

**FINAL MINUTES FOR 40<sup>th</sup> RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 18- 19<sup>th</sup> MAY, 2015**

**VENUE:** Indus Hall, Jal 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**

**40.1** Opening Remarks of the Chairman

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

**40.2** Confirmation of the Minutes of the 38<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry-2) held during 20-21<sup>st</sup> April, 2015.

**18<sup>th</sup> May , 2015 (Day 1)**

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

**40.3 Environmental Clearance**

**40.3.1 Expansion of assembly unit by adding poly urethane Foam (capacity 3700 TPA) at plot No.3/P.10, sector-10, SIDCUL, Ranipur, Haridwar, Uttarakhand by M/s Autofit Pvt. Ltd.- reg EC .**

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 during the 28<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 1<sup>st</sup> to 2<sup>nd</sup> December, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located inside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the State level. However, applicability of General condition i.e. Rajaji National Park is located within 1.25 km distance boundary and project is treated as category 'A' project.

M/s Autofit Pvt. Ltd. has proposed for expansion of assembly unit by adding Poly Urethane Foam (capacity 3700 TPA) at plot No.3/P-10, Sector-10, SIDCUL, Ranipur, Haridwar, Uttarakhand. Total plant area is 20235.00 sq meters (2.02 ha). No additional land is required, as the proposed expansion will be executed within the plant premises. About 2752 sq meters (0.27 ha) area has already been developed as green belt/plantation. Additional 4048 sq meter (0.40 ha) area has been proposed to be developed as green belt/plantation. Cost of project is Rs. 1.5 Crore. Ganga River and Upper Ganga Canal are flowing at a distance of 8.5 Km and 4.2 Km respectively. Rajaji National Park is located at a distance of 1.25 Km. Following products will be manufactured :

<b>Units</b>	<b>Existing Capacity</b>	<b>Proposed Expansion Capacity</b>	<b>Total Capacity After Expansion</b>
Seat Cover & Assembly	24.40 Lac Pcs/Annum	-	24.40 Lac Pcs/Annum

Wheel Assembly	24.40 Lac Set/Annum	-	24.40 Lac Set/Annum
Poly Urethane Foam (PUF)	-	3700 TPA	3700 TPA

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 and May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (28.7 µg/m<sup>3</sup> to 42.6 µg/m<sup>3</sup>), PM<sub>10</sub> (63.4 µg/m<sup>3</sup> to 89.2 µg/m<sup>3</sup>), SO<sub>2</sub> (7.4 µg/m<sup>3</sup> to 16.0 µg/m<sup>3</sup>) and NO<sub>x</sub> (14.7 µg/m<sup>3</sup> to 26.2 µg/m<sup>3</sup>) respectively. The ambient air quality levels are within the NAAQS. Power requirement will be increased from 300 KW to 400 KW and met from UPCL. No water is required in the process. Water requirement from ground water source will be 20 m<sup>3</sup>/day. Sewage will be treated in the STP and treated effluent will be used for horticulture. STP sludge will be used for horticulture. Used lubricant oil will be sent to authorized recycler/re-processor.

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.

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

- i) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC should be monitored in ambient air.
- ii) Total fresh water requirement from ground water source should not exceed 20m<sup>3</sup>/day and prior permission for drawl of water should be obtained from the CGWA/SGWA.
- iii) As proposed no industrial effluent shall be generated. Sewage will be treated in the STP. Treated sewage shall be used for gardening purpose. No effluent shall be discharged outside the plant premises and Zero effluent discharge condition shall be maintained.
- iv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in October, 1994 and January, 2000. Isocyanate shall be transported as per the Hazardous Chemicals (MSIHC) Rules.
- v) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- vi) All electrical fitting within the industry should be fire proof due to high risk involved in flammable material.
- vii) Risk assessment report considering fire scenario of Isocyanate shall be prepared and submitted to the MoEF&CC's Regional Office, Lucknow. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- viii) Green belt should be developed in 0.67 ha out of total plant area.

#### 40.3.2 Expansion of Rubber processing Chemical Manufacturing unit (from 85 MTPM to 225 MTPM) at GIDC Vapi, District Valsad, Gujarat by M/s PIL Chemical Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s Aqua-Air Environmental Engineers P. 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 7<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 4<sup>th</sup> to 5<sup>th</sup> April, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s PIL Chemicals Pvt. Ltd. has proposed for expansion of Rubber Processing Chemicals Manufacturing Unit (from 85 MTPM to 225 MTPM) at Plot No. 1207, 3<sup>rd</sup> Phase, GIDC Vapi, District Valsad, Gujarat. Total plot area is 10000 m<sup>2</sup>. Out of which greenbelt will be developed in 1115 m<sup>2</sup>. Cost of expansion project is Rs. 3.0 Crore. Damanganga River is flowing at a distance of 52 Km. It is reported that there is no National Park/Wildlife Sanctuary/Reserve Forest is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)		
		Existing	Additional	After Expansion
1	DHTS	42.5	57.5	100
2	CBS/DCBS	42.5	82.5	125
Total		85	140	225

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during January, 2013 and March, 2013 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (33.4 µg/m<sup>3</sup> to 57.0 µg/m<sup>3</sup>), PM<sub>10</sub> (55.8 µg/m<sup>3</sup> to 91.3 µg/m<sup>3</sup>), SO<sub>2</sub> (18.1 µg/m<sup>3</sup> to 36.5 µg/m<sup>3</sup>) and NO<sub>x</sub> (13.5 µg/m<sup>3</sup> to 24.4 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 2.58 µg/m<sup>3</sup>, 0.129 µg/m<sup>3</sup> and 0.36 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 separator followed by bagfilter will be installed to additional coal fired boiler. Dust collector will be provided to additional fluidized bed dryer, Ultrafine mill, DHTS basification reactor. The committee suggested them to install bagfilter instead of dust collector for better efficiency. Scrubber will be provided to DHTS basification reactor to control process emissions. Water requirement from GIDC water supply will be increased from 87 m<sup>3</sup>/day to 238 m<sup>3</sup>/day after expansion. Industrial effluent generation will be increased from 43 m<sup>3</sup>/day to 120 m<sup>3</sup>/day after expansion. Industrial effluent will be treated in ETP and treated effluent will be discharged into CETP. ETP sludge will be sent to TSDF. Used oil will be sent to registered recyclers/re-processors. Distillation residue will be sent to cement industry. Fly ash will be sent to brick manufacturers. .

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.

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

- i. Multicyclone followed by bagfilter with adequate stack height shall be provided to coal fired boiler and thermic fluid heater to control particulate emissions.
- ii. Caustic scrubber shall be provided to process vent to control Cl<sub>2</sub> and HCl.
- iii. All necessary steps should be taken for monitoring of chlorine and HCl as well as VOCs in the proposed plant.
- iv. Total water requirement from GIDC water supply should not exceed 238 m<sup>3</sup>/day and prior permission should be obtained from the Competent authority.
- v. As proposed, industrial effluent should be treated in ETP. Treated effluent from ETP should be discharged into CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- vi. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- vii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Transboundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- viii. As proposed, greenbelt should be developed at least 1115 m<sup>2</sup> area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- ix. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- x. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

#### **40.3.3 Proposed expansion of Organic Chemical Manufacturing Plant at Khalapur, district Raigarh (Maharashtra) by M/s Dujodwala Products Limited- reg EC.**

The project proponent and their consultant (M/s MITCON Consultancy & Engineering Services 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 2<sup>nd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 31<sup>st</sup> October, 2012 for preparation of EIA-EMP report. All the synthetic organic chemicals industry located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Dujodwala Products Ltd. has proposed for Expansion of Organic Chemical Manufacturing plant at Village Kumbhivalim, Tehsil Khalapur, Distt Raigad, Maharashtra Total plot area is 20.5 acres. Out of which area earmarked for greenbelt is 7.5 acres. Total project cost is Rs. 31 crores. About Rs. 50 Lakhs is earmarked towards capital cost and Rs. 24 Lakhs is recurring cost. Patalganga River is flowing at a distance of 2.75 km. It is

reported that there is no national park/wildlife sanctuary/reserve forest is located within 10 km distance. Following products will be manufactured:

S.N.	Name of the chemical	Existing capacity (MT/Month)	Proposed capacity (MT/month)	Post Expansion capacity (MTPM)
1	Alphapinene (95%)	N.A	200.00	200
2	Polyester Resin	125	100.00	225
3	Phenolic Resin	166.66	800.00	966.66
4	Alkyd Resin	25.00	300.00	325
5	Coating	NIL	500.00	500
6	Rosin Easter	50	150	200
7	Maleic Modified Resin	25	75.00	100
8	Phenolic Modified Resin	25	75.00	100
9	PVC chemicals	NIL	500.00	500
10	Camphene	75	200.00	275
11	Dipentene	150	350.00	500
12	Ketonic Resin	25	100	125
13	Polyamide Resin	25	100	125

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2012 and December, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (6.5 µg/m<sup>3</sup> to 15.1 µg/m<sup>3</sup>), PM<sub>10</sub> (15.2 µg/m<sup>3</sup> to 30.2 µg/m<sup>3</sup>), SO<sub>2</sub> (7.3 µg/m<sup>3</sup> to 27.6 µg/m<sup>3</sup>) and NO<sub>x</sub> (10.2 µg/m<sup>3</sup> to 33.4 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs was not carried out because no new stack is proposed and existing stack emissions. The resultant concentrations are within the NAAQS. PP informed that dust collector with wet scrubber has been installed to coal fired boiler (10 TPH). However, the Committee suggested them to install bagfilter instead of wet scrubber. Fresh water requirement from Patalganga River will be increased from 146 m<sup>3</sup>/day to 212 m<sup>3</sup>/day after expansion. Effluent generation will be increased from 62 m<sup>3</sup>/day to 86.6 m<sup>3</sup>/day after expansion. No effluent will be discharged outside the plant premises. ETP sludge and Resin residue will be sent to CHWTDF. The Committee suggested Catalyst shall be sent to Authorized recycler/re-processor. 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 Maharashtra Pollution Control Board on 11<sup>th</sup> September, 2014. The issues were raised regarding local employment, greenbelt development, social welfare activities 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:

- (i) Reanalyzing ambient air quality, water quality of surface and ground water for one month.
- (ii) Commitment to install bagfilter in the coal fired boiler.
- (iii) Industrial effluent contains phenol. Effluent treatment scheme including phenol treatment to be provided.
- (iv) Detailed plan to achieve Zero Liquid Discharge.
- (v) Greenbelt layout to be submitted for existing and proposed expansion unit.

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

#### 40.3.4 Specialty Chemical Manufacturing Plant at Village Mandali, Tehsil & District Mehsana, Gujarat M/s Keshav Fertilizers Pvt. Ltd. – reg EC.

The project proponent and their consultant (M/s Aqua-Air Environmental Engineers P. 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 11<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 26<sup>th</sup> to 27<sup>th</sup> August, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Keshav Fertilizers Pvt. Ltd. has proposed for setting up of Specialty Chemical Manufacturing Plant at Keshav Industrial Estate, Block No. 169, Village Mandali, Tehsil & District Mehsana, Gujarat. Total plot area is 32130 m<sup>2</sup>. Out of which greenbelt will be developed in 1000 m<sup>2</sup>. Cost of the project is Rs. 17 Crore. About 100 people will be employed for the project. It is reported that no national park/wildlife sanctuary/biosphere reserve/ reserve forest is located within 10 Km distance. Following products will be manufactured:

S. N.	Products	Proposed Quantity (MTPM)
Group A		
1	Formaldehyde	2500
2	Dispersing Agent	3000
Group B		
3	Mono Chloro acetic acid	500
4	Sodium Mono chloro acetate	250
5	Tri ChloroAcetic Acid	100
Group C		
6	Chlorinated Paraffin Wax	500
7	Acetyl Chloride	250
8	Tri Chloro Acetyl Chloride (TCAC)	100
9	Chloro acetyl Chloride (CAC)	100
Group D		
10	ONCB, PNCB & MNCB (Nitration of Chlorobenzene)	250
Group E		
11	N-Amino Azabicyclo octane Hcl	5
12	(1S, 6S)-cis-8-((S)-1-phenylethyl)-2,8-diazabicyclo[4.3.0]nonane	5
Group F		
13	Phthalic Anhydride	200
Group G		
14	Phenol Formaldehyde Resin	1500
15	Urea Formaldehyde Resin	
16	Melamine Formaldehyde Resin	
Total		9260

By-products		
1	HCl (30 %)	1050 MTPM
2	Acetic Acid	50 MTPM
3	Dil H <sub>2</sub> SO <sub>4</sub>	77 MTPM

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March, 2014 and May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>2.5</sub> (21.4 µg/m<sup>3</sup> to 54.8 µg/m<sup>3</sup>), PM<sub>10</sub> (41.2 µg/m<sup>3</sup> to 61.3 µg/m<sup>3</sup>), SO<sub>2</sub> (12.2 µg/m<sup>3</sup> to 18.8 µg/m<sup>3</sup>) and NO<sub>x</sub> (11.3 µg/m<sup>3</sup> to 21.6 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 0.581 µg/m<sup>3</sup>, 1.16 µg/m<sup>3</sup>, 0.534 µg/m<sup>3</sup>, 0.098 µg/m<sup>3</sup> and 0.015 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub>, NO<sub>x</sub>, HCl and Cl<sub>2</sub>. The resultant concentrations are within the NAAQS. Cyclone separator followed by bagfilter will be provided to briquettes fired boiler. Stack of adequate height will be provided to LDO fired Thermopack boiler. Scrubber will be provided to control process emissions viz. HCl, SO<sub>2</sub> and Cl<sub>2</sub>. Total water requirement will be 193 m<sup>3</sup>/day. However, fresh water requirement from ground water source and tanker supply will be 150 m<sup>3</sup>/day and remaining water requirement will be met from recycled water. Industrial effluent generation will be 71 m<sup>3</sup>/day. Industrial effluent will be segregated into high COD & TDS and Low COD and TDS effluent streams. high COD & TDS effluent stream will be treated in MEE followed by ATFD. Low COD and TDS and condensate effluent streams will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. ETP sludge and MEE salt will be sent to TSDF.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 5<sup>th</sup> September, 2014. The issues were raised regarding flue gas emission control, local employment, development of village, greenbelt 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 shall be provided to the biomass 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/tanker supply shall not exceed 150 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. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from 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.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- x. Solvent management shall be as follows :
  - Reactor shall be connected to chilled brine condenser system
  - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - Solvents shall be stored in a separate space specified with all safety measures.
  - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xii. All the issues raised during the Public Hearing/consultation meeting held on 5<sup>th</sup> September, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xiii. 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.
- xiv. As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

## Reconsideration for Environmental Clearance

### **40.3.5 Expansion of Synthetic Organic Chemical (Bulk Drugs & Drugs Intermediates 11.0 MTPM to 37.0 MTPM) Manufacturing Unit at Survey No. 47, Hadmtala Industrial Area, Rajkot Gondal Highway, Taluka Kotda Sangani, District Rajkot, Gujarat by M/s Sam Finechem Limited- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 28<sup>th</sup> meeting held during 1<sup>st</sup> – 2<sup>nd</sup> December, 2014 and the Committee was of the view that a report to be obtained from SPCB regarding pollution status in and around of the project site together with recommendation for this unit for expansion. GPCB vide letter no. GPCB/CCA-RJ-680 (4)/ ID-20045 dated 28<sup>th</sup> February, 2015 has submitted the compliance status of the existing unit and recommendation for their proposed project. The GPCB has reported that the existing unit of M/s Sam Finechem Ltd. is overall complying with their consent to operate granted by the board in all respect and recommended approval for their proposed expansion project.

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 biomass fired boiler and thermic fluid heater to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- ii) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, HCl, HBr and NH<sub>3</sub> shall be monitored in ambient air.
- iii) Two stage chilled water/caustic scrubber should be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO<sub>2</sub>. Two stage scrubber with chilled water media shall be provided to process vents to control NH<sub>3</sub>. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- 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 ground water source shall not exceed 61.4 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- vi) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream should be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- vii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.

- viii) 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.
- 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 4483.07 m<sup>2</sup> area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- 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.

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

#### **40.4.1 Establishment of molasses based Distillery ( 40 KLPD) and expansion of sugar plant (from 3500 TCD to 5000 TCD) at Village Jaswantpura, Tehsil Najibabad, District Bijnor, UP by M/s UP Cooperative Sugar Factories Federation 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 molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s UP Cooperative Sugar Factories FederationLtd. has proposed for establishment of molasses based Distillery ( 40 KLPD) and expansion of sugar plant (from 3500 TCD to 5000 TCD) at Village Jaswant Pura, Tehsil Najibabad, District Bijnor, UP. Mohanwali RF is

located at a distance of 2.0 Km. Cost of project is Rs. 48.00 Crore. It is reported that no eco-sensitive area such as national park/wild life sanctuary/biosphere is located within 10 km distance. Plot area is 11.547 ha. ESP will be provided to bagasse fired boiler to control particulate emissions. Fresh water requirement from ground water source will be 400 m<sup>3</sup>/day. Spent wash will be concentrated in MEE and concentrate will be incinerated in the incineration boiler. condensate will be treated in condensate polishing unit and will be used for cooling tower make up water. No effluent will be discharged outside the plant premises. Lagoon of capacity of 7 days will be provided. Boiler ash will sent to brick manufacturing.

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. 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, 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 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. Commitment to install RCC tank with HDPE lining for spent wash collection.
13. Action plan to control odor pollution.
14. Arrangements for installation of continuous online monitoring system ( 24x7 monitoring device)

#### **Sugar**

1. Number of working days of the sugar production unit.
2. 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.
3. Details of the use of steam from the boiler.
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Collection, storage and handling of bagasse and pressmud.
6. Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.

7. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, 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.
2. Detailed Action plan to be provided for reduction in fresh water.

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.

#### **40.4.2 Expansion of sugar plant ( from 5000 TCD to 7500 TCD) molasses based Distillery Plant (from 60 KLPD to 75 KLPD at Villages Chikkonahalli & Hurugalawadi, KoppaHubli, District Mandya, Karnataka by M/s NSL Sugar Limited. reg TOR- reg TOR**

Project proponent did not attend the meeting. The Committee decided that proposal should be considered afresh as per the priority whenever requested through online.

#### **40.4.3 Bulk Drugs Manufacturing Unit ( 60 MTPA) at Plot No. 1-16, Survey No. 137/1, Village Padawala, Taluka Kotda Sangani, District Rajkot, Gujarat by M/s SNJ Labs 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 (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A and appraised at Central level.

M/s SNJ Labs Pvt. Ltd. has proposed for setting up of Bulk Drugs Manufacturing Unit ( 60 MTPA) at Plot No. 1-16, Survey No. 137/1, Village Padawala, Taluka Kotda Sangani, District Rajkot, Gujarat. It is reported that no wildlife sanctuary /reserve forest is located within 10 km distance. Plot area is 16794 m<sup>2</sup>. Cost of project is Rs. 14 Crore. Following products will be manufactured :

<b>S.N.</b>	<b>Product</b>	<b>Quantity (MTPM)</b>
1.	Iron Sucrose	10

2.	Iron (III) Carboxy-maltose complex	5
3.	Iron (III) Citrate	5
4.	Iron (III) Dextran	5
5.	Iron (III) Gluconate (Sodium Ferric Gluconate)	5
6.	Ca-Salt of alpha Keto leucine	5
7.	Ca-Salt of alpha Keto isoleucine	5
8.	Ca-Salt of alpha Keto valine	5
9.	Ca-Salt of alpha Keto methionine	5
10.	Ca-Salt of alpha Keto phenyl alanine	5
11.	Turbinafine Hydrochloride	5
<b>Total</b>		<b>60</b>

Cyclone followed by bagfilter will be provided to bio-coal fired boiler to control particulate emissions. DG set (125 KVA) will be installed. Total water requirement will be 58.5 m<sup>3</sup>/day. Out of which, fresh water requirement from ground water source will be 39 m<sup>3</sup>/day and remaining water requirement will be met from recycled water. Industrial effluent generation will be 20.8 m<sup>3</sup>/day. Industrial effluent will be treated in the ETP followed by RO. RO permeate will be recycled in the process. Rejects will be evaporated in MEE. No effluent will be discharged outside the plant premises. MEE salt and ETP sludge will be sent to TSDF. Distillation residue will be sent to CHWIF. Used 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 along with Public Hearing:

- 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**

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.

**40.4.4 Synthetic Organic Chemicals Manufacturing Unit (1550 MTPM)at Survey No. 455 & 456, Village Neja, Taluka Khambhat, District Anand, Gujarat by M/s Karan Intermediates 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 (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A and appraised at Central level.

M/s Karan Intermediates Pvt. Ltd has proposed for setting up of Synthetic Organic Chemicals Manufacturing Unit (1550 MTPM)at Survey No. 455 & 456, Village Neja, Taluka Khambhat, District Anand, Gujarat. Plot area is 28500 m<sup>2</sup>. Cost of project is Rs 6.0 Crore. Out of which Rs. 1 Crore has been earmarked for implementation of environmental management plan. It is reported that no wildlife sanctuary /reserve forest is located within 10 km distance. Following products will be manufactured:

S.N.	Name of Products	Quantity (MTPM)
1	Mono Chloro Acetic Acid (MCA)	300
2	Chloro Acetyl Chloride (CAC)	150
3	Tri Chloro Acetyl Chloride (TCAC) Sulphur Mono Chloride	150
4	Sulphur Mono Chloride	100
5	Aluminum Chloride	350
6	Feric Chloride	500
<b>Total</b>		<b>1550</b>
<b>By- Product</b>		
1	Mother Liquor of MCA	55
2	Hydrochloric Acid (30%), sold or captive consumption	1710
3	Sodium bi Sulphite (20-30%)	340
4	Sodium hypochlorite (20%)	25
<b>Total By Product</b>		<b>2130</b>

Cyclone followed by Bag filter will be provided to bio-fuel fired boiler and thermic fluid heater to control particulate emissions. 3 Stage water scrubber followed by alkali scrubber will be provided to reaction vessels to control process emissions viz. HCl, Cl<sub>2</sub> and SO<sub>2</sub>. DG set (200 KVA) will be installed. Total water consumption from ground water source/ tanker supply will be 118.5 m<sup>3</sup>/day. During process HCl generation will be 65 m<sup>3</sup>/day; Sodium Hypochlorite generation will be 1 m<sup>3</sup>/day and Sodium Bi-sulphite generation will be 12.5 m<sup>3</sup>/day as bio-products. Effluent generation will be 8.5 m<sup>3</sup>/day and treated in ETP. Treated effluent will be

reused for scrubbing media. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. Distillation residue will be sent to CHWI facility for incineration. Used oil will be sent to the authorized recycler/re-processors.

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

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.

### **40.4.5 Proposed 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.- Amendment in EC.**

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 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 exploratory Drilling of Twenty Nine (29) Wells in additional Ten (10) ML Blocks of Western Onshore Basin District Mehsana-Patan, Gujarat. The 10 ML Blocks are located in the state of Gujarat with in Mehsana and Patan Districts. The total area of this block is ~205 Km<sup>2</sup>. ONGC proposes drilling of exploratory wells with target depth of 3000m. Cost of Project is Rs 295 Crores. Area required for drilling will be 110m x 110 m per well. So far, total no. of wells already drilled is 1149. Details of well to be drilled block wise as given below:

S.N.	Blocks	Area in sq. km	No. of wells already drilled	No. of wells to be drilled	Maximum Depth ( m)
1	Lanwa Ext.-I ML	2.148	167	1	3000
2	Lanwa ML	30.0		3	3000
3	Mehsana City ML	8.850	6	2	3000
4	Balol ML	24.004	259	3	3000
5	Geratpur ML	18.310	6	4	3000
6	Santhal ML	19.460	313	3	3000
7	Dedna ML	5.441	1	1	3000
8	Jotana Ext. I ML	57.7	201	8	3000
9	Bechraji ML	37.110	192	3	3000
10	Chanasma ML	2.813	4	1	3000
	Total	205.836	1149	29	

Estimated hydro carbon reserve is 200 MMT. 8 out of 10 blocks are hydrocarbon producing. It is reported that no environmental sensitivity areas are located within 10 km distance of ML block. DG set of 2x1250 KVA will be installed. Water based drilling fluid will be used. Water requirement from tanker supply will be 25 m<sup>3</sup>/day. Drill cutting generation will be 200-250 MT/Well. Duration of drilling will be 25-30 days for each well. PP informed that MoEF vide letter no J-11011/125/2011-IA II (I) dated 18<sup>th</sup> September, 2014 has granted environment clearance for 103 exploratory wells in Western Onshore Basin. Public hearing was already conducted in Mehsana District on 12.02.2013 and Patan District on 22.02.2013.

The Committee noted that already environmental clearance was issued in the said blocks and public hearing conducted. Environmental monitoring is being carried out regularly. Therefore, 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.

#### **40.4.6 Molasses based Distillery (30 KLPD) and Expansion of Sugar Unit ( from 3500 TCD to 5000 TCD)at Village Sathaion, Tehsil Sadar, District Azamgarh, Uttar Pradesh by M/s Kisan Sahkari Chini Mills 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 molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Kisan Sahkari Chini Mills Ltd. has proposed for setting up of Molasses based Distillery (30 KLPD) and Expansion of Sugar Unit ( from 3500 TCD to 5000 TCD) at Village Sathaion, Tehsil Sadar, District Azamgarh, Uttar Pradesh. Total plot area is 36.512 ha. Cost of project is Rs. 55.50 Crore. It is reported that no eco-sensitive area such as national park/wildlife sanctuary/biosphere reserve/ reserve forest is located within 10 km distance. ESP will be provided to bagasse fired boiler to control particulate emissions. Fresh water requirement from ground water source will be 320 m<sup>3</sup>/day. Spent wash will be concentrated in MEE and concentrate will be incinerated in incineration boiler. Condensate will be treated in condensate polishing unit and will be used as make up water in cooling tower. Lagoon capacity will be 7 days. Ash will be sent to brick manufacturers and also will be used as fertilizer.

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. 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, 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 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. Commitment to install RCC tank with HDPE lining for spent wash collection.
13. Action plan to control odor pollution.
14. Arrangements for installation of continuous online monitoring system ( 24x7 monitoring device)

#### **Sugar**

1. Number of working days of the sugar production unit.
2. 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.
3. Details of the use of steam from the boiler.

4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Collection, storage and handling of bagasse and pressmud.
6. Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.
7. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, 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.
2. Detailed Action plan to be provided for reduction in fresh water.
3. Layout map of proposed plant alongwith Greenbelt layout.

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.

#### **40.4.7 Proposed Fine Chemical Intermediates Manufacturing Unit at Plot No. E-18, Taluka Mohol, Chincholi MIDC Area, District Solapur, Maharashtra by M/s. OC Specialties 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 chemical industries located inside the notified industrial estate/area are listed at S.N. 5(f) under category 'B' and appraised at State level. Due to applicability of general condition (i.e. The Great Indian Bustard Sanctuary within 5 Km Distance), project proposal is treated as category 'A' project and appraised at Central Level.

M/s. OC Specialties Pvt. Ltd. has proposed for setting up of Fine Chemical Intermediates Manufacturing Unit at Plot No. E-18, Taluka Mohol, Chincholi MIDC Area, District Solapur, Maharashtra. Total plot area is 8450 m<sup>2</sup> out of which greenbelt will be developed in 2166.85 m<sup>2</sup>. Cost of project is Rs. 5.14 Crore. Project is located at a distance of 1.83 Km from GIB Sanctuary. Following products will be manufactured:

Sr. No.	Name of the Product	Quantity (MT/M)	Uses
1.	Sodium Bromide Soln. OR Sodium Bromide Powder	390 232	Oil Drilling Additive & Water treatment chemicals
	Zinc Hydroxy OR	106	Additive in Natural Rubber
	Zinc Oxide	74	
2.	Di Isopropyl Ethyl Amine (DIPEA)	18.18	Pharma Intermediate
3.	Methyl-2-Chloro Phenyl Acetate	10.3	Pharma Intermediate
4.	4 Methoxy Phenyl Acetone	10	Pharma Intermediate
5.	2,3 Dichloro Pyridine	10	Pharma & Diamide Intermediate
6.	2-Amino-2-Phenyl Butyric Acid	6.5	Pharma Intermediate
7.	Ortho Hydroxy Phenyl Acetic Acid	15	Cosmetic Intermediate
8.	2 Coumaranone	12.4	Pharma Intermediate
9.	3-Isochromanone	12	Pharma Intermediate
10.	2,6 Dichloro Benzoyl Chloride	22.1	Intermediate for Fungicide
11.	Methyl-2-Dimethylamino-2-Phenyl Butyrate	10	Pharma Intermediate
12.	2-Dimethylamino-2-Phenyl Butanol	3.01	Comestics Intermediate
13.	P-Bromonisoole / 4-Bromo Anisoole	16.5	Pharma Intermediate.
14.	Para Bromo Phenetole/4-Bromophenetole	14.5	Pharma Intermediate.
15.	2,4 - Dichloro phenyl acetyl	39.75	Intermediate for Fungicide.
16.	2,5 – Dimethyl phenyl acetyl chloride	32.5	Intermediate for Insecticide.
17.	Indoline	36.25	Cosmetics Intermediate
18.	Ethyl Phenyl Glyoxalate (EPG)	28.42	Cosmetics Intermediate
19.	Ethyl – 1- Hydroxy cyclohexane carboxylate	33	Pharma Intermediate
20.	Ethyl – 1- Hydroxy cyclo pentane carboxylate	35.25	Pharma Intermediate
21.	3 – chloro – 2 - hydrazinylpyridine	36	Polymer synthesis.
<b>Name of the Byproduct</b>			
1.	Sodium sulphite soln.25%	182.07	Detergent Soap
2.	HCl 30%	75.59	Reused for Chlorination
3.	Sodium Nitrite soln.30%	30.42	Reused
4.	Distillation residue of P-xylene	3.6	Solvent
5.	Ammonium Chloride	36	Used as buffer solution

Multi-cyclone followed by bag-filter will be provided to coal/ biomass fired boiler and Thermic fluid heater. Scrubbers will be provided to control process emission viz. SO<sub>2</sub>, HNO<sub>2</sub>, NH<sub>3</sub> and HCl. Total water requirement will be 45 m<sup>3</sup>/day. Out of which, 18 m<sup>3</sup>/day water requirement will be met from MIDC water supply and 27 m<sup>3</sup>/day will be met from rain water harvesting and condensate from the process. Industrial effluent generation will be 24.5 m<sup>3</sup>/day and treated in the ETP followed by Double Effect Evaporator to achieve zero effluent discharge. Domestic effluent will be treated in the STP. ETP sludge, MEE salt and Distillation residue will be sent to CHWT/SDF. Process residue will be sent to the persons/CHWT/SDF.

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. Copy of application submitted for clearance from NBWL to be submitted as project fall within 10 km distance of GIB sanctuary.

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.

#### **40.4.8 Expansion of Agro Chemicals and Intermediates Chemicals Manufacturing Unit at Plot no. 75 0 & 746 at Jhagadia Notified Industrial Estate, District Bhurch, Gujarat by M/s UPL Ltd. ( Unit-5). 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 UPL Ltd. (Unit-5) has proposed for expansion of Agro Chemicals and Intermediates Chemicals Manufacturing Unit at Plot no. 75 0 & 746 at Jhagadia Notified Industrial Estate, District Bhurch, Gujarat. Plot area is 866373.98 m<sup>2</sup>. Existing greenbelt is developed in 144682 m<sup>2</sup> and proposed additional greenbelt is earmarked to be 74407.25 m<sup>2</sup>. Cost of project is Rs. 1923.68 Crore. Narmada River and Narmada estuary & Gulf of Khambhat are at distance of 7.89 Km and 58 Km respectively. It is reported that no eco-sensitive zone is located with 10 km distance. Ratanpur Reserve Forest is located at a distance of 9.45 Km. Following products will be manufactured :

Sr. No	Name of Products	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	Category	Remarks
		MT/Month		MT/Month	MT/Month		
1	Mancozeb	-	4000	8333.33	11633.33	Pesticide (Fungicide)	Existing
2	Antracol	NIL		1000	1700	Pesticide (Fungicide)	Existing
3	Pendimethylene	-	400	833.33	1233.33	Pesticide	Existing
4	Glufosinate	NIL	550	1250	1700	Pesticide	Existing
5	Glyphosate	-		NIL	100	Pesticide	No Change Existing
6	CS <sub>2</sub> (carbon di sulfide)	-	3000	3750	6750	Intermediate Chemical	Existing
7	S Metachlor	200	NIL	1666.67	1866.67	Pesticide	New
8	Acephate	800	NIL	1666.67	2466.67	Pesticide	New
9	Acroline	NIL	NIL	666.67	666.67	Intermediates Chemicals	New
10	CCITM	NIL	NIL	167.67	167.67		New
11	Tri Ethyl Phosphite	NIL	NIL	1000	1000	Intermediates Chemicals	New
12	CS <sub>2</sub> based Products						
12.1	Potassium Ethyl Xanthate	NIL	NIL	833.33	833.33	Intermediates Chemicals	New
12.2	Sodium isopropyl Xanthate						
12.3	Potassium isopropyl Xanthate						
12.4	Potassium amyl Xanthate						
12.5	1,6-Bis (N,N-dibenzylthiocarbamyl)ditiohexane (Rubber Chemicals)						
12.6	1-METHYLAMINO-1-METHYLTHIO-2-NITROETHENE (Pharma Intermediates)						
13	Clomazone	NIL	NIL	416.67	416.67	Pesticide	New
14	Mesotrion	NIL	NIL	416.67	416.67	Pesticide	New
15	Flonicamide (IKI220)	NIL	NIL	166.67	166.67	Pesticide	New
	H <sub>2</sub> S based Products						
16	DMSO	NIL	NIL	1250	1250	Specialty Chemicals	New

Sr. No	Name of Products	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	Category	Remarks
		MT/Month		MT/Month	MT/Month		
17	NaHS (40%) Solution	NIL	NIL	2500	2500	Specialty Chemicals	New
18	Na2S solution	NIL	NIL	2500	2500	Specialty Chemicals	New
19	Na2S Solid	NIL	NIL	2500	2500	Specialty Chemicals	New
20	Liquid Formulation Products	NIL	NIL	4166.67	4166.67	Pesticide Formulation products	New
21	Solid Pesticide Formulation products	NIL	NIL	7083.33	7083.33	Pesticide Formulation products	New
22	Tri phenyl Phosphite	-	300	NIL	300	Specialty Chemicals	No Change Existing
23	PCL <sub>3</sub> Plant	-	2550	NIL	2550	Specialty Chemicals	No Change Existing
	(Phosphorous Tri Chloride)						
24	156 TPD caustic Chlorine Plant						
	1) caustic soda lye 48% (on 100 % basis)	10500	4680	NIL	15180	Specialty Chemicals	No Change Existing
	2) Chlorine Gas	8537	3972	NIL	12509		
	3) Hydrogen Gas	263	225	NIL	488		
	4) Hydrochloric Acid 30%	2625	1200	NIL	3825		
25	50 MW power plant	-	87.5MW/Hr	NIL	87.5MW/Hrs	Power	No Change Existing
	(Electrical Power)						
26	Phosphorous	-	900	NIL	900	Specialty Chemicals	No Change Existing
27	Phosphorus Acid	-	150	NIL	150	Specialty Chemicals	No Change Existing
	Tri butyl phosphate (TBPO)						
	Tri Iso butyl Phosphite (TIBP)						
28	Phosphorous Penta Chloride (PCl <sub>5</sub> )	-	200	NIL	200	Specialty Chemicals	No Change Existing
29	Phenyl Di IsoDecylPhosphite OR	-	100	NIL	100	Specialty Chemicals	No Change

Sr. No	Name of Products	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	Category	Remarks
		MT/Month		MT/Month	MT/Month		
	Tri DecylPhosphite (TDP) OR						Existing
	Tris Tri IsoDecylPhosphite (TTDP)						
30	Di Phenyl Methyl Phosphonate OR	-	200 OR	NIL	200 OR	Specialty Chemicals	No Change Existing
	Tri Phenyl Phosphate (TPPA) OR		200 OR		200 OR		
	Bisphenol Di Phosphate (BDP)		50		50		
31	Phosphorous Oxychloride (POCl <sub>3</sub> ) OR	-	250 OR	NIL	250 OR	Specialty Chemicals	No Change Existing
	Phosphorous Trichloride (PSCl <sub>3</sub> )		200		200		
32	Fosthiazate (IKI 1145)	-	250	NIL	250	Pesticide	No Change Existing
33	Dichloro Vinyl Acid Chloride (DVACL)	-	300	NIL	300	Intermediate Chemical	No Change Existing
34	N Alkylated XylenedeneOR	-	300	NIL	300	Intermediate Chemical	No Change Existing
	HRT Ketone OR		200		200		
	2 Ethyl 6 Methyl N NANILineOR		300		300		
	MPBAL		300		300		
35	<b>Pesticide Formulation Products</b>						
	Iso Propyl Amine Salt of Glyphosate Formulation	-	2600	NIL	2600	Pesticide Formulation	No Change Existing
	Ammonium Salt of Glyphosate Formulation	-	2600	NIL	2600		
	Sodium Salt of Aceflorofen Formulation	-	1500	NIL	1500		
36	Tebuconazole	200	NIL	NIL	200	Pesticide	No Change Existing
37	Aceflorofen	500	NIL	NIL	500	Pesticide	
38	Cyermetrin	500	NIL	NIL	500	Pesticide	
39	Permetrin	300	NIL	NIL	300	Pesticide	
40	MNSO <sub>4</sub> (MAGANESE Sulphate) Solution 31%	10000	NIL	NIL	10000	Intermediates Chemicals	

Sr. No	Name of Products	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	Category	Remarks
		MT/Month		MT/Month	MT/Month		
	<b>Total</b>	<b>34425</b>	<b>30827</b>	<b>42167.68</b>	<b>107419</b>		

**By Product List (Existing + After Proposed Expansion)**

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	By Product from
		MT/Month		MT/Month	MT/Month	
1	HCl solution	94.8	2732.02	440	3266.82	<b>Existing:</b> TPP, TBPO, TIBP, PCI5, DPMP, TPPA, BDP, Pendimethylene, <b>New Product:</b> Flonicamide (IKI220)
2	Dilute Sulphuric Acid	262.5	1655	1250	3167.5	<b>Existing:</b> 156 TPD caustic chlorine plant, Pendimethylene
3	Sodium sulphate (Powder) OR	-	4092	9066.75	13158.75	<b>Existing:</b> Mancozeb, Antracol
3.a	sodium Sulphate Solution	-	15680	35895.67	51575.67	<b>Existing:</b> Mancozeb, Antracol
4	Mn(OH) <sub>2</sub> (manganese Hydroxide)	-	236	492	728.00	<b>Existing:</b> Mancozeb
5	Zn(OH) <sub>2</sub> (Zinc Hydroxide)	-	39	9.75	48.75	<b>Existing:</b> Antracol
6	NaSH solution	-	1276	16418.08	17694.08	<b>Existing:</b> Mancozeb, Antracol, CS2
7	Magnesium Chloride Solution	-	2070	4702.5	6772.50	<b>Existing:</b> GLUFOSINATE
8	AMMONIUM ACETATE OR	464	NIL	3926.67	4390.67	<b>New:</b> ACEPHATE
8.a	ACETIC ACID & AMMONIUM SULPHATE or	-	NIL	4633.33	4633.33	
8.b	Ammonium sulphate & Sodium Acetate (30%)	-	NIL	5920.00	5920.00	

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	By Product from
		MT/Month		MT/Month	MT/Month	
9	Ammonium Chloride (Powder) OR	-	1034.25	3676.5	4710.75	<b>Existing:</b> GLUFOSINATE TEP <b>New:</b> Existing <b>No Change:</b> Fosthiazate (IKI1145)
9.a	ANHYDROUS AMMONIA or	-	NIL	415.00	415.00	<b>New:</b> TEP
9.b	20 % AQ AMMONIA or	-	NIL	2075.00	2075.00	
9.c	CALCIUM CHLORIDE SOL or	-	NIL	4800.00	4800.00	
9.d	CALCIUM CHLORIDE POWDER	-	NIL	1600.00	1600.00	
10	METHYL MERCAPTANT	-	NIL	295.83	295.83	<b>New:</b> PHARMA INTERMEDIATE
11	SODIUM BISULPHITE SOL	-	NIL	1276.58	1276.58	<b>New:</b> CLOMAZONE, MESOTRIONE, FLONICAMIDE
12	ETHANOL	-	NIL	37.83	37.83	<b>New:</b> FLONIC AMIDE
13	Spent Solvent (MDC)	-	NIL	208.33	208.33	<b>New:</b> Acephate
14	Sodium Hypochlorite	525	225	NIL	750	<b>Existing no change:</b> 156 TPD caustic chlorine plant
15	Ferrous Phosphorous	-	150	NIL	150	<b>No Change -</b>
16	Calcium Silicate	-	6000	NIL	6000	<b>Existing:</b> Phosphorou
17	Tri Phenyl Phosphate (TPPA)	-	66.51	NIL	66.51	<b>No Change - Existing:</b> BDP
18	Ammonium Sulphate Solution	-	3600	NIL	3600	<b>No Change - Existing:</b> Glyphosate
19	Ammonium Sulphate Solid	-	750	NIL	750	<b>No Change - Existing:</b> Glyphosate
20	Ethylene Chloride	-	44.5	NIL	44.5	<b>No Change - Existing:</b> Fosthiazate (IKI1145)
21	Ammonium Hydroxide (20%)	-	116.75	NIL	116.75	<b>No Change - Existing:</b> Fosthiazate (IKI1145)
22	POCl3	-	400	NIL	400	<b>No Change - Existing:</b> DVACL
23	Sodium Sulphite	-	1200	NIL	1200	<b>No Change - Existing:</b> DVACL
24	PTSA	-	94	NIL	94	<b>No Change - Existing:</b> N Alkylated xyledene
25	Acetic Acid	1185	NIL	NIL	1185	<b>No Change - Existing:</b> :Aceflorofen

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Available MT/Month	EC Applied for additional production	Total After EC Expansion	By Product from
		MT/Month		MT/Month	MT/Month	
26	Steam	-	60	NIL	60	No Change - Existing: Power Plant, steam 60 MT/Hr
	<b>Total</b>	<b>2531.3</b>	<b>41521.03</b>	<b>41800.83</b>	<b>70173.16</b>	

PP informed that the following environmental clearances have been obtained:

S.N.	Environmental Clearance
1	EC letter no. J-11011/42/95 IA II (I) dated 17.05.1996 for Caustic Chlorine Plant
2	EC letter no. J-11011/26/96 IA II (I) dated 24.02.1996 for Captive Power Plant
3	EC letter no. J-11011/325/2006 IA II (I) dated 25.07.2007 for expansion
4	EC amendment letter no. J-11011/325/2006 IA II (I) dated 18.09.2009 for Glyphosate Process Change
5	EC amendment letter no. J-11011/325/2006 IA II (I) dated 10.06.2011 for CS <sub>2</sub> process change.

Adequate air pollution control system will be provided to control process emission viz. SO<sub>2</sub>, NO<sub>x</sub>, HCl, Cl<sub>2</sub>, PCI<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>3</sub>, NH<sub>3</sub>, CO, H<sub>2</sub>S and CS<sub>2</sub>. Valuable products (like NaSH) will be recovered. Additional DG sets (1000 KVA) will be installed. TFH (5 KLac/hr) will be installed. ESP system, water scrubber will be provided to NG/Coal/Biomass/Briquet fired boiler (150 TPH). Total water requirement will be increased from 4382 m<sup>3</sup>/day to 17091 m<sup>3</sup>/day after expansion. Effluent generation will be increased from 1570 to 4768 m<sup>3</sup>/day after expansion. In the existing project, Effluent is treated in the ETP and discharged into FETP, which is 768m<sup>3</sup>/day. Remaining quantity is treated in RO and recycled into the process. Brine sludge from chlor-alkali plant; phosphorus residue, MEE salt, solid waste will be sent to BEIL for land filling. Process distillation residue will be sent to co-processing to cement industries. Contaminated cotton waste and filter aid will be sent to M/s BEIL for incineration. Fume of CS<sub>2</sub> will be sent to fume incinerator.

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. Total SO<sub>2</sub> emission load from the existing unit and proposed expansion to be estimated.
2. Treatment of phosphate effluent.
3. Comparison of environmental norms with European system w.r.t. safety and health of workers.
4. 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.
5. To upload the monitoring data through online system on company's web site as per earlier EC condition. This to be done within 10 days with uploading the minutes.

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.

### **40.4.9 Modifications in Process facilities of Gas and Condensate processing at Hazira Plant, Village Bhatpore, Tehsil Chorasi, District Surat, Gujarat by M/s ONGC 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 petro-chemical complexes are listed at S.N. 5(c) under category 'A' and appraised at Central level.

M/s ONGC Ltd. has proposed for Modifications in Process facilities of Gas and Condensate processing at Hazira Plant, Village Bhatpore, Tehsil Chorasi, District Surat, Gujarat. Cost of project is Rs. 374.00 Crore. MoEF&CC vide letter no. J-11011/677/2008-IA II (I) dated 12th November, 2008 for expansion of additional processing gas plant.

Currently, ONGC Hazira Plant, Gujarat is processing sour gas and associated condensate being received through 36" & 42" pipeline from Offshore. The operating capacity of the plant is 46.9 MMSCMD of Gas and 11760 SCMD of Condensate (CFU + LPG). These inputs are further processed to produce various end products and the installed capacities of various units are as follows:

<b>Major Unit</b>	<b>Normal Operating Capacity</b>	<b>Standby train capacity</b>
Gas Sweetening Unit (GSU)	46.9 MMSCMD + 1 train standby	5.6 MMSCMD
Sulphur Recovery Unit (SRU)	0.88 MMSCMD + 1 train standby	5.6 MMSCMD
Condensate Fractioning Unit (CFU)	10800 M3/day (inclusive of sweet & sour condensate) + 1 train standby	1800 M3/day
Gas Dehydration Unit (GDU)	41.7 MMSCMD + 1 train standby	5.6 MMSCMD
Dew Point Depression (DPD)	45.5 MMSCMD + 1 train standby	5.5 MMSCMD
Liquefied Petroleum Gas (LPG) Plants	5.27 MMSCMD Gas & 960 m3/day of sweet condensate	Single Unit. No stand by
Kerosene Recovery Unit (KRU)	Single Unit of 3972 MT/day. No stand by as of now	Under the present scheme, Modification proposed in existing KRU to handle heavier condensate and new standby KRU for meeting maintenance and statutory turnaround requirements.

A comparison with the existing plant capacities as brought out in the earlier Environmental clearance of 2008 are tabulated below for ready reference:

<b><u>Product</u></b>	<b><u>Existing Capacity</u></b>	<b><u>Proposed capacity</u></b>
Natural gas	46.9 MMSCMD + 1 train standby of 5.6 MMSCMD	No Change
Sulphur	23,100 TPA	No Change
<b><u>VAP PRODUCTION CAPACITIES</u></b>		

LPG	5,00,000 TPA	<p align="center"><b>NO CHANGE IN “TOTAL VAP”</b>  <b>Note : Due to input condensate composition change, Individual VAP product quantities will get realigned within overall Capacity of 19 lakh TPA.</b>  <i>VAP denotes Value added products i.e. a mix of LPG, Naptha, SKO, ATF, HSD &amp; Heavy Cut.</i></p>
Naptha	12,00,000 TPA	
SKO / ATF	1,76,500 TPA	
HSD	15,000 TPA	
Heavy Cut	Nil	
<b><u>TOTAL VAP</u></b>	<b>18,91,500 TPA SAY 19 LAKH TPA</b>	<b>19 LAKH TPA</b>

\*

Presently, due to change in profile, Hazira Plant is receiving feed at a much lower rate than the installed capacities. For optimization of resource use, Sour Gas with associated condensate from additional offshore fields (Daman Field) is proposed to be processed at Hazira Plant. With the additional inputs, the total Gas and condensate proposed to be processed remain within the plant design / operating capacities of 46.9 MMSCMD of Sour Gas and 11760 SCMD of Condensate (CFU + LPG). However, the composition of the condensate is heavier necessitating modification in the Kerosene Recovery Unit (KRU). Also, as brought out in the table, no standby train is available for the existing KRU Unit. In order to take care of the maintenance requirements and the statutory turnarounds (mandatory), an additional train of KRU is proposed under the present project so that offshore operations (Oil & Gas Production) can continue un-interrupted.

To handle the heavier condensate in existing CFU trains, filtration is proposed to be installed in the upstream of CFU trains. Further, due to change in product basket, additional storage of HSD tanks 2 nos x 2500 m<sup>3</sup> and heavy cut tanks 3 nos x 300 m<sup>3</sup> are proposed in the project along with enhancement in loading facilities of various products.

**The proposed Modification is summarized as follows:**

- a. Filtration system upstream of existing CFU's.
- b. Modification in existing KRU to handle heavier condensate and new standby KRU for meeting maintenance and statutory turnaround requirements.
- c. Augmentation of storage facilities due to change in product basket resulting in change in the quantity of existing product mix and additional production of “Heavy Cut”
- d. Augmentation of loading facilities for evacuation of products.

PP informed the followings:

- a. No additional land requirement. *(All the above modifications are proposed to be carried out within the existing plant boundary in an area of approx. 5 acres. The Hazira plant of ONGC is spread over an area of approx. 1576 acres.)*

- b. No additional utilities and offsite requirement as existing allocated raw water, Captive power plant, utilities such as Cooling Towers, Compressed Air, Steam, ETP, etc. are sufficient for the post revamp scenario.
- c. No change in Handling capacity of the plant in terms of input Gas and Condensate processing.
- d. Change in product basket due to change in composition of input condensate.

In view of the above, the Committee exempted the preparation of EIA-EMP report alongwith public hearing under section 7 (ii) of the EIA Notification, 2006. The Committee recommended to submit brief report considering following points :

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Project description and Project Benefits.
3. Manufacturing process details alongwith the chemical reactions and process flow diagram for the proposed project.
4. Details of existing utilities and proposed additional to be installed.
5. Details of existing crude storage tanks and additional storage tanks to be installed.
6. Details of air emissions from the various existing stacks and any change due proposed modification.
7. Baseline data for air, water and soil for last one year. Ambient air quality monitoring data for PM<sub>2.5</sub>, PM<sub>10</sub> SO<sub>2</sub>, NO<sub>x</sub>, (methane & non-methane HC) and VOCs particularly in the downwind direction.
8. Details of Sulphur balance in the existing processing facilities. Additional SO<sub>2</sub> emissions due to the proposed project.
9. Unit-wise air pollution control devices to be installed for the proposed units.
10. Water Balance chart for the existing unit and due to the proposed project.
11. Quantity of effluent generation and the existing effluent treatment scheme.
12. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
13. Oily sludge management plan.
14. Details of proposed preventive measures for leakages and accident.
15. Environmental Management Plan
16. Risk Assessment & Disaster Management Plan
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Risk assessment should also include leakages and location near to processing unit & proposed measures for risk reduction.

It was decided that project proponent should submit the final report for consideration of the proposal by the Expert Appraisal Committee (Industry-2).

**40.4.10 Synthetic Olefins Production from RFCC and DCU off gases (from Panipat Refinery) and its integration with Naphtha Cracker Unit and 2) Mounded Bullet Storage for C4 Mix at Panipat Refinery & Petrochemical Complex, District Panipat, Haryana by M/s IOCL -reg TOR.**

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

M/s IOCL has proposed for setting up of Synthetic Olefins Production from RFCC and DCU off gases (from Panipat Refinery) and its integration with Naphtha Cracker Unit and 2) Mounded Bullet Storage for C4 Mix at Panipat Refinery & Petrochemical Complex, District Panipat, Haryana. MoEF&CC vide letter no J-11011/153/2004 IA II dated 4<sup>th</sup> January, 2005 has issued environmental clearance to M/s IOCL, Panipat for Naphtha Cracker Complex at Panipat Refinery.

Panipat Refinery & Petrochemical Complex consists of a 15 MMTPA Refinery, a PTA plant and a Naphtha Cracker Plant. This plant produces various petroleum products and different grades of polymer and other specialty products. Now, new project of Ethylene Recovery Unit of 18.8KTA (1K=1000) will be installed. This project is required to maximize ethylene and ethane recovery from the Refinery off gases ( from FCC, Coker Unit). The cost of project is 347 Crores approximately. Plant will not have any fired heaters. Plot area is 5000 m<sup>2</sup>, within the existing plant premises. Water requirement will be 2.5 m<sup>3</sup> /hr., which will be met within allocated limit of 3100 m<sup>3</sup>/hr. About 0.2 m<sup>3</sup>/hr., liquid effluent will be generated which will be treated in existing ETP. Gaseous emission will take place from off gas during reactor regeneration in 1-2 years for 3 days for which the existing flare will take care. One Horten sphere for storage of C4 Mix Hydrogenated C4 (C4H)/C4 raffinate will be installed. One Mounded Bullet for storage of Hydrogenated C4 (C4H)/C4 Raffinate will be installed.

It was noticed that project namely Recovery of Styrene Project at Panipat Refinery & Petrochemical Complex was considered in the 24th EAC meeting held during 29th- 30th September, 2014 and the Committee suggested to prepare EIA-EMP report based on project specific TOR. After detailed deliberation, the Committee suggested to them to club the new proposal with the existing proposal to evaluate the cumulative impact and prepare consolidated EIA-EMP report. The existing ToR will remain same.

Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was recently conducted on 23rd August, 2013 for Butene-1 project.

#### **40.4.11 Manufacturing Plant of Technical Grade Pesticides at Kh. No. 60//22/2, 69//2, 3,8,9,12/1/1 , Village Kalanwali Tehsil Dabwali , District Sirsa, Haryana by M/s Maheswari Bio-chemicals 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 Maheswari Bio-chemicals Pvt. Ltd. has proposed for setting up of Manufacturing Plant of Technical Grade Pesticides at Kh. No. 60//22/2 , 69//2 , 3,8,9,12/1/1 , Village Kalanwali Tehsil Dabwali , District Sirsa, Haryana. Cost of project is Rs. 8.0 Crore. Plot area is 29070 sq. yard, of which area earmarked for greenbelt is 9593 sq. yard. It is reported that no area protected under international conventions, national or local is located within 15 km distance of project site. Following products will be manufactured:

S.No	Product Name	Capacity Proposed (MT/Annum)
1	Clodinafop	50
2	Hexaconazol	250
3	Atrazine	200
4	Bufrofezine	100
5	Lambda Cyhalothrin	50
6	MPB	650
7	Fipronil	200
8	Glyphosate	200
9	Thiram	100
10	Ziram	100
11	2,4-D Sodium Salt	500
12	2,4-D Amine Salt	500
13	Imidacloprid	50
14	Thimethoxame	50

Cyclone followed by bag dust collector will be provided to coal fired boiler Scrubber will be provided to control process emissions viz. HCl and Cl<sub>2</sub>. Water requirement from ground water source will be 5 m<sup>3</sup>/day. Effluent generation will be 3 m<sup>3</sup>/day and treated in the ETP. Treated effluent will be recycled/reused. No effluent will be discharged outside the plant premises. Power requirement will be 500 KVA. Hazardous waste will be sent to the Authorized vendor.

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. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
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. 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.

12. Details of incinerator if to be installed.
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.
2. Water requirement seems to be lower side. Detailed water balance chart with proper justification to be submitted.
3. Layout map of proposed plant alongwith Greenbelt to be submitted .

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.

### **40.4.12 BS-IV Project of Gujarat Refinery from BS-III to BS-IV compliant HSD production at District Vadodara , Gujarat by M/s IOCL 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 the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s IOCL Ltd. has proposed for setting up of facilities for augmenting the production of BS-IV project at Gujarat Refinery, Koyali, District Vadodara, Gujarat. Cost of project is Rs. 2166 Crore. No National Park / Wildlife Sanctuary is located within 10 km radius of the project site. River Mahi is flowing at a distance of around 4.5 km in the western side from the Refinery boundary. No new processing unit is envisaged in the project. Following revamps of secondary processing units is planned to increase the BS-IV MS/HSD production ex Gujarat Refinery, instead of BS-III compliant products:

<b>S.No</b>	<b>Unit</b>	<b>Present capacity</b>	<b>Post revamp Capacity</b>
1	DHDT, MMTPA	2.2	2.9
2	DHDS, MMTPA	1.7	2.2
3	HGU-3, TMTA	72.5	90
4	VGO-HDT, MMTP	2.1	2.73

The facilities for supply of total BS-IV MS/HSD will consist of following unit revamps:

A. Process Units: The facilities envisaged are as under:

- DHDT revamp by 30% i.e. 2.86 MMTPA (existing capacity 2.2 MMTPA)
- DHDS revamp to 2.2 MMTPA (existing capacity- 1.77 MMTPA, unit original design- 1.4 MMTPA)
- VGO-HDT unit revamp along with MHC (original capacity- 2.1 MMTPA, original conversion – 24.39 wt% at SOR and 29.91 wt% at EOR)
- HGU-3 revamp along with PSA ( existing capacity – 72.5 TMTA).
- No additional facilities towards SRU, ARU and SWS are considered. As one train of SRU 300TPD is idle at present and will be utilized as per requirement.

#### **B. Offsite Facilities:**

No new intermediate storage facilities have been considered as unit revamps are involved instead of new units. Large amount of new piping interconnections will be required to connect all the HSD streams to DHDT feed tanks (2nos. of 20TKL capacity each), DHDS feed tank (2nos. of 7TKL capacity each).

Fresh water from Mahi River for the existing Mahi River will be 10.8 MGD. PP informed that water requirement has been reduced to 1678 m<sup>3</sup>/hr after adopting various measures. Measures include commissioning of condensate polishing unit (CPU) to recover processed condensate and utilized for DM water generation. Recycling of treated effluent for cooling tower makeup. Installation of RO plant in CETP and comprehensive wastewater treatment plant. Treated effluent (110 m<sup>3</sup>/hr ) will be discharged into VECL. SO<sub>2</sub> emission load prescribed is 940 m<sup>3</sup>/hr., same will be maintained in post scenario stage. Oily sludge is generated from TPI, DAF in Common Effluent Treatment Plant. Sludge processing unit of 3000 MTPA is installed by M/s Plant – Tech. Processed in DCU for quenching of coker drum. Oil recovered is being processed back in Refinery. Bio-remediation of residual sludge is done in HDPE lined bio-remediation site, by M/s TERI. Spent catalyst is sent to authorized re-processor/ 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. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.
3. Sulphur balance giving input from crude, refinery fuel ( if used) and any other outside fuel and output in various products and emissions.
4. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
5. Details of emissions from all the stacks including volumetric flow rate.
6. Details on availability of raw materials (crude oil, natural gas, chemicals, etc.), its source and storage at the plant.

7. Details on mode of transportation of crude and products.
8. Details of storage capacity of crude and products.
9. Ambient air quality data should include hydrocarbon ( methane and non-methane), VOC, Ni & V etc.
10. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
11. 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. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.
12. Storm water management plan.
13. Estimation SO<sub>2</sub> and NO<sub>x</sub> emissions load.
14. Details on flaring system.
15. Details of VOC recovery devices in the storage tanks.
16. Arrangement for spill management.
17. Oily sludge management plan.
18. Risk Assessment & Disaster Management Plan
  - i. Identification of hazards
  - ii. Consequence Analysis
  - iii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
  - iv. Arrangement for fire protection and control.

#### **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.
3. The layout of the expansion plant should be such that major consequences of any accidental release are contained within the plant boundary.

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.

#### **40.4.13 Expansion of existing production capacity and adding new product at Plot No. 5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91 Survey No. 274, 275, 276, Tehsil & District Valsad, Gujarat by M/s Atul 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 Atul Ltd has proposed for expansion of existing production capacity and adding new product at Plot No. 5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91 Survey No. 274, 275, 276, Tehsil & District Valsad, Gujarat. Par River is flowing at a distance of 700 m. It is reported that no national park/wildlife sanctuary is located with 10 km distance. Cost of project is Rs. 19.57 Crore. Plot area is 10,87,340 m<sup>2</sup>. Expansion will be carried out in the existing plot. Environmental clearance was obtained vide MoEF letter no. J-11011/85/2009 IA II (I) dated 13<sup>th</sup> May, 2009 for expansion of pesticide and bulk drugs. Following products will be manufactured:

Sr. No.	Product	Capacity (TPM)		
		Existing	Proposed	Total
1.	Dyes	1,300.80	583.33	1,884.13
2.	Chloro – Alkali Industry	3,400.00	4,100.00	7,500.00
3.	Pesticide Technical	2,644.07	261.64	2,905.71
4.	Bulk Drugs & Pharmaceuticals	350.60	0.00	350.60
5.	Resin	2,990.90	441.67	3,432.57
6.	Other Chemicals	20,551.60	651.00	21,202.60
7.	Flavors & Fragrances	0.00	733.32	733.32
	Total	31,237.96	6,770.95	38,008.91

Process gas emissions will be phosgene, Cl<sub>2</sub>, HCl, PM, SO<sub>2</sub>, NO<sub>x</sub>, Acid mist, NH<sub>3</sub>, and Br<sub>2</sub>. Adequate scrubber will be provided to control process emissions. Water requirement from River Par will be increased from 22569 m<sup>3</sup>/day to 28357.7 m<sup>3</sup>/day after expansion. Total effluent generation will be increased from 21337 m<sup>3</sup>/day to 23,021 m<sup>3</sup>/day after expansion. Industrial effluent will be segregated into high COD, high TDS and low COD/TDS effluent streams. High COD effluent stream will be incinerated. High COD effluent stream will be concentrated in MEE. Normal effluent will be treated in the ETP and treated effluent will be discharged through closed 4 km long pipeline to tidal zone of River Par. Sewage of 937 m<sup>3</sup>/day is being disposed of through septic tank and soakpit. The Committee suggested them to treat in the STP. Solid waste incinerator and aqueous waste incinerators have been installed. M/s Atul has developed a site for disposal of solid wastes by landfilling in captive landfill. A total of 68 types of solid/hazardous waste are being generated and disposed as per the guidelines.

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. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to

control.

4. Details of fugitive emission and its control.
5. Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
6. Work zone monitoring arrangements for hazardous chemicals.
7. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
8. Action plan for odour control to be submitted.
9. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
10. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
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.
13. Details of incinerator if to be installed.
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. 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.
3. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
4. Scheme to treat sewage and utilization of treated sewage in the utilities.
5. Impact on fish due to discharge of treated effluent into sea.

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.

**40.4.14 Proposed expansion of sugar plant (from 2500 TCD to 7000 TCD) and molasses based Distillery (from 30KLPD to 60 KLPD) along with Co-generation (from 22 MW to 34 MW) at Post & Village Wangi, Taluka Kadegaon, District Sangli, Maharashtra by M/s Sonhira Sahakari Sakhar Karkhan 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 molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Sonhira Sahakari Sakhar Karkhan Ltd. has proposed for expansion of sugar plant (from 2500 TCD to 7000 TCD), molasses based Distillery (from 30KLPD to 60 KLPD) along with Co-generation (from 22 MW to 34 MW) at Post & Village Wangi, Taluka Kadegaon, District Sangli, Maharashtra. Cost of project is Rs. 141.21 crore. Total plot area is 268 acres. Out of which area earmarked for greenbelt is 16.5014 acres. Krishna River is flowing at a distance of 11 Km distance. PP has obtained environmental clearance vide MoEF's letter no J-11011/87/2003 IA II (I) dated 1<sup>st</sup> April, 2004. It is reported that no national park/sanctuary is located within 10 km distance.

ESP along with stack height of 72 m will be provided to boiler (2 x 80 TPH). DG set (2 x 500 KVA) will be installed. Total water requirement will be increased from 2242 m<sup>3</sup>/day to 4012 m<sup>3</sup>/day after expansion. However, fresh water requirement from Chinchani dam will be 1770 m<sup>3</sup>/day. Effluent from Sugar unit will be treated in the ETP. Spent wash from distillery will be treated through bio-methanation plant. Treated spent wash will be concentrated in MEE plant and concentrate will be bio-composted with press mud. Spent lees and condensate will be treated in the condensate polishing unit and recycle to cooling tower /process/garden. Used /spent oil will be sold to Authorized recyclers. Fly ash will be used for dumping into low laying area/ brick manufacturing. Sludge will be used as manure.

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. 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, 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 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. Commitment to install RCC tank with HDPE lining for spent wash collection.
13. Action plan to control odor pollution.
14. Arrangements for installation of continuous online monitoring system ( 24x7 monitoring device)

### **Sugar**

1. Number of working days of the sugar production unit.
2. 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.
3. Details of the use of steam from the boiler.
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Collection, storage and handling of bagasse and pressmud.
6. Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.
7. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, 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.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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.

**40.4.15 Expansion of Bulk Drug Unit from 6 TPM to 40 TPM at Sy. No 267/7/10,IDA Bollaram, Mandal Jinnaram, District Medak, Telangana by M/s Sri Krishna Pharmaceuticals Ltd. (Unit-IV)-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 chemical industries located inside the notified industrial estate/area are listed at S.N. 5(f) under category 'B' and appraised at State level. Due to applicability of general condition (i.e. within 5 Km from Critically Polluted Area, Bollaram), project proposal is treated as category 'A' project and appraised at Central Level.

M/s Sri Krishna Pharmaceuticals Ltd. (Unit-IV) has proposed for Expansion of Bulk Drug Unit from 6 TPM to 40 TPM at Sy. No 267/7/10,IDA Bollaram, Mandal Jinnaram, District Medak, Telangana. MoEF vide letter no J-11011/170/2005-IA. II (I) dated August 11<sup>th</sup>, 2005 has issued environmental clearance for the existing EC. Cost of expansion project is 89.0 Crores. Plot area is 18211 m<sup>2</sup>. Out of which, area earmarked for greenbelt is 6760 m<sup>2</sup>. It is reported that 9 RF s are located within 10 km distance. It is reported that no National Parks, Wildlife Sanctuaries, Biosphere Reserves etc. is located within 10 Kms from the site. List of the existing products and additional proposed products to be manufactured are as given below:

S.N.	Product	Existing Quantities (Kg/day)	Quantities after Expansion ( TPM)
1	Frusemide	133.33	15
2	Glibenclamide	33.33	5
3	Glipizide	33.33	5
4	Levostatin	--	15
	Total		40

Bagfilter will be provided to additional coal fired boiler (10 TPH) to control particulate emissions. DG set (2 x 500 KVA) will be installed. Scrubber will be provided to control process emission viz. ammonia and HCl. Water requirement from taker supply will be increased from 98 m<sup>3</sup>/day to 441 m<sup>3</sup>/day after expansion. Wastewater generation will be increased from 25 m<sup>3</sup>/day to 244 m<sup>3</sup>/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. 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.

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 along with Public Hearing:

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

### **40.4.16 Expansion of existing Partially Oriented Yarn (45000MT/M); Fully Drawn Yarn (15000 MT/M); Polyester Texturized Yarn (47000 MT/M); Captive Co-gen Heat & Power Plant (50 MW) at Survey no. 342, Village Kharadpada, Naroli, Dadra & Nagar Haveli, UT by M/s Reliance Industries 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 manmade fibres manufacturing other than rayon are listed at S.N. 5(d) under category 'B'. However, due to location of the

project within 5 km of the interstate boundary (Gujarat) and applicability of general condition, proposal is appraised at Central level.

M/s Reliance Industries Ltd. has proposed for expansion of existing Partially Oriented Yarn (45000MT/M); Fully Drawn Yarn (15000 MT/M); Polyester Texturized Yarn (47000 MT/M); Captive Co-gen Heat & Power Plant (50 MW) at Survey no. 342, Village Kharadpada, Naroli, Dadra & Nagar Haveli, UT. DN Wildlife sanctuary is located at a distance of 2.4 km. River Damanganga is flowing at a distance of 5.43 Km. Cost of project is Rs. 168.5 Crore. Plot area is 4,96,587 m<sup>2</sup>. Now, land will be increased to be 5,60,340 m<sup>2</sup>. MoEF vide letter no J-11011/429/2010 IA II (I) dated 8th June, 2011 has issued environmental clearance for expansion of POY. Now, PP want following additional configuration in the existing EC :

S.N.	Products/ Utilities	Approved (EC 2011)	Proposed
1	Ployster Chips, MTPM	--	6000
2	Change of fuel in all 8 HTP heaters- 12 MKCal/hr	NG/LSHS	NG/LSHS/FO
3	HTM Heater -20 MKcal/hr/ (Petcoke/Coal/Coal Water Slurry)	--	4 Nos.
4	Steam Boiler – 6.5 TPH (NG/LSHS/FO)	--	2 Nos.
5	Steam Boiler – 6.5 TPH (Petcoke/Coal/Coal Water Slurry)	--	2 Nos
6	DG set, KVA	125	500 & 2000

ESP will be provided to control particulate emission. Lime injection will be done to control SO<sub>2</sub>. Water requirement will be increased from 9,061 to 9,163 m<sup>3</sup>/day and sourced from Damanganga Canal. Wastewater generation will be increased from 3700 m<sup>3</sup>/day to 3844 m<sup>3</sup>/day after expansion. Boiler blown down and CTBD will be reused after passing through RO. Zero liquid discharge will be followed. Fly ash will be sent to brick manufacturing unit / cement plant.

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 requirement of raw materials (monomers, solvents, catalysts, etc.), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, etc.
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO, CO<sub>2</sub>, etc.) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, etc.
6. Details on chemical releases – acetonitrile, CS<sub>2</sub>, ethylene, ethylene glycol, HCl, methanol, etc., and its management.
7. Details on existing ambient air quality and expected, emissions for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub><sup>\*</sup>, NO<sub>x</sub><sup>\*</sup>, CO<sub>2</sub><sup>\*</sup>, CO<sup>\*</sup>, CS<sub>2</sub><sup>\*</sup>, VOC<sup>\*</sup>, H<sub>2</sub>S, 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).
8. Risk assessment should also include leakages & proposed measures for risk reduction.
  9. Details of sodium sulphate recovery.

## **B. Additional TOR**

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Copy of application submitted for clearance from NBWL .

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. 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.

### **40.4.17 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 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 projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC has proposed for exploratory drilling of additional three wells for Block AA-ONN-2001/1, NELP Block III, near Agar, East Tripura. The NELP-III, Block AA-ONN-2001/1, a part of Assam and Assam Arakan Fold Belt of Assam and Assam. Arakan Basin, is situated near Agartala in Tripura State. The block is located in eastern part of Tripura was awarded to ONGC under the NELP III round of bidding with 100% share and partnership. The PSC signed 4<sup>th</sup> February 2003 entails three phases of activities with committed minimum work programme (MWP). The Block area lies between latitude 23°42'08.11" & 24° 27'34.87" and longitude 91°47'11" & 92°17'47". The area has undulating terrain, jungles and is almost devoid of approach roads. Initially, 3010 Sq Km area was granted by Govt. on 01.05.2003 to carry out exploration of hydrocarbon in the area. Subsequently, some area within this block was not prospective, has been relinquished. Commercial gas has been discovered in three exploratory wells ie KH-04, KH-05 and KH-07 in this block. MoPNG , Govt of India has granted extension of PEL for an area of 960sqkm upto 23.02.2015 for the Block AA-ONN-2001/1 vide letter No F.No.12012/12/2003/ONG-III dated 4th June,2014 .ONGC is planning for expansion of exploratory drilling in the block over an area measuring 960sqkm to chase the gas discovery. Interstate and international boundaries are located within 5 Km distance. No forest land is involved in the said project. It is reported that no protected areas and eco-sensitive for ecological reasons are located within 15 Km distance.

However, PP during presentation informed that all proposed 3 locations are falling outside approved / notified ESZ/WL Zone issues vide letter Rules/ 2012/Rowa/226 dated 15.05.2013, Govt. of Tripura. Cost of project is Rs. 150 Crore. Following wells will be drilled:

S.N.	Location	Latitude	Longitude	Nearest Village	District
1	KHBN	24°15'22.35"	92°11'09.81"	Jalabasa	North Tripura
2	MUAB	24°05'49.60"	92°00'54.03"	Purba Kanchanbari	North Tripura
3	RDO-01 (DOAA)	24°05'18.407"	91°47'34.206"	Rambasi Para	Dholai

Drilling depth varies from 3000 – 3800 m. Water based mud will be used. quantity of drill cuttings generated will be around 250-300 m<sup>3</sup>. The quantity of wastewater produced will be about 15 m<sup>3</sup>/day. The rig will be provided with solids handling system comprising Shale shakers (1200 GPM), Desander (1200 GPM) and De-silter (1200 GPM) and Degasser with vacuum pump. The daily water consumption will be 25 m<sup>3</sup>/d of which 15 m<sup>3</sup>/d will be used for mud reparation and 10 m<sup>3</sup>/d will be used for domestic purposes. Water requirement will be met from tanker supply.

PP informed that environmental clearance was obtained vide MoEF&CC letter no J-11011/213/2008 IA I dated 11<sup>th</sup> June, 2008 for onshore exploratory drilling. After detailed deliberation, the Committee has now recommended for amendment in the existing EC for additional 3 wells subject to compliance of specific conditions prescribed in the existing EC.

#### **40.5 Any Other Items**

**40.5.1 Red Pigments ( 40 MTPM) and Yellow Pigment ( 40 MTPM) manufacturing unit at Old Survey no. 81/2, Block no. 142, village Dabhasa, Taluka Padara, district Vadodara, Gujarat by M/s Globex Laboratories ( R &D) Ltd. – reg amendment in existing EC .**

Project proponent did not attend the meeting. The Committee decided that proposal should be considered afresh as per the priority whenever requested through online.

**40.5.2 Proposed 120 KLPD molasses/Grain based distillery and 6 MW power plant at B.N. Kandriga village and Mandal, Chittor district, Andhara Pradesh by M/s Sudalagunta Sugars Ltd. amendment in EC.**

MoEF& CC vide letter no. J-11011/280/2006 IA II (I) dated 11.06.2007 has issued environment clearance to M/s Sudalagunta Sugars Ltd. for setting up of distillery Unit (120 KLPD). Now, PP has submitted the application for extension of validity of EC on 30.03.2012. PP informed that 80 % of civil works has been completed pertaining to 120 KLPD distillery. Due to financial constraints, they could not complete the construction of 120 KLPD Grain based /Molasses based distillery. Further, PP also requested the following amendment in the existing EC:

S.N	As per Environmental clearance	Requested amendment
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1	<p>It is noted that about 720 m<sup>3</sup> /d of effluent from the grain based process and 1200 m<sup>3</sup> /d from the molasses based process will be generated. The effluent will be treated in the RO and will be recycled. The RO rejects will be composted with press mud. About 360 m<sup>3</sup> /d of treated spent wash will be generated when grains are used and 600 m<sup>3</sup> /d of spent wash will be generated when molasses is used as raw material. No effluent shall be as per CPCB guidelines. The company shall earmark an area of 20 acres for bio-composting, storage of finished products etc. the company yard shall be made impervious as per the CPCB guidelines</p>	<p><b><u>Grain based process</u></b></p> <p>Effluent generated from Grain based process will be sent to multiple Effect Evaporators to concentrate the solids to 30% and will be taken to a drier along with wet cake, to concentrate to 90 % solids directly and the powder obtained will be bagged and will sold as cattle feed Condensate generated will be recycled back into the process.</p> <p><b><u>Molasses based process</u></b></p> <p>Effluent generated from Molasses based process will be sent to Multiple Effective Evaporators to concentrate the spent wash to 60% solids in evaporators. The concentrated sent wash will be incinerated in incineration boiler along with supplement fuel bagasses / coal to achieve zero effluent discharge. Condensate generated will be recycled back into the process.</p>
2	<p>The company shall install bag filters and stack height of 54 m to control the emission from the 40 TPH coal / bagasse fired boiler to achieve the particulate emission within the prescribed standards</p>	<p>To install 55 TPH boiler instead of 40 TPH boiler in order to meet the additional steam requirement for evaporation of spent wash to 60% solids w/w. Bag filters will be provided to achieve the particulate emissions within the prescribed standards and stack of adequate height will be provided as per CPCB standards</p>
3	<p>The company shall obtain permission from the State / Central / Ground water Authority for drawl of ground water</p>	<p>To draw water from Telugu Ganga Canal, NTR TGP division, Srikalahasti, which is situated at 1.5 Km from the Plant site along with Ground water. Prior permission from Irrigation Department will be taken for drawing water from</p>

		Teluga Ganga Canal
4	The operation of Distillery shall be restricted to 270 days and that it will not operate during rainy season.	to give permission to operate Distillery for 365 days

After detailed deliberation, the Committee recommended the extension of validity for another 5 years alongwith proposed amendment as per CPCB guidelines.

**19<sup>th</sup> May 2015 (Day 2)**

#### **40.6 Environmental Clearance**

##### **40.6.1 Resin Manufacturing Unit (450 MTPM) at Survey No. 68 p 3/p, National Highway No. 8 A, Village Timbadi, Taluka Morbi, District Rajkot, Gujarat by M/s Rizon Laminates 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 10<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 31<sup>st</sup> July, 2013 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 Rizon Laminates Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit (450 MTPM) at Survey No. 68 p 3/p, National Highway No. 8 A, Village Timbadi, Taluka Morbi, District Rajkot, Gujarat. Plot area is 11331 m<sup>2</sup> of which greenbelt will be developed in 3800 m<sup>2</sup>. Total cost of the project is Rs.8.30 Crore. It is reported that no national park/wildlife sanctuary is located within 10 km distance. During presentation, PP informed that Paneli Reserve Forest is located within 10 km distance. Machchhu River is flowing within 10 km distance. Following products will be manufactured:

S.N.	Product	Capacity (MTPM)
1.	Melamine Formaldehyde Resin	150
2.	Phenol Formaldehyde Resin	300

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March, 2014- May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (58.33 µg/m<sup>3</sup> to 84.56 µg/m<sup>3</sup>), PM<sub>2.5</sub> (19.83 µg/m<sup>3</sup> to 31.10 µg/m<sup>3</sup>), SO<sub>x</sub> (8.02 µg/m<sup>3</sup> to 14.95 µg/m<sup>3</sup>) and NO<sub>x</sub> (14.61 µg/m<sup>3</sup> to 21.67 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 14.3 µg/m<sup>3</sup>, 0.7 µg/m<sup>3</sup> and 3.46 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/Bio coal fired boiler & Thermic fluid heater to control particulate emissions. DG set (250 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total water requirement is 49.7 m<sup>3</sup>/day, of which fresh water

requirement from ground water source will be 15.55 m<sup>3</sup>/day. Remaining water requirement will be met from treated effluent and condensate. Industrial effluent generation will be 8.78 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. Sewage will be treated in the STP. 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 6<sup>th</sup> February, 2015. The issues were raised anticipation of quality of effluent, impact on agriculture due to air 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) Bag filter along with stack of adequate height should be installed in coal/Bio coal fired boiler & Thermic fluid heater 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 15.55 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) 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 3800 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 6<sup>th</sup> February, 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.
- 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. As proposed, plan shall include construction of 140 nos. of toilet. Implementation of such program should be ensured accordingly in a time bound manner.

**40.6.2 Expansion of Sugar Plant (from 4500 TCD to 12000 TCD), Distillery Plant (60 KLPD to 90 KLPD) and Power Plant (24 MW to 54 MW) of M/s Athani Sugars Ltd., at Vishnu Nagar, Tehsil Athani, District Belgaum, Karnataka- Reg EC.**

The project proponent and their consultant (M/s Min Mec Consultants, Stay order no. LPA 23/2014 and CM No. 667/2014 dated 06.02.2015) 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 molasses based Distillery Units are listed at S.N. 5(g) under Category 'A' and appraised at the Central level.

2. The Committee at first instance discussed the compliance status report dated 8<sup>th</sup> January, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Bangalore. It is reported that

- (i) Though the Project Authorities have claimed "Zero Discharge" but the entire treatment scheme in sugar unit is in a dilapidated state and leaks/incomplete treatment/illegal discharge were noted.
- (ii) No Piezometer wells were installed around compost yard.
- (iii) Cracks were observed in garland canal of compost yard.
- (iv) As reported, five rows of trees have to be planted all around the compost yard, this is not done.
- (v) PAs have not uploaded the status of compliance on to their website.
- (vi) Some new construction has been observed. PCB is to confirm that the said new construction is not the part of expansion project.

3. After detailed deliberations, the Committee was of the view that these are serious deficiencies, which need to be rectified before considering proposal for expansion. The Committee suggested to them to take immediate corrective action on the non-complied points and submit the action taken report alongwith photographs to the Regional Office, Bangalore for their comments.

4. The Committee also suggested few points on the EIA report that maximum GLC should be rechecked, which seems to be incorrect. Maximize the recycling of the effluent and reduce fresh water requirement in the EIA report. The Committee noted that performance of the Consultant in preparing EIA-EMP report is not upto mark and under rated.

The proposal was deferred till the aforesaid information at para-2 and 4 is submitted through online. The complete expansion proposal shall be appraised afresh. The above information shall be provided with the uploading of minutes on the website.

#### **40.6.3 Bulk Drug Manufacturing Unit at Village Philrour, Tehsil Khamano, District Fatehgarh Sahib, Punjab by M/s Viva Drugs Pvt. Ltd.– reg EC.**

The project proponent and their consultant (M/s 21<sup>st</sup> Century Consulting Engineers, Stay order no. 209+230 CWP-10832-2012 dated 30.01.2015) 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 4<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 8<sup>th</sup> to 9<sup>th</sup> January, 2013 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 Viva Drugs Pvt. Ltd. has proposed for setting up of Bulk Drug Manufacturing Unit in the existing formulation unit at Village Philrour, Tehsil Khamano, District Fatehgarh Sahib, Punjab. Total land requirement is 8800 m<sup>2</sup> of which area earmarked for greenbelt is 3500 m<sup>2</sup>. It is reported that no National Park, Wildlife Sanctuary is located within 10 km radius of the project site. Existing plant is a solvent formulation unit for manufacturing tablets and capsules and now the company is going for backward integration for manufacturing bulk drugs and intermediates with a capacity of 15-20 TPA. The products details are as below:

<b>Name of the products</b>	<b>Total (TPA)</b>
<ul style="list-style-type: none"> <li>• Atenolol,</li> <li>• Atorvastatin calcium,</li> <li>• Diclofenac sodium</li> <li>• Mefenamic acid</li> <li>• Losartan Potassium</li> <li>• Clopidogrel bisulfate</li> <li>• Fexofenadine HCl</li> <li>• Terbinafine hydrochloride &amp; Fluconazole</li> <li>• Nitazoxanide</li> </ul>	15-20

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during February, 2013- March, 2013 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (37.0 µg/m<sup>3</sup> to 49.0 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26.0 µg/m<sup>3</sup> to 39.0 µg/m<sup>3</sup>), SO<sub>x</sub> (3.2 µg/m<sup>3</sup> to 4.4 µg/m<sup>3</sup>) and NO<sub>x</sub> (15.0 µg/m<sup>3</sup> to 16.7 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  $0.775 \mu\text{g}/\text{m}^3$ ,  $1.956 \mu\text{g}/\text{m}^3$  and  $1.281 \mu\text{g}/\text{m}^3$ ,  $0.106 \mu\text{g}/\text{m}^3$ ,  $0.212 \mu\text{g}/\text{m}^3$  and  $\mu\text{g}/\text{m}^3$  with respect to SPM, SO<sub>2</sub>, NO<sub>x</sub>, HCl, H<sub>2</sub>S and Br<sub>2</sub>. The resultant concentrations are within the NAAQS. Unit has existing 0.6 TPH HSD fired boiler. Bagfilter will be provided to additional boiler to control particulate emissions. However, during public hearing, PP informed that pet coke fired boiler (2 TPH) will be installed. Scrubbers will be provided to reactor's vents to control process emissions viz. HCl, SO<sub>2</sub>, H<sub>2</sub>S and Br<sub>2</sub>. Water requirement from ground water source will be increased from 15.5 m<sup>3</sup>/day to 26.0 m<sup>3</sup>/day after expansion. Effluent generation will be 8.0 m<sup>3</sup>/day. PP informed that effluent will be treated in the ETP followed by RO. RO rejects will be sent to evaporator for evaporation. However, the Committee suggested them to follow standard treatment system for bulk drugs. Effluent treatment will be segregated into high COD/TDS and low COD/TDS effluent stream. High COD/TDS effluent stream shall be passed through high steam stripper followed by MEE. Low COD /TDS effluent and condensate water shall be treated through biological ETP followed by Reverse Osmosis (RO). RO rejects shall be evaporated in the MEE. No effluent will be discharge outside the plant premises and 'Zero' effluent discharge shall be followed. The Committee suggested them to collect and transfer the MEE salt and ETP sludge to TSDF. Waste oil will be sent to the authorized recyclers. The Committee suggested the Environmental Consultant that the information regarding effluent and solid waste management scheme should have been incorporated in the EIA report. The Committee underrated the performance of the Consultant and suggested for up gradation in preparing EIA-EMP report.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Punjab Pollution Control Board on 6<sup>th</sup> December, 2013. The issues were raised 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, on the basis of the EIA-EMP 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. Bag filter with stack of adequate height shall be provided to oil fired boiler to disperse the air emissions.
- 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 26 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. 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.
- viii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix. All the issues raised during the Public Hearing/consultation meeting held on 6<sup>th</sup> December, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- x. 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 Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.
- xi. As proposed, green belt over 3500 m<sup>2</sup> area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

#### **40.6.4 Resin manufacturing unit (2350 MTPM) at Block No. 4/2, 11/P1 and 12/P2, village NainiAboli, Taluka Mahemdabad, district Kheda, Gujarat by M/s Kraft Laminate- reg EC.**

The project proponent and their consultant (M/s Anand Consultant) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 10<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> to 31<sup>st</sup> July, 2013 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 Kraft Laminates have proposed for setting up of Resin Manufacturing Unit (2350 MTPM) at Block No.4/2, 11/P1, 11/P2, 12/P1 and 12/P2, Village Nani Adboli, Taluka Mahemdabad, District Kheda, Gujarat. Plot area is 18816 m<sup>2</sup> of which greenbelt will be developed in 6200 m<sup>2</sup>. It is reported that no National Park/Wildlife Sanctuary / reserve

Forest is located within 10 km distance. Vatrak River, Meshwo River and Narmada Canal is flowing at a distance of 0.5 Km, 7.0 Km and 1.0 Km respectively. Total cost of the project is Rs.9.15 Crore. Following products will be manufactured:

S.N.	Product	Proposed Production Capacity (MTPM)
1.	Melamine Formaldehyde Resin	350
2.	Phenol Formaldehyde Resin	1000
3.	Urea Formaldehyde Resin	1000

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2013- November, 2013 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (46 µg/m<sup>3</sup> to 76 µg/m<sup>3</sup>), PM<sub>2.5</sub> (17 µg/m<sup>3</sup> to 32 µg/m<sup>3</sup>), SO<sub>x</sub> (10 µg/m<sup>3</sup> to 20 µg/m<sup>3</sup>) and NO<sub>x</sub> (13 µg/m<sup>3</sup> to 27 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 1.175 µg/m<sup>3</sup>, 3.04 µg/m<sup>3</sup> and 0.73 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. Bagfilter will be provided to coal/lignite/agro waste fired boiler & Thermic fluid heater to control particulate emissions. DG set (320 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Fresh water requirement from ground water source will be 15.42 m<sup>3</sup>/day. Industrial effluent generation will be 3.54 m<sup>3</sup>/day. Industrial effluent will be treated in ETP followed by evaporator. Phenol will be removed by using KMnO<sub>4</sub> with detention time of 12 hours. 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/building block manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 20<sup>th</sup> June, 2014. The issues were raised pollution from the industry, discharge of effluent, eye irritation due to smoke, School nearby 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) Bag filter with stack of adequate height should be installed to coal/lignite/agro waste fired boiler & Thermic fluid heater 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 15.42 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) 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 6200 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 20<sup>th</sup> June, 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. Company shall adopt atleast one village and implement sanitation programme. Implementation of such program should be ensured accordingly in a time bound manner.

### **Reconsideration for Environmental Clearance**

#### **40.6.5 Expansion of Bulk Drug Manufacturing Unit at Village KeshwanaRajpoot, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Otsuka Chemicals (India) Pvt. Ltd. – reg. EC**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 34<sup>th</sup> meeting held during 17<sup>th</sup> – 19<sup>th</sup> February, 2015 and the Committee deferred the proposal for want of following addl. information:

- (i) Water consumption figure found to be higher. Therefore, detailed plan for reduction of water consumption supported by revised water balance chart to be submitted.

- (ii) Quantitative balance of wastewater and hazardous waste to be provided.
- (iii) TDS, Nitrate and fluoride values are in higher side, Give reasons.
- (iv) Existing Greenbelt with photographs and proposed layout plan to be submitted.
- (v) Health and safety status of the existing plant.
- (vi) VOC and other process emission to be monitored.
- (vii) Come along with process person before EAC meeting.

PP vide letter dated 27<sup>th</sup> April, 2015 has submitted the above mentioned information. Water requirement will be increased from 280 m<sup>3</sup>/day to 800 m<sup>3</sup>/day after expansion. PP clarified that out of exiting water requirement (280 m<sup>3</sup>/day), water is evaporated (loss) to be 152 m<sup>3</sup>/day. Regarding effluent management, PP informed that effluent will be segregated into High COD, High TDS and Low COD/TDS effluent streams. High COD effluent stream will be sent to incinerator for incineration. High TDS effluent will be first sent to stripper followed by 3 stage MEE. Concentrate will be sent to centrifuge for precipitation of solids. Precipitated inorganic salt will be mixed with fly ash and disposed off as landfill. The Committee has raised serious objection on mixing of fly ash with the precipitated inorganic salt and disposed off through landfill. The Committee suggested them to install ATFD instead of centrifuge. The Committee suggested them to follow standard treatment scheme followed by the Andhra Pradesh. The scheme include segregation of effluent 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 including MEE condensate will be treated in ETP followed by reverse osmosis (RO). Mother liquor from stripper shall be incinerated. MEE salt shall be sent to TSDF. Regarding greenbelt, PP informed that area earmarked for greenbelt is 22500 m<sup>2</sup>. However, the Committee observed the density of existing plantation is very poor. The Committee suggested that methane and non-methane Hydro-carbon shall be monitored again. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment. Since Flouride and Nitrate levels in the ground water is high, Company shall provide potable drinking water system to nearby villages within study area. The Committee underrated the performance of Consultant and advised for improvement in preparing EIA-EMP report in future.

After deliberation, the Committee sought following additional information:

- (i) Crosscheck methane and non-methane hydrocarbon data in the ambient air.
- (ii) Plan to install ATFD instead of centrifuge. Elaborate the existing practice for handling MEE salt.
- (iii) Adequate plan for development of greenbelt as per CPCB guidelines

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

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

**40.7.1 Expansion of Synthetic Chemical manufacturing unit at Plot No: 18 - D II, Phase -1, I.D.A Patancheru , Medak (Dt), Telangana State by M/s. Mahidhara Chemicals Pvt Ltd.-Reg. TOR.**

The project authorities and their Consultant (M/s Team Labs) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by State Appraisal Committee (I). However due to applicability of general conditions with respect to 5 km radius from critically polluted area (Patancheru- Bollaram), the project is treated as category 'A' and appraised at Central Level.

M/s. Mahidhara Chemicals Pvt Ltd. has proposed for expansion of synthetic organic chemicals manufacturing (44 TPM to 214 TPM) unit at Plot No 18- D II, Phase-1, I.D.A Tehsil Patancheru, District Medak, Telangana. The project site is located in the notified industrial area. As reported there is no wildlife/ eco sensitive/ reserve forest located within 10 km radius from the project site. Cost of expansion is Rs. 1.95 Crores. Plot area is 9869.71 m<sup>2</sup> and 4212.28 m<sup>2</sup> (42%) will be developed as green belt. Following products will be manufactured:

### List of existing products & capacities

S. No	Products	Quantity
1	Sodium hydride( Dispersion )	15.0 TPM
2	Sodium amide	5.0 TPM
3	Sodium tertiary Butoxide/ Potassium Tertiary Butoxide	300. Kg/Day
4	N-Ethyl Piperzine	15.0 TPM

### List of proposed products & capacities

S. No.	Product Name	Production	
		Kgs/Month	Kgs/Day
	<b>Group-A</b>		
1	Lithium Methoxide	1000.00	33.33
2	Lithium Tertiary Butoxide	1000.00	33.33
3	lithium amide	10000.00	333.33
4	magnesium methoxide	2000.00	66.67
5	magnesium Tertiary butoxide	10000.00	333.33
6	N-Butyl lithium	5000.00	166.67
7	Potassium Tertiary Butoxide	5000.00	166.67
8	Sodium amide	30000.00	1000.00
9	Sodium hydride	50000.00	1666.67
10	Sodium tertiary Butoxide	30000.00	1000.00
	<b>Total(Sum of all products)</b>	<b>144000.00</b>	<b>4800.00</b>
	<b>Group-B</b>		
1	Lithium HMDS	30000.00	1000.00
2	Potassium HMDS	30000.00	1000.00
3	Sodium HMDS	30000.00	1000.00
	<b>Total(Sum of all products or single product)</b>	<b>30000.00</b>	<b>1000.00</b>
	<b>Group-C</b>		
1	Benzyl Magnesium Chloride	40000.00	1333.33

S. No.	Product Name	Production	
		Kgs/Month	Kgs/Day
2	Butyl Magnesium chloride	40000.00	1333.33
3	ethyl Magnesium bromide	40000.00	1333.33
4	Ethyl Magnesium chloride	40000.00	1333.33
5	Methyl Magnesium chloride	40000.00	1333.33
6	Phenyl Magnesium chloride	40000.00	1333.33
7	Secondary Butyl Magnesium chloride	40000.00	1333.33
	<b>Total(Sum of all products or single product)</b>	<b>40000.00</b>	<b>1333.33</b>
	<b>Total (Sum of Group-A &amp;Group-B&amp; Group-C)</b>	<b>214000.00</b>	<b>7133.33</b>

1.5 TPH Coal fired boiler will be installed by replacing the existing 0.5 TPH and, after expansion and 3.75 TPD of coal will be used. DG set of 250KVA capacity is already existing and additional 250 KVA DG set will be installed. Bag filter will be provided with adequate stack height to control particulate matters. Gaseous emissions from process are Hydrogen, Methane and Ammonia shall be utilised within the process except methane gas. Coal ash from boiler will be sent to brick manufacturers. Solvent distillation residue will be sent to cement industries. RO salts will be sent to TSDF.

Against the water requirement for proposed expansion of 52 m<sup>3</sup>/day, wastewater generation is 11 m<sup>3</sup>/day. RO system will be installed to treat waste water from process and utilities. ZLD system will be followed.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure 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. The Committee exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006 due to project location in the industrial area establishes prior to 2006.
- 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' 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 Committee exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006 due to project location in the industrial area establishes prior to 2006.

**40.7.2 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**

M/s. Nisol Manufacturing Company Private Limited (Unit-II) has proposed for expansion of chemical manufacturing unit of nicotine sulphate at Survey No.114/115 P, Village Jahaj, Dharmaj- Khambhat Road, Taluka Khambhat, District Anand, Gujarat. PP informed that the extraction of nicotine from Tobacco dust/ leaf consist of four major steps, namely:

- i) Mixing or blending
- ii) Percolation with water
- iii) Extraction with solvent
- iv) Packing and forwarding

The Committee noted that there is no involvement of synthesis during the process except extraction. Though the earlier Committee has recommended such type of project for EC but now it is clear that only extraction step is involved in the process rather than synthesis. Therefore, the Committee recommended that since no synthesis is involved, proposal may be exempted from EC process.

**40.7.3 Changeover of Feedstock and Fuel from Naphtha to Mixed feedstock (Natural gas and Naphtha) at Muthiahpuram village, Taluka - Tuticorin, District - Tuticorin, State- Tamil Nadu by M/s Southern Petro Chemical Industries - 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 Chemical Fertilizer are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

M/s Southern Petro Chemical Industries has proposed for Changeover of Feedstock and Fuel from Naphtha to Mixed feedstock (Natural gas and Naphtha) at Muthiahpuram village, Taluka - Tuticorin, District - Tuticorin, State- Tamil Nadu. The production capacity of the urea plant will remain the same after the gas conversion. Capacity of Urea manufacturing is 6,20,400 MT. Total plot area is 4,61,341 m<sup>2</sup>. Out of which, area earmarked for greenbelt is 1,43,536 m<sup>2</sup>. PP informed that there is no additional water requirement due

to gas conversion of plant. No additional power requirement due to gas conversion of plant. Cost of project is Rs. 96 crore.

Raw material details with storage facilities are given in the Table below:

S No.	Chemicals (Raw Materials)	State	Consumption ( Year wise )			Means of Storage	Capacity of Vessel/Pack/Barrel ( KL)	No. of Vessels	Storage capacity (Tonne)	Control Measure Provided
			Existing	Modernization	Total					
1	Naphtha	Liquid	262180 MT	---	262180 MT	Tank	8750 KL X 3 =26250 6150KL X2=12300	5	38550 KL	Dyke wall, Fire Protection System, Level sensor
2	Furnace Oil	Liquid	122530 MT	---	122530 MT	Tank	3800 KL X 2 =7600 KL	2	7600 KL	Dyke wall, Fire Protection System, Level sensor
3	Natural Gas **	Gas	-----	378000 MT	378000 MT	Pipe line	Link with Natural Gas Pipe line	NA	NA	Control Measures will be provided as per OISD Standard
<b>** Note – Till the plant is supplied with full gas requirement, the plant will operate with Mixed feed stock of Naphtha/Natural gas.</b>										

MoEF vide letter no. J-11011/620/2009 IA II (I) dated 18<sup>th</sup> March, 2010 has issued environmental clearance to M/s SPIC for enhanced production of Urea, DAP and Ammonium Fluoride. Now, M/s SPIC has entered into business transfer agreement for effecting transfer of DAP, AIF3 and SSP units to M/s Green Star Fertilizer Ltd. on 19<sup>th</sup> October, 2011. As result of which, facility for manufacturing Urea alone belongs to M/s SPIC. Di-ammonium Phosphate, Aluminum Fluoride and Single Super Phosphate (SSP) Units and intermediate will form part of M/s Green Star Fertilizer Ltd. (GSFL). Now, PP has requested to bifurcate the EC in the name of SPIC and M/s GSFL. The Committee also noted that separate TOR has been issued to M/s GSFL in the 36<sup>th</sup> EAC meeting held during 16<sup>th</sup> -17<sup>th</sup> March, 2015 for preparation of EIA report for expansion project. Therefore, the Committee recommended that PP has to prepare a report considering all the parameters. Responsibilities of each company have to be fixed. The Committee recommended the following TOR for preparation of report:

1. Separate Layout map of each unit and composite layout map of all units indicating different colour.
2. Plot area of each unit.

3. Layout map of Greenbelt.
4. Power Requirement of each units along with source.
5. Details of utilities.
6. Status of construction of Unit.
7. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
8. Details of intermediate product, their storages and final products to be manufactured.
9. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
10. Details of emissions from all the stacks including volumetric flow rate.
11. Details on availability of raw materials (crude oil, natural gas, chemicals, etc.), its source and storage at the plant.
12. Details on mode of transportation of crude and products.
13. Details of storage capacity of crude and products.
14. Latest Ambient air quality data should include PM10, PM2.5, SO2, NOx, CO, NH3, Urea, hydrocarbon (methane and non-methane), VOC, etc.
15. Trend analysis of latest baseline data with the initial data.
16. Details of water consumption and effluent generation and its disposal methods.
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. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.
18. Solid Waste Management Plan.
19. Risk Assessment & Disaster Management Plan
  - i. Identification of hazards
  - ii. Consequence Analysis
  - iii. Risk assessment should also include leakages and location near to Ammonia as well as natural gas & proposed measures for risk reduction.

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. The Committee exempted the public hearing as per section 7 (ii) of EIA Notification, 2006.

**40.7.4 (i) Expansion of pesticide fine chemicals and biotech based organic chemicals unit at Village Kesavaram, Venkatangaram post Payakaropeta Mandal, Vishakhapatnam, Andhara Pradesh by M/s Deccan Fine chemicals Pvt. Ltd. -Amendment in TOR Ltd.**

The project authorities and their Consultant (M/s Team Labs) 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 technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

PP has submitted the proposal for amendment of existing TOR which was issued vide Ministry's letter no. J-11011/657/2007-IA II(I) dated 25<sup>th</sup> June, 2014. The TOR was issued for the following products and utilities:

S. No.	Description	Existing	Proposed		Total after expansion
			Phase I	Phase II	
1.	Agrochemicals and Fine Chemicals, TPD	26.25	23.75	50	100
2.	Co-generation power plant, MW	--	20	20	40
4.	Chlor-Alkali				
a	Caustic (100%) TPD	--	--	100	100
b	Chlorine TPD	--	--	88.6	88.6
c	Hydrogen TPD	--	--	2.57	2.57
d	HCL (33%) TPD	--	--	140	140

Utilities as per existing TOR:

S. No.	Description	Permitted	Proposed	
			Phase I	Phase II
1.	Coal Fired Boiler	20 TPH	140 TPH	140TPH
			25TPH	50 TPH
2.	Thermic Fluid Heater	15 lac K. Cal/hr	3x3 Million K./hr	3x3 Million K./hr
3.	Incinerator	300 kg/hr	--	--
4.	DG sets	4x1000 KVA	3x2000 KVA	3x2000 KVA
5.	Desalination Plant	--	16 MLD	26.3 MLD

PP has now requested for amendment in the existing production capacity and also informed additional land has been acquired. Following products will now be manufactured:

S. No.	Description	Existing	Proposed		Total after expansion
			Phase I	Phase II	
1.	Agrochemicals and Fine Chemicals, TPD	26.25	43.75	70	140
2.	API and Intermediates TPD	--	10	10	20
3.	Co-generation power plant, MW	12	1x25	2x25	87
4.	Chlor-Alkali				
a	Caustic (100%) TPD	--	--	200	200
b	Chlorine TPD	--	--	177.2	177.2
c	Hydrogen TPD	--	--	5.14	5.14

It is informed that existing boiler of 20 TPH and thermic fluid heater of 15 Million K. Cal/ hr capacity with the consumption of 75 MTD of coal. High pressure coal fired boiler of 160 TPH capacity for Phase I and 2x160 TPH for Phase II will be installed. Low pressure coal fired boiler of 75 TPH capacity for Phase I and 75 TPH capacity are proposed to take

care of process requirement. Consumption of coal for Phase I will be 35 TPH and for Phase II 58 TPH. 10 nos. thermic fluid heater of 10x30 Million K cal/hr capacity (Phase I: 5nos., Phase II: 5 nos.) consumption of coal in each thermic fluid heater is 1.5 TPH.

DG set having capacity 10x2500 KVA in Phase I and 10x2500 KVA in Phase II shall be provided to cater emergency load requirement.

After detailed deliberations, the Committee prescribed the following Additional and Specific TOR in addition to TOR issued vide Ministry's Letter no. J-11011/657/2007-IA II(I) dated 25<sup>th</sup> June, 2014 for preparation of EIA-EMP report:

**A. Specific TOR:**

1. Commitment that no banned pesticides will be manufactured.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation 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. Material Safety Data Sheet for all the Chemicals are being used/will be used.
10. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
11. Details of incinerator if to be installed.

**B. Additional TOR:**

- i. Fly ash management for existing and proposed power plant to be provided.
- ii. 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.
- iii. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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

#### **40.7.4 (ii) Drilling of Exploratory Wells (50 Nos.) in 9 PML blocks in Tripura by M/s ONGC 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 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 Exploratory Wells (50 Nos.) in 9 PML blocks in Tripura. Total block area is 1327 Km<sup>2</sup>, which include West Tripura PML/ Sundulari-Agartala Dome PML/ Agartala Dome Ext-II & III PMLs/ Kunjaban PML/ Tulamura PMLs/ Gojalia PML/ Manikyanagar Sonamura PML. Proposal involves forest land. Cost of project is Rs. 2000 Crore. Proposed Wells are located in 5 districts namely, West Tripura District, Gomati District, Khowai District, Sepahijalal District and South Tripura District. It is reported that no national park/wildlife sanctuary is located within 15 Km distance. The Block area lies between latitude 22°58'29.19" & 24°13'29" and longitude 91°10'35.25" & 91°47'18". Drilling depth will be varies from 300 to 3800 m. WBM/SOBM will be used during drilling. Drilling fluid will be generated around 700-750 m<sup>3</sup>/well. Drill cuttings will be generated to be 250-300 m<sup>3</sup>per well. Water requirement from tanker supply will be 25 m<sup>3</sup>/day. All the wastewater collected in the HDPE lines pits and recycled and reused.

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

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. 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.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.
7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.

8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, etc. during all project phases.

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

**B. Additional TOR**

1. Public hearing to be conducted in all 5 districts namely, West Tripura District, Gomati District, Khowai District, Sepahijalal District and South Tripura District 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. MoEF& CC vide letter no. J-11011/104/2012 IA II (I) dated 21<sup>st</sup> November, 2013 for 2 Nos. exploratory drilling. MoEF& CC vide letter no. J-11011/41/2010 IA II (I) dated 4<sup>th</sup> January, 2011 for expansion of exploratory drilling. A separate chapter on status of compliance of Environmental Conditions granted by 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.

**40.7.5 Proposed 45 KLPD distillery unit at Village Kundal, Tehsil Palus, District Sangli, Maharashtra by M/s. Krantiagrani Dr. G. D. Babu Lad Sahkari Sakhar Karkhana Ltd. – reg TOR.**

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

M/s. Krantiagrani Dr. G. D. Babu Lad Sahkari Sakhar Karkhana Ltd. has proposed for setting up of 45 KLPD distillery unit at Village Kundal, Tehsil Palus, District Sangli, Maharashtra. Total plot area is 50 ha, of which 33% green belt will be provided. Total project cost is Rs. 258 crore. As per Form-1 Sagarshwar sanctuary is at a distance of 1.7 km from the project site. Krishna river is flowing at a distance of 6 km. Fresh water requirement is 573 m<sup>3</sup>/day. Spent wash will be treated in bio-methanation followed by MEE alongwith Bio Composting. No effluent will be discharged outside the plant premises. Solid / hazardous waste management and disposal: Canteen, colony, office waste, lube oil will be given to authorized re-processor. Bio-degradable waste will be used as manure. Ash will be given to farmers for fertilizer. Fly ash will be sent to brick manufacturers. No major details has been provided in the presentation/ feasibility report. The Committee under rated the performance of consultant.

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)

## 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 copy to obtain the permission from NBWL for Sagareshwar Wildlife Sanctuary to be submitted.

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

### 40.7.6 Proposed drilling of 15 Exploratory wells in SAS Block District Golaghat, Assam by M/s ONGC 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 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 exploratory wells (15 nos.) in SAS Block District Golaghat, Assam. The proposed area covering the Khoraghat Extn. ML, Khoraghat ML, Nambar ML Golaghat Dist. PEL, Golaghat Extn II A PML falls within Golaghat District of Assam state. Block area is 251.4 km<sup>2</sup>. Cost of project is Rs. 600 Crore. It is reported that no wells are falling within forest or wildlife zone. Block Coordinates of proposed area is as under :

SI.No.	PEL / MLs Name	Boundary Name	Latitude	Longitude
1.	Golaghat Extn IIA PML, Golaghat Dist PEL, Khoraghat Extn ML, Nambar ML	A	26° 17' 47.341"N	93° 55' 47.030"E
		B	26° 15' 46.55"N	94° 01' 28.87"E
		C	26° 02' 19.539"N	93° 57' 59.380"E
		D	26° 02' 37.246"N	93° 49' 23.436"E

Details of proposed exploratory are as given below:

Well location / Depth	2500-3500m (Tentative)
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Sl. No	Name of location	Latitude	Longitude	District	Tehsil	Village
<b>NAMBAR ML</b>						
1	NL-1	26° 03' 14.72"	93° 55' 30.64"	Golaghat	Sarupathar	Lachitgaon
2	NL-2	26° 02' 40.708"	93° 55' 40.324"	Golaghat	Sarupathar	Lachitgaon
3	NL-3	26° 03' 18.537"	93° 54' 37.439"	Golaghat	Sarupathar	Tokshi
4	NL-4	26° 03' 42.325"	93° 52' 42.549"	Golaghat	Sarupathar	Pvito
5	NL-5	26° 05' 17.539"	93° 53' 20.996"	Golaghat	Sarupathar	Sonowal
<b>KHORAGHAT EXT.ML</b>						
6	NL-6	26° 06' 18.760"	93° 57' 52.699"	Golaghat	Sarupathar	1 no. Azarguri
7	NL-7	26° 05' 42.163"	93° 56' 22.399"	Golaghat	Sarupathar	Haldibari
8	NL-8	26° 06' 13.243"	93° 55' 22.512"	Golaghat	Sarupathar	Nikihe
9	NL-9	26° 06' 19.961"	93° 54' 20.513"	Golaghat	Sarupathar	Dhupguri
10	NL-10	26° 06' 19.145"	93° 54' 14.574"	Golaghat	Sarupathar	Dhupguri
11	NL-11	26° 07' 01.771"	93° 54' 15.008"	Golaghat	Sarupathar	Sonali nagar
<b>Golaghat Dist. PEL</b>						
12	URAA	26° 09' 46.207"	93° 57' 12.736"	Golaghat	Sarupathar	Lakhi Pathar
13	NL-12	26° 09' 49.331"	93° 57' 17.530"	Golaghat	Sarupathar	Lakhi Pathar
<b>Golaghat Ext. IIA PML</b>						
14	NL-13	26° 16' 41.590"	93° 56' 40.078"	Golaghat	Sarupathar	Baramukhia
15	NL-14	26° 14' 54.876"	93° 56' 02.584"	Golaghat	Sarupathar	Langta

Only water based drilling mud will be used. Water requirement from tanker supply will be 30 m<sup>3</sup>/day. The quantity of drill cuttings generated will be around 250-300 m<sup>3</sup>. The quantity of wastewater produced will be about 15 m<sup>3</sup>/day.

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

#### A. Standard TOR

1. Executive summary of a project.

2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. 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.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.
7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.

20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, *etc.* during all project phases.
22. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc.* including its disposal options during all project phases.
23. Disposal of spent oil and lube.
24. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
25. Commitment for the use of water based mud (WBM) only
26. Oil spill emergency plans for recovery/ reclamation.
27. H<sub>2</sub>S emissions control.
28. Produced oil/gas handling, processing and storage/transportation.
29. Details of control of air, water and noise pollution during production phase.
30. Measures to protect ground water and shallow aquifers from contamination.
31. Whether any burn pits being utilised for well test operations.
32. Risk assessment and disaster management plan for independent reviews of well designed construction *etc.* for prevention of blow out. Blowout preventer installation.
33. Environmental management plan.
34. Total capital and recurring cost for environmental control measures.
35. Emergency preparedness plan.
36. Decommissioning and restoration plans.
37. Documentary proof of membership of common disposal facilities, if any.
38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
39. 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.
40. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

#### **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 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

**40.7.7 Proposed Phenol Formaldehyde Resin, Melamine Formaldehyde Resin & Urea Formaldehyde Resin manufacturing at Survey No. 341/P, Village Chiyada in Bavla Taluka of Ahmedabad District, Gujarat by M/s Panara Laminate Pvt. Ltd.-reg TOR.**

The project authorities and their Consultant (M/s T.R. Associates) 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 (resin) 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 Panara Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 341/P, Village Chiyada, Taluka Bavla, District Ahmedabad District, Gujarat. Cost of project is Rs. 1 Crore. Plot area is 11,890 m<sup>2</sup> of which greenbelt will be developed in 4,000 m<sup>2</sup> (33%). As reported no forest/ ecosensitive zone/ wildlife sanctuary is involved within 10km radius of the project site. Following products will be manufactured:

S.N.	Products	Total (MTPM)
1	Phenol Formaldehyde Resin	400
2	Melamine Formaldehyde Resin	400
3	Urea Formaldehyde Resin	400
4	Laminated sheet	3,00,000 Nos. /Month.

Bagfilter will be provided to coal/ briquette fired boiler of 4 TPH capacity and Thermic Fluid Heater to control particulate emission. DG set (300 KVA) will be installed. Water requirement from ground water source will be 20 m<sup>3</sup>/day. There will be segregation of streams and provision of two separate ETPs. First ETP will treat the waste from process and washing and second ETP will be for cooling and boiler blow down, RO rejects. Effluent will be treated in the ETP based on photo Fenton Treatment facility. Treated effluent will be evaporated and condensate will be reused from cooling tower make up water. No effluent will be discharged outside the plant premises. Evaporated salt will be sent to TSDF. Used oil will be sent to the authorized recycler/re-processors.

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.
- 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.

### **40.7.8 Proposed synthetic organic chemicals (Bulk drug and intermediates) manufacturing Plant unit at PLOT NO. 17 -B/1, at APIIC Industrial Park, Menakuru, Naidupet Mandal, SPS Nellore District, Andhra Pradesh by M/s. Chemsynth Laboratories Pvt.-reg TOR**

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

M/s. Chemsynth Laboratories Pvt. Ltd. has proposed synthetic organic chemicals (Bulk drug and intermediates) manufacturing plant unit at Survey No. 1 (p) to 6 (p), 19 (p), 20 (p), 22 (p), Village Menakuru, Tehsil Ozili, District Nellore, Andhra Pradesh. There is no notified eco sensitive zone/ National park/ wildlife sanctuary within the radius of 10 km of the project site. Mamidikaluva falls within 2.4 Km (towards the east) from the project site and Swarnamukhi River is within 7 Km (towards the east). Hindustan National Glass is an existing industry which is located at 800m (towards east) from the site. Nithya Steels is located at 3.4 Km towards west of the site. PP informed that EC has been obtained from SEIAA, Andhra Pradesh for manufacturing of 54 products but now PP has changed the site and proposes manufacturing of 44 products to another location. The Committee noted that this proposal can be considered as fresh due to change in product and location.

Total cost of project is Rs. 60 Crores. Total plot area is 20034.6 m<sup>2</sup> of which greenbelt will be developed on 66700 m<sup>2</sup> of area within the premises. Following products will be manufactured:

SI. No.	Proposed Product List	TPA	TPD
1	Aldehyde	6000	17.86
2	Aloigiptine	1	0.003
3	Apreptant	0.1	0.0003
4	Benzarone	1	0.003
5	Carisoprodol	40	0.12
6	CDAM	4800	14.29
7	Celecoxib	20	0.06
8	CHEA	960	2.86
9	Chlorphenesine	144	0.43
10	Cinacalcet	1	0.003
11	Clopidogrel Naphsylate	1.2	0.004
12	Colesevelame Hcl	50	0.15
13	Cycloserine	2	0.01
14	Dabigatran	0.1	0.0003
15	Dex Lanzoprozole	1	0.003
16	Doxycycline	2	0.01
17	Gabapentine	150	0.45
18	IBAP	8000	23.81
19	IBB	12000	35.71
20	Ibuprofen	400	1.19
21	Ibuprofen Sodium	50	0.15
22	Indapamide	10	0.030
23	Isradipine	0.54	0.002
24	Ketoprofen	24	0.07
25	Lanthanum Carbonate	10	0.03
26	Loratidine	2	0.01
27	Loxoprofen	50	0.15
28	Lurasidone	0.1	0.0003
29	Meprobamate	2	0.01
30	Methyl Thionium Chloride	250	0.74
31	Nizatidine	6	0.02
32	Orlistat	2	0.01
33	Pantaprazole	10	0.03
34	Phenxyphynadine	25	0.07
35	Pitavastatin	0.05	0.0001
36	Pregabalin	50	0.15
37	Rivaroxaban	0.1	0.0003
38	Roflumilast	0.01	0.00003
39	Rosovastatin	1	0.003
40	SABAM	1575	4.69
41	Sapropterine	0.1	0.0003
42	Sevelamer Carbonate	50	0.15
43	Sevelamer Hcl	40	0.12

Sl. No.	Proposed Product List	TPA	TPD
44	Sumatriptan Succinate	2	0.01
	<b>TOTAL</b>	<b>34733</b>	<b>103</b>

Total water requirement will be met from groundwater which is in order of 931 m<sup>3</sup>/day of which 455 m<sup>3</sup>/day is fresh water and 476 m<sup>3</sup>/day is recycled water. Effluent generated from the process will be segregated as high TDS/COD and low TDS/COD. The effluent from the process and utility will be treated in ETP and treated effluent will be used for boiler and cooling tower make up. Zero liquid discharge is proposed for the project. Treated sewage will be used for green belt development.

Power requirement for the project is 2000KVA. Power back up proposed is 2x 1000 kVA + 1 x 2000 kVA DGs. For the proposed change in product mix the capacity of boiler proposed is 1x 6 TPH, 1 x 10 TPH bio briquettes fired boilers will be used. Air emissions will generated from the process stack, boilers and DG will be let out through adequately sized stacks. Bag filter will be used to control air emissions. Bag Filters as APCS will be provided for Boiler Stack.

The Solid waste and hazardous waste generated from the project will be disposed to TSDF site/ recyclers. Spent solvent will be sent for solvent recovery/ sold out to authorised recycler. Spent carbon, process residue, ETP sludge and inorganic salts will be managed by sending to TSDF/ cement plant. Spent Catalyst will be returned to manufacturer. Used polythene bags and used carboys will be sold out to the authorised recycler. Ash from boiler will be sent to brick manufacturer. MSW will be composted and used as manure for green belt

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure 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.
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.

#### 40.7.9 Proposed Pesticide Technical (6000 TPA Technical grade pesticides ) Project at unit at SP-9B, RIICO Industrial Area, Village Khushkhera, Dist. Alwar, (Rajasthan) by M/s HPM Chemicals & Fertilisers Ltd.-reg TOR.

The project authorities and their Consultant (M/s EQMS India) 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 technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category ‘A’ and appraised at Central level.

M/s HPM Chemicals & Fertilizers Ltd. has proposed for setting up of pesticide technical (6000 TPA Technical grade pesticides) project at unit at SP-9B, RIICO Industrial Area, Village Khushkhera, District Alwar, Rajasthan. Cost of project is Rs. 25 crore. Total plot area of the project is 10,000 m<sup>2</sup>, of which green belt will be developed in 33% of the project area. As reported, there is no eco-sensitive/ National Parks/Wildlife Sanctuary within 10 km radius of the project site. About 101 persons will be employed for the proposed project. The unit is located in the notified RIICO industrial area.

River Sahibi is flowing west side distance of 5.53 km. Site is within 5 kms of protected forests namely Kholi Kalan- 7 km (SE), Ranwan- 5.7 km (SE), Ranwan- 5.7 km(E), Godhan- 8.3 km (NE) and Vanvan- 8.44 km (NE). Following products will be manufactured:

Sl. No.	Name of Products	Category	Sub-category	Proposed indicative Capacity (TPA)
INSECTICIDES				
1	Diafenthuron	Insecticides	Acaricides	100
2	Fenpyroximate	Insecticides	Acaricides	
3	Hexythiazox	Insecticides	Acaricides	
4	Propargite	Insecticides	Acaricides	
5	Acetamiprid	Insecticides	Neonicotinoids	200
6	Dinotefuran	Insecticides	Neonicotinoids	
7	Imidacloprid	Insecticides	Neonicotinoids	

8	Thiacloprid	Insecticides	Neonicotinoids	
9	Thiamethoxam	Insecticides	Neonicotinoids	
10	Diflubenzuron	Insecticides	Benzoyl Urea	200
11	Lufenuron	Insecticides	Benzoyl Urea	
12	Novaluron	Insecticides	Benzoyl Urea	
13	Alpha-Cypermethrin	Insecticides	Synthetic Pyrethroids	
14	Cypermethrin	Insecticides	Synthetic Pyrethroids	100
15	Deltamethrin	Insecticides	Synthetic Pyrethroids	
16	Lambda-Cyhalothrin	Insecticides	Synthetic Pyrethroids	
17	Bifenthrin	Insecticides	Synthetic Pyrethroids	
18	Chlorpyrifos	Insecticides	Organo Phosphorus	
19	Acephate	Insecticides	Organo Phosphorus	500
20	Dichlorvos	Insecticides	Organo Phosphorus	
21	Dimethoate	Insecticides	Organo Phosphorus	
22	Ethion	Insecticides	Organo Phosphorus	
23	Malathion	Insecticides	Organo Phosphorus	
24	Monocrotophos	Insecticides	Organo Phosphorus	
25	Triazophos	Insecticides	Organo Phosphorus	
26	Profenofos	Insecticides	Organo Phosphorus	
27	Cartap Hydrochloride	Insecticides	Carbamates	200
28	Thiodicarb	Insecticides	Carbamates	100
29	Abamectin	Insecticides	Fermentation Technology	
30	Emmamectin benzoate	Insecticides	Fermentation Technology	
31	Spinosad	Insecticides	Fermentation Technology	500
32	Buprofezin	Insecticides	Others	
33	Chlorfenapyr	Insecticides	Others	
34	Fipronil	Insecticides	Others	
35	FLUBENDIAMIDE	Insecticides	Others	
36	Indoxacarb	Insecticides	Others	
37	Pymetrozine	Insecticides	Others	
38	PYRIPROXYFEN	Insecticides	Others	

Sl. No.	Name of Products	Category	Sub-category	Proposed Capacity (TPA)
BACTERICIDE				
39	Validamycin	BACTERICIDE	Fermentation Technology	50
FUNGICIDES				
40	Cyproconazole	Fungicides	Trizole	400
41	Difenconazole	Fungicides	Trizole	
42	Epoxyconazole	Fungicides	Trizole	
43	Hexaconazole	Fungicides	Trizole	
44	Myclobutanil	Fungicides	Trizole	
45	Paclobutrazole	Fungicides	Trizole	

46	Propiconazole	Fungicides	Trizole	
47	Tebuconazole	Fungicides	Trizole	
48	Tricyclazole	Fungicides	Trizole	
49	Carbendazim	Fungicides	Benzimidazoles	50
50	Thiophinate methyl	Fungicides	Carbamates	50
51	Mancozeb	Fungicides	Dithiocarbamate	100
52	Propineb	Fungicides	Dithiocarbamate	
53	Ziram Tech	Fungicides	Dithiocarbamate	
54	Chlorothalonil	Fungicides	Phthalimide	50
55	Kresoxim-methyl	Fungicides	Strobilurins	200
56	Picoxystrobin	Fungicides	Strobilurins	
57	Azoxystrobin	Fungicides	Strobilurins	
58	Cymoxanil	Fungicides	Others	500
59	Isoprothiolane	Fungicides	Others	
60	Metalaxyl	Fungicides	Others	
61	Thifluzamide	Fungicides	Others	

Sl. No.	Name of Products	Category	Sub-category	Proposed Capacity (TPA)
<b>HERBICIDES</b>				
62	2,4-D	Herbicides	Phenoxy Acetic Acids	100
63	Paraquat	Herbicides	Bipyridyls	50
64	Pendimethalin	Herbicides	Dinitroanilines	50
65	Imazethapyr	Herbicides	Imidazolinone	100
66	Butachlor	Herbicides	Organo Chlorine	100
67	Pretilachlor	Herbicides	Organo Chlorine	
68	Clodinafop Propargyl	Herbicides	Phenoxy	100
69	FENOXAPROP-P-ETHYL	Herbicides	Phenoxy	
70	Quizalofop	Herbicides	Phenoxy	
71	Bensulfuron Methyl	Herbicides	Sulphonyl Urea	400
72	Chlorimuron Ethyl	Herbicides	Sulphonyl Urea	
73	Metsulfuron Methyl	Herbicides	Sulphonyl Urea	
74	Pyrazosulfuron	Herbicides	Sulphonyl Urea	
75	Sulfosulfuron	Herbicides	Sulphonyl Urea	
76	Tribenuron Methyl	Herbicides	Sulphonyl Urea	
77	Atrazine	Herbicides	Others	800
78	Bispyribac-Sodium	Herbicides	Others	
79	Dicamba	Herbicides	Others	

80	DIURON	Herbicides	Others	
81	Glyphosate	Herbicides	Others	
82	Metribuzin	Herbicides	Others	
83	OXADIAZON	Herbicides	Others	
84	Oxyfluorofen	Herbicides	Others	
R & D Products				
85	R & D Products	Not Specified	Not Specified	1000
TOTAL CAPACITY (TPA)				6000

Total power requirement will be met from Rajasthan State Electricity Board with supply of 450 KVA and 225 KVA additional power will be met from DG set as a standby. Boiler of 3 TPD using bio briquette/ husk/ furnace oil will be installed for steam generation. Bag filter will be provided with the boiler connected to adequate stack height. Gaseous emission from fuel burning, consist of common pollutants like SO<sub>2</sub>, NO<sub>2</sub>, and PM would be discharged into atmosphere through Stack of suitable height. Regarding odor control system, a deodorant spraying system around the production area and boundary wall prevents any foul odor going outside the premise. Also the vents of the batch tanks and solvents are connected to scrubber to absorb any odor producing gases and chemicals. Volatile organic solvents are carefully handled in a closed system, thereby preventing any discharge of these chemicals into the air.

Water requirement will be 90m<sup>3</sup>/day and met through RIICO water supply. The domestic and industrial waste water generated will be segregated based on effluent concentration. The plant will follow ZLD with evaporation of waste in multi effect evaporator. Following categories of hazardous will be generated:

- Process wastes/ residue
- Chemical sludge containing residue insecticides
- Date expired and off-specification insecticides

The above will be managed as per Hazardous Waste the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008

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. for ensuring health and safety of workers engaged in handling of toxic materials Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
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. 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.
  12. Details of incinerator if to be installed.
  13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
  14. Arrangements.

## **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 due to project location in the industrial area establishes prior to 2006.
2. Detailed layout plan indicating all facility alongwith greenbelt to be drawn.
3. Risk assessment analysis of the worker to be carried out.
4. Detailed plan for Zero Liquid Discharge.

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. Public hearing is exempted as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006

### **40.7.10 Manufacturing of resin for captive use for laminated sheets at Survey No. : 4490/1, Visnagar - Umta Road, Opp. Getco Sub Station, Umata-384320, Ta : Visnagar, Dist: Mehsana by M/s Moti Laminates Pvt. Ltd. (Unit-I)-regTOR**

Project proponent did not attend the meeting. The Committee decided that proposal should be considered afresh as per the priority whenever requested through online.

### **40.7.11 Proposed Caustic soda Plant of 400 MTPD at Mauza Johran, Kala Amb, Tehsil Nahan, District Sirmaur, HP by M/s Himalaya Alkalies & Chemicals Limited - reg TOR.**

The project authorities and their 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 Chlor-Alkali Industries having production capacity more than 300 TPD and located outside notified industrial area are listed at 4(d) under category 'A' and appraised at Central level.

M/s Himalaya Alkalies & Chemicals Limited has proposed for caustic soda plant of 400 MTPD at Survey Nos. 353, 354, 249/1 96/ 186/ 7, 378 to 383/ 198/ 47, Village Mauza Johran, Kala Amb, Tehsil Nahan, District Sirmaur, Himachal Pradesh. PP has not presented the project with topo sheet. It is reported that no environmental sensitivity such as wildlife sanctuary/ eco sensitive zone/ reserve forest is involved within 10km radius of the project site. Committee noted that there is no plan provided for the greenbelt except to grow 500 trees without specification. Therefore Committee proposed for 33% of area to be

covered with the greenbelt as per CPCB guideline. Total cost of the project is Rs. 300 crores out of which Rs. 6.6 crore is earmarked for pollution control and environment management system. Annual recurring cost of pollution control measure is Rs. 58 lacs. Plot area of the site is 1,90,000 m<sup>2</sup>. About 150 persons will be employed..

Following products will be manufactured:

S.No.	Name	Capacity (MTPA)
1	Caustic Soda	1,40,000
2	Chlorine	1,26,000
3	Hydrogen Gas Nm <sup>3</sup>	39,34,0000

By-Product:

S.No.	Name	Capacity (MTPA)
1	Chlorinated Paraffin	35000
2	Stable Bleaching Powder	5250
3	Hydrochloric Acid (Syn) 32%	1,25,000
4	Hydrochloric Acid (CPW) 32%	70,000
5	Sodium Hypo	12,600

Total power required for proposed unit will be 42 MW, which will be met through HPSEB. Two ( 2 nos) of D.G. sets having 500 KVA capacity will be installed. Emissions such as SPM and fumes shall be generated from handling of raw materials in the process. Cyclone followed by bag filter will be connected to stack of height 35 m. Committee suggested to install multi cyclone to be attached with bag filter. Alkali scrubber shall be provided in main bleach plant and will be connected to stack of adequate height. Water scrubbing shall be used in HCL section.

Total water required for proposed unit will be 2950 m<sup>3</sup>/day. Effluent will be treated in the ETP having facilities of equalization, neutralization, flocculation, clarification and filtration followed by RO. Plant is based on ZLD. It was informed that there will not be any hazardous waste from process. Exhausted resins, spent carbon, ETP sludge will be sent to TSDF site. Used oil from DG sets will be sold to the authorized recyclers.

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

**A. Specific TOR:**

1. Details on demand of the product- chlorine and its associated products.
2. Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, etc.), its storage and handling.
3. Details of proposed source - specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, etc.) and equipments to meet the national standards.
4. Details on products to be made and handling-chlorine, caustic soda, etc.
5. Details on tail gas treatment.
6. Details on requirement of energy and water alongwith its source and authorization from the concerned department.

7. In case of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new units in the existing industry premises, remediation measures adopted to restore then environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
8. Details on ground water quality and surface water quality of nearby water sources and other surfaced rains. The parameters of water quality may include Residual chlorine\*, TDS\*, alkalinity\*, pH\* & Mercury\* (in water & sediment), etc. (\*- As applicable)
9. Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO2\*, NOx\*, CO2\*, CO\*, Chlorine\*, acid mist\* 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)
10. Specific programme to monitor safety and health protection of workers.
11. Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
12. Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management plan.

#### **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.

#### **40.7.12 Expansion of Existing Bulk Drug manufacturing unit production capacity at Survey numbers 52, 53, 59/1, 59/2A, 59/2B, 74, 75/1, 75/2, 75/3, 76/1B, 76/3, 76/4, 76/7, 76/8 &76/9, Kanagala village, Hukkeri Taluku, Belagavi district, Karnataka State by M/s.HLL Life care Limited (KANAGALA PLANT).**

The project authorities and their Consultant (M/s Rightsource Industrial Solutions) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located within the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by State Expert Appraisal Committee (I). However, due to the unit location is within 5km radius of interstate boundary, the project has been considered as category 'A'.

The existing environmental clearance issued vide letter no.J-11011/143/2006-IA II(I) dated 9<sup>th</sup> May, 2006. M/s.HLL Life care Limited has proposed for expansion of existing

bulk drug manufacturing unit production capacity at Survey nos. 52, 53, 59/1, 59/2A, 59/2B, 74, 75/1, 75/2, 75/3, 76/1B, 76/3, 76/4, 76/7, 76/8 & 76/9, Village Kanagala, Taluku Hukkeri, District Belagavi, Karnataka. Cost of project is Rs.30 lacs. Plot area is 40.4 acres of which 33% will be developed as green belt. Following products will be manufactured:

S. No.	Names of the Products	Production Capacity		
		Existing	Proposed	Total After Expansion
1	Centchroman	1 MT per annum	1 MT per annum	2 MT per annum
2	Condoms	270 Million pieces per annum	--	270 Million pieces per annum
3	Mala - D & Saheli oral contraceptive pills	1750 Lacs Cycles per annum	--	1750 Lacs Cycles per annum
4	Sanitary Napkins	300 million pieces per annum	--	300 million pieces per annum

The Total Power Requirement after Expansion for Bulk Drug unit is 810 HP and the same will be met from Hukkeri Taluka Rural Electricity Supply Society. Water consumption will increase from 1.1 m<sup>3</sup>/day to 2.2 m<sup>3</sup>/day. All the effluent generated will be collected on above ground Storage tanks to avoid the contamination with soil. These tanks are lined with acid/alkali proof lining. All the Wastewater generated (1.42 m<sup>3</sup>/d) from the existing BDU is sent for incineration to authorized incinerators by KSPCB and the same shall be continued after expansion (2.84 m<sup>3</sup>/d). Industry is having furnace oil operated boilers of capacity 4.0 TPH (01 No.) & 3TPH (01 No.).

In view of the small scale operation and being an expansion proposed, after detailed deliberations, the Committee suggested to prepare brief report and prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure 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. The Committee exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006 due to project location in the industrial area establishes prior to 2006.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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.

### 40.7.13 Expansion of Synthetic Organic Chemicals Manufacturing from 4 TPM to 200 TPM at Sy.No. 371(Part), 372(Part), 373(Part), 378(Part),429(Part) & 430 (Part), Gundla Machnoor Village, Hatnoora Mandal, Medak District, Telangana by M/s. Cirex Pharmaceuticals Limited – Reg TOR

The project authorities and their Consultant (M/s Team Labs) 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).

The existing environmental clearance issued vide letter no.J-11011/272/2003-IA II(I) dated 21st June, 2005. M/s. Cirex Pharmaceuticals Limited has proposed for expansion of synthetic organic chemicals manufacturing (4 TPM to 200 TPM) at Sy.No. 371(Part), 372(Part), 373(Part), 378(Part), 429(Part) & 430 (Part), Village Gundla Machnoor, Mandal Hatnoora, District Medak, Telangana. Cost of project is Rs. 45 Crores. Plot area is 14 acres of which 4.62 acres will be developed as green belt. Following products will be manufactured:

S.No.	Product Name	Capacity	
		TPM	Kg/day
1	Arbidol	2	66.67
2	Azilsartan	0.5	16.67
3	Balofloxacin	6	200
4	Citalopram (Cyanodial HBr)	20	666.67
5	Etoricoxib	15	500
6	Gemifloxacin	10	333.33
7	Garenoxacin	1.5	50
8	Hydroxy ethoxy piperazine	27	900
9	Ilaprazole	0.5	16.67
10	Lansoprazole	5	166.67
11	Leflunamide	23	766.67
12	Lornoxicam	1.3	43.33
13	Losartan Potassium	33	1100
14	Olmesartan	1	33.33
15	Omeprazole	1.3	43.33
16	Omeprazole salts(Omeprazole Sodium)	29	966.67

17	Pazufloxacin Mesylate	1.2	40
18	Prulifloxacin	0.1	3.33
19	Tadalafil	15	500
20	Telmisartan	1	33.33
21	Tilorone	1.2	40
22	Torse mide	1.5	50
23	Tribenoside	3.9	130
<b>Total</b>		<b>200</b>	
<b>Worst Case : Maximum 12 products on Campaign basis.</b>			<b>6297</b>

The committee suggested to present the existing products with the proposed expansion adequately in the presentation as well as in the reports.

Additional 20 TPH and 8 TPH (existing) coal fired boilers will be installed of which 8 TPH boiler as standby. DG sets of 2X500 KVA, 2x 720 KVA, 4x1010 KVA are proposed in addition to existing DG sets of 2x500 KVA and 1x 1010 KVA to cater to energy requirement during load shut down. The proposed air pollution control equipment for coal fired boiler is Bag filters with adequate stack height.

Gaseous emissions from process are Hydrogen Chloride, Sulfur dioxide, Carbon dioxide, Oxygen and Hydrogen. HCl, and SO<sub>2</sub> are scrubbed in two stage scrubbers. Water is used as scrubbing media in primary scrubbers and caustic in secondary scrubbers. Sodium Chloride, Sodium bicarbonate solutions are sent to ETP.

The existing water consumption is sourced from ground water and effluent generation is 103 m<sup>3</sup>/day and 16 m<sup>3</sup>/day respectively. The total water requirement after the proposed expansion is 555 m<sup>3</sup>/day out of which 295 m<sup>3</sup>/day will be fresh water and 260 m<sup>3</sup>/day is recycled water. Zero Liquid Discharge system shall be adopted by the unit. The high TDS effluents in the order of 197.7 m<sup>3</sup>/day are sent to Stripper followed by MEE, ATFD. The condensate from MEE and ATFD is treated along with LTDS effluent from utility blow downs of 38.5 m<sup>3</sup>/day in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers, Boiler make-up and scrubbers. Wastewater from domestic usage is sent to Sewage Treatment Plant and treated wastewater is used for onland irrigation to develop greenery.

Solid wastes are generated from process, solvent distillation, stripper, ATFD, ETP (primary & secondary), and DG sets. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration. The evaporation salts are sent to TSDF. Filter media like activated carbon and hy-flow are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The sludge from effluent treatment plant is sent to TSDF. Ash generated from coal fired boilers is sent to brick manufacturers. The other solid wastes expected from the unit, are containers, empty drums which are returned to the product seller or sold to authorized buyers after detoxification.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure 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.
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.

#### **40.7.14 Expansion of chemical manufacturing unit located on Survey Nos. 1088/B, Lamdapura Road, Village Manjusar, TalukaSavli, Dist. Vadodara, Gujarat by M/s. Anugrah In-Org (P) Limited 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 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. Anugrah In-Org (P) Limited has proposed for expansion of chemical manufacturing unit (565 MTM to 2330 MTM) at Survey Nos. 1088/B, Lamdapura Road, Village Manjusar, Taluka Savli, District Vadodara, Gujarat. The unit was issued with Environmental Clearance vide letter no. F. No. J-11011/869/2007- IA(II) dated 1st April,

2008. The cost of the project is Rs.5 Crores. Total area of the plot is 0.44 ha. No information of greenbelt is provided. The Committee suggested to develop 33% of green belt in the area. As reported no forest/wildlife sanctuary/ eco sensitive zone is involved within 10 km radius from the project site. Following products will be manufactured:

Sr. No.	Product	As Per Consent Quantity (MT/Month)	Total Proposed Quantity (MT / Month)
1.	Monochloro Acetic Acid (MCAA)	500	2000
2.	Sulfur Mono Chloride	40	80
3.	Trichloro Acetic Acid (TCAA)	25	250
<b>TOTAL</b>		<b>565</b>	<b>2330</b>
<b>By-Products</b>			
1	Mixed Chloro Acetic Acid or ML of MCAA	175.5	652
2	HCl	1010	3764
3	Sodium Hypochlorite	40	200

It is informed that existing bore well in the plant premises will be used for the expansion activities. Water requirement will increase from 26.225 m<sup>3</sup>/day to 104.9 m<sup>3</sup>/day (Increase in water is for recovery of HCl). Wastewater quantity will not increase from the present 1 m<sup>3</sup>/day. Increase in domestic effluent is 0.5 m<sup>3</sup>/day to 1.8 m<sup>3</sup>/day, which will be disposed in existing soak pit. Effluent is generated from plant washings, which will be neutralized in the effluent treatment plant using caustic soda and sent to CETP of Enviro Infrastructure Co. Ltd. (EICL) for further treatment. The Committee suggested to go for ZLD.

Fuel used in the existing boiler is Wood waste /LDO (2 MT/day / 1.2 KL/day). For the proposed expansion 2 boilers will be used using agro waste /white coal / wood waste as fuel. The fuel consumption for the boiler will be 7.6 MT/day. For Thermic Fluid heater LDO (200 Lts/day) will be used as fuel. The cyclone followed with bag filters will be installed for particulate emissions. For recovery of HCl and sodium hypochlorite, additional efficient scrubbers will be installed. Hazardous waste such as ETP sludge shall be disposed of as per Hazardous Waste (Management and Handling ) Rules.

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 along.

- 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.
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.

#### **40.7.15 Construction of Additional crude storage tanks at Shore Tank Farm of BPCL-Kochi, Puthuvype, Kochi, Kerala by M/s BPCL- reg TOR**

All projects set up as isolated storage and handling hazardous chemicals located outside the notified industrial area are listed at S.N. 6 (b) under Category 'B'. PP informed that the proposed facility is for Construction of Additional crude storage tanks at Shore Tank Farm of BPCL-Kochi, Puthuvype, Kochi, Kerala. The project was submitted to Center in absence of SEIAA/SEAC, Kerala. The Committee informed that SEIAA/SEAC, Kerala has now been constituted and functional. Therefore, aforesaid proposal may be treated be appraised at the State Level i.e. SEIAA/SEAC, Kerala as Category 'B'.

The Committee recommended for transferring the aforesaid project to the SEAC/SEIAA, Kerala for appraisal.

#### **4.8 Any other**

##### **40.8.1 Expansion of Bulk Drugs Manufacturing Unit (Unit-VI) (745.5 TPA to at Sy. Nos. 750, 753/1, 753/2 & 753/4, Villages Mandollagudem & Chinnakondur, Mandal Choutuppal, District Nalkonda, Telangana by M/s Symend Labs (formerly Known as Plasma Labs (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 (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Symend Labs has proposed for expansion of bulk drugs manufacturing unit (Unit-VI) at Sy. Nos. 750, 753/1, 753/2 & 753/4, Villages Mandollagudem & Chinnakondur, Mandal Choutuppal, District Nalkonda, Telangana. Total plot area is 88116.32 m<sup>2</sup> out of which Land acquired within industrial area is 53986.98 m<sup>2</sup>. Additional project Cost for the expansion is 40.0 Corers. Following products will be manufactured for expansion:

S. No	Product Name	CAS No's	Therapeutic category	Proposed quantities per Amendment in ToR	
				Kgs/Month	Kgs/Day
1	Amisulpride	71675-85-9	Neuroleptic agent	1000.00	33.33
2	Carvedilol	72956-09-3	Cardiovascular Agent	4000.00	133.33
3	Carvedilol Phosphate	610309-89-2	Antihypertensive agent	200.00	6.67
4	Carbidopa	93357-67-6	Anti parkinsonan agent	4000.00	133.33
5	Cinitapride Hydrogen tartrate	66564-14-5	Gastroprokinetic Agent	100.00	3.33
6	Dapoxetine Hydrochloride	129938-20-1	Antidepressant	1000.00	33.33
7	Epalrestat	82159-09-9	oral anti diabetic agent	3000.00	100.00
8	Eszopiclone	138729-47-2	Non barbiturate Hypnotic	50.00	1.67
9	Fluconazole	86386-73-4	Antifungal	6000.00	200.00
10	Iron sucrose	8047-67-4	Iron supplement	20000.00	666.67
11	Itopride Hydrochloride	122892-31-3	Antiulcer	4000.00	133.33
12	Ketorolac Tromethamine	74103-07-4	Antipyretic agent	8000.00	266.67
13	Levocetirizine Dihydrochloride	130018-87-0	Antihistamine agent	600.00	20.00
14	Levosulpride	23672-07-3	Antiemetic agent	3000.00	100.00
15	Linezolid	165800-03-3	Antibiotic	40000.00	1333.33
16	Mosapride citrate dihydrate	63582-62-2	Gastroprokinetic	4000.00	133.33
17	Ondansetron Hydrochloride	103639-04-9	Antiemetic	1000.00	33.33
18	Pregabalin	148553-50-	Neuropathic Pain Agent	10000.00	333.33

S. No	Product Name	CAS No's	Therapeutic category	Proposed quantities per Amendment in ToR	
				Kgs/Month	Kgs/Day
		8			
19	Racecadotril	81110-73-8	Antidiarrheals	6000.00	200.00
20	Tamsulosin Hydrochloride	106463-17-6	Anti-adrenergic	100.00	3.33
21	Tizanidine Hydrochloride	64461-82-1	Skeletal muscle relaxant	100.00	3.33
22	Topiramate	97240-79-4	Anticonvulsant	6000.00	200.00
23	Zotepine	26615-21-4	Neuroleptic agent	2000.00	66.67
24	Zopiclone	43200-80-2	Nonbarbiturate Hypnotic	100.00	3.33
	<b>Total</b>			<b>124250.00</b>	<b>4141.67</b>

Water requirement after proposed expansion will increase upto 285.82 m<sup>3</sup>/day against which 143.53 m<sup>3</sup>/day of waste water will be generated. Power requirement of 100HP will be met from State Electricity Board. Two boilers having 5 TPH and 4 TPH capacities using coal will be installed and connected to adequate stack height. Hazardous waste so generated shall be managed as per Hazardous Waste Management Handling Rules. Organic solid waste shall be sent to cement industry. ETP sludge, MEE salt and inorganic solid waste shall be disposed off to TSDF site. Since PP has proposed for expansion within the same premises on which TOR was issued vide letter no. J-11011/290/2013-IA II(I) dated 3<sup>rd</sup> November, 2014, after detailed deliberations, the Committee decided to prescribe 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.
- iii. PP may use monitoring data against the TOR issued vide letter dated 3<sup>rd</sup> November, 2014

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.

**40.8.2 Expansion of Bulk Drug Intermediate manufacturing unit of M/s Symed Labs limited (Unit-IV) (formerly Known as Plasma Labs (P) Ltd.) situated at SY. Nos. 163, 163/A, 163/B, 164/A & 164/B Village Pittampally, Mandal Chityal, District Nalgonda, Telengana.**

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 along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Symed Labs Ltd.- Unit-IV has obtained TOR vide Letter no. J-11011/187/2014-IA II(I) dated 21<sup>st</sup> October, 2014 for expansion of bulk drug intermediate manufacturing unit (proposed capacity 51.125 MTPM) at SY. Nos. 163, 163/A, 163/B, 164/A&164/B Village Pittampally, Mandal Chityal, District Nalgonda, Telengana. Now PP has requested to enhance the production capacity 51.125 MTPM to 102.25 MTPM. Amendment is sought on enhancement in production capacity for the following products:

S. No	Product Name	CAS No's	Therapeutic Category	Proposal as Per Amendment in ToR	
				Quantity In Kg/Month	Quantity In Kg/Day
1	Amisulpride	71675-85-9	Neuroleptic agent	1000.00	33.33
2	Carvedilol	72956-09-3	Cardiovascular Agent	4000.00	133.33
3	Carvedilol Phosphate	610309-89-2	Antihypertensive agent	200.00	6.67
4	Carbidopa	93357-67-6	Anti parkinsonian agent	4000.00	133.33
5	Cinitapride Hydrogen tartrate	66564-14-5	Gastroprokinetic Agent	100.00	3.33
6	Dapoxetine Hydrochloride	129938-20-1	Antidepressant	1000.00	33.33

S. No	Product Name	CAS No's	Therapeutic Category	Proposal as Per Amendment in ToR	
				Quantity In Kg/Month	Quantity In Kg/Day
7	Epalrestat	82159-09-9	oral ant diabetic agent	3000.00	100.00
8	Eszopiclone	138729-47-2	Non barbiturate Hypnotic	50.00	1.67
9	Fluconazole	86386-73-4	Antifungal	6000.00	200.00
10	Iron sucrose	8047-67-4	Iron supplement	20000.00	666.67
11	Itopride Hydrochloride	122892-31-3	Antiulcer	4000.00	133.33
12	Ketorolac Tromethamine	74103-07-4	Antipyretic agent	8000.00	266.67
13	Levocetirizine Dihydrochloride	130018-87-0	Antihistamine agent	600.00	20.00
14	Levosulpiride	23672-07-3	Antiemetic agent	3000.00	100.00
15	Linezolid	165800-03-3	Antibiotic	18000.00	600.00
16	Mosapride citrate dihydrate	63582-62-2	Gastroprokinetic	4000.00	133.33
17	Ondansetron Hydrochloride	103639-04-9	Antiemetic	1000.00	33.33
18	Pregabalin	148553-50-8	Neuropathic Pain Agent	10000.00	333.33
19	Racecadotril	81110-73-8	Anti diarrheals	6000.00	200.00
20	Tamsulosin Hydrochloride	106463-17-6	Anti-adrenergic	100.00	3.33
21	Tizanidine Hydrochloride	64461-82-1	Skeletal muscle relaxant	100.00	3.33
22	Topiramate	97240-79-4	Anticonvulsant	6000.00	200.00
23	Zotepine	26615-21-4	Neuroleptic agent	2000.00	66.67
24	Zopiclone	43200-80-2	Nonbarbiturate Hypnotic	100.00	3.33
	<b>Total</b>			<b>102250.00</b>	<b>3408.33</b>

There is no change in product as per the given TOR and there will be no additional land requirement. Additional investment for the expansion is about Rs. 40 crore. Total plot area is 53986.98 m<sup>2</sup>. Proposed water consumption after amendment will be 271.22 m<sup>3</sup>/day against which 131.07 m<sup>3</sup>/day of waste water shall be generated. It is informed that baseline data has been collected by the PP from October, 2014 to December, 2014

After detailed deliberations, the Committee recommended for amendment and prescribed the same TOR issued by the Ministry vide Letter no. J-11011/87/2014-IA II(I) dated 21<sup>st</sup> October, 2014 for preparation of EIA/EMP report.

#### **40.8.3 Applicability of Environment Clearance for manufacturing of methylcobalamin (b 12) having capacity 30 kg/month at HSIIDC, Sonapat by M/s Royal Enterprises – clarification**

M/s Royal Enterprises has submitted the application seeking clarification on applicability of EC for manufacturing of methylcobalamin (b 12) at HSIIDC, Sonapat. Manufacturing process involves reaction with Cyanocobalamin with Sodium Borohydration followed by Methylation with Methyl Iodide, layer separation, distillation, filtration and drying.

After detailed deliberation, the Committee noted that organic synthesis involved in the process. Therefore, manufacturing process falls under 5 (f) activities of EIA Notification,

2006 and requires to obtain prior environmental clearance. The Committee suggested them to submit form 1 and prefeasibility report online.

#### 40.8.4 Expansion of Bulk Drugs & Intermediates ( from 9.5 MTPA to 60 MTPA) at Plot Nos. 19, 20, 21 & 17 B2, Phase-I, IDA, Village Jeedimetla, Mandal Qutubullapur, District Rangareddy, Telangana by M/s Symed Labs Limited- Unit-3

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 along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Symed Labs Ltd.- Unit-III has obtained TOR vide Letter no. J-11011/277/2014-IA II(I) dated 10<sup>th</sup> February, 2015 for expansion of Bulk Drugs & Intermediates ( from 9.5 MTPA to 60 MTPA) at Plot Nos. 19, 20, 21 & 17 B2, Phase-I, IDA, Village Jeedimetla, Mandal Qutubullapur, District Rangareddy, Telangana. Now PP has requested to enhance the production capacity 60TPA to 240 TPA. Amendment in enhancement of production capacity is given below:

S. No	Product Name	CAS NO's	Therapeutic category	As per Amendment Request	
				Quantity In Kg/Month	Quantity In Kg/Day
1	Carvedilol Phosphate	610309-89-2	Anti hypertensive agent	1800.00	60.00
2	Dronedaron Hydrochloride	141625-93-6	Antiarrhythmic agent	2000.00	66.67
3	Epalrestat	82159-09-9	Oral anti diabetic agent	2000.00	66.67
4	Iron sorbitol citric acid dextrin complex	99676-02-5	---	6000.00	200.00
5	Levocetirizine Dihydrochloride	130018-87-0	Antihistaminic agent	6000.00	200.00
6	Ondansetron Hydrochloride dihydrate	103639-04-9	Antiemetic	1000.00	33.33
7	Zopiclone	43200-80-2	Nonbarbiturate Hypnotic	200.00	6.67
8	Zotepine	26615-21-4	Neuroleptic agent	1000.00	33.33
	<b>Total</b>			<b>20000.00</b>	<b>666.67</b>

Further PP has informed there is no change in utilities and additional land requirement. Additional investment for investment is about Rs. 10 crore. The proposed water requirement after amendment will be 146.41 m<sup>3</sup>/day against which 52.28 m<sup>3</sup>/day of waste water will be generated.

PP informed that site is being located in the notified industrial area therefore project can be transferred to the SEIAA/SEAC, Telangana for consideration of Environment Clearance.

After detailed deliberations, the Committee recommended for amendment and prescribed the same TOR issued by the Ministry vide Letter no. J-11011/277/2014-IA II(I) dated 10<sup>th</sup> February, 2015 and transfer of project to the State.

## 40.9 Additional Items

### 40.9.1 Exploratory Drilling of 35 Wells in L-1 PML, Kuthalam PML, Kali & Greater Kali PML, Bhuvangiri PML and Neyveli PML in Cauvery Basin, Tamilnadu by M/s ONGC

The project proponent and their consultant (M/s ONGC 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 12<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 26<sup>th</sup>-27<sup>th</sup> August, 2013 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC vide letter no. ONGC/CHSE/TOR-EC /2015 dated 19<sup>th</sup> May, 2015 has requested for exemption of four public hearings as already conducted in the following districts:

S.N.	District	Public hearing conducted	
1	Ariyalur	On 20.10.2014	PH conducted against the EC issued vide letter no. J-11011/199/2013 IA II (I) dated 27.09.2013
2	Nagapattinam	20.06.2014	PH conducted against the EC issued vide letter no. J-11011/2502011 IA II (I) dated 08.07.2015
3	Tanjavur	10.07.2014	
4	Tiruvarur	On 27.06.2014	
5	Cuddalore	Application submitted on 10.11.2014 ( Tamil Nadu Fixed date on 08.07.2015)	

Now, they have requested to consider the case for environmental clearance as EIA report of the said project is submitted.

The L-I PML block is covering the Ariyalur – Pondicherry sub-basin in the north and part of Tranquebar sub basin in the south in Cauvery Basin. The Block is located in Ariyalur, Cuddalore, Tiruvarur, Nagapattinam and Thanjavur Districts of Tamil Nadu. The total area of the block is 918 Sq. Km. Fourteen (14) proposed exploratory wells fall in Cuddalore District, Nine (9) of proposed wells fall in Nagapattinam District, Six (6) of proposed wells fall in Ariyalur District, Five (5) of the proposed wells fall in Thanjavur District and One (1) of the proposed wells falls in Tiruvarur District. It is reported that no wild life sanctuary, National park or eco sensitive area exists in the proposed exploratory area of the block. No forest land is existing in the block. ONGC proposes drilling of 35 exploratory wells with target depths around 3000 - 5200 m/Basement. Cost of project is Rs. 700 Crore.

Details of tentative locations of wells district wise is as given below:

Sl. No	No. of Locations	Location Name	Target Depth In M	District
1	14	NL-1, NL-2, NL-3, NL-4, NL-5, NL-6, NL-7, NL-8, NL-9, NL-27, NL-28, NL-29, NL-30, NL-31	3000-5200m/ Basement	Cuddalore
2	9	NL-15, NL-16, NL – 20, NL-21, NL-22, NL-23, NL-24, NL-33, NL-34		Nagapattinam
3	6	NL-10, NL-11, NL-12, NL-13, NL-14, NL-32		Ariyalur
4	5	NL-17, NL-18, NL-19 NL-26, NL-35		Thanjavur
5	1	NL-25		Tiruvarur

The PP informed the Committee that ambient air quality monitoring was carried out at 24 locations during April, 2014 – May, 2014 and submitted data indicates PM<sub>2.5</sub> (18-38 ug/m<sup>3</sup>), PM<sub>10</sub> (41-73 ug/m<sup>3</sup>), SO<sub>2</sub> (6-12ug/m<sup>3</sup>) and NO<sub>x</sub> (11- 19 ug/m<sup>3</sup>). Water based mud will be used. Water requirement will be 25 m<sup>3</sup>/day. Drilling and wash water generation will be 15 m<sup>3</sup>/day and treated in ETP and stored in HDPE lined pit. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30<sup>th</sup> August, 2005. Used oil will be sold to authorized recyclers. Acoustic enclosures will be provided to D.G. sets. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged.

PP also informed that MoEF&CC vide letter no. J-11011/178/2008 IA II (I) dated 28.07.2008 has granted EC to M/s ONGC for 48 exploratory drilling in six blocks. The Committee was of the view that conducting public hearing has consumed significant time and still pending with Tamil Nadu Pollution Control Board. Therefore, the Committee recommended the proposal for 35 wells by amending the existing environmental clearance vide letter no. J-11011/178/2008 IA II (I) dated 28.07.2008.

**40.7.16 Expansion/Modification of Bulk Drug project at village Bhiwadi, district Alwar, Rajasthan by M/s Dalas Biotech Ltd. – amendment in existing EC.**

MoEF& CC vide letter no J-11011/11/2003 IA II (I) dated 5<sup>th</sup> June, 2003 has issued environmental clearance to M/s Dalas Biotech Ltd. for expansion /Modification of bulk drug. Now PP has requested for replacing the existing boiler's fuel of 4440 Lit/day furnace oil and 600 Lt/day HSD with 5000 Kg pet coke. PP informed that following measures will be taken to control air pollution :

- (i) To control the SO<sub>2</sub> emission, limestone powder feed alongwith pet coke in furnace bed as a sulfur capturing agent.
- (ii) Bagfilter with efficiency 99.9 % will be provided to pet coke fired boiler.
- (iii) Additional fresh water requirement will be 4 m<sup>3</sup>/day. The 1 m<sup>3</sup>/day blowdown water from boiler will be treated in existing ETP.

After detailed deliberation, the Committee found that adequate safeguard are being taken and recommended the said amendment as requested in the existing EC.

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Annexure-I

**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.

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**LIST OF PARTICIPANTS OF EAC (Industry) IN 40<sup>th</sup> MEETING OF EAC (INDUSTRY) HELD ON 18-19<sup>th</sup> May, 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	P
10.	Dr. Antony Gnanamuthu	Member	A
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjana Raghunath Raje	Member	P
<b>MOEF Representatives</b>			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P