammonia storage tank.
- (iii) Installation of Urea Granulation Plant.

No cost of project will be Rs. 788.6 Crore. Power requirement will be 2 MW. Installation of GT/HRSG will reduce the water consumption will be 80 m<sup>3</sup>/day. Installation of customized fertilizer plant & Urea granulation plant will be consumed at the tune of 250 m<sup>3</sup>/day. Source of water supply will be PWD, water resource Department, Govt. of Goa and Rain Water Harvesting captive Dam. Zuari River is flowing at a distance of 7.4 Km and Zuari Estuary is at a distance of 2.25 Km. regarding notified industrial estate, the Committee noted that the information furnished by the PP is related to Notification for change in landuse of the project site by the Town and Country Planning Department. Therefore, exemption of public hearing can not be granted under Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006.

After detailed deliberations, the Committee prescribed for fresh TOR and the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA-EMP report.

#### **A. Specific TOR**

1. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.
4. Measures for control of urea dust emissions from prilling tower.
5. Measures for reduction of fresh water requirement.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.
7. Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluoro silicic acid ( $H_2SiF_6$ ) and its uses.
8. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck, etc.
9. Details on existing ambient air quality for PM10, PM2.5, Urea dust\*,  $NH_3^*$ ,  $SO_2^*$ ,  $NO_x^*$ ,  $HF^*$ ,  $F^*$ , Hydrocarbon (Methane and Non-Methane) etc., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (\*as applicable)
10. Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, \*Cr as  $Cr^{+6}$ , \*Total Chromium, Fluoride, etc.

#### **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. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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.

**44.7.11 Proposed 60 KLPD Molasses/grain based distillery at Village- Abdulpurmunna Tehsil- Bijnor, Uttar Pradesh by M/s Centurion Industries Pvt. Ltd (CIPL) – reg TOR.**

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

**44.7.12 Expansion Project for Manufacturing of Sterile Bulk Formulation and Injectable Formulation from 36 MTPA to 300 MTPA at Plot No. 619 & 630, RIA Bhiwadi, Tijara, Alwar Rajasthan by M/s Rajasthan Antibiotic Limited.**

M/s Rajasthan Antibiotic Limited has proposed for expansion of manufacturing of sterile bulk formulation and injectable formulation from 36 MTPA to 300 MTPA at Plot No. 619 & 630, RIA Bhiwadi, Tijara, Alwar Rajasthan. PP informed that reason for submitting application is Rajasthan State Pollution Control Board issued a show cause notice dated 17.03.2015 mentioning "That a drug formulation has been establish with in the premises without obtaining prior environmental clearance under EIA Notification. PP is engaged in only sterilization & formulation to prepare Steril bulk formulation in 1 Kg, 2 Kg or 10 Kg bulk package as per required by Customer and speed of machine by using APIs/Drugs as raw materials. Sterile bulk formulations are manufactured from APIs by addition of bulking agents such as mannitol, lactose & sucrose and with buffering agents, which is freely soluble in water for injection or solvents by method of steril filtration and followed by Lyophiliz and drying under vacuum. The above process do not alter any chemical structures and medicinal activity only the formulation become for human use as per guidelines for preparation of injections.

The Committee noted that since process involves pH adjustment and filtration as well as drying and no chemical reaction occurred during solution preparation, the proposed activity cannot be treated as organic synthesis. The said process is a formulation activity. Therefore, the Committee recommended that proposed Sterile Bulk Formulation and Injectable Formulation do not attract the provisions of EIA Notification, 2006 and exempted from the EC process. However, other statutory clearances under the Forest (Conservation) Act, 1980, the Wildlife (Protection) Act, 1972, Air and Water Act may be obtained, as applicable in this case as per site condition.

**44.8 Any other**

**44.8.1 Expansion of dyes manufacturing unit at Sy. No. 92, Block No. 86, Village Dhanot, Taluka Kalol, District Gandhinagar, Gujarat by M/s Gopinath Chem Tech Ltd.-reg Amendment in EC**

MoEF&CC vide letter no. J-11011/265/2009 – IA II (I) has granted environmental clearance to M/s Gopinath Chem Tech Ltd. on 17.07.2009 with the following specific condition at S.N. (i):

"The Industrial effluent generation shall not exceed 26.5 m<sup>3</sup>/day. The effluent shall be treated in the ETP for primary and secondary treatment. The treated effluent after conforming to the prescribed standards shall be discharged into CETP of M/s NELP. The domestic effluent (1.6 m<sup>3</sup>/day) shall be disposed through septic tank/soak pit."

Now, PP informed that GPCB has asked them to make amendment in the above referred EC as "entire quantity of treated wastewater shall be evaporated except

domestic wastewater". At present they have installed MEE in their plant premises for the disposal of effluent generated from manufacturing activity. Now, they need to install IBR boilers (coal fired) in place of two non-IBR boiler (LDP fire boiler) of 2.0 & 2.5 TPH for process and 2.5 TPH boiler for operation of MEE and total coal consumption requirement will be 500 kg/hr.

After detailed deliberation, the Committee recommended the aforesaid amendment requested with following specific conditions:

- i. Effluent shall be treated in the ETP comprising primary and secondary treatment facilities (biological). Treated effluent will be evaporated in the MEE. Evaporated salt will be sent to TSDF. Condensate will be recycled/reused within the plant premises. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept shall be implemented.
- ii. Multicyclone dust collector followed by bagfilter alongwith stack of adequate height will be provided to coal fired IBR boiler (1x 2.0 TFH & 1 x 2.5 TFH).
- iii. Scrubber shall be provided to reaction vessels to control process emissions viz. HCl and SO<sub>2</sub>.

**44.8.2 Distillery (Grain Based, 60 KLPD, ENA), CPP (2 MW) and Fish Feed Plant (144 TPD) at Sy. No.- 37, Village Thummalapalli, Tehsil Nandivada, District Krishna, Andhra Pradesh by M/s Hrudai Bio Tech Pvt. Ltd.- reg change in survey number 37/1A in place of RS no. 37.**

MoEF&CC vide letter no. J-11011/504/2010 – IA II (I) has granted environmental clearance to M/s Hrudai Bio-Tech on 14.01.2013. Location of the distillery was proposed to be at Sy. No 37 to the extent 29.47 acre in Village Thummalapalli.

Now PP informed that subsequently the land under the Sy. No. was redesignated as 37/1A, 37 1B, 37/2A and 37/2B. The land which they have proposed is now falling under 37/1A and 37/2A of extent 12.30 acre (4.97 ha). After detailed deliberation, the Committee found that the EC was granted to the allotted land where survey number is redesigned. Therefore, Committee recommended the aforesaid amendment in the Sy. Nos from 37 to 37/1A and 37/2A.

**44.8.3 Carbon Black Plant (1,20,000 TPA) at Patalganga, District Raigad, Maharashtra by M/s Hi-Tech Carbon-reg. amendment in EC.**

MoEF&CC vide letter no. J-11011/35/2007-IA II (I) dated 22<sup>nd</sup> March, 2013 has accorded Environmental Clearance to M/s SKI Carbon Black (India) Pvt. Ltd (earlier known as M/s Hi-Tech Carbon) for setting up of Carbon Black Plant (1,20,000 TPA) at Patalganga, District Raigad, Maharashtra.

M/s SKI Carbon Black (India) Private Ltd., presently operates on heavy fuel oil (CBFS) to produce Carbon Black (by thermal cracking reaction). Also part of this fuel is consumed for burning and providing the heat required for reaction. The project proponent proposes to install Tail Gas Recycle Unit on each reactor to enable it recycle and use Waste Tail Gas from the current manufacturing process. This project would enable the project proponent to avoid burning additional fuel oil for carbon black reaction.

PP informed that the Tail Gas Recycle Project of M/s SKI Carbon Black (India) Private Ltd., will result in significant reduction of Green House Gas emissions and there will not be any additional pollution load. The capital expenditure for the project shall be Rs.146.5 Crores. The proposed modification will not result in increase in production capacity of carbon black beyond the already approved capacity of 1,20,000 TPA. 'Tail gas recycle Project' is one of SKI Carbon Black (India) Pvt. Ltd., long term R&D based initiatives to develop and commercialize a novel process technology targeted to reduce oil consumption and GHG generation. Carbon Black Production process is essentially a Thermal cracking of heavy feedstock oil in refractory lined reactors. The Thermal Cracking reaction is a partial combustion process and requires to generate sufficient heat at around 2000° C in a reducing atmosphere in order to break-down the large oil molecules and produce fine carbon particles. Along with carbon particle some combustible gasses like CO and H<sub>2</sub> also other non-combustibles like CO<sub>2</sub>, N<sub>2</sub> and H<sub>2</sub>O gases are produced which are termed as lean Tail Gas. This reaction is stopped by quenching with water spray in reactor. Carbon black and gas mixture is then passed through high efficiency Bag collectors for separation of lean Tail Gas and collection of fine carbon black particles. The filtered tail gas is then sent to the onsite captive power plant for combustion and generation of steam and electrical power. A small part of Tail gas is utilized to generate heat for Carbon black drying process in the Tail gas fired Rotary drum dryers. The new proposed process shall recycle a part of this lean tail gas and feed to Carbon Black reactors as heat source for the thermal cracking reaction and replace the auxiliary heavy fuel oil being utilized. Through this process modification a substantial reduction of total plant oil requirement can be achieved and this reduction is estimated in range of 12 to 15% on continuous basis. As most of the heavy fuel oil is imported, it shall save Foreign Exchange also.

Prior to recycling the lean Tail Gas to reactor, it needs to be pre-conditioned in order to achieve the desired heat input to the reactors. The conditioning process of tail gas shall involve dehumidification, compressing and heating operation prior to injecting into the reactor combustor. As part of tail gas is used as reactor fuel, the capacity to produce steam and power shall reduce in the plant while additional equipment shall need some power during operation. The project viability is studied based on all economical consideration. Project implementation shall not increase productivity and does not require any change in existing provisions for river water drawn for plant use or any additional liquid effluent stream generated from new process requiring installation of any additional waste water treatment process. The project implementation shall reduce considerable amount of GHG gases. Project proposes development and commercialization of a breakthrough environmental technology for Carbon Black process and essential for long term sustainability. Now, PP has requested for amendment in the conditions stipulated in the EC dated 22.03.2013 to facilitate the following:

“Installation of Tail Gas Recycling Unit on existing Reactors”

After detailed deliberations, the Committee recommended the aforesaid proposal under section 7 (ii) of the EIA Notification, 2006 as no additional pollution load is envisaged.

#### **Additional Item**

#### **44.8.4 Proposed Capacity Expansion from 7.5 MTPA to 8 MTPA along with Proposed Distillate Yield Improvement and ( ii) Proposal for installation of feed preparation unit Catalytic Dewaxing Unit at District Medinipur, West Bengal by M/s IOCL-Haldia Refinery.- reg EC.**

The project proponent and their consultant (M/s Envirotech East (P) Limited) 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 14<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 19<sup>th</sup>-20<sup>th</sup> December, 2013 for preparation of EIA-EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s IOCL-Haldia Refinery has proposed for capacity expansion from 7.5 MTPA to 8 MTPA along with Proposed Distillate Yield Improvement and (ii) installation of feed preparation unit Catalytic Dewaxing Unit at District Medinipur, West Bengal. Following is the project configuration:

S.N.	Proposed Unit	Capacity
	<b>A) Under Capacity Expansion Project</b>	
	Revamp of Existing CDU-I	From existing 3.3 MTPA to 3.8 MTPA
	Revamp of Existing VDU-I	From existing 1.5 MTPA to 1.7 MTPA
	<b>B) Under Distillate Yield Improvement Project</b>	
	i. Delayed Coking Unit (DCU)	1.7 MMTPA
	ii. Coker Gas Oil Hydrotreater Unit (CGO HDTU)	1.4 MMTPA
	iii. Coker LPG MEROX Unit	70 TMTPA
	iv. Sulphur Recovery Unit (SRU)	80 TPD
	v. Amine Treating Unit (ATU)	260 TPH
	vi. Sour Water Stripper (SWS)	65 TPH
	<b>C) Feed Preparation Unit</b>	650 TMTPA

For capacity expansion project and proposed Feed Preparation Unit (FPU) for Catalytic Dewaxing Unit (CDWU), no additional land shall be required. In capacity expansion project, the existing CDU-I and VDU-I shall be revamped. The proposed Feed Preparation Unit will be installed in the vacant plot (Area: 3600 m<sup>2</sup>), available near the existing OHCU within the refinery complex. Delayed Coker project shall be housed in the 83 acres land, acquired from old Hindustan Fertilizer Corporation (HFC) on long-term lease basis. Cost of project is Rs. 3217 Crores. Hoogly River and Haldi River are flowing at a distance of 1.0 Km and 6.0 km respectively. It is reported that there is no National Park, Wildlife Sanctuary, Eco sensitive area & Reserve Forest within 10 km. radius of the Project Site.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during February, 2014- May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (32.13 µg/m<sup>3</sup> to 99.14 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14.38 µg/m<sup>3</sup> to 48.57 µg/m<sup>3</sup>), SO<sub>2</sub> (4.57 µg/m<sup>3</sup> to 25.86 µg/m<sup>3</sup>), NO<sub>2</sub> (16.13 µg/m<sup>3</sup> to 56.14 µg/m<sup>3</sup>) and ammonia (7.00 µg/m<sup>3</sup> to 23.71 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 68.79 µg/m<sup>3</sup>, 10.36 µg/m<sup>3</sup> and 5.50 µg/m<sup>3</sup> with respect to SO<sub>2</sub>, NO<sub>x</sub> and PM respectively. SO<sub>2</sub> emission from the refinery will be 1302.8 kg/h after expansion.

Fresh water requirement from Geonkhali Water Supply System and ground water source (16 deep tube wells) will be increased from 635 m<sup>3</sup>/hr to 1270 m<sup>3</sup>/hr after expansion. Wastewater generation will be increased from 850 to 1144 m<sup>3</sup>/hr after expansion. Effluent will be treated in the ETP capacity of 1250 m<sup>3</sup>/hr. To achieve the maximum reuse of treated effluent water, RO-based Tertiary treatment plant with capacity of 1250 m<sup>3</sup>/hr was commissioned. The tertiary treatment plant for ETP treated water is having latest technologies of DMF, UF, and MCF & Reverse osmosis. After treating the ETP treated water in TTP, it is being reused as cooling tower make up water and DM water. The treated effluent (112 m<sup>3</sup>/hr) will be finally discharged into surface water body through the existing system. The raw oily sludge, generated during tank M & I is removed from tank and

transferred to Melting Pit for heat treatment for oily recovery. In the Melting Pit, oil is separated and recovered oil thus extracted, is pumped to refinery slop tank for re-processing in the refinery into products. Approximately 1200 MT of spent catalyst is being generated in the refinery on annual basis, which is also disposed through WBWML. Power requirement will be 30.34 MW and will be met from WBSEB and from the existing power plant of refinery.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 9<sup>th</sup> February, 2015. The issues were raised regarding greenbelt, wastewater management, ambient air quality of the area, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

Consequent to presentation, the committee observed that there are certain deficiencies in the proposal. Therefore, Committee sought following additional information:

- i. Details of existing stack and proposed stacks.
- ii. Stack wise sulphur emissions to be estimated.
- iii. Air pollution Control Device to be proposed.
- iv. GLC of SO<sub>2</sub> due to proposed project estimated to be 68.79 µg/m<sup>3</sup>, which seems to be higher side. Measures to be taken to bring down the GLC of SO<sub>2</sub>. Detailed action plan for reduction of SO<sub>2</sub>.
- v. Water audit report and their recommendation to be furnished.
- vi. Water quality monitoring data of the upstream and down stream of the meeting point of the river and effluent stream.
- vii. Details of action plan alongwith compliance submitted to the SPSCB/CPCB in respect of CPA.
- viii. Details of greenbelt (existing and Proposed) to be submitted.
- ix. Compliance report of existing EC and action taken report.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. Committee desired that an expert of refinery namely Shri M. B. Lal may be co opted for advise for this project. **The proposal shall be presented again with full detail on submission of above information.**

#### **44.8.5 Exploratory & Development Drilling of 8 Wells in Khubal Discovery Block AAONN-2001/1, East Tripura, District North Agartala, Tripura by M/s ONGC File no. J -11011/104/2012-IA II (I) – amendment in existing EC**

MoEF&CC vide letter no. J-11011/104/2012-IA II (I) dated 23<sup>rd</sup> July, 2014 has accorded Environmental Clearance to M/s ONGC Ltd. for exploratory & development drilling of 8 Wells in Khubal Discovery Block AAONN-2001/1, East Tripura, District North Agartala, Tripura.

Now, PP has requested for amendment in co-ordinates to existing EC due to G & G study and availability of land. There is no change in 0.83 Km (RKH-13) to 12 Km (RKH-10). No change in block and District. It is reported that no involvement of

forest land, wildlife sanctuary and ESZ due to change in proposed co-ordinates. Location proposed for amendment to EC is as given below:

S. N.	EC Available Locations		Locations proposed for Amendment to EC		Shift (km)	Remarks
	Location Name	Location Co-ordinates	New Location Name	New Location Co-ordinates		
1	RKH-12	24° 22' 06.21" 92° 10' 57.36"	RKH-15	24 19' 35.412" 92 11' 37.728"	4.77	Proposed for amendment of co-ordinates in EC
2	RKH-13	24° 15' 20.85" 92° 11' 20.69"	RKH-17 (KHBH Shift)	24 14' 59.116" 92 11' 38.238"	0.83	May advice whether amendment of co-ordinates in EC is required
3	RKH-08	24° 13' 36.82" 92° 05' 49.37"	RKH-21	24 14' 27.247" 92 07' 02.720"	2.58	Proposed for amendment of co-ordinates in EC
4	RKH-15	24° 10' 14.23" 92° 07' 52.95"	RKH-19	24 10' 41.503" 92 07' 59.212"	0.86	May advice whether amendment of co-ordinates in EC is required
5	RKH-10	24° 18' 24.56" 92° 12' 33.42"	RKH-18	24 12' 12.856" 92 10' 17.955"	12.07	Proposed for amendment of co-ordinates in EC
6	RKH-11	24° 20' 06.76" 92° 13' 31.07"				No change in co-ordinates
7	RKH-14	24° 15' 36.87" 92° 08' 21.38"				No change in co-ordinates
8	KHBK	24° 17' 58.35" 92° 11' 22.33"	Drilled			No Change

After detailed deliberation, the Committee recommended the aforesaid proposal for amendment in the existing environmental clearance.

#### 44.8.6 Exploratory Drilling of 182 Wells in 33 Blocks in Western Onshore Basin, Baroda, Ahmedabad, Gandhi Nagar and Kheda District of Gujarat by M/s ONGC File No. J-11011/431/2011-IA II (I)- amendment in existing EC.

M/s ONGC informed that the following existing ECs have been obtained:

##### Cambay Basin:

1. Exploratory drilling of 103 wells in 30 Blocks of Western Onshore Basin, District Mehsana & Patan, Gujarat. File No. J-11011/125/2011-IA II (I) dated 18<sup>th</sup>September, 2014.

2. Exploratory drilling of 67 wells of M/s Oil and Natural Gas Corporation Ltd., (ONGCL) in 23 Blocks of Western Onshore Basin, Baroda, Gujarat. File No. J-11011/431/2011-IA II (I) dtd 25th June, 2014.

3. Exploratory drilling of 182 wells in 33 blocks in Western Onshore Basin, Baroda, Ahmedabad, Gandhinagar, Mehsana, Anand and Kheda Districts of Gujarat. File No. J-11011/102/2012-IA II (I) dtd. 22nd August, 2013.

Public hearings were conducted in all the above blocks prior to obtaining of above ECs.

#### KG Basin :

4. Exploratory drilling of 25 wells in PEL Blocks 1A and 1B. File No, J-11011/68/2011-IA II (I) dtd. 14th June, 2013.

Public hearing was exempted for the above EC, as the public hearing were conducted in 2011 in the same areas of KG Basin ( three districts East Godavari, West Godavari and Krishna in AP) covering all the above blocks

#### Cauvery Basin:

5. Exploratory drilling in PEL Blocks in Cauvery Basin, Tamilnadu File No, J-11011/178/2008-IA II (I) dtd. 28th April, 2008. Public hearing was exempted as per para 7 (ii) of EIA notification.

PP informed that realizing the importance of shale gas and also shale oil for meeting the energy demands of the country and the need to expedite exploration and assessment of Indian shales, Government of India announced policy guidelines on 14<sup>th</sup>, October, 2013 allowing national oil companies, ONGC and OIL to take up shale gas and oil exploration activities in their nomination blocks. ONGC was mandated to identify a minimum of 50 nomination blocks where it will take up shale gas and oil exploration in Phase-I.

Accordingly, ONGC identified 50 blocks (28 in Cambay, 10 in KG onland, 9 in Cauvery and 3 in A&AA basins) for shale gas/ oil exploration. It is important at this point to mention that an assessment well for shale gas/ oil is not different from a typical conventional exploratory well in the sense that initial shale gas wells are primarily vertical like any other conventional exploratory well. In terms of the target depth, casing policy, water consumption, drilling, testing and completion plan, these two wells are nearly identical.

M/s ONGC informed that the proposed shale gas/ oil assessment wells are no different from conventional exploratory wells for which environmental clearances have already been granted by MoE&F.

After detailed deliberations, the Committee noted that there is no difference in drilling of Oil and Gas and shale gas exploration activities. Therefore, the Committee recommended the aforesaid proposal for amendment in the existing 5 above mentioned ECs by replacing the word "Exploratory drilling" from "Exploratory drilling for oil & Gas/Shale Gas".

**44.8.7 Proposed Bulk LPG Storage & Bottling Facility at B37/pt to B43/pt, B50/pt, B51/pt, C30 to 41 etc, SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluka & District Tamil Nadu by M/s Indian Oil Corporation Ltd. – TOR reg.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Isolated Storage & Handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) activities is listed at 6(b) of the Schedule of EIA Notification, 2006 under category 'B' and appraised at State level. Due to absence of SEIAA, Tamil Nadu, proposal is appraised at Central Level.

M/s Indian Oil Corporation Ltd. has proposed for setting up of Bulk LPG Storage (1800 MT)& LPG throughput of 1,20,000 MTPA through 2 LPG Filling Carousels at B37/pt to B43/pt, B50/pt, B51/pt, C30 to 41 etc, SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluka & District Tamil Nadu. PP informed that Consent to Establish under water and Air Acts was obtained from TNPCB vide consent order No. 6045 & 5985 dated 18.09.2012. Consent to operate under water Act and Air Act was obtained from TNPCB vide Consent Order No. 23108 & 19145 dated 07.04.2015 and valid upto 31.03.2016. Final license from PESO, Nagpur is obtained for bulk LPG and filling LPG vide approval S/HO/TN/03/1034 (S51373) dated 12.05.2015. Now, PP wants to obtain post facto Environmental clearance for the aforesaid project. Total plot area is 42 acres of which greenbelt will be developed in 13.86 acres. Cost of project is Rs. 78.58 Crores. It is reported that no national parks/ wildlife sanctuaries are located within 10 km distance. Water bodies /Reservoir namely Tamirabaranai River (5.9 Km), Gangaikondan Kulam (3.8 Km), Indira Kulam (7 Km) are located within 10 km distance. Reserved Forests namely, Gangaikondan RF (91 m), Talaiyuthu RF (919 m) and Melpattam RF (6.6 Km) are located within 10 km distance. Following is the plant configuration:

S.N.	Storage	Quantity
1	Mounded Bullets for LPG Storage	3x600 MT
2	LPG throughput	1,20,000 MTPA

Power consumption will be 450kVA through TANGEDCO. DG sets ( 1 x 750 KVA + 1 x 250 kVA) will be installed. Water requirement from SIPCOT water supply will be 4 m<sup>3</sup>/day. Domestic effluent generation will be 2.4 m<sup>3</sup>/day. Wastewater from process/cylinder washing will be 0.8 m<sup>3</sup>/day.

After detailed deliberations, the Expert Appraisal Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I for preparation of EIA/EMP:

#### A. Specific TOR

1. Details on list of hazardous chemicals to be stored alongwith storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
6. Risk Assessment & Disaster Management Plan

- Identification of hazards
- Consequence Analysis
- Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
- Onsite and offsite emergency preparedness plan.

#### **B. Additional TOR**

Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area. Copy of notification of industrial area to be submitted.

It was recommended that '**TORs**' along without 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.

#### **44.8.8 Expansion of Chemical Manufacturing Unit at Survey No.114/115 P, Village: JAHAJ-388580, Dharmaj - Khambhat Road, Ta: Khambhat, Dist:Anand (Gujarat) by M/s. Nisol Manufacturing Company Private Limited -reg TOR**

Proposal was considered in the 40<sup>th</sup> EAC meeting held during 18<sup>th</sup> -19<sup>th</sup> May, 2015 and the Committee exempted the proposal from EC process. File was processed and Authority again referred the proposal to the Committee for review their decision.

After detailed deliberation the Committee reiterate the earlier decision for exempting the proposal from EC process as no synthesis is involved in the manufacturing process.

#### **44.8.9 Proposed Nicotine Sulphate plant at Survey No.210, Opp.The H.M.Patel Eng. Medium School, Village: Vadadla, Tahsil Petlad, District Anand , Gujarat by M/s. Nisol Manufacturing Company Private Limited (Unit-II). Reg TOR**

Proposal was considered in the 38<sup>th</sup> EAC meeting held during 20<sup>th</sup> – 21<sup>st</sup> April, 2015 and the Committee exempted the proposal from EC process. File was processed and Authority again referred the proposal to the Committee for review their decision.

After detailed deliberation the Committee reiterate the earlier decision for exempting the proposal from EC process as no synthesis is involved in the manufacturing process.

#### **44.8.10 Additional Exploratory Drilling of Twenty Nine (29) Wells in additional Ten (10) ML Blocks of Western Onshore Basin District Mehsana- Patan, Gujarat by M/s ONGC Ltd.- EC.**

Proposal was considered in the 40<sup>th</sup> EAC meeting held during 18<sup>th</sup> -19<sup>th</sup> May, 2015 and the Committee recommended the project proposal for drilling of additional 29 exploratory wells by amending the existing environmental clearance letter no J-11011/125/2011-IA II (I) dated 18<sup>th</sup> September, 2014. File was processed for approval and Authority referred the project proposal to the EAC with suggestion that it should be dealt as per the provisions of the EIA Notification for expansion or modernization.

The Committee noted that already environmental clearance was issued in the said blocks and public hearing was conducted on 12.02.2013. The Committee exempted the proposal

from preparation of EIA/EMP report alongwith public hearing/consultation as per section 7 (ii) of EIA Notification, 2006.

After detailed deliberation, the Committee recommended the project proposal for grant of environmental clearance.

**44.8.11 Development Drilling of 22 wells at East Godavari, West Godavari and Krishna District Andhra Pradesh by M/s ONGC Ltd. –EC**

Proposal was considered in the 38<sup>th</sup> EAC meeting held during 20<sup>th</sup> – 21<sup>st</sup> April, 2015 and the Committee recommended the proposal for amendment. File was processed for approval and Authority referred the project proposal to the EAC with suggestion that it should be dealt as per the provisions of the EIA Notification for expansion or modernization.

The Committee noted that a proposal was submitted for grant of TORs in respect of Part 2 of the Project and the same was listed in the agenda of the 23<sup>rd</sup> EAC meeting held on 29.10.2014. It was informed by EAC that in view of the decision of MoEFCC to extend validity of the TORs issued originally for a period of two years to three years, it is advised to conduct the public hearing in respect of the Part 2 of the project and submit the minutes of the same for consideration of EAC for issuance of EC. Thereafter, Public Consultation meeting was conducted by the AP Pollution Control Board on 06.01.2015.

After detailed deliberation, the Committee recommended the project proposal for grant of environmental clearance.

**44.8.12 Expansion of exploratory drilling of three wells for Block AA-ONN-2001/1, NELP Block III, near Agar, East Tripura by M/s ONGC –Reg.**

Proposal was considered in the 40<sup>th</sup> EAC meeting held during 18<sup>th</sup> -19<sup>th</sup> May, 2015 and the Committee recommended the project proposal for drilling of additional 29 exploratory wells by amending the existing environmental clearance letter no J-11011/125/2011-IA II (I) dated 18<sup>th</sup> September, 2014. File was processed for approval and Authority referred the project proposal to the EAC with suggestion that it should be dealt as per the provisions of the EIA Notification for expansion or modernization.

The Committee noted that already environmental clearance was issued in the said blocks and proposed proposal is for additional exploratory drilling. The Committee exempted the proposal from preparation of EIA/EMP report alongwith public hearing/consultation as per section 7 (ii) of EIA Notification, 2006.

After detailed deliberation, the Committee recommended the project proposal for grant of environmental clearance.

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

- 1. Executive Summary**
- 2. Introduction**
  - i. Details of the EIA Consultant including NABET accreditation
  - ii. Information about the project proponent
  - iii. Importance and benefits of the project
- 3. Project Description**
  - i. Cost of project and time of completion.
  - ii. Products with capacities for the proposed project.
  - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
  - iv. List of raw materials required and their source along with mode of transportation.
  - v. Other chemicals and materials required with quantities and storage capacities
  - vi. Details of Emission, effluents, hazardous waste generation and their management.
  - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
  - viii. Process description along with major equipments and machineries, process flow sheet (quantities) from raw material to products to be provided
  - ix. Hazard identification and details of proposed safety systems.
  - x. Expansion/modernization proposals:
    - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
    - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
- 4. Site Details**
  - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
  - ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
  - iii. Details w.r.t. option analysis for selection of site

- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

**5. Forest and wildlife related issues (if applicable):**

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

**6. Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the

- pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
  - iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
  - v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
  - vi. Ground water monitoring at minimum at 8 locations shall be included.
  - vii. Noise levels monitoring at 8 locations within the study area.
  - viii. Soil Characteristic as per CPCB guidelines.
  - ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
  - x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
  - xi. Socio-economic status of the study area.

## **7. Impact and Environment Management Plan**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

## **8. Occupational health**

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of 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,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

## **9. Corporate Environment Policy**

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the

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

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. Enterprise Social Commitment (ESC)
  - i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. 'A tabular chart with index for point wise compliance of above TORs.
14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports.

**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 4<sup>th</sup> August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation,

district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

**LIST OF PARTICIPANTS OF EAC (Industry-2) IN 42<sup>nd</sup> MEETING OF EAC  
(INDUSTRY) HELD ON 16-17<sup>th</sup> June, 2015**

<b>S.N.</b>	<b>Name</b>	<b>Designation</b>	<b>Attendance</b>
1	Shri M. Raman	Chairman	A
2	Shri R.K. Garg	Vice-Chairman Acting Chairman	P
3	Prof. R.C. Gupta	Member	A
4	Dr. Prem Shankar Dubey	Member	P
5	Dr. R.M. Mathur	Member	P
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	A
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjana Raghunath Raje	Member	A
<b>MOEF Representatives</b>			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P