MINUTES FOR 9th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 27th – 28th JUNE , 2016

VENUE: Bhramputra,, First Floor, Vayu Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi -110003.

Time : Meeting to be held at 10: 00 AM

9.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 15 AM

9.2 Confirmation of the Minutes of the 8th Expert Appraisal Committee (Industry-2) held during 26-27th May 2016.

27th June, 2016 (Day 1)

1st Session: Time: 10.15 AM

9.3 Environmental Clearance

9.3.1 Expansion of Active Pharmaceutical Ingredients (APIs) & API Intermediates Manufacturing Unit-II (9.66 TPA to 1800 TPA) at village Wangapally , Mandal Yadagirigutta, district Nalgonda , Telangana by M/s Enal Drugs Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s KKB Envirocare Consultant Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 10thMeeting of the Expert Appraisal Committee (Industry -2) held during 29th– 30th July, 2013 respectively for preparation of EIA-EMP report.

M/s Enal Drugs Pvt. Limited Unit-II has proposed for expansion of the APIs & API Intermediates manufacturing facility in 3 phases from 9.66 TPA to 1800 TPA (Phase-1:720 TPA; Phase-2: 720TPA & Phase-3:360 TPA) atSy. No. 38/A, 39, 39/A, 40/B/2 & 41/C,Village Wangapally, Mandal Yadagirigutta, District Nalgonda, Telangana.

It is reported that there are no notified National Park / Wild Life sanctuaries within 10 km radius of the project site. Two reserved forests viz., Rayigiri-I (Mala gutta)-5km in west direction and Rayigiri-II (AllappaGutta)-6km in WSW direction are located in the study area. Aler River (5 Km), Kandukuruvagu(Rivulet) and Peddavagu (Rivulet) are within 5 km distance. Total plot area is 6.45 Ha of which area earmarked for greenbelt 2.26 Ha. Total cost of project is Rs. 40.12 Crores. Out of which, Rs. 5.0 Crore and Rs. 6.0 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementing environmental management plan. Following products will be manufactured:

S.N.	Product	Quantity (TPA)	Therapeutic Category
Proposed Bulk Drugs- Campaigs Products			
1	Lansoprazole	300	Anti-ulcerative
2	Omeprazole	360	Anti-ulcerative
3	Esomeprazole Magnesium	300	Anti-ulcerative
4	Rabeprazole Sodium	240	Anti-ulcerative
5	Risedronate Sodium	300	Atihypocalcemic Agent

6	Clopidogrel Bisulfate	180	Antiplatetelet drug
7	Losartan Potassium	180	Antihypertensive
8	BetahistineDihyrochloride	300	Anti-vertigo Agent
9	Entacapone	180	antiparkinsonian
10	Zaleplon	180	Sedative/Hypnotic drug
11	Dexlansoprazole	180	Anti-ulcerative
12	Dexrabeprazole	180	Anti-ulcerative
Proposed Bulk Drug Intermediates-Campaign Products			
S.N.	Product	TPA	Intermediates to the product
13	2-Hydroxy-3-nitroacetophenone	180	Pranlukast Intermediates
14	4-(4-Methyl piperzino methyl) benzoic acid Dihydrochloride	180	Imatinib Intermediates
15	N-(2-Methyl-5-nitrophenyl)-4-(3-pyridyl)-2-pyrimidine amine	180	Imatinib Intermediates
16	2-Chloro methyl-3-methyl-4-(2,2,2-trifluoroethoxy pyridine) Hydrochloride	180	Lansoprazole Intermediates
17	Pyridine-2-(Chloro ethyl)-4-(3-methoxy propoxy)-3-methyl Hydrochloride	180	Rabeprazole Intermediates
18	2[4-Chloro-3-methyl-2-pyridinyl-methyl) thio]-1H benzimidazole	180	Rabeprazole Intermediates
19	2-Chloro methyl-3,5-dimethyl-4-methoxy pyridine Hydrochloride	180	Omeprazole Intermediates
20	2,5-Bis-(2,2,2-Triflouroethoxy) benzoic acid	180	Flecainide Acetate Intermediates
21	3-Amino-1H-pyrazole-4-carbonitrile	180	Zaleplon Intermediates
22	3-Pyridyl acetic acid Hydrochloride	180	Risedronate Sodium Intermediate
23	2-Butyl-4-chloro-5-(hydroxyl methyl)-1-[[2-[(triphenyl methyl)tetrazol-5-yl] biphenyl-4-yl]methyl] imidazole	180	Losartan Intermediate
24	6-Methyl-4-phenyl-3,4-dihydrocoumarin	180	Tolterodine Intermediate
Total (any 6 Products at a time)		1800	

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during December, 2013 – February, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (28 µg/m^3 to 48 µg/m^3), $PM_{2.5}$ (10 µg/m^3 to 29 µg/m^3), SO_2 (5 µg/m^3 to 16ug/m3) and NOx (5 µg/m^3 to 18 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.33 µg/m^3, 12.6 µg/$m^3$and 7.3 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).Scrubber will be provided to control process emission viz. NH_3, HCl, and SO_2. Multicyclone separator followed by bagfilter will be provided to coal fired boilers (3x 5 TPH) to control particulate emissions. Adequate stack height will be provided to oil fired thermic fluid heater. Total water requirement will be increased from 28.78 m^3/day to 388 m^3/day after expansion. Out of this fresh water from ground water source will be 204 m^3/day and remaining water requirement (184 m3/day) will be met from treated effluent. Total effluent generation will be 196 m^3/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD

effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 23rd January, 2016. The concerns were raised on job security, greenbelt, safety equipments for worker 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 following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

ii) Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.

iii) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO_2. Water scrubber followed by caustic lye media shall be provided to process vents to control NH_3. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

iv) Solvent management shall be carried out as follows :

   i. Reactor shall be connected to chilled brine condenser system
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
   vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
   vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

v) Total fresh water requirement from ground water source shall not exceed 204 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

vi) Effluent generation shall not exceed 196 m^3/day. 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.

vii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.

viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

x) 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.

xi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

xii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xiii) 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.

xiv) The company shall undertake following waste minimization measures :-

a. Metering and control of quantities of active ingredients to minimize waste.
b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
c. Use of automated filling to minimize spillage.
d. Use of Close Feed system into batch reactors.
e. Venting equipment through vapour recovery system.
f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.

xv) 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.

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

xvii) 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.

xviii) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 23rd January, 2016shall be satisfactorily implemented.

xix) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

9.3.2 Setting up of synthetic organic chemical manufacturing unit at Plot No 193, APIIC Growth Centre Hindupur, Village Thumkunta, Mandal Hindupur, District Anantapur, Andhra Pradesh by M/s Srikar Chem& Pharma India Pvt. Ltd. – reg EC.

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 1st Meeting of the Expert Appraisal Committee (Industry -2) held during 30th November-1st December, 2015 respectively for preparation of EIA-EMP report.

M/s Srikar Chem& Pharma India Pvt. Ltd. has proposed for setting up of synthetic organic chemical manufacturing unit at Plot No 193, APIIC Growth CenterHindupur, Village Thumkunta, Mandal Hindupur, District Anantapur, Andhra Pradesh. Plot area is 3668 m^2 of which area earmarked for greenbelt is 1247 m^2. Cost of project is Rs. 6 Crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve located within the distance of 10km from the project site. Penneru and Kumudvathi Rivers are flowing at a distance of 1.8 km and 7.1 km respectively from the proposed project site. Apart from this, water bodies namely Gollapuram Lake- 2.7 km, Gaudasandra Lake- 6.6 km, Basavanapalli Lake- 5.7 km, Manepali Lake- 6.8 km, Sadlapalli Lake- 6.9 km, Bychapura Lake- 8 km, Kodihalli Lake- 9.3 km are located to their respective distance.Approximately 30 permanent and contractual employees shall be deployed. Following products will be manufactured:

S. No	Product Name	CAS Number	Production Capacities	
			Kgs/Month	Kgs/Day
Group-A				
1	Benzyl Magnesium chloride	6921-34-2	5000.00	166.67
2	Lithium Tertiary Butoxide	1907-33-1	5000.00	166.67
3	Lithium HMDS	4039-32-1	10000.00	333.33
4	Magnesium Tertiary Butoxide	32149-57-8	5000.00	166.67
5	n-Butyl Magnesium Chloride	693-04-9	5000.00	166.67
6	Potassium Tertiary Butoxide	865-47-4	5000.00	166.67
7	Sodium amide	7782-92-5	5000.00	166.67
8	Sodium HMDS	1070-89-9	10000.00	333.33
9	Sodium Tertiary Butoxide	865-48-5	5000.00	166.67
Group-A Total			**55000.00**	**1833.33**
Group-B				
1	Domperidone	57808-66-9	3500.00	116.67
2	EsomeprazoleMagnesium Trihydrate	217087-09-7	4000.00	133.33
3	Lopinavir	192725-17-0	3000.00	100.00
4	Omeprazole	73590-58-6	5000.00	166.67
5	Pantoprazole sodium	138786-67-1	4500.00	150.00
Group-B Total			**20000.00**	**666.67**
Total (Worst combination of either Group-A or Group-B)			**55000.00**	**1833.33**

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 – February, 2016 and submitted baseline data indicates that ranges of concentrations of PM_{10} (39.45 µg/m^3 to 68.46 µg/m^3), $PM_{2.5}$ (14.23 µg/m^3 to 38.69 µg/m^3), SO_2 (8.15 µg/m^3 to 17.85ug/m3) and NOx (15.41 µg/m^3 to 36.78 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/m^3, 0.69 µg/$m^3$and 0.93 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).Bagfilter will be provided to coal fired boiler (2TPH and 1 TPH) and thermic fluid heater (2 lac K.cal)to control particulate emissions. Process emission viz. ammonia will be scrubbed by using chilled water media. Sulfur dioxide emitted from process will be scrubbed by using C.S lye solution. All solvent storage tanks will be connected with vent condenser. 1 DG set having 200 KVA capacity will be installed as standby. About 600 KVA electricity will be taken from State Electricity Board.

Total water requirement will be 72.5 m^3/day. Out of which, fresh water requirement from APIIC will be 12.84 m^3/day. Wastewater generation will be 25.5 m^3/day. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Organic waste and solvent distillation residue will be sent to Cement Industries. Inorganic waste, ETP sludge and MEE salts will be sent to TSDF. Used oil will be sent to SPCB authorized Recyclers/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 recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

ii) Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.

iii) Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO_2. Water scrubber followed by caustic lye media shall be provided to process vents to control NH_3. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

iv) Solvent management shall be carried out as follows :
   i. Reactor shall be connected to chilled brine condenser system
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
   iv. Solvents shall be stored in a separate space specified with all safety measures.

v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

v) Total fresh water requirement from APIIC shall not exceed 72.5 m^3/day.No ground water shall be used.

vi) Effluent generation shall not exceed 26 m^3/day. 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.

vii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.

viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

x) 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.

xi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

xii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xiii) 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.

xiv) The company shall undertake following waste minimization measures :-

a. Metering and control of quantities of active ingredients to minimize waste.
b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
c. Use of automated filling to minimize spillage.
d. Use of Close Feed system into batch reactors.
e. Venting equipment through vapour recovery system.
f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.

xv) 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.

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

xvii) 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.

xviii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

9.3.3 Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd. – reg EC.

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

9.3.4 Expansion of Synthetic Chemical manufacturing unit at Plot No: 18 - D II, Phase -1, I.D.A Patancheru, District Medak, Telangana by M/s Mahidhara Chemicals Pvt Ltd.- reg EC.

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 40thMeeting of the Expert Appraisal Committee (Industry -2) held during 18th–19th May, 2015 respectively for preparation of EIA-EMP report.

M/s. Mahidhara Chemicals Pvt Ltd. has proposed for expansion of synthetic organic chemicals manufacturing (from 44 TPM to 214 TPM) unit at Plot No 18- D II, Phase-1, I.D.A Tehsil Patancheru, District Medak, Telangana. Cost of expansion is Rs. 1.95 Crores. Total plot area is 9869.71 m^2 and no additional land will be acquired. Out of total plot area, 4212.28 m^2 (42%) will be earmarked as green belt. 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. 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
	Group-A		
1	Lithium Methoxide	1000.00	33.33
2	Lithium Tertiary Butoxide	1000.00	33.33
3	lithium amide	10000.00	333.33

S. No.	Product Name	Production	
		Kgs/Month	Kgs/Day
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
	Total(Sum of all products)	**144000.00**	**4800.00**
	Group-B		
1	Lithium HMDS	30000.00	1000.00
2	Potassium HMDS	30000.00	1000.00
3	Sodium HMDS	30000.00	1000.00
	Total(Sum of all products or single product)	**30000.00**	**1000.00**
	Group-C		
1	Benzyl Magnesium Chloride	40000.00	1333.33
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
	Total(Sum of all products or single product)	**40000.00**	**1333.33**
	Total (Sum of Group-A &Group-B& Group-C)	**214000.00**	**7133.33**

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October - December, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (60.2 µg/m^3 to 93.8 µg/m^3), $PM_{2.5}$ (18.6 µg/m^3 to 38.7 µg/m^3), SO_2 (14.9 µg/m^3 to 25.9ug/m^3) and NOx (24.1 µg/m^3 to 45.2 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.29 µg/m^3, 0.65 µg/m^3 and 0.80 µg/$m^3$with respect to PM, SO2 and NOx respectively. The resultant concentrations are within the NAAQS.

Bagfilter will be provided to proposed coal fired boiler (1.5 TPH) and Thermopack boiler to control particulate emissions. Existing boiler (0.5 TPH) will not be continued. DG set (1x 250 KVA) will be installed as standby arrangement. Water scrubber followed by caustic lye media will be provided to process vents to control NH_3. Total water requirement will be increased from 1.58 m^3/day to 52 m^3/day after expansion. Out of which, fresh water requirement from IDA water supply will be 48.4 m^3/day. Remaining water requirement (3.6 m3/day) will be met from recycled/treated effluent. No effluent will be discharged outside the plant premises. Total effluent generation will be 11 m^3/day. Wastewater will be segregated into High TDS/COD and

Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises.

The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Organic waste and solvent distillation residue will be sent to Cement Industries. Inorganic waste, ETP sludge and MEE salts will be sent to TSDF. Used oil will be sent to SPCB the authorized Recyclers/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 recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

ii) Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.

iii) Water scrubber followed by caustic lye media shall be provided to process vents to control NH_3. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

iv) Solvent management shall be carried out as follows :
   i. Reactor shall be connected to chilled brine condenser system
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
   vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
   vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

v) Total fresh water requirement from IDA water supply shall not exceed 48.4 m^3/day.No ground water shall be used.

vi) Effluent generation shall not exceed 11 m^3/day. 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.

vii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.

viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

x) 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.

xi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

xii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xiii) 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.

xiv) The company shall undertake following waste minimization measures :-

a. Metering and control of quantities of active ingredients to minimize waste.
b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
c. Use of automated filling to minimize spillage.
d. Use of Close Feed system into batch reactors.
e. Venting equipment through vapour recovery system.
f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.

xv) 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.

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

xvii) 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.

xviii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

9.3.5 Specialty Chemical Plant at Plot No. 37/A, AKVNL, Industrial Area, Meghnagar, District Jhabua, Madhya Pradesh by M/s Anjaniya Industries – reg EC.

The project proponent and their consultant (M/s Aqua-Air Environmental Engineers Pvt. Ltd. with stay order from High Court) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of

References (TORs) awarded in the 17th Meeting of the Expert Appraisal Committee (Industry -2) held during 18th – 19th March, 2014 respectively for preparation of EIA-EMP report.

The Committee noted that PP has prepared EIA –EMP report for manufacturing of products namely Chloro Acetyl Chloride and Mono Chloro Acetic Acid. Besides, PP has already installed Br_2 manufacturing unit for which PP has obtained consent to establish from the MP Pollution Control Board, which is part of product. It was recommended that EIA –EMP report should also incorporate impact of Br_2 manufacturing/handling to include in cumulative impact. EMP and risk assessment shall also be carried out for Br_2 manufacturing unit.

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

9.3.6 Setting up various types of pigments manufacturing unit at survey no. 409, 549, 551, 560, 562, 563, 564, 565, 566, 567, 571, Village: Piludara, TahsilJambusar, District Bharuch, Gujarat by M/s. Parshwnath Pigments Ltd. – reg TOR.

The project proponent and their consultant (M/s San EnvirotechPvt.LTd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 19th Meeting of the Expert Appraisal Committee (Industry -2) held during 28th – 29th May, 2014 respectively for preparation of EIA-EMP report.

M/s. Parshwnath Pigments Ltd. has proposed for setting up of Pigment Manufacturing Unit at Sy. No. 409, 410, 411-416, 549, 550, 551, 560, 561, 562, 563-569, 571, Village Piludra, Taluka Jambusar, District Bharuch, Gujarat. Cost of project Rs 100 Crore. Total land available is 108052 m^2. Out of which 28531 m2 will be used for current proposal and balance land will be used for future expansion. No wildlife sanctuary /reserve forests falls within 10 Km radius. The following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	Solvent Dyes	279
2	Optical Brightening Agent	25
3	Alpha Blue	300
4	Beta Blue	500
5	CPC Blue	1000
6	High Performance Pigment	450
7	Pigment Green	200
8	Azo Pigment	323
9	Ultra Marine Blue	300
10	Intermediate	80
11	Flurescent Plant	50
12	Pearl Pigment Plant	100
13	Fluch Pigment Plant	500
BY-PRODUCTS		
1	Liq. Ammonia (20%) Ammonium Sulphate	1635/1200
2	HCI-20-25%	150

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October - December, 2014 and submitted baseline data

indicates that ranges of concentrations of PM_{10} (67.9 µg/m^3 to 81.0 µg/m^3), $PM_{2.5}$ (36.4 µg/m^3 to 48.8 µg/m^3), SO_2 (17.6 µg/m^3 to 23.5 ug/m^3) and NOx (19.7 µg/m^3 to 24.7 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.8 µg/m^3, 0.05 µg/m^3 and 0.08 µg/m^3 with respect to PM, SO2 and NOx respectively. The resultant concentrations are within the NAAQS. Multi cyclone along with bagfilter will be provided to biofuel briquettes/coal fired boiler /hot air generator /thermic fluid heater to control particulate emissions. Three stage scrubber will be provided to Process vessel CPC Blue to control NH_3 emission. Two stage water scrubber followed by alkali scrubber will be provided to chlorination & dumping vessel CPC Green. Bagfilter will be provided to Spin flash dryer -1, 2, 3 and 4 to control particulate matter. Total water requirement will be 2239 m^3/day after expansion. Out of which fresh water requirement from ground water source/ Narmada Water will be 834 m3/day and remaining water requirement (1405 m3/day) will be met from recycled/treated effluent. The Committee suggested to reduce fresh water demand by 150 m3/day. Total effluent generation will be 958 m^3/day and treated in the ETP followed by Multi stage RO. RO permeate (658 m3/day) will be recycled/reused in the process. Rejects (300m3/day) will be sent to the CETP Umraya for further treatment. ETP sludge & MEE salt will be sent to TSDF site. Solvent residue will be incinerated at Common Incineration facility. Waste/used oil will be sold to registered /authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meetings conducted by the Gujarat Pollution Control Board on 16/12/2015. The issues were raised regarding wastewater management, noise pollution, disposal effluent into CETP, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

ii) Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.

iii) Bagfilter will be provided to Spin flash dryer -1, 2, 3 and 4 to control particulate matter.

iv) Three stage scrubber will be provided to Process vessel CPC Blue to control NH_3 emission. Two stage water scrubber followed by alkali scrubber will be provided to chlorination & dumping vessel CPC Green to control HCl fumes. 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.

v) Solvent management shall be carried out as follows :
   i. Reactor shall be connected to chilled brine condenser system
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
   iv. Solvents shall be stored in a separate space specified with all safety measures.

v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

vi) Total fresh water requirement from ground water source/ Narmada Canal shall not exceed 673 m^3/day.

vii) Effluent generation shall not exceed 958 m^3/day. Effluent shall be treated in ETP and then passed through RO system. Condensate and Permeate water will be recycled/reused within factory premises. RO rejects shall be sent to CETP for further treatment.

viii) Treated effluent should be passed through guard pond. Online (24 x 7 monitoring devices) pH meter, flow meter and TOC analyzer should be installed. The data to be made available to the respective SPCB and in the Company's website.

ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

x) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xi) 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.

xii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xiv) 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.

xv) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.

9.3.7 Euro-IV HSD Project along with Installation of LPG Mounded Bullet and Facility upgradation of Existing LPG Bottling Plant & Complete at Bokakhat Tehsil, Goaghat District, Assam by M/s Numaligarh refinery Limited. – reg EC.

The project proponent and their consultant (M/s Engineers India Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 42nd Meeting of the Expert Appraisal Committee (Industry -2) held during 16th – 17th June, 2015 respectively for preparation of EIA-EMP report.

M/s Numaligarh refinery Limited has proposed for Euro-IV HSD Project alongwith Installation of LPG Mounded Bullet and Facility up gradation of Existing LPG Bottling Plant & Complete at Bokakhat Tehsil , Goaghat District, Assam. Refinery plant area is 750 acres and marketing terminal area is 265 acres. Cost of the project is 1578.55 Crore. Out of which, Rs. 109.20 Crore and Rs. 715 Lakhs are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. Deopahar historical site is situated 5km from the refinery boundary. It is reported that there is Wildlife Sanctuary within the distance of 10 km. However, Kaziranga National park and Garampani & Wildlife sanctuaries are situated at as aerial distance of 22.5 km north-west and 20 km south-east from the refinery boundary. River Kaliyani, Dhansiri & Brahmputra are flowing within 10 km distance. Total crude processing capacity is 3.0 MMTPA. Following are the existing and the proposed products:-

CASES	**Unit**	**Pre DHT Project**	**Post DHT Project**
LPG	KTPA	60	60
FG NAPHTHA	KTPA	125	125
NAPHTHA PETROCHEM	KTPA	160	160
EURO-IV GASOLINE	KTPA	225	225
KEROSENE	KTPA	80	80
ATF	KTPA	80	80
EURO-III HSD	KTPA	360	0
EURO-IV HSD	KTPA	1603	1963
SULPHUR	KTPA	6.2	7
COKE	KTPA	90	60
WAX	KTPA	50	60

Product Slate (@ 3MMTPA crude throughput)

Unit Capacities

Unit Name		**Base Case**
		Present Capacity
1	Crude Unit	3.0 MMTPA
2	Naphtha Hydrotreater	271 KTTPA
3	Naphtha Splitter	160 KTPA
4	Isomerisation	55.5 KTPA
5	SRR	168 KTPA
6	HCU	1.45 MMTPA
7	Delayed Coker Unit	0.306 MMTPA
8	CCU	0.115 MMTPA
9	HGU (EXISTING)	48600 TPA
10	SRU (in TPD)	19.3 TPD
11	FGSU	8 TPH
12	SWS	20.2 M3/Hr
13	ARU	23.2 TPH
14	Wax Unit	0.050 MMTPA

Proposed additional and Revamp Units

S.N.	**Processing Unit**	**Capacity**
1	Diesel Hydro treater Unit	0.7 MMTPA

2	Sulphur Recovery Unit	19.3 TPD
Existing Units Requiring Revamp		
3	Sour Water Stripping Unit	Additional 3.7 TPH
4	Amin Regeneration Unit	Additional 3 TPH

Total 80 % of products will be transferred through Numaligarh-Siliguri pipeline. 20 % of the finished products are transferred through trucks and rail wagons. Most of the products which are sent through trucks are mostly to Northeast region.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 - December, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (24 µg/m^3 to 63 µg/m^3), $PM_{2.5}$ (10 µg/m^3 to 35 µg/m^3), SO_2 (4.0 µg/m^3 to 16.5ug/m^3), NOx (9.1 µg/m^3 to 17.6 µg/m^3), CO (0.04 mg/m^3 to 1.25 mg/m^3) and NMHC (0.5 PPM-0.70 PPM) respectively. It is estimated that additional SOx emission from DHT and new SRU Incinerator will be 3 Kg/hr. NOx emission will be 7 Kg/hr. The total SOx emissions from refinery Post DHT will be 256 kg/hr. the Committee suggested them to also carry out air quality modeling study in order to identify ground level concentration. Additional raw water requirement from Dhansiri River will be 24 m^3/hr. Additional liquid effluent generation will be 10 m^3/hr. Water balance chart was found to be inadequate . The Committee suggested Project Proponent and their consultant; M/s Engineers India Ltd. that they should give cumulative figure of water consumption and wastewater generation to assess the cumulative impact due to the existing and proposed project. It was also instructed that Consultant should follow procedure for EIA study. The Committee also discussed the certified compliance report dated 1st January, 2016 issued by MoEF&CC Regional Office (North Eastern).

After deliberations, the Committee sought the following additional information:

(i) Ambient Air quality modeling study for additional air pollution load to be worked out properly with value of incremental ground level concentration.
(ii) Is there any impact of air pollution due to proposed activity on the Kaziranga National Park?
(iii) Revised water balance chart properly.
(iv) To clarify so as whether additional wastewater load will be taken by the existing ETP.
(v) Whether present proposal is based on ZLD and provide details of final discharge of treated effluent.
(vi) Quantity of solid waste generated from the refinery alongwith disposal plan.

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

9.3.8 Drilling of 10 Wells in Block at Tehsil Mandal &Becharaji, District Ahmedabad &Mahesana, Gujarat CB-ONN-2009/2 by M/s Sintex Oil and Gas Pvt. Ltd. – reg EC.

The project proponent and their consultant (M/s Kadam Environmental Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 17th Meeting of the Expert Appraisal Committee (Industry -2) held during 18th-19th March 2014 respectively for preparation of EIA-EMP report.

M/s Sintex Oil and Gas Pvt. Ltd. has proposed for exploratory drilling of 10 Wells in Block CB-ONN-2009/2 at Districts Mehsana and Ahmedabad, Gujarat. The total area of this block is 68 Km^2. Proposed depth of well will be 4000 m. Signing date of production sharing contract (PSC) of the block alongwith SOGL and Govt. of India was 30.06.2010. Petroleum exploration license (PEL) to start the exploration activities in the block was given on 15.10.2010. It is reported that no national park/wildlife sanctuary/tiger reserve / elephant reserve/ turtle nesting ground. The Latitude and Longitude of the proposed wells is given below:

S.N.	Well No.	Latitude	Longitude
1	A1	23.51187590	72.03967630
2	A2	23.51276050	72.05141620
3	B	23.50597100	72.07013580
4	C	23.48558800	72.12628200
5	D	23.51901110	72.03309510
6	P	23.48470230	72.03424250
7	Q	23.49400340	72.05367810
8	R	23.47660590	72.10292020
9	S	23.44343220	72.05449430
10	T	23.52158620	72.09046950

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 - December, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (68 µg/m^3 to 86 µg/m^3), SO_2 (8 µg/m^3 to 14 ug/m^3), NOx (19.4 µg/m^3 to 28.2 µg/m^3) and NMHC (27 µg/m^3-125) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0723 µg/m^3, 0.0723 µg/m^3 and 27.76133 µg/m^3 with respect to PM, SO2 and NOx respectively. The resultant concentrations are within the NAAQS.

Total water requirement from Narmada Canal main will be 19.15 m3/day per well water. Total wastewater generation will be around 5 m^3/day. Water Based drilling mud will be used. 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 30th August, 2005. Used oil will be sent to the Authorized recyclers. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the situation when the well is unsuccessful, the well bore will be plugged with cement/concrete. All fuels, lubricants and chemicals will be kept in a well-designed storage facility with regular inventory checking. Used and unused chemicals will be stored in a lined & bounded area. Waste oil/spent oil/waste batteries will be sold to registered recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meetings conducted by the Gujarat Pollution Control Board on 17/06/2015 in Mehsana District and 10/7/2015 in Ahmedabad District respectively. The issues were raised regarding on land acquisition; negative impact on ground water; name of villages where drilling activity is proposed; 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 based on the documents furnished and presentation made recommended the project for environmental clearance and stipulated the

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

i. The present EC is for Exploratory Drilling only. In case Development drilling is to be done in future, prior environmental clearance must be obtained from the Ministry.
ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, methane & Non-methane HC etc.
iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
iv. Approach road shall be made pucca to minimize generation of suspended dust.
v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
vi. Total water requirement shall not exceed 19 m^3/day and prior permission shall be obtained from the concerned agency.
vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhopal.
ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
xi. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
xii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
xiii. The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.
xiv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
xv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
xvi. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xvii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
xx. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.
xxi. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.
xxii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
xxiii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.
xxiv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
xxv. Company shall have own Environment Management Cell having qualified persons with proper background.
xxvi. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

2nd Session: Time: 2.00 PM

Reconsideration of EC

9.3.9 Proposed expansion of Chemicals unit at plot no. 2 & 3, Village Ukharala, District. Bhavnagar, Gujarat by M/s Medinex Laboratories Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s Earthcare Enviro Solutions Pvt. Ltd. Stay from High Court) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 6th Reconstituted Expert Appraisal Committee (Industry-2) held during 5th -7th March, 2013 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

MoEF&CC has issued EC vide letter 11011/207/2006-IA II (I) dated 5th September, 2006 for the existing unit. M/s Medinex Laboratories Pvt. Ltd. The unit has now proposed for expansion of chemicals manufacturing unit at plot no. 2 & 3, Village Ukharala, District. Bhavnagar, Gujarat. Existing plot area is 9905 m2, of which greenbelt will be developed in 3440.64 m2 area. No additional land will be required for proposed expansion project. Cost of expansion project is Rs. 7 lacs. It is reported that no Wildlife Sanctuary /National park/ Reserve forest is located within 10 km distance. Lake Gaurishankar is situated at a distance of 8.91 km (NNW) and Lakhanka Dam is situated at a distance of 4.93 km (NNW). Following products will be manufactured:

S. No.	Name of the Product	Product Code	Quantity(Kg/Month
Existing			
1	Adrenaline Bitartrate	A1	50
2	Noradrenaline Bitartrate	A2	25
3	Dihydralazine Sulphate Hydrate	B1	250
4	L-Glutamic acid	B2	250
5	Hydrochlorothiazide	B3	2000
6	Adrenochrome Mono Semicarbazone	C1	100
7	Isoprenaline Sulphate	C2	25
8	Isoprenaline Hydrochloride	C3	25
9	Dipivefrine Hydrochloride	C4	25
Proposed			
10	Dimenhydrinate	D1	500
11	L-Glutamic acid Hydrochloride	D2	1500
12	Ambroxol Hydrochloride	D3	1000
13	Acebrofylline	D4	500
14	L-Pyro Glutamic acid	D5	1000

Unit has already installed oil fired boiler (400 kg/hr.). No new boiler will be installed for the proposed expansion. Water requirement will be increased from 10.5 m3/day to 13.654 m3/day after expansion. Out of which fresh water requirement will be 8.784 m3/day. Source of water supply is ground water. Effluent generation will be increased from 2.08 to 4.07 m3/day after expansion. Effluent will be treated in the ETP comprising primary, secondary and tertiary treatment facilities. Treated effluent will be evaporated through MEE. ETP sludge and evaporated 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 18th July, 2014. The concerns were raised on local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The proposal was considered by EAC in its 2nd meeting held during 16-17 December, 2015 and the Committee sought action taken report on the non complied points reported by the

RO. Accordingly, PP vide letter dated 1st February, 2016 has submitted the addl. information. The Committee found the response given by the project proponent is adequate.

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

i) Stack of adequate height shall be provided to the oil fired boiler as per CPCB/APPCB guidelines.

ii) Scrubber shall be provided to process vents to control process emission 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) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the SPCB. Odour management plan shall be implemented.

iv) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

v) Solvent management shall be carried out as follows :
   i. Reactor shall be connected to chilled brine condenser system
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
   vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
   vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

vi) Total fresh water requirement from ground water source shall not exceed 13.7 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

vii) Effluent generation shall not exceed 4.07 m^3/day. Effluent shall be treated in ETP. Treated effluent shall be evaporated in MEE.

viii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.

ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

x) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xii) 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.

xiii) 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 TPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xv) 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.

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

xvii) 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.

xviii) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 18th July, 2014 shall be satisfactorily implemented.

xix) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.

9.3.10 Integrated Sugar (5000TCD), Distillery (60 KLPD) and Cogeneration Power Plant (30MW) at Village Kapshi, Tehsil Phaltan, District Satara, Maharashtra by M/s Sharayu Agro Industries Ltd. (Formerly known as –Lokmanya SakharUdyog Ltd.) Pune, Maharashtra- reg EC.

Proposal was considered by the EAC in its meeting held during 30th March to 2nd April 2016 and the Committeedeferred the proposal for want of following information:

1. At page 94 of EIA report, it is reported that GLC of SPM, SO2 and NOx will be 0.025 g/ m^3, 2.25 g/m^3 and 1.15 g/m^3 respectively. Kindly check the value and submit the correct figure.
2. Recheck water balance and reduce fresh water requirement.
3. Reanalysis surface water quality monitoring data in respect of BOD, COD and basic drinking water parameters.

PP vide letter dated 30th April, 2016 has submitted the addl. information. It has been informed that GLC of SPM, SO2 and NOX will be 0.07 $\mu g/\mu^3$, 2.56 $\mu g/\mu^3$ and 1.2 $\mu g/\mu^3$ respectively regarding water requirement, PP informed that during season (160 days), water requirement for Sugar and Co-gen Power Plant will be 300 m^3/day and for Cogen Power Plant (for off season), water requirement will be 418 m^3/day. Reanalysis of surface water quality has been submitted.

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) ESP alongwith stack of adequate height shall be provided to bagasse fired boiler (160 TPH) and spent wash fired boiler (28 TPH) to control particulate emission within 50mg/Nm^3.

ii) Total fresh water requirement from Nira water canal shall be 300 m^3/day for sugar and cogen power Unit (on season ;165 days) and 480 m^3/day for distillery unit.

iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate shall be treated in polishing pond and recycled/reused in process. Sewage shall be treated in the STP. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

iv) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.

v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and SPCB.

viii) Bagasse/coal storage shall be done in such a way that it does not get air borne or fly around due to wind.

ix) Boiler 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 alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.

x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.

xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be

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

xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

xiii) As proposed, green belt over 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.

xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 29th July, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

9.3.11 Coal bed methane (CBM) in Block- SP(NE) – CBM-2008/IV, Sohangpur, CBM Block, Madhya Pradesh and Chhattisgarh by M/s Essar Oil Ltd. (E&P Division)- reg. EC

Proposal was considered by EAC (Industry-2) in its meeting held during 28th – 30th May, 2014 and the Committee desired following information:

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

PP vide letter dated 17.06.2016 has submitted the copy of Forest Approval letter no. MCh/4925/2014 dated 28.11.2014 issued by Office of Chief Forest Conservator, Suguja, Ambikapur, Chhatishgarh for core drilling in CBM Block. PP has also submitted the copy of approval letter no F1/673/2013/10-11/510 dated 25.02.2016issued by Additional Principal Chief Forest Conservator (Land Management), Govt. of MP for diversion of 0.45 ha. Regarding treatment of produced water, PP informed that in case the TDS level exceeds the permissible limit, then produced water will be treated through Reverse Osmosis process. Otherwise, produced water will be used for agriculture, fishery, construction and dust suppression etc. RO rejects will be concentrated by MEE, Crystallizer or agitated thin film dryer (ATFD). Evaporated Salt will be sent to the TSDF. It is informed that 5% of the annual budget for 5 years will be allocated separately and spent for Enterprise Social Responsibility activities, which will be distributed across various thrust area viz. Health, Education, Livelihood generation opportunities and infrastructure. PP also clarified the issues raised by Smt. Sulakshana Nandi.

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. Compensation for the land acquisition to the land ousters, if any, and also for standing crop shall be paid as per the National Resettlement and Rehabilitation Policy (NRRP) 2007 or State Government norms. It may be ensured that compensation provided shall not be less than the norms of the NRRP, 2007.

ii. Adequate stack height will be provided to gas fired boiler to disperse waste gases.

iii. The surface facilities shall be installed as per the applicable codes and standards, international practices and applicable local regulations.

iv. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards (NAAQES) issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, VOCs, HC, Non-methane HC etc. Efforts shall be made to improve the ambient air quality of the area.

v. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.

vi. The company shall make the arrangement for control of noise from the drilling activity and DG/GG sets by providing necessary mitigation measures such as proper acoustic enclosures to DG/GG sets and meet the norms notified by the MoEF. Height of all the stacks/vents shall be as per the CPCB guidelines.

vii. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR. 546(E) dated 30th August, 2005.

viii. Total fresh water requirement shall not exceed (25 m^3/core hole) and test /pilot drilling (75 m^3/day) for each well during drilling phase and prior permission shall be obtained from the Competent Authority and a copy submitted to the Ministry's Regional Office at Bhopal.

ix. During well drilling, wastewater shall be segregated into waste drilling fluid and drill cuttings. Drill cutting shall be stored onsite impervious HDPE lined pit for solar evaporation and drying. Effluent shall be properly treated and treated effluent shall conform to CPCB standards.

x. As proposed, produced water shall be treated through RO and RO rejects shall be concentrated/evaporated in MEE. Treated water shall be reused in drilling of other core/test wells as well as other beneficial purposes.

xi. Ground water quality monitoring shall be done to assess if produced water storage or disposal has any effect.

xii. Drilling wastewater including drill cuttings, wash water shall be collected in disposal pit lined with HDPE lining, evaporated or treated and shall comply with the notified standards for on-shore disposal on land. Proper toxicological analysis shall be done to ensure there is no hazardous material. Copy of toxicological analysis shall be submitted to Ministry's Regional Office at Bhopal.

xiii. Only water based drilling mud shall be used. The drilling mud shall be recycled. Hazardous waste shall be disposed of as per Hazardous Waste (Management, Handling and Transboudary Movement) Rules, 2008. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers/re-processors.

xiv. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

xv. To prevent underground coal fire, preventive measures shall be taken for ingress of ambient air during withdrawal inside the coal seams by adopting technologies including vacuum suction. Gas detectors for the detection of CH_4 and H_2S shall be provided.

xvi. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141. Pipeline wall thickness and minimum depth of burial at river crossing and casings at rails, major road crossings should be in conformity with ANSI/ASME requirements.

xvii. The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

xviii. Adequate well protection system shall be provided like Blow Out Preventer (BOP) or diverter systems as required based on the geological formation of the blocks.

xix. The top soil removed shall be stacked separately for reuse during restoration process.

xx. Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be strictly followed.

xxi. Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.

xxii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xxiii. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

xxiv. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of gas fields and obtain fresh environmental clearance from the Ministry.

xxv. All the commitments made to the public during the Public Hearing / Public Consultation meetings held on 14th March, 2013 for Shadole District and on 3rd July, 2013 for Koriya District shall be satisfactorily implemented.

xxvi. At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

9.3.12 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.

Regional Office (Southern Zone), MoEF&CC vide letter no EP/12.1/634/KAR /286 dated 27.05.2016 has latest inspection report comprising clarification in respect of prior construction alongwith deficiencies in the earlier Certified Compliance report. It is reported that the minor cracks which were observed in the Certified Compliance report, have been repaired by the Industry. The ETP was clean and was under maintenance. Further, the unauthorized lagoons were closed by the project authorities. Four numbers of bore wells are drilled around the compost yard. The Committee also suggested them to install piezometer wells around the spent wash collection lagoons and monitored them regularly, which include monitoring of water levels also. It is reported that cracks in garland drain of compost yard has been repaired. PP has planted five rows of trees on western side of compost yard only. The Committee also suggested them to plant trees on vacant land available as well as periphery of the plant. Regarding new construction, it is reported that syrup clarification system has been installed in order to enhance the whitness of sugar. It was clarified that this is a part of existing sugar (4500 TCD) and not a part of expansion project. It was noted that Sugar plant more than 5000 TCD requires prior EC. Therefore, the said construction can not be treated as violation of EIA Notification. For this construction, they should take permission from SPCB. Some deficiencies were observed by the RO, MoEF&CC. PP committed that deficiencies observed will be rectified. The Committee was satisfied by the response of PP.

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) All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, covered press mud storage yard, covered coal storage yard, rain water harvesting structure, Greenbelt, uploading of compliance report on the website etc have been implemented.

ii) ESP alongwith stack of adequate height shall be provided to bagasse fired boiler to control particulate emission within 50mg/Nm^3.

iii) Total fresh water requirement from Krishna River shall not exceed 960 m^3/day for sugar and cogen power Unit and 535 m^3/day for distillery unitafter expansion. No ground water shall be used.

iv) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be mixed with pressmud and bio-composted to achieve 'Zero' discharge. Evaporator Condensate shall be treated in polishing pond and recycled/reused in process. Sewage shall be treated in the STP. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

v) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 15 days capacity.

vi) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

vii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

viii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and SPCB.

ix) Bagasse/coal storage shall be done in such a way that it does not get air borne or fly around due to wind.

x) Boiler 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 alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.

xi) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.

xii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.

xiii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

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.

xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 22nd August, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xvi) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

9.4 Terms of Reference (TOR)

9.4.1 Expansion of Grain Based Distillery Plant Capacity (60 KLPD to 80 KLPD) at Sy no. 294, 416 -419,421,423-435,440,441,445,447,449,450, Village Choutkur, Mandal Pulkal, District Medak, Telangana by M/s Empee Distilleries 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Empee Distilleries Ltd. has proposed for expansion of grain based distillery (60 to 80 KLPD) at Sy no. 294, 416 -419,421,423-435,440,441,445,447,449,450, Village Choutkur, Mandal Pulkal, District Medak, Telangana. MoEF&CC vide letter no J-11011/418/2007- IA II (I) dated 03.08.2012 has issued EC for 60 KLPD grain based distillery. The plant was commissioned on 13/09.2013.

As per Form I,it is reported that Manjeera sanctuary is situated at 5.5 km in S direction, Eco sensitive zone fall at a distance of 4.5 km in south direction and Kondalaswamy Reserved forest situated at 3.2 km in WSW direction falls within 10 km radius from the plant site. Manjra river is flowing at a distance of 1.4 km in SSW direction.

The Existing plot area is 49 acres and no additional land is required for the proposed expansion. About 17 Acres area has already been developed as green belt. About 20 people will be employed under this expansion project. Total cost of the proposed project is Rs. 18.0 Crores.

PP did not provide the information regarding existing and proposed boiler capacity and equipment details for environment protection measures. The required power will be met from cogeneration power plant.

Existing fresh water requirement is 585 m3/day which will increase upto 675 m3/day and fresh water to be drawn from underground. Against which 593 m3/day of spentwash will be generated and treated through thin slop, followed by MEE and condensate of MEE will be treated in ETP followed by RO system and domestic waste water will be sent to septic tank followed by soak pit. The Committee suggested to use surface water in place of ground and STP to be provide for treating domestic wastewater.

Solid waste from the grain based operations will be used as cattle feed. Ash from the boiler is being/will be sent to brick kilns.

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

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/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 odor pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

The Committee underrated the performance of consultant (M/s BSL Enviortech)

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 Copy of certified compliance report to the environmental conditions prescribed in the existing EC. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.

iii No groundwater to be extracted for existing as well proposed expansion. Surface water to be used only.
iv A copy of letter submitted to NBWL for seeking permission from Manjeera sanctuary.

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.

9.4.2 Expansion of pharmaceutical products (3.25 MTPM to 138.0 MTPM) at Block No.155/1, 159 Village Dhanot, Taluka Kalol, District Gandhinagar, Gujarat by M/s Orbit Pharma Laboratories. –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 drug and intermediate) located outside the notified industrial area/estate are listed at S.N. 5(f) falls under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Orbit Pharma Laboratories has proposed for Expansion of pharmaceutical products (3.25 MTPM to 138.0 MTPM) at Block No.155/1, 159 Village Dhanot, Taluka Kalol, District Gandhinagar, Gujarat. PP submitted a copy of CTE issued by GSPCB vide letter no. PC/NOC/MH-604/1952 dated 8.02.1990, which shows its establishment prior to EIA, Notification 1994. SPCB has issued CTO vide consent order no. 27022 issued on 20.05.2002 for production capacity of 3.25 MTPM and was obtained issued prior to 2006.

It is reported that no national parks, Protected Forests (PF) and Biosphere Reserves etc. lies within 10 km distance. Narmada canal is flowing at 3.10 km distance in South Direction.

Cost of proposed expansion project will be Rs. 5.45 Crores. Out of which cost earmarked for pollution control measures will be Rs. 73.25 laks & recurring cost per annum will be Rs. 10 laksh . Existing land area is 7,066 m^2. Out of this 2,761.68 m^2 land will be developed as green belt. About 81 personnel will be deployed under the proposed project. Following products will be manufactured:

No.	Name of Products	Quantity (MT/Month)		
		Existing	Proposed	Total
1.	Diclofenac Sodium IP/BP	2.5	22.5	25.0
	A. 2:6 Dichloro DIphenyl N-Acetyl Chloride	0	50	50
	B. 1-(2;6-Dichloro–Phenyl)–1; 3–Dihydro–Indole–2–one	0	25	25
2.	Diclofenac Potassium	0.5	4.5	5.0
3.	Diclofenac Diethyl Amine	0.25	2.25	2.5
4.	Chlorzoxazone	0.0	3.0	3.0

5.	Fenbendazole	0.0	10.0	10.0
6.	Oxfendazole	0.0	5.0	5.0
7.	Triclobendazole	0.0	2.5	2.5
8.	Febantel	0.0	2.0	2.0
9.	Closantel Base /Sodium	0.0	5.0	5.0
10.	Gabapentine	0.0	1.0	1.0
11.	Ondensetron HCl Dihydrate	0.0	2.0	2.0
Total		**3.25**	**134.75**	**138**
By Products				
1	Hydrochloric Acid	0	100	100
2	Aluminum Chloride Solution	0	70	70
3	Dil. Acetic Acid	0	48	48
4	Liquor Ammonia	0	6	6

Existing unit has 1 TPH Wood Waste/ Agro waste fired with Multi cyclone separator. Under proposed expansion Coal/ Agro waste fired boiler having 2 TPH capacity and Thermic Fluid Heater of capacity 2 lac Kcal will be provided with Multi Cyclone Separator and attached with 30 m stack height. Existing unit has D. G. set of 100 KVA capacities and proposed D.G Set of 250 KVA will be installed as standby with 9 m stack.

The existing water requirement is 14.1 m^3/day which will increase to 60 m^3/day and will be sourced from ground water. Against which 31.3 m^3/day of wwastewater will be generated. Domestic wastewater will be treated to septic tank. Industrial effluent will be separated into concentrated and diluted streams. Concentrated stream will be sent for MEE and diluted stream will be sent to ETP.

ETP sludge will be sent to TSDF site. Used Oil will be sent to the authorized re-processor. Discarded containers/ Barrels/ Plastic will be sent to authorized reprocessor after decontamination. Date expired, discarded and off specification medicines will be disposed at CHWF/TSDF site. Fly ash will be sold to brick manufacturers or sent to TSDF.

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

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, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
4 Work zone monitoring arrangements for hazardous chemicals.
5 Detailed effluent treatment scheme including ssegregation 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.
12 Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13 Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14 Details on solvents to be used, measures for solvent recovery and for emissions control.

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. No wood or coal to be used in existing and proposed boiler.
III. No groundwater to be extracted for proposed expansion as well as exiting plant
IV. .Water requirement to be met from surface water management/collection and rain harvesting, etc.

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

9.4.3 Setting up of molasses based 60 KLPD Distillery within existing sugar plant at Village Kundal, Tehsil Palus, District Sangli, Maharashtra by M/s Krantiagrani Dr. G. D. Bapu Lad Sahkari Sakhar Karkhana 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 Krantiagrani Dr. G. D. Bapu Lad Sahkari Sakhar Karkhana Ltd. has proposed for setting up of molasses based 60 KLPD Distillery within existing sugar plant at Village Kundal, Tehsil Palus, District Sangli, Maharastra. As per Form I, no National Parks, Biosphere Reserves, Tiger/ Elephant Reserves etc. fall within 10 km radius from the plant site while Sagareshwar Wildlife Sanctuary situated at 1.7 km distance and Krishna River is flowing at a distance of 7 km and river Yerala 4 km from the project site.

Total plot area is 50.59 ha. PP did not mention the development of green within the premises. The Committee suggested to develop 33% of green plant out of project area. PP informed that EC has been obtained for existing sugar plant of 5000 TCD capacity and CPP

plant of 19.7 MW. Cost of proposed project is Rs. 80 Crores. The proposed project has an employment potential of 98 Nos. Followings products will be manufactured:

S. No.	Product	Production			Unit
		Existing	New	Total	
1	Distillery	0	60	60	KLPD
2	Sugar	5000	--	5000	TCD
3	Co-gen Power	19.7	--	19.7	MW

Power requirement of 1200 kW will be met from electricity board. Existing unit has 2X35 TPH and 50 TPH boiler attached to Wet scrubber/ Bag filter with 60m stack height and proposed to install additional CSW and Coal fired 22 TPH boiler, which will be connected to ESP for containing particulate emission attached with 75m stack height.

The existing water requirement is 1021 m3/day. Additional fresh water requirement will be 280 m3/day and sourced from Krishna River. Spent wash so generated will be concentrated in multi-effect evaporation (MEE) plant and then utilized as Boiler feed. Spentlee will be recycled to process. Moderately polluted wastewater will be treated in ETP.

ETP Sludge will be used as manure. Ash from the Boiler will be sold to brick kiln and as manure.

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

A. Specific TOR:

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

14 Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
15 Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
16 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.
17 Number of working days of the sugar production unit.

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 copy of letter submitted for seeking permission from NBWL w.r.t. Sagareshwar Wildlife Sanctuary
iii. A Copy of certified compliance report to the environmental conditions prescribed in the existing EC taken w.r.t. sugar unit and CPP. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.
iv. Alternate Green fuel to be used in boiler in place of coal.

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.

9.4.4 Expansion of grain based distillery unit (125 KLPD to 200 KLPD) and expansion of cogeneration power plant (3.65 MW to 9 MW) at A-2, A-3 and A-4, Industrial Growth Center, Village Ranipur, Defence Road, Tehsil and District Pathankot, Punjab by M/s Pioneer Industries Limited – reg 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Pioneer Industries Limited has proposed for Expansion of grain based distillery unit (125 KLPD to 200 KLPD) and expansion of cogeneration power plant (3.65 MW to 9 MW) at A-2, A-3 and A-4, Industrial Growth Center, Village Ranipur, Defence Road, Tehsil and District Pathankot, Punjab.

MoEF&CC has issued EC vide letter no. J-11011/156/2004- IA II (I) dated 31.01.2005 for setting up of 50 KLPD grain based distillery and another EC vide letter no. J-11011/38/2010- IA II (I) dated 07.12.2012 for expansion of grain based distillery unit (50 to 125 KLPD).

As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. While a Ravi River is flowing at 4.0 km distance for the project site.

The Existing plot area is 33 Acres and no additional land is required for the proposed expansion. About 15 Acres area has already been developed as green belt. About 100 people will be employed under this expansion project. Distillery unit will work on 330 days. Total cost of the proposed project is Rs. 45 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 7 Crores. The following product will be manufactured under proposed project:

S.No.	**Existing capacity**	**Proposed capacity**	**Total**
ENA/RS	125 KL	75 KL	200 KL
By product			
CO2	80 MT	50 MT	130 MT
Fusel oil	1.5 MT	1 MT	2.5 MT
DDGS	50 MT	30 MT	80 MT
IMFL/country liquor	10000 cases	5000 cases	15000 cases
Electric power	3.65 MW	5.35 MW	9.0 MW

PP informed that Existing unit has boilers ; 2 x25 TPH, 12 TPH & proposed additional boiler of capacity 45 TPH using rice husk/Coal. Out of these 12 TPH X 2 boilers will be kept as standby. Committee noted that PP is operating with excess capacity of boiler. Existing unit has 3.65 MW Cogeneration unit and proposed to enhance the capacity of Cogen upto 9 MW. ESP will be installed as air pollution control equipment with adequate stack height to the boiler. The required power will be met from cogeneration power plant.

Existing fresh water requirement is 1130 m3/day which will increase upto 1848 m3/day and drawn from underground. Spent wash will be generated and treated through Decantation, Bio-digester, Secondary treatment and MEE units and plant is based on Zero liquid discharge system.

Used oil will be sold to authorized recycler. Boiler ash will be used for brick manufacturing.

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

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/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. No groundwater to be used for existing and proposed expansion. Freshwater to be drawn from river ravi.
3. Adequate capacities of boilers to be worked out on basis of requirement

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.

9.4.5 Setting up of 60 KLPD Molasses based Distillery Unit, 130 TPD Synthetic Organic Chemical Manufacturing Unit and 2.2 MHW Co-Generation Power Plant at Survey No.: 475, 476, 479/1, 479/2, 480, Moje Sunevkalla, Taluka Hansot, District Bharuch, Gujarat by M/s Shakti Distilleries 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 molasses based distillery are listed at S.N. 5(g) (i) and Synthetic organic chemicals industry are listed at S. N. 5(f) under category 'A' and appraised at Central level.

M/s Shakti Distilleries Pvt. Ltd. has proposed for Setting up of 60 KLPD Molasses Based Distillery Unit, 130 TPD Synthetic Organic Chemical Manufacturing Unit and 2.2 MHW Co-Generation Power Plant at Survey No.: 475, 476, 479/1, 479/2, 480, Moje Sunevkalla, Taluka Hansot, District Bharuch, Gujarat. As per Form I, no National Parks, Reserved Forests/ Protected Forests, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site.

Total plot area is 66,200 m^2, of which 22,157 $m^2$of the area will be earmarked for greenbelt. Cost of proposed project is Rs. 90 Crores, of this cost earmarked for pollution control measures will be Rs. 32 crores. The proposed project has an employment potential of 50 person. Followings products will be manufactured:

SR. NO.	NAME OF THE PRODUCTS	TOTAL QUANTITY
1.	Extra Neutral Alcohol /Rectified Spirit & Fuel Ethanol	60 KLPD
2.	Co-Generation Power Plant	2.2 MWH
3.	Sodium Methoxide	20 TPD
4.	Sodium Ethoxide	20 TPD
5.	Potassium Methoxide	20 TPD
6.	Potassium Ethoxide	20 TPD
BY-PRODUCT		
7.	Carbon Dioxide	50 TPD

Power requirement will be 1,900 KWH through own co-gen unit. Emergency power will be sourced from Gujarat State Electricity Board grid and one D. G. set of 1,500 KVA will be installed. Boiler having 20 TPH capacity using Coal (Indian/ imported) will be installed and connected to ESP to control particulate emissions and attached to stack of 45 m height.

Fresh water requirement will be 600 m^3/day and sourced from nearby Canal. Spent wash will be concentrated in MEE followed by Stand alone Evaporator and then used as fuel in incineration boiler. Spent Lees and other waste water stream will be treated in ETP. Treated waste water will be reused for process and green belt development.

Fly ash will be sold to brick manufacturers or use as manure. Used Oil will be sold to GPCB approved registered recyclers / reuse. Discarded Container/Bar will be incinerated in boiler.

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

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.

9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Action plan to control odour pollution.
13. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
14. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
15. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
16. 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.
17. Details on solvents to be used, measures for solvent recovery and for emissions control.
18. Details of process emissions from the proposed unit and its arrangement to control.
19. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, *etc*., (* - as applicable)
20. Work zone monitoring arrangements for hazardous chemicals.
21. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
22. Action plan for odour control to be submitted.
23. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
24. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
25. Action plan for utilization of MEE/dryers salts.
26. Material Safety Data Sheet for all the Chemicals are being used/will be used.
27. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
28. Details of incinerator if to be installed.
29. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
30. 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. Plan for Zero Liquid Discharge to be drawn

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.

9.4.6 Setting up of resin manufacturing unit {Formaldehyde (100TPD) and Resins (150 TPD)} at Village Daulowal, Tehsil and District Hoshiarpur, Punjab by M/s Century Plywood India Limited. – reg TOR.

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

M/s Century Plywood India Limited has proposed for setting up of resin manufacturing unit {Formaldehyde (100TPD) and Resins (150 TPD)}at Village Daulowal, Tehsil and District Hoshiarpur, Punjab. It is reported that no national parks, Biosphere reserves lies within 10 km distance. Takhani-Rehmapur wildlife sanctuary is situated at a distance of 7.78 km in NE direction. Eco sensitive zone to be declared for the Takhani-Rehmapur wildlife sanctuary. A Protected Forest near Mukhale is at 5.5 km distance in E direction and Shahzadpur Protected Forest is situated at 5.59 km in N direction. PP did not mention the availability and name of water body and Reserved Forest in their Form 1. During presentation, it was informed that River near Khakhi is flowing at a distance of 3.7 km in SE direction and River near Kailon is flowing at a distance of 3.21 km in N direction.

Total plot area is 4 Acres of which 1.6 Acres area will be developed as green belt. Total project cost including existing facilities is Rs. 25 crore out of which cost earmarked for EMP will be Rs. 5 crores. About 32 persons will be employed. Following products will be manufactured:

S. No.	Product name	Capacity in TPD
1	Formaldehyde	100
2	Resin	150

Proposed project will draw 450 KVA electricity from Punjab Power Corporation. Additionally D. G. Set of 125 KVA will be provided. Biomass/ waste wood chips fired steam boilers (1TPH) with adequate stack height and connected with Multi Cyclone separator as pollution control device.

Total 465 m^3/day of fresh water will be used and sourced from underground. Against which 199 m^3/day wastewater will be generated. Domestic wastewater will be treated in own STP while industrial waste water will be treated in ETP and recycle to the process thus plant will based on Zero Effluent Discharge system.

Bio degradable and Non-biodegradable waste will be sent to authorize recycler. Process waste will be disposed off at TSDF site. Used oil will be sold to vendors the authorized by Central Pollution Control Board. ETP Sludge so generated will be sent to TSDF site.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) 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

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. Adequate treatment scheme to bed drawn to ensure ZLD system.
iii. No ground water to be used. Nearby surface source to be utilized for meeting the water requirement with rain water harvesting conservation plan.

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

9.4.7 Proposed expansion of Pharma Intermediate & Bulk Durgs (8.71 MTPM to 26 MTPM) at Plot no. 911, 912 & 922 G.I.D.C., Phase-III, Tehsil Vapi, District Valsad, Gujarat by M/s Megafine Pharma 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 drug and intermediate) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general condition i.e. Inter-state boundary and Critically Polluted area (GIDC, Vapi) treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Megafine Pharma Pvt. Ltd. has proposed for expansion of Pharma Intermediate & Bulk Durgs (8.71 MTPM to 26 MTPM) at Plot no. 911, 912 & 922 G.I.D.C., Phase-III, Tehsil Vapi, District Valsad, Gujarat. The project was established prior to EIA, Notification 2006 and a copy of consent order vide no. PC/AIR-VSD-509/18358 dated 16.07.1996 issued by GSPCB. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Daman Ganga is flowing at a distance of 4.3 Km in SW direction and River Kolak is flowing at a distance of 3.00 Km in W direction.

Total plot area is 3992 m2, of which green belt will be developed on 598.80 m2. No additional land will be required for this expansion project. Cost of the proposed expansion project is Rs. 6 crores. About 250 personnel will be employed. The proposed expansion has an employment potential of 150. Followings existing and proposed products are as follows:

Sr. No.	**Name of Product**	**Plant Production Capacity (MT/month)**		
	A. Manufacturing:			
	Intermediates	**Existing**	**Proposed**	**Total**
1	PiperazineDihydrochloride (PDH)	**8.71MT**	**16.29 MT**	**25MT**
2	N-phenyl Piperazine (NPP)			
3	1-methyl-3-phenylpiperazine (NM3PP)			
4	1(2(2-Hydroxy ethoxy) ethyl) Piperazine (HEEP)			
5	1-(3-Hydroxy Methyl Pyridyl-2)-2-Phenyl-4-Methyl Piperazine (HMPPMP) **OR** [2-(4-methyl-2-phenylpiperazin-1-yl)pyridin-3-yl]methanol (HMPPMP)			
6	N-ethoxy carbonyl Piperazine (NCP)			
7	3-(4-chlorobutyl)indole 5-carbonitrile (CIC)			
8	Ethyl 2-chloro-2 (4-methoxypthenylhydrazinylidene) ethanoate (EMA)			
9	2-[(2S)-oxiran-2-ylmethyl]-1H-isoindole-1,3(2H)-dione (OXI)			
10	6-chloro-2-oxindole (6CO)			
11	3-(2-Chloroethyl)-6, 7, 8, 9-tetrahydro-9-hydroxy-2-methyl-4H-Pyrido [1, 2-a] Pyrimidine-4-One (CHP)			
12	1-[2-Amino-(4-Methoxy Phenyl) Ethyl] Cyclohexanol Hydrochloride (AMCH)			
13	4-(4-aminophenyl) morpholine-3-one (AMO)			
14	Ethyl 5-piperazinyl-1-benzofuran-2-carboxylate (PBC)			
15	4-nitro phenyl ethyl amine hydrochloride (NPA)			
16	4,6-dichloro-5-(2-methoxyphenoxy)-2,2'-bipyrimidine (DMB)			
17	1-[(7S)-3,4-dimethoxybicyclo[4.2.0]octa-1,3,5-trien-7-yl]-N-methylmethanamine Hydrochloride (MBC)			

18	2,3,4,5-Bis-o-(1-methylethylidine)-B-D-Fructopyranose (BMEF)			
19	11-Piperazin-1-yldibenzo[b,f][1,4]thiazepine hydrochloride (DTPD)			
20	Dibenzo [b, f][1, 4]thiazepin-11(10H)-one (DTO)			
21	5-(4-bromophenyl)-4,6-dichloropyrimidine (BDP)			
22	1-(2-fluorobenzyl)-1H-pyrazolo[3,4-b]pyridine-3-carbonitrile (EFP)			
Additional Proposed Products (Intermediates)				
23	Disodium Pamoate (DSP)	**0.00**		
24	Thiophene-2- Aldehyde (T2A)			
25	(2S)-2-Hydroxy-3-methoxy-3,3-diphenylpropanoic acid (DPA IV)			
26	Ammonium Benzene Sulphonate (ABS)			
27	1-(3-Carboxy Pyridyl-2)-2-Phenyl-4-Methyl Piperazine (HMA)			
28	6-Chloro-5-(chloroethyl)-1,3-dihydro-2H-indole-2-one (Zip II)			
29	3-Piperazin-1-yl-1,2-benzisothiazole (PBT FB)			
30	(3aR,4S,7R,7aS)-hexahydro-4,7-methano-2H-isoindole-1,3-dione (BHC)			
31	(1R,2R)-Cyclohexane-1,2-diyldimethanol (HMC)			
32	1-Benzyl piperidine-4-carbaldehyde (NBPCHO)			
33	2-(1-benzyl-1,2,3,6-tetrahydro-pyridine-4yl)methylene-5,6-dimethoxy indan-1-one hydrochloride Diene Crystalised			
34	(1S)-1-Phenyl-1,2,3,4-tetrahydroisoquinoline (PTQ IV)			
35	1-(3-Bromopropyl)-3-(trifluoromethyl) benzene (TPP III)			
36	2-Ethoxy-5-(4-Methyl Piperazinyl Sulfonyl) Benzoic Acid [Sil III]			
37	4-amino-1-Methyl-3-n-propyl-5-pyrazolecarboxamide hydrochloride (MPC VI)			
38	1-(2,4-Difluorophenyl)-2-(1H 1,2,4-triazol-1-yl)-1-ethanone (DFTA III)			
39	4,6-Dichloro-2-(propylthio)pyrimidin-5-amine (GTR-3)			
40	5-methylisoxazole-4-carboxylic acid (MIC)			
41	3 methylthiophene -2- Aldehyde (3MT2A)			
42	(+)-(2-chlorophenyl) (6,7-dihydro4H-thieno [3,4-C] pyridine -5yl) acetic acid methyl ester (-) camphor			

	sulphonic acid salt (CL 7)			
43	2-Hydroxy-3-methoxy-3,3-diphenylpropanoic acid (DPA III)			
44	3, 3-dichloro-1-(4-nitrophenyl) piperdin-2-one (APB III)			
45	1-(4-nitrophenyl)-3-morpholin-4-yl-5,6-dihydropyridin-2(1H)-one (APV IV)			
46	Ethyl 6-(4-nitrophenyl)-1-(4-methoxyphenyl)-7-oxo-4,5,6,7-tetrahydro-1H-pyrazolo[3,4-c]pyridine-3-carboxylicacid ethyl ester (APB VI)			
47	3-acetamidophthalic anhydride (APA)			
48	(S)-2-(3-Ethoxy-4-methoxyphenyl)-1-methyl sulphonyl)-eth-2yl amine (EMS)			
49	11-Chloro-2,3-dihydro-2-methyl-1H-dibenz[2,3:6,7] oxepino[4,5-c]pyrrol-1-one (DOP)			
50	Trans-11-Chloro-2,3,3a, 12b-tetrahydro-2-methyl-1H-dibenz [2,3:6,7] oxepino [4,5-c]pyrrol-1-one (TOP)			
51	(R)-(+)-1-(1-Naphthyl) ethylamine HCl (RNA IV)			
52	3-[3-(Trifluoromethyl) phenyl] propanol (TPP II)			
53	Ethyl 3-(4-(methylamino)-3-nitro-N-(pyridin-2-yl)benzamido)propanoate (DEM I)			
54	3-[(3-Amino-4-methylaminobenzoyl)pyridin-2-ylamino]propionic acid ethyl ester (DEM II)			
55	3-[[[2-[[(4-Cyanophenyl)amino]methyl]-1-methyl-1H-benzimidazol-5-yl]carbonyl]Pyridine-2-ylamino]propionic acid ethyl ester (DEM III)			
56	Ethyl 3-(2-((4-carbamimidoylphenylamino)methyl)-1-methyl-N-(pyridin-2-yl)-1Hbenzo[d]imidazole-5-carboxamido)propanoate HCl (DEM IV)			
57	Dabigatran etexilate			
58	(S)-2,2-Diphenyl-2-(pyrrolidin-3-yl)acetamide tartrate (Dar IV)			
59	5,6-Dimethoxy-2-(pyridin-4-yl methylene)-indan-1-one (DOH IV)			
60	1-Benzyl-4-[(5,6-dimethoxy indanon)-2-ylidenyl] methylpiperidine (DON 1)			
61	2-[(5-Chloropyridin-2-yl)-2-oxoacetic acid (CPO)			
62	5-methyl-4,5,6,7-tetrahydro thiazolo[5,4-c] pyridine-2-carbixylic Acid hydrochloride (MTP)			
63	Tert-Butyl(1R,2S,5S)-2-azido-5-[(dimethylamino) carbonyl] cyclohexylcarbamate (ADC)			

64	1-[4-(3-Chloropropoxy)-3-methoxyphenyl]ethanone (CME)			
65	R-2-Hydroxy-N-[2-(4-nitrophenyl)ethyl]-2-phenylacetamide (MBR I)			
66	(R)-2-[2'-(4-Nitrophenyl)ethyl]amino]-1-phenylethanol HCl (MBR II)			
67	R-2-[[2-(4-Aminophenyl)ethyl]-amino]-1-phenylethanol HCl (MBR III)			
68	Prasugrel Free Base			
69	Pamoic acid (PA)			
70	1,2-Dimethyl-1,4,5,6-tetrahydropyrimidine (THP)			
71	1-(2-fluorobenzyl)-1H-pyrazolo [3,4-b]pyridine-3-carboximidamide (FPC)			
72	[(E)- Phenyl Diazenyl] Malononitrile (RGT -II)			
73	2-({(5S)-2-Oxo-3-[4-(3-oxomorpholin-4-yl)phenyl]-1,3-oxazolidin-5-yl}methyl)-1H-isoindole-1,3(2H)-dione (RIV II			
74	4-{4-[(5S)-5-(Aminomethyl)-2-oxo-1,3-oxazolidin-3-yl] phenyll}morpholin-3-one HCl (RIV III)			
75	Ethyl-5-aminobenzofuran-2-carboxylate (EABC)			
76	3-Aminoadamantan-1-ol (HAA)			
77	(2S)-1-(Chloroacetyl) pyrrolidine-2-carbonitrile (CCP -II)			
78	2,4 -dimethyl-benzenethiol (DMT)			
79	2,4-dimethyl-1-[(2-nitrophenyl)thio]benzene (VOR-I)			
80	6-Chloro-5-(chloroacetyl)-1,3-dihydro-2H-indole-2-one			
81	3-Piperazin-1-yl-1,2-benzisothiazole HCl (PBT HCL)			
82	1-(1-benzothiophen-4-yl)piperazine			
83	Trans-(4-amino-cyclohexyl) acetic Acid ethyl ester			
84	N-[trans-4-(2-oxoethyl)cyclohexyl]-, 1,1-dimethylethyl ester			
85	Benzyl (5R)-5-methyl-1,4-diazepane-1-carboxylate hydrochloride			
86	4-Oxo-1,4-dihydroquinoline-3-carboxylic acid ethyl ester (ODC)			
87	5-Amino-2,4-di-tert-butyl-phenol (ADP)			
88	4-Isopropylamino butanol (4-IAV)			
Bulk Drugs / API - Active Pharma Ingredients; Using Above Intermediates				
1	PyrantelPamoate; 4-[(3-Carboxy-2-hydroxynaphthalen-1-yl)methyl]-3-hydroxynaphthalene-2-carboxylic acid; 1-methyl-2-[(E)-2-thiophen-2-ylethenyl]-5,6-dihydro-4H-pyrimidine			
2	Morantel Citrate; 1,4,5,6-Tetrahydro-1-methyl-2-(2-[3-			

	methyl-2-thienyl]ethenyl)pyrimidine			
3	OxantelPamoate; 3-[(E)-2-(1-Methyl-5,6-dihydro-4H-pyrimidin-2-yl)ethenyl]phenol			
4	Pyrantel Tartrate /Zeolex;1-Methyl-2-(2-[2-thienyl]ethenyl)-1,4,5,6-tetrahydropyrimidine			
5	Morantel Tartrate;1,4,5,6-Tetrahydro-1-methyl-2-(2-[3-methyl-2-thienyl]ethenyl)pyrimidine			
6	Bosentan Monohydrate; 4-tert-butyl-N-[6-(2-hydroxyethoxy)-5-(2-methoxyphenoxy)-2-(pyrimidin-2-yl)pyrimidin-4-yl]benzene-1-sulfonamide			
7	Ambrisentan; (+)-(2S)-2-[(4,6-dimethylpyrimidin-2-yl)oxy] -3-methoxy-3,3-diphenylpropanoic acid			
8	Macitentan;N-[5-(4-bromophenyl)-6-[2-[5-bromo-2-pyrimidinyl)oxy]-ethoxy]-4-pyrimidinyl]-N-propylsulfamide			
9	Riociguat; methyl {4,6-diamino-2-[1-(2-fluorobenzyl)-1H-pyrazolo[3,4-b]pyridin-3-yl]pyrimidin-5-yl}methylcarbamate			
10	Mirtazapine; (±)-2-methyl-1,2,3,4,10,14b-hexahydropyrazino[2,1-a]pyrido[2,3-c][2]benzazepine			
11	Venlafaxine Hydrochloride; (RS)-1-[2-dimethylamino-1-(4-methoxyphenyl)-ethyl]cyclohexanol			
12	Desvenlafaxine Succinate; 4-[2-dimethylamino-1-(1-hydroxycyclohexyl) ethyl]phenol			
13	Duloxetine Hydrochloride;(3S)-N-Methyl-3-(naphthalen-1-yloxy)-3-(thiophen-2-yl)propan-1-amine Hydrochloride,			
14	Vilazodone Hydrochloride;5-(4-(4-(5-cyano-1H-indol-3-yl) butyl) piperazin-1-yl) benzofuran-2-carboxamide Hydrochloride			
15	Vorteoxetine; 1-[2-(2,4-Dimethyl-phenylsulfanyl)-phenyl]piperazine			
16	Asenapine Maleate; (3aRS,12bRS)-rel-5-Chloro-2,3,3a,12b-tetrahydro- 2-methyl-1H-dibenz[2,3:6,7]oxepino[4,5-c]pyrrole			
17	Paliperidone; (RS)-3-[2-[4-(6-fluoro-1,2-benzoxazol-3-yl)piperidin-1-yl]ethyl]-9-hydroxy-2-methyl-6,7,8,9-tetrahydropyrido[1,2-a]pyrimidin-4-one			
18	Ziprasidone Hydrochloride; 5-[2-[4-(1,2-Benzisothiazol-3-yl)-1-piperazinyl]ethyl]-6-chloro-1,3-dihydro-2H-indol-2-one hydrochloride monohydrate,			

19	Iloperidone;1-[4-[3-[4-(6-fluoro-1,2-benzoxazol-3-yl)piperidin-1-yl]propoxy]-3-methoxyphenyl]ethanone			
20	Lurasidone Hydrochloride; (3aR,4S,7R,7aS)-2-{(1R,2R)-2-[4-(1,2-benzisothiazol-3-yl)piperazin-1-ylmethyl] cyclohexylmethyl}hexahydro-4,7-methano-2H-isoindole-1,3-dione			
21	Donepezil Hydrochloride; (RS)-2-[(1-benzyl-4-piperidyl)methyl]- 5,6-dimethoxy-2,3-dihydroinden-1-one			
22	Memantine Hydrochloride; 3,5-dimethyltricyclo[3.3.1.13,7]decan-1amine or 3,5-dimethyladamantan-1-amine			
23	Quetiapine Hemifumarate; 2-[2-(4-Dibenzo[b,f][1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]ethanol hemifumarate			
24	DarifenacineHydrobromide; (S)-2-[1-[2-(2,3-dihydrobenzofuran-5-yl)ethyl] pyrrolidin-3-yl] -2,2-diphenyl-acetamide			
25	Soilfenacine Succinate; 1-azabicyclo[2.2.2]oct-3-yl (1R)-1-phenyl-3,4-dihydro-1H-isoquinoline-2-carboxylate			
26	Mirabegron;2-(2-Amino-1,3-thiazole-4-yl)-N-[4-(2-{[(2R)-2-hydroxy-2-phenylethyl] amino}ethyl) phenyl] acetamide			
27	Cinacalcet Hydrochloride; (R)-N-[1-(1-naphthyl)ethyl]-3-[3-(trifluoromethyl)phenyl]propan-1-amine			
28	Vildagliptine;(2S)-1-[(3-hydroxy-1-adamantyl) amino] acetyl-2-cyanopyrrolidine			
29	Prasugrel Hydrochloride; (RS)-5-[2-Cyclopropyl-1-(2-fluorophenyl)-2-oxoethyl]-4,5,6,7- tetrahydrothieno[3,2-c]pyridin-2-yl acetate			
30	Dabigetran;Ethyl-3-{[(2-{[(4-{N'hexyloxycarbonylcarbamimidoyl}phenyl)amino]methyl}-1-methyl-1H-benzimidazol-5-yl)carbonyl] (pyridin-2-yl-amino)propanoate (Dabigatran etexilate)			
31	Rivaroxaban;5-chloro-N-({(5S)-2-oxo-3-[4-(3-oxomorpholin-4-yl)phenyl]-1,3-oxazolidin-5-yl} methyl)thiophene-2-carboxamide			
32	Apixaban; 1-(4-methoxyphenyl)-7-oxo-6-[4-(2-oxopiperidin-1-yl)phenyl]-4,5,6,7-tetrahydro-1H-pyrazolo[3,4-c]pyridine-3-carboxamide			

33	Ticagrelore; (1S,2S,3R,5S)-3-[7-[(1R,2S)-2-(3,4-Difluorophenyl)cyclopropylamino]-5-(propylthio)- 3H-[1,2,3]triazolo[4,5-d]pyrimidin-3-yl]-5-(2-hydroxyethoxy)cyclopentane-1,2-diol			
34	Ivabradine;3-(3-{[((7S)-3,4-Dimethoxybicyclo[4.2.0]octa-1,3,5-trien-7-yl) methyl] methyl amino}propyl)-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one hydrochloride			
35	Brinzolamide;(R)-3,4-Dihydro-4-(ethylamino)-2-(3-methoxypropyl)-2H-thieno[3,2-e][1,2]thiazine-6-sulfonamide-1,1-dioxide			
36	Teriflunomide;(Z)-2-Cyano-3-hydroxy-but-2-enoic acid-(4-trifluoromethylphenyl)amide			
37	Selexipag; 2-{4-[(5,6-diphenylpyrazin-2-yl)(propan-2-yl)amino]butoxy}-N-(methanesulfonyl)acetamide			
38	Brexpiprazole; 7-{4-[4-(1-benzothiophen-4-yl)piperazin-1-yl]butoxy}quinolin-2(1H)-one			
39	Ivacaftor; N-(2,4-Di-tert-butyl-5-hydroxyphenyl)-4-oxo-1,4-dihydroquinoline-3-carboxamide			
40	Lumacaftor;3-(6-(1-(2,2-difluorobenzo[d][1,3]dioxol-5-yl) cyclopropanecarboxamido)-3-methylpyridine-2-yl)benzoic acid			
41	Paliperidone Palmitate; (9RS)-3-[2-[4(6-Fluoro-1,2-benzisoxazol-3-yl)piperidin-1-yl]ethyl]-2-methyl-4-oxo-6,7,8,9-tetrahydro-4Hpyrido[1,2-a]pyrimadin-9-yl hexadecanoate.			
42	Edoxaban; N'-(5-chloropyridin-2-yl)-N-[(1S,2R,4S)-4-(dimethylcarbamoyl)-2-[(5-methyl-6,7-dihydro-4H-[1,3]thiazolo[5,4-c]pyridine-2-carbonyl)amino]cyclohexyl]oxamide			
43	Suvorexant; [(7R)-4-(5-chloro-1,3-benzoxazol-2-yl)-7-methyl-1,4-diazepan-1-yl][5-methyl-2-(2H-1,2,3-triazol-2-yl)phenyl]methanone			
44	Cariprazine;N-[trans-4-[2-[4-(2,3-dichlorophenyl)-1-piperazinyl]-ethyl]-cyclohexyl]-N,N-dimethyl urea monohydrochloride			
45	Blonanserin; 2-(4-ethylpiperazin-1-yl)-4-(4-fluorophenyl)-5,6,7,8,9,10-hexahydrocycloocta[b]pyridine			
46	Netupitant; 2-[3,5-Bis(trifluoromethyl)phenyl]-N,2-dimethyl-N-[4-(2-methylphenyl)-6-(4-methyl-1-piperazinyl)-3-pyridinyl]propanamide			
47	Rolapitant; (5S ,8S)-8-[[(1R)-1-[3 ,5-Bis(trifluoromethyl)phenyl] ethoxy] methyl]-8-phenyl-1,7-diazaspiro[4.5]decan-2-one hydrochloride			

	monohydrate.			
48	Apremilast;*N*-{2-[(1*S*)-1-(3-Ethoxy-4-methoxyphenyl)-2-(methylsulfonyl)ethyl]-1,3-dioxo-2,3-dihydro-1*H*-isoindol-4-yl}acetamide			
49	Neostigmine;3-{[(dimethylamino)carbonyl]oxy}-*N,N,N*-trimethylbenzenaminium			
B	**Pilot Plant Capacity**	**0.00**	**1.00**	**1.00**
	Total Quantity/ Month	**8.71 MT**	**17.29 MT**	**26MT**
C	**Multimilling, Blending, Packing, Labelling of Bulk Drugs and Intermediates like**,: All types of Piperazine derivatives like, Pharma Intermediates and products like, Anthelmentic intermediates and products like,	**50.00**	**00.00**	**50.00**

Existing unit has 2 nos Thermopack of 4 Lac Kcal/hr capacity and additional 4 Lac Kcal/hr capacity Thermopack will be installed for the proposed expansion. Total 3 Nos PNG/ LDO fired boilers of capacity 1120, 800 and 1120 Kgs/day will be used under proposed expansion, which will be connected to stack of adequate height. Existing power requirement is 300 KVA and proposed additional 175 KVA will be made available through GEB. In addition to existing 250 KVA DG will be installed. Process reactor attached to Venturi followed by alkali Scrubber to control process emission.

Total Fresh water requirement shall be 89 m^3/day from GIDC, Vapi water supply. Against this, a quantity of 36.45 m^3/day of wastewater will be generated. Domestic waste water will be sent to septic tank followed by soak pit. The Committee suggested to provide STP in place of septic tanks. Industrial Wastewater will be segregate into High Concentration Stream and Low Concentration Stream. Low Concentration stream will be treated in ETP and treated effluent will be sent to CETP through underground drainage. High Concentration Stream will be sent to CETP through tankers. The Committee suggested to go for ZLD.

ETP waste will be sent to TSDF, Vapi. Used Oil will be sold to registered recyclers. Discarded Containers/ Bags/ Liners will be sold to actual users. Used filter cloth will be disposed of at TSDF-VGEL, Vapi. Spent Solvent will be sold to registered distillation facilities. Distillation residue and Spent carbon will be sold to registered end users.

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, other process-specific pollutants*

like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)

4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation 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.
12. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14. Details on solvents to be used, measures for solvent recovery and for emissions control.
15. Details of process emissions from the proposed unit and its arrangement to control.
16. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
17. Action plan for utilization of MEE/dryers salts.
18. Material Safety Data Sheet for all the Chemicals are being used/will be used.

B. Additional TOR

i 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.
ii ZLD system to be followed with adequate treatment process.
iii Domestic wastewater to be treated in STP in place of soak pit.
iv Detailed plan of green belt to be drawn and Plantation of trees and their snaps to be reflected in EIA/EMP stage.

It was recommended that **'TORs' without Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

9.4.8 Setting up of molasses based 30 KLPD distillery in existing sugar plant at Gat No.340, 348, 349,350, Village Ghodasgaon, Tehsil Muktainagar, District Jalgaon, Maharashtra by M/s Sant Muktai Sugar and Energy Ltd. – reg

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

9.4.9 Setting up of synthetic organic dyes and pesticide products at Plot No. Z/96/B SEZ Dahej, Bharuch, Gujarat by M/s Neogen Chemicals 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 (Dyes) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. All Pesticides industry and pesticide specific intermediates (excluding formulations) are listed at S.N. 5(b) treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Neogen Chemicals Ltd. has proposed for setting up of synthetic organic dyes and pesticide products at Plot No. Z/96/B SEZ Dahej, Bharuch, Gujarat. It is reported that no national parks, Protected Forests (PF) and Biosphere Reserves etc. lies within 10 km distance. The project site is located at Dhej SEZ, which has obtained environmental clearance vide letter no, 21-1084 /2007-IA.II dated 17.03.2010 for industries namely petrochemical, agrochemical units, industrial gas producing units, package unit, fabricating unit, power generating units and other chemical industries.

Cost of proposed project is Rs. 55 Crores. Out of which cost earmarked for Environment Management Protection will be 5 Crores. Plot area is 43639 m^2, of which 14400 m^2 area of land will be developed as greenbelt. Following products will be manufactured:

Sr. No.	Name of Products	Quantity	
		(MT/Year)	(MT/month)
1	**Bromination and Chlorination of Alcohols**		
1.1.	Ethyl Bromide	3500	291.67
1.2.	n-Propyl Bromide		
1.3.	Iso Propyl Bromide		
1.4.	n-Butyl Bromide		
1.5.	Iso Butyl Bromide		
1.6.	Sec-Butyl Bromide		
1.7.	n-Hexyl Bromide		
1.8.	n-Heptyl Bromide		
1.9.	n-Octyl Bromide		
1.10.	n-Decyl Bromide		
1.11.	Lauryl Bromide		
1.12.	Cetyl Bromide		
1.13.	Myristyl Bromide		
1.14.	Stearyl Bromide		
1.15.	1,2 Dibromo Ethane		
1.16.	1,3 Dibromo Propane		
1.17.	1,4 Dibromo Butane		
1.18.	1,5 Dibromo pentane		
1.19.	1,6 Dibromo Hexane		
1.20.	1 Chloro 2 Ethyl Hexane		
1.21.	6 Chloro 1 Hexanol		
1.22.	3 Chloro Propanol		
1.23.	1,6 Dichloro Hexane		
1.24.	Cyclo Propyl Methyl Bromide		

1.25.	Cyclo Pentyl Bromide		
1.26.	Cyclo Pentyl Chloride		
2.	**Bromination of Organic Acids and Esterification thereof**		
2.1.	2 Bromo propionic Acid	3500	291.67
2.2.	2 Bromo Propionyl Bromide		
2.3.	5 Bromo Valeric Acid		
2.4.	2 Bromo Hexanoic Acid		
2.5.	Sodium 2 Bromo Propionate		
2.6.	Ethyl 3 Bromo Propionate		
2.7.	Methyl 2 Bromo Butyrate		
2.8.	Ethyl 2 Bromo Butyrate		
2.9.	Ethyl 4 Bromo Butyrate		
2.10.	Methyl 2 Bromo Iso Butyrate		
2.11.	Ethyl 2 Bromo Iso Butyrate		
2.12.	Iso Propyl 2 Bromo Iso Butyrate		
2.13.	Ethyl 2 Bromo Valerate		
2.14.	Methyl 2 Bromo valerate		
2.15.	Ethyl 5 Bromo Valerate		
2.16.	Tert-Butyl 2 Bromo Iso Butyrate		
2.17.	Methyl 2 Bromo Caproate		
3.	**Grignards Formation from Organic Halides**		
3.1.	Methyl Magnesium Chloride 3M in THF	1000	83.33
3.2.	Methyl Magnesium Bromide 1.5M in THF		
3.3.	Ethyl Magnesium Chloride 2M in THF		
3.4.	Ethyl Magnesium Bromide 2M in THF		
3.5.	Vinyl Magnesium Bromide in 1M in THF		
3.6.	Isopropyl Magnesium Chloride 1M in THF		
3.7.	Phenyl Magnesium Bromide 2M in THF		
3.8.	n-Butyl Magnesium Chloride 1M in THF		
3.9.	Iso Propyl Magnesium Chloride–Li Cl Complex 1.3M in THF		
3.10.	Iso Propyl Magnesium Bromide 1M in THF		
4.	**Halogen Exchange Reactions**		
4.1.	1 Bromo 2 Chloro Ethane	2000	166.67
4.2.	1 Bromo 4 Chloro Butane		
4.3.	1 Bromo 5 Chloro Pentane		
4.4.	1 Bromo 6 Chloro Hexane		

4.5.	1 Bromo 1 Fluoro Methane		
4.6.	Dibromo Methane		
4.7.	Bromo Chloro Methane		
4.8.	Ethyl 5 Iodo Valerate		
4.9.	2 Bromo Hepta Fluoro Propane		
5.	**Addition of Halogen and Halogen Acids across Double Bonds**		
5.1.	1,2 Di Bromo Ethane	2500	208.33
5.2.	Phenyl Ethyl Bromide		
5.3.	1 Bromo 3 Chloro Propane		
5.4.	n-Hexyl Bromide		
5.5.	n-Octyl Bromide		
5.6.	n-Decyl Bromide		
5.7.	Cyclo Pentyl Bromide		
5.8.	Cyclo Pentyl Chloride		
5.9.	1,2 Dibromo 3 Chloro Propane		
5.10.	1,2 Dibromo Hexa Fluoro Propane		
6	**Bromination or Chlorination of Cyclic and Aromatic Compounds with or Without Functional Groups**		
6.1.	Bromo Benzene	2500	208.33
6.2.	Di Bromo Benzene		
6.3.	Ethyl 4 Bromo Methyl Benzoate		
6.4.	1 Bromo 4 Chloro Benzene		
6.5.	p- Bromo Toluene		
6.6.	4 Bromo O Xylene		
6.7.	2 Chloro 1,4 Naphthaquinone		
6.8.	1 Bromo 4 Fluoro Benzene		
6.9.	4 Bromo Methyl 2 Cyano Biphenyl (Bromo OTBN)		
6.10.	1 Bromo 3,4 Dichloro Benzene		
7	**Dehydrohalogenation of Organic Halides Optionally with or without functional Group**		
7.1.	Vinyl Bromide	1000	83.33
7.2.	Vinyl Bromide in THF 25%		
7.3.	Vinyl Chloride		
7.4.	4 Bromo 1 Butene		
7.5.	6 Bromo 1 Hexene		
7.6.	7 Bromo 1 Heptene		
7.7.	8 Bromo 1 Octene		
8	**Advance Intermediates from Category 1 to 7**		

8.1.	6 Methoxy Naphthaldehyde	2000	166.67
8.2.	2 Fluoro 5 Bromo Benzonitrile		
8.3.	Ethyl 4- (dimethyl amino) Butyrate		
8.4.	Bromo Acetal		
8.5.	6 Bromo Hexyl Trimethyl Ammonium bromide		
8.6.	1 Bromo 3 Phenoxy Propane		
8.7.	6 Chloro 2 Hexanone		
8.8.	n-Octyl Amine		
8.9.	Bifenthrin Alcohol		
8.10.	Ethyl 7 Chloro 2 Oxo Heptanoate		
8.11.	1 Bromo 6 Methyl Heptane		
8.12.	Methyl 3 Oxo Pentanoate		
9	**Lithium Carbonate or Hydroxide reaction with Inorganic or Organic Acids**		
9.1.	Lithium Bromide 55%	2000	166.67
9.2.	Lithium Bromide Anhydrous		
9.3.	Lithium Chloride 40%		
9.4.	Lithium Chloride Anhydrous		
9.5.	Lithium Nitrate		
9.6.	Lithium Sulphate		
9.7.	Lithium Molybdate 20%		
9.8.	Lithium Acetate		
9.9.	Lithium Iodide		
9.10.	Lithium Fluoride		
10	**Hydrobromic Acid from Bromine**		
10.1.	Hydrogen Bromide 48% to 62%	5000	416.67
10.2.	Hydrogen Bromide 20% in IPA		
10.3.	Hydrogen Bromide 30% in Acetic Acid		
10.4.	Hydrogen Bromide Anhydrous		
	R & D products	120	10
	Total	**20120**	**1676.7**
11	**Co-Products:**		
11.1.	Sodium Bromide	5000	416.67
11.2.	Zinc Bromide		
11.3.	Potassium Bromide		
11.4.	Calcium Bromide		
11.5.	Magnesium Bromide		
11.6.	$NaHSO_3$		
11.7.	HCl		
11.8.	Spent HBr		
	And/or		

	Liquid Bromine (Recovered from above co-product)	700	58.4

PNG fired Boiler (3 nos.) of 2 TPH capacity will be used with 30 m stack height. D. G. set of 3X250 KVA capacities will be installed as standby and attached to 21 m stack. Process emissions shall be scrubbed by Caustic scrubber.

Fresh water requirement of 413 m^3/day. PP did not mention the source of water supply. Against which wastewater of 130 m3/day will be generated. Wastewater will be treated in ETP after treatment discharge to SEZ drainage pipeline for final disposal. Domestic wastewater will be treated in STP.

ETP waste will be sent to TSDF site. Process/ distillation residue will be disposed at CHWIF. Discarded containers/ barrels/ liners will be sold to the authorized recycler. Used Lubricating Oil will be sold to approve recycler.

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. Commitment that no banned pesticides will be manufactured.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Work zone monitoring arrangements for hazardous chemicals.
4. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
5. Action plan for odour control to be submitted.
6. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
7. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
8. Material Safety Data Sheet for all the Chemicals are being used/will be used.
9. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
10. Details of incinerator if to be installed.
11. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
12. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
13. Details on solvents to be used, measures for solvent recovery and for emissions control.
14. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS2 etc., (* - as applicable)
15. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.

B. Additional TOR

I. 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 SEZ .
II. To make a plan for Chlorine and Bromine handling.
III. Adequate risk assessment for workers
IV. Detailed plan for reduction of fresh water requirement.

It was recommended that **'TORs' without Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification.

9.4.10 Capacity Enhancement of Grain Based Distillery (65 KLPD to 90 KLPD) & Co-generation Power Plant (1.0 MW to 2.5 MW) at SP-156, RIICO Industrial Area, Village Ajeetgarh, Tehsil Srimadhopur, District Sikar, Rajasthan by M/s Agribiotech Industries Limited – reg TOR.

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

9.4.11 Expansion of Soda Ash, Cement and Captive Cogeneration Power Plant at Villages Mithapur & Surajkaradi, Taluka Dwarka, District Devbhumi Dwarka, Gujarat by M/s TATA Chemicals 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 Soda ash plant and CPP are listed at S.N. 4 (e), and 1 (d) of the schedule of the EIA Notification, 2006 under category 'A' and appraised by Expert Appraisal Committee (I). PP informed that the Soda ash plant was established in 1939.

MoEF&CC has issued EC vide letter no. J-11011/66/1999-IA II (I) dated 20.11.2000 for the Expansion of Cement production capacity from 1000 TPD to 2500 TPD. Also, MoEF&CC has issued EC vide letter no. J-13011/20/2006-IA II (I) dated 22.05.2006 for the Expansion of CPP from 70 MW to 85 MW.

M/s TATA Chemicals Ltd. has proposed for expansion of Soda Ash, Cement and Captive Cogeneration Power Plant at Villages Mithapur & Surajkaradi, Taluka Dwarka, District Devbhumi Dwarka, Gujarat. It is reported that Gulf of Kutchh Marine Sanctuary and Marine National Park are situated at a distance of 2.19 km and 2.81 km respectively. Mangrove Reserved forest River is situated at a distance of 2.64 km, Rain water lake (Bhimgaja) is situated at a distance of 9.69 km. Samlasar River is flowing at a distance of 9.70 km and a Eco sensitive Zone i.e. GoK MS/MNP is situated at a distance of 1.05 km.

Existing plot area is 231 Ha, of which green belt has already been developed on 95 Ha. Additional land of 36 Ha will be required for green belt under this expansion project. Cost of the proposed expansion project is Rs.1175.47 Crores. The proposed expansion has an employment potential of 1539. Followings existing and proposed products are submitted by PP alongwith cement plant.

S. No.	Particulars	Existing	Proposed	Total
1.	Soda Ash	10,91,000 TPA	225,000 TPA	1,316,000

2.	Cement*	7,87,000 TPA	1,13,000 TPA	9,00,000
3.	Power	85 MW	40 MW	125 MW
4.	Steam	757 TPH	300 TPH	1057 TPH
5.	Sodium Bicarbonate	1,50,000 TPA	Nil	1,50,000 TPA
6.	Vacuum & Pure Salt	11,00,000 TPA	Nil	11,00,000 TPA
7.	Caustic Soda	36,000 TPA	Nil	36,000 TPA
8.	Liquid Chlorine	18,000 TPA	Nil	18,000 TPA
9.	33 % Hydrochloric acid	64,800 TPA	Nil	64,800 TPA
10.	Hydro Bromic Acid	37 TPA	Nil	37 TPA
11.	Bromine	2,400 TPA	Nil	2,400 TPA
12.	Gypsum	1,34,892 TPA	Nil	1,34,892 TPA
13.	Clinker	8,25,000 TPA	Nil	8,25,000 TPA
14.	Desalination water (RO Plant)	21,60,498 M3/Year	Nil	21,60,498 M3/Year

*cement plant is excluded from this proposal after presentation.

The existing power requirement is 85 MW and Steam requirement of 757 TPH. The additional power requirement for the proposed expansion is 40 MW and steam 300 TPH which will be sourced from the captive cogeneration power plant. The existing capacity of CPP is 85 MW which will be increased to 125 MW to meet the additional steam and power requirement. ESP will be provided to all 6 nos. boilers and Cement Plant Raw Mill, Kiln, Cement Plant Coal Mill old, Cement plant Coal mill new, Cement Mill, Dryer Crusher, Cooler, Alkali By Pass and

The existing fresh water requirement is 7100 m3/day which is being sourced from Rainwater Lake. However, there is no additional requirement of fresh water is proposed from ground or surface waters bodies. The exiting sea water requirement is 2,46,721 m3/day and sourced from Arabian sea, whereas the additional sea water to be sourced i.e. 31,095 m3/day. Total sea water requirement after expansion will be 2,77,816 m3/day.

Soda Ash Effluent will be used for cement making, land filling for plantation site development, road construction and storage site reclamation with green cover. Static Salt Dissolver waste will be used for bund/ road in Company's salt works area. Fly ash will be used for cement making, low lying area filing, bund making. Road construction and plantation. supply to brick manufacturers. Used oil, Waste / residue containing oil and Discarded containers barrels/liners used will be disposed to approve recycler. Ion Exchange Residue will be sent to TSDF site for incineration.

The Committee suggested that for cement plant, PP needs to apply separately to Industry-1 sector and EIA-EMP to be prepared accordingly as per the TOR points given by industry-1 sector. Cumulative EIA-EMP report to be prepared.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).

2. Details on requirement of raw materials (seawater, lime-stone, coke, ammonia, additives, *etc.*), its source and storage at the plant.
3. Details of handling Chorine, Bromine and ammonia and risk assessment.
4. Details on water balance including water use, quantity of effluent generated, recycled and reused and its impact of discharge to receiving water body.
5. 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.
6. Details of CO2 emissions including its quantum per tonne of soda ash.
7. Management plan for solid waste generation (fines of lime stone, grits, brine sludge etc.), storage, utilization and disposal modes.
8. In case of coastal plants details on extraction of sea water and effluent disposal, development of solar salt works based on sea water evaporation, etc,.
9. Details on groundwater quality and surface water quality of nearby water sources and other surface drains. The parameters of water quality may include Cl^-*, Ca^{2+}*, Na^+*, SO_4^{2-}*, NH_4^+, Suspended solids* *etc*. (* - As applicable)
10. Ambient air quality should include NH_3.
11. Proper ash management plan to be drawn.

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 balance is required to be reworked. Detailed water conservation plan with recycle and reuse to be drawn.
3. Recommendation of SEZ Authority shall be obtained
4. Impact on marine life to be assessed.
5. Separate EC to be obtained for cement plant

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

9.4.12 Laying of Ahmednagar- Solapur Pipeline (an extension of Koyali- Ahmednagar Product Pipeline) in Maharashtra by M/s IOCL – reg TOR.

The project proponent gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

M/s IOCL has proposed for Laying of Ahmednagar- Solapur Pipeline (an extension of Koyali- Ahmednagar Product Pipeline) in Maharashtra. The proposed project envisages

transportation of petroleum products after receiving from Koyali-Ahmednagar Pipeline to delivery location at Solapur marketing terminals. New pipeline will originate from Ahmednagar(Maharashtra) and terminate at Solapur district (Maharashtra).The length of pipeline will be 230 km having 18" dia. The proposed pipeline passes through Great Indian Bustard Wildlife Sanctuary, Solapur (Maharashtra). Manpower requirement would be about 87 during construction phase and 77 for operation of the pipeline, excluding Line Patrolmen (LPM).

The proposed pipeline will passes through districts of Ahmednagar, Bid, Osmanabad and Solapur in state of Maharashtra. Pipeline will originate from Ahmednagar and will terminate at Solapur marketing terminal. Pipeline will cross Rivers i.e. Waumba, sina and Mehekri. Capacity of the proposed pipeline will be 5.0 MMTPA. Project cost will be Rs. 471 Crores. Total area covered by SV station (08) will be 2 Ha. Proposed pipeline will be buried underground 1.0-1.2 m. The specification of the proposed pipeline project is 18" OD X 0.25" WT, API 5L-X70 grade.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR:

1. Justification of the project
2. Route map indicating project location
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Recommendation of SCZMA /CRZ clearance for the proposed pipeline.
8. Present land use based on satellite imagery for the study area of 10 km radius.
9. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the projectalong with details of the compensatory afforestation.
10. Process Description along with Process Flow Diagram.
11. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
12. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
13. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
14. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall forone season at one location.
15. At total of 30 locations, ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM10, SO2 , NOx, CO, HC, VOC for one season(Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
16. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.

17. At about 10 locations, water monitoring will be conducted including surface & ground water for one season (Non Monsoon)
18. At 15 locations, Soil sample analysis within the study area for one season (Non Monsoon).
19. At 30 locations, noise Monitoring will be taken up for one season (Non Monsoon)
20. Demography & socio-economics of the study area.
21. Ecological features (terrestrial& Aquatic) of the study area for one season (Non Monsoon)
22. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
23. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
24. Details of proposed preventive measures for leakages and accident.
25. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.
26. Corrosion Management of Pipeline
27. Details of proper restoration of land after laying the pipelines.
28. Details of proposed Occupational Health Surveillance program for the employees and other labour
29. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.
30. Public hearing to be conducted in 4 districts through which the pipeline passes. Point wise comments/reply to the issues raised during Public Hearing / Public Consultation.

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.

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

9.4.13 Setting up of Synthetic Organic manufacturing Plant at Additional Patalganga MIDC, Plot No. E-127, Taluka Khalapur, District Raigad, Maharashtra by M/s SMT Organics Chemical Pvt. Ltd. – reg TOR.

The project authorities and their Consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic organic chemicals located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general condition i.e. Karnala Bird wildlife sanctuary treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s SMT Organics Chemical Pvt. Ltd. has proposed for Setting up of Synthetic Organic manufacturing plant at Additional Patalganga MIDC, Plot No. E-127, Taluka Khalapur, District

Raigad, Maharashtra. As per Form 1 Karnala Bird wildlife sanctuary is situated with in 10 km radius of the project site. The Patal Ganga River is flowing near the project site. PP did not mention the correct Arial distance of Sanctuary and river from the project site. Total plot area is 3997.0 m² out of which greenbelt will be developed on 1470 m2 of land. Total Cost of proposed project is Rs. 15.5 Crores. Following are the details of the products:

Sr. No.	Product Name	Production Capacity (MTA)
1	Formaldehyde (37% to 55% Concentration) AND	36,000
2	Hexamine OR	3000
3A	Urea Formaldehyde (UF) & Melamine Formaldehyde (MF) (Liquid Resin)AND/OR	31,304
3B	Urea Formaldehyde (UF) & Melamine Formaldehyde (MF) (Powder Resin) – 3A converted to 3B OR	15,652
4A	Phenol Formaldehyde (PF) (Liquid resin) AND/OR	86,747
4B	Phenol Formaldehyde (PF) (Powder resin) – 4A converted to 4B	43, 374
5	Silver refining OR	5
6	Urea Formaldehyde Concentrate OR	20,000
7	Methylal (99.5%)	33,333

Total Power requirement for the project will be 890 KW, which will be drawn from Maharashtra State Electricity Corporation Limited. Additionally D.G. set of 1000 KW or 750 KVA capacity to be installed to meet the emergency power. FO fired boiler with a capacity of 5 TPH with adequate Stack height will be provided.

Fresh water requirement will be 445 m3/day and to be sourced from Additional Patalganga MIDC. Industrial wastewater so generated will be treated in ETP followed by DM and RO. Domestic waste water will be treated in sewage treatment plant. No effluent will be discharged outside the premises.

ETP Sludge will be sent to TMWM. Discarded bags will be sold as scrap. Spent/ Used oil will be sold to registered repressors. Waste / residues and spent resin will be sold as scrap.

The Committee noted that project site is located in additional Patalganga MIDC area, In absence of authenticated documents regarding industrial area, the Committee recommended for public consultation.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) 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

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. ZLD system to be adopted.
iii. A copy of application seeking NBWL permission w.r.t.Karnala Bird 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.

9.4.14 Laying of Anjar - Chotila Natural Gas transportation pipeline project with associated facilities from Anjar (Dist. Kutch) to Chotila (Dist. Surendranagar), Gujarat by M/s Gujarat State Petronet Limited- reg TOR

The project proponent gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

M/s Gujarat State Petronet Limited has proposed for Laying of Anjar - Chotila Natural Gas transportation pipeline project with associated facilities from Anjar (Dist. Kutch) to Chotila (Dist. Surendranagar), Gujarat. GSPL proposes to lay a network of Gas Pipeline for the supply of Natural Gas to various consumers situated at Gujarat, Rajasthan & Madhya Pradesh state. The gas pipeline will originate from ARPL SV-8 Top-8 Ratanpar, Sayla in Surendranagar district

to GSPL dispatch station Rata Talav, and Anjar in Kachchh district. The proposed pipeline passes through Rann of Kachchh and Wild Ass Sanctuary (Dhrangadhra).

The proposed pipeline will also be utilized for distribution of GSPL's existing Gas pipeline Grid network in Gujarat state. Proposed Anjar (Kachchh)–Chotila(Surendranagar) Natural Gas transportation pipeline project covering approx. length 196.14Km with dia 36" including associated facilities i.e. 08 nos. Sectionalized Valve (SV) Station, 02 No. Dispatch Terminal (DT)/ Receiving Terminal (RT) and 01 No. Intermediate pigging station. Capacity of the proposed pipeline will be 23.13 MMSCMD. Total area covered by SV station (08) will be 2 Ha. Proposed pipeline will be buried underground 1.0-1.2 m.

Required power for sectionalizing valve station (SV) shall be drawn from nearest local power source of State Electricity board. DG set will be kept standby at all SV stations as well as dispatch and receipt terminal.

District wise length of Pipeline as follows:

S. No.	Chainage (Km)		Length (Km)	Taluk	District	State
	From	To				
1	0	14	14	Sayla	Surendranagar	Gujarat
2	14	26	11	Thangadh	Surendranagar	
3	26	41	15	Muli	Surendranagar	
4	41	58	17	Halavad	Morbi	
5	58	85	26	Morbi	Morbi	
6	85	100	14	Maliya	Morbi	
7	100	111	10	Salt Pan Area, Kutch		
8	111	173	61	Bhachau	Kachchh	
9	173	196	22	Anjar	Kachchh	
		Total	196			

The water requirement will be 60 m3/day during construction period and 20 m3/day required during operational phase. This water requirement will be met from tankers from suitable nearest source.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR:

1. Justification of the project
2. Route map indicating project location
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.

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

B. Additional TOR

I. Public hearing to be conducted in three districts 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 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.

9.4.15 Setting up of resin manufacturing unit at S. No. 84/1 paiki 2 Plot No.1, Nr. National Highway (Bharudi toll gate), Village Ardoi, Taluka Kotda Sangani, District Rajkot, Gujarat M/s Harmony Ply Lam 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 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 Harmony Ply Lam Ltd. has proposed for setting up of resin manufacturing unit at S. No. 84/1 paiki 2 Plot No.1, Nr. National Highway (Bharudi toll gate), Village Ardoi, Taluka Kotda Sangani, District Rajkot, Gujarat. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km radius around project site.

Total plot area is 8802.0 m2. PP did not mention the development of green within the premises. Committee suggested to develop green belt on 33% ot total plot area. Total project cost including existing facilities is Rs. 12 crore. Out of which cost earmarked for EMP will be 1 crore. About 12 persons will be employed. Following products will be manufactured:

No.	Name of Product	Production Quantity (MT/month)
1	PF (Phenol Formaldehyde) Resin	400
2	UF (Urea Formaldehyde) Resin	200
3	MF (Melamine Formaldehyde) Resin	150
4		

Proposed project will draw 650 KVA electricity from Paschim Gujarat Vij Company Ltd. (PGVCL). Additionally D. G. Set of 500 KVA using HSD at the rate of 95 Ltr./Hr will be provided. Coal/ briquette fired boilers (5TPH) and Thermic Fluid Heater of 15 lac kcal/hr capacity with 30 m stack height and connected with Cyclone separator followed by Bag Filter as pollution control device.

Total 20 m^3/day of fresh water will be used. PP did not provide the information regarding source of fresh water. Against which 7.45 m^3/day wastewater will be generated. Domestic wastewater will be collected in soak pit while industrial waste water will be sent to ETP followed by evaporator to Zero Effluent Discharge system.

ETP Sludge so generated will be sent to TSDF site. Evaporation salt/ residue will be sent to CHWIF. Used Oil after Collection, storage will be sold to the authorized recycler and discarded containers/ liners will be sold to registered recycler.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) 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

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.

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

9.4.16 Proposed Expansion of Resins, Pharmaceutical Intermediates, Perfumery Products And Specialty Chemicals In Existing Unit at Plot No. 789/3A & 791/4 & 5, Phase-III, G.I.D.C., Vapi-396 195, District Valsad, Gujarat by M/s. Vapi Products Industries 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 located inside the

notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general condition treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s. Vapi Products Industries Pvt. Ltd has proposed expansion of Resins, Pharmaceutical Intermediates, Perfumery Products And Specialty Chemicals In Existing Unit at Plot No. 789/3A & 791/4 & 5, Phase-III, G.I.D.C., Vapi-396 195, District Valsad, Gujarat. There are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Daman Ganga River is flowing at a distance of 3 km from the project site. The existing plant was established prior to EIA, Notification, 2006

Total plot area is 152.4 ha of which greenbelt will be developed in the area of 89.03 ha (33%). Cost of the proposed expansion project is Rs. 7.0 Crores, out of which cost earmarked for EMP will be 1.5 Crores. The proposed expansion has an employment potential of 25. Followings products will be manufactured;

Sr. No.	Name of Product	Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total after Proposed Expansion (MT/Month)
1.0	**Acrylic Polymers**	50	200	250
2.0	**Emulsion Polymers**	100	900	1000
3.0	**4- Nitro N- Methyl Phthalimide**	00	250	250
4.0	**3- Amino 4- Methoxy Acetanilide**	00	100	100
5.0	**Specialty Chemicals**			
5.1	2-Aminobenzene Dimethyl -1,4-Dicarboxylate / 2-Amino Di Methyl Terephthalate	00	500	500
5.2	2,4 DCNB Nitrated Ether / OPNA (NITRATED AROMATIC ETHER)			
5.3	N-Hydroxy Methyl Benzamide			
5.4	N- Hydroxymethyl Chloro Acetamide 90 % / N- Hydroxy methyl Chloro Acetamide			
5.5	Di Phenyl Sulphone			
5.6	4-4" Di Hydroxy Di Phenyl Sulfone			
6.0	**Pharma Intermediates**			
6.1	Ethyl 2-Chloro-2 -(4-Methoxy PhenylHydrazinylidene) Ethanoate	00	500	500
6.2	5 - (4-Bromophenyl)-4,6-Di hydroxyl pyrimidine /(BDP)			
6.3	3-Acetamidophthalic Anhydride (APA)			
6.4	6 - Chloro 1,3 Di hydro- 2H – Indole-2-One			

6.5	Dibenzo [b.f][1,4]thiazepin-11(10H)-one (DTO)			
6.6	2,4 Dimethyl Benzene Thiol			
7.0	**Perfumery Products**			
7.1	Phenyl Ethyl Alcohol	00	300	300
7.2	Phenyl Ethyl Methyl Ether			
Total		**150**	**2750**	**2900**

Existing unit has one steam boiler of 800 kg/hr, which will be replaced by new boiler of 3000 kg/hr capacity with additional one thermic fluid heater of 2 lakh kcal/hr capacity. D.G. Set of 250 KVA (Stand-by) will be installed. Natural Gas is/will be used as fuel in existing as well as proposed utilities. The existing power requirement is 80 KVA, which will increased upto 500 KVA under proposed expansion and will be sourced from DGVCL. D. G. Set of 250 KVA using HSD at the rate of 83 lit./hr will be provided.

Total water requirement after proposed expansion will be 261 m3/day. Total wastewater generation after proposed expansion will be 139.1 m3/day. The Low COD effluent shall be treated in proposed effluent treatment plant consisting of primary treatment and secondary treatment & send it to CETP for treatment and disposal. High COD & High TDS effluent will be treated in proposed effluent treatment plant consisting of primary treatment and evaporator & finally to CETP for treatment and disposal. Domestic Effluent will be disposed through septic tank & soak pit.

ETP Sludge will be sent to TSDF site. Spent solvent will be Reprocess/Reuse back in process. Discarded Drums /Containers will be sold to registered recycler. Iron Sludge will be send to TSDF or cement industries, Inorganic Salt will be sent to TSDF. Organic Residue will be sent to common incineration Site or co-processing in cement industries. Spent HCl and Sulphuric Acid will be sold to end user. Process Sludge will be sent to common incineration Site or co-processing in cement industries

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) 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, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H_2S*, HF*, *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation 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.
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

I. 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.
II. Recommendation of SPCB is required.

It was recommended that **'TORs' without Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification.

9.5 Any Other

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

The Committee noted that this is a case of change in product mix change. It was recommended that PP should apply for TOR.

9.5.2 Expansion of cane juice based distillery unit from 60 KLPD to 200 KLPD at Village Samazwadi, Bagalkot, Karnataka by M/s Godavari Biorefineries Ltd. (changed from M/s SomalyaOrgano Chemicals Unit)- reg. Amendment in EC .

MoEF&CC has issued Environmental Clearance vide letter No. J-11011/191/2007- IA II(I) dated 02.09.2007 to M/s Godavari Biorefineries Ltd. for expansion of cane juice based distillery unit from 60 KLPD to 200 KLPD with the spent wash treatment technology of bio-composting process. Now, PP proposed to adopt concentration and incineration technology for spent wash generated from 150 KLPD distillery and evaporation and biocomposting for spent wash generated from 50 KLPD distillery. They want to operate the distillery for 330 days.

After detailed deliberation, the Committee sought following addl. information:

(a) Detailed proposed spent wash treatment scheme alongwith flow chart.
(b) Quantity of spent wash to be treated from incineration route and bio-composting route.
(c) Details of monitoring mechanism to be followed including monitoring of water quality parameters.

(d) Cost benefit analysis by adopting duel treatment schemes.
(e) Quantity of treated effluent to be recycled/reused.
(f) Quality of bio-compost to be analyzed
(g) Certified compliance report of the existing conditions stipulated in the EC by the Regional Office of MoEF&CC.

28th June, 2016 (Day 2)

1st Session: Time: 10:00 AM

9.6 Environmental Clearance

9.6.1 BS VI quality Fuel Up gradation and a new MS block comprising of NHT, NSU, LNISM and CCR and associated facilities at Tehsil Kunnathunad, District Ernakulum, Ambalamugal Kochi, Kerala by M/s Bharat Petroleum Corporation Limited – reg EC.

The project proponent and their consultant (M/s Engineers India Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 5th Meeting of the Expert Appraisal Committee (Industry -2) held during 25th-26thFebruary 2016 respectively for preparation of EIA-EMP report.

M/s Bharat Petroleum Corporation Limited has proposed for BS VI quality Fuel Up gradation and a new MS block comprising of NHT, NSU, LNISM and CCR and associated facilities at Tehsil Kunnathunad, District Ernakulum, Ambalamugal Kochi, Kerala. BPCL Kochi Refinery is in process to expand it refinery capacity from 9.5 MMTPA to 15.5 MMTPA for which environmental clearance has already been obtained. In addition to the expansion, quality upgradation of autofuels to BS -IV/ V norms and upgradation of refinery residue to value added products are envisaged as part of the project. In this regard, following units will be installed:

Design Capacities of New/Revamp Process Units

A.	Main Processing Unit	Capacity(MMTPA)
1	Naphtha Hydrotreater Unit.	1.5
2	Light Naphtha Isomerization Unit	0.71
3	Continuous Catalytic Reformer Unit	0.80

Total area required for the proposed BS VI project shall be 7 Acres. Total area of existing refinery is 1265 acres approximately and the plant area is about 633 acres. Presently about 40 acres of greenbelt is developed within the refinery. In addition it is proposed to acquire about 168 acre of additional land from FACT which is presently full of lush greenbelt. The total project cost for the proposed BS VI facilities is Rs. 3313.06 Crores.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December 2015 to February 2016 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (51 µg/m^3 to 84.8 µg/m^3), $PM_{2.5}$ (22 µg/m^3 to 49 µg/m^3), SO_2 (8.0 µg/m^3 to 22.0 µg/m^3) and NOx (16 µg/m^3 to 34.0 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 22.6 µg/m^3 and 22.4 µg/m^{3}with respect to SO_2 and NOx. The resultant concentrations are within the NAAQS. It is estimated that to SO_2 emission rate will be 1579 Kg/hr post BS VI project. Total fresh water requirement from Pariyar River after IREP and

BS VI project will be 1372.2 m^3/hr. Effluent generation from BS VI will be 5 m^3/hr and treated in the ETP. Spent caustic effluent will be 0.6 m^3/day will be treated in the spent caustic treatment facility. The Committee suggested the Environmental Consultant i.e. EIL to give cumulative figure of water consumption and wastewater generation in the EIA Report. Oily effluent stream will be treated in the Wastewater Treatment Plant of Post IREP. Spent catalyst will be sent to authorized recycler. The Committee discussed the certified compliance report dated 21.03.2016 of the RO (Southern Zone) and found to be satisfactory. Public hearing was exempted under 7 (ii) of EIA Notification, 2006.

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. M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.

ii. Continuous on-line stack monitoring for SO_2, NOx and CO of all the stacks shall be carried out.

iii. The process emissions [SO_2, NOx, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.

iv. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.

v. SO_2 emissions after expansion from the plant shall not exceed 1579 kg/hr and further efforts shall be made for reduction of SO_2 load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H_2S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.

vi. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.

vii. Flare gas recovery system shall be installed.

viii. Ambient air quality monitoring stations, [PM_{10}, $PM_{2.5}$, SO_2, NOx, H_2S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Kerala State Pollution Control Board, based on occurrence of maximum ground level

concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.

ix. Total water requirement from River Periyar after after implementation of IREP and BS VI project shall not exceed 1372.2 m^3/hr and prior permission shall be obtained from the competent authority.

x. As proposed, Industrial effluent generation shall not exceed 5.6 m^3/hr from proposed expansion and treated in the effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).

xi. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.

9.6.2 Expansion of Bulk Drug manufacturing unit 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, HukkeriTaluku, Belagavi district, Karnataka State by M/s HLL Life care Limited (Kanagala Plant) – reg EC.

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 40th Meetings of the Expert Appraisal Committee (Industry -2) held during 18th – 19th May, 2016 respectively for preparation of EIA-EMP report. 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 (Maharashtra), the project has been considered as category 'A'.

Ministry has issued EC vide letter no.J-11011/143/2006-IA II(I) dated 9thMay, 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, TalukuHukkeri, District Belagavi, Karnataka. It is reported that no wildlife sanctuary /national park/ Reserved/ Protected forest is located within 10 km distance.Cost of project is Rs.30 lacs. Total Plot area is 40.43 acres (1,63620 m^2) of which 62, 000 m^2area 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

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (40.5 – 58.4 µg/m^3), $PM_{2.5}$ (14.5– 26.4 µg/m^3), SO_2 (12.4–17.7 ug/m3) and NOx (16.7–26.9 µg/m^3) respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The additional steam requirement after expansion shall be met from these existing boilers. Industry is not proposing any additional boiler in the proposed expansion of Bulk Drug Unit. Existing unit has D. G. Sets for emergency power supply i.e. 400 KVA (02 Nos.), 1000 KVA (01 No.) & 1010 KVA (01No.). Industry is not proposing any additional DG sets. Water consumption will increase from 2.3 m^3/day to 4.6 m^3/day after expansion. Effluent generation will be increased from 1.42 m^3/d to 2.84 m^3/d and is sent for incineration to the authorized incinerators by KSPCB and the same shall be continued after expansion. The Committee suggested the Environmental Consultant to provide cumulative figure of all the utilities to assess the cumulative impacts. Thereafter, PP informed that water requirement from KIADB water supply will be increased from 238 m^3/day to 242.6 m3/day after expansion .Effluent generation will be increased from 151 m^3/day to 153 m^3/day after expansion. Effluent will be treated in the ETP and treated effluent will be recycled/reused within the plant premises.

Spent activated carbon will be sent to TSDF. Spent Palladium Catalyst and E- waste will be sent to the authorized recyclers. Solvent Distillation bottom (Still) Residue will be sent to authorized incinerators. Spent Solvent will be sent to authorized recyclers. Cleaning in Process & mother liquor will be Incinerated at authorized incinerators. Detoxified Containers and Used Lead Acid Batteries will be sent back to suppliers / KSPCB authorized parties.

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.

After detailed deliberations, the Committee, on the basis of the 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. As proposed, the additional steam requirement will be met from the existing boilers. No additional boiler shall be installed without permission.

ii. Scrubber shall be provided to control process emissions viz. HCl. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

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 KIADB water supply shall not exceed 242.6 m^3/dayand prior permission shall be obtained from the CGWA/SGWA.

v. Trade effluent 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. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

xiii. As proposed, green belt of 62, 000 m^2shall 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.

9.6.3 Expansion of Pesticide (from 2508 MTPA to 4128 TPA) at Tarapur M.I.D.C, Area, Village Boisar, Tehsil Palghar, District Thane, Maharashtra by M/s SC Enviro Agro India Pvt. Ltd.- reg EC.

The Proposal was first considered in the meeting held during 11^{th}–12^{th} June, 2012 and the Committee deferred the proposal for site visit. Site visit was conducted on 07.05.2013 and

the Committee desired that the EIA report should be prepared by the QCI accredited Consultant. It was suggested that revised wastewater scheme for expansion to be submitted; review the plant area statement w.r.t. greenbelt; point wise compliance of environmental conditions stipulated in the existing EC to be submitted; Annual medical checkup report of the employee to be submitted.

Now, PP has submitted EIA report validated by Environmental Consultant namely, M/s Eco-Chem Sales & Service. M/s S C Enviro Agro India Pvt. Ltd. has proposed for expansion of Pesticide Manufacturing Unit (209 MTPM to 344 MTPM) at Tarapur MIDC Area, Village Boisar, Tehsil Palghar, District Thane, Maharashtra. Total plot area is 1.8196 ha and No additional land is required. Environmental clearance is accorded by the Ministry vide letter no J-11011/71/2001 IA-II dated 14th June, 2002 for the existing unit. No national park/wildlife sanctuary/reserve forest is located within 10 Km. Details of existing and proposed products are as given below:

S. N.	Product	Existing Quantity (MTPA)	Proposed Quantity (MTPA)	Total Quantity (MTPA)
1	Prallethein Technical (ETOC)	540		540
2	Fenpropathrin Technical (DTL	540		540
3	Cypermethrin Technical (CPM)	240		240
4	Fenvalerate Technical (FNV)	240		240
5	Metaphenoxy Benzaldehyde (MPB)	360		360
6	D. Allethrin (Pynamin forte, PPY)	300		300
7	D Phenothrin Technical (98 SUM)	288	312	600
8	Cyphenothrin Technical (GKL)	--	468	468
9	Bioallethrin Technical (BAL)	--	180	180
10	Esbiothrin Technical (EBT)	--	480	480
11	S – Bioallethrin Technical (SBA)	--	180	180
Total		**2508**		**4128**
S.N.	**By-product**	**Quantity (MTPM)**		**Quantity (MTPA)**
1	Hydrochloric Acid Solution 25-30%	600	852	1452
2	Aluminum Chloride Solution	480	--	480
3	Phenolic Solution	60	--	60
4	Potassium Bromide Solution	480	--	480
5	Sodium Sulphite Solution 18-22%	1200	5094	6295

Scrubber will be provided to control HCl and SO2 process emissions. Scrubber system for sodium cyanide related process will be provided. HCN detector & Alarm will be provided. Solvent recovery system will be provided. SO2 detector will be provided. Fresh water requirement from MIDC Tarapur water supply will be increased from 145 m^3/day to 295 m^3/day after expansion. Effluent generation will be increased from 48 m3/day to 97 m^3/day after expansion. Effluent will be segregated into cyanide stream and High TDS/COD effluent streams. Cyanide effluent stream (21 m3/day) will be treated with sodium hypochlorite in alkaline

medium. High TDS/COD effluent stream will be concentrated in MEE. MEE condensate will be treated in the ETP. Treated effluent will be sent to CETP. ETP sludge and off specification products will be sent to CHWTSDF. Process / spent catalyst/waste solvent will be sold to re-processor or sent to CHWTSDF. Used oil/spent oil/oily waste will be sold to authorized re-processor. Green belt will be developed in 1600 m^2 out of 18196 m^2. Power requirement from SEB will be increased from 1.037 MW to 1.99 MW. DG Sets (3 No x 400 KVA+1 NO x 180 KVA) are installed. LDO will be used as fuel. The Committee also discussed the certified compliance report dated 14.05.2015 issued by MoEFCC's regional Office (Western Region) and found to be satisfactory.

After detailed deliberations, the Committee, on the basis of the 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) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.

ii) adequate stack height shall be provided to oil fired boiler and thermic fluid heater to control particulate emissions.

iii) Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. SO_2 and HCl. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the MPCB.

v) For further control of fugitive emissions, following steps shall be followed :
    (a) Closed handling system shall be provided for chemicals.
    (b) Reflux condenser shall be provided over reactor.
    (c) System of leak detection and repair of pump/pipeline based on preventive maintenance.
    (d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
    (e) Cathodic protection shall be provided to the underground solvent storage tanks.

vi) A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.

vii) Company shall take all the measures in order to protect the machineries and equipments for pesticide producing unit from ageing.

viii) Continuous monitoring system for chlorine, HCl as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.

ix) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

x) Solvent management shall be carried out as follows :

   i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
   vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

xi) Total water requirement from MIDC water supply shall not exceed 295 m^3/day and prior permission should be obtained from the Competent authority.

xii) Industrial effluent generation shall not exceed 97 m^3/day. As proposed, effluent shall be segregated into cyanide stream and High TDS/COD effluent streams. Cyanide effluent stream (21 m3/day) will be treated with sodium hypochlorite in alkaline medium. High TDS/COD effluent stream will be concentrated in MEE. MEE condensate will be treated in the ETP. Treated effluent will be sent to CETP. 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. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.

xiii) Treated effluent shall be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.

xiv) Bioassay and toxicity test shall be carried out for the treated effluent before discharging into CETP and to be performed before discharge to CETP.

xv) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

xvi) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xvii) 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 MPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.

xviii) As proposed, ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.

xix) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 *as* amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

xx) 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.

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

xxii) Green belt should be developed at least in 1600 m^2 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.

xxiii) All the recommendations made in the risk assessment report should be satisfactorily implemented.

9.6.4 Proposed 45 KLPD molasses based distillery cum ethanol plant at Village Kachirayapalayam, Taluka Chinnasalem, District Villupuram, Tamilnadu by M/s Kallakurichi-II Cooperative Sugar Mills Ltd – reg EC.

The project proponent and their consultant (M/s Mantra Green Resources Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 46th Meetings of the Expert Appraisal Committee (Industry -2) held during 20th – 21st August, 2015 respectively for preparation of EIA-EMP report.

M/s Kallakurichi-II Cooperative Sugar Mills Ltd. has proposed setting up of molasses based distillery (45 KLPD) cum ethanol plant at Village Kachirayapalayam, Taluka Chinnasalem, District Villupuram, Tamilnadu. M/s Kallakurichi-II Cooperative Sugar Mills Ltd. is an existing unit and operating sugar mill having capacity of 2500 TCD. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Gomukiriver and MuktaNadi are flowing at a distance of 1.1km towards North and Mukta river 9.2 km towards NE respectively. Reserved forests namely Takarai and Parigam are at distance of 1.46 km and 8.1 km from the project site.

Total plot area is 41.25 ha, of which green belt will be developed in 33% of area. Distillery shall be operated for 300 days. About 51 employees shall be deployed for the proposed distillery in addition to existing 282 workers in sugar mill. Total Cost of proposed project is Rs. 101 Crore. Out of which, Rs. 10.36 Crore and Rs. 149 Lakh/Annum are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. Distillery plant will be operated for 270 days. Following products will be manufactured:

Sr No.	Product	Quantity
1	**Fuel Ethanol (99.8% v/v) or** **Extra Neutral Alcohol (96% v/v)/Rectified Spirit**	45 KLPD

2	Impure Spirit	2.25 KLPD
By Product		
1	Bio compost	41.93 MTD
2	Bio gas	14040 M^3
3	Electric Power	1MW Cogen Plan

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during August 2015 to November 2015 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (35.82 µg/m^3 to 53.78 µg/m^3), $PM_{2.5}$ (10.15 µg/m^3 to 15.36 µg/m^3), SO_2 (9.14 µg/m^3 to 13.53 µg/m^3) and NOx (15.46 µg/m^3 to 19.85 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.0 µg/m^3, 14.4 µg/m^3, and 6.7 µg/m^3 with respect to PM, SO_2 and NOx. The resultant concentrations are within the NAAQS. Stack of adequate height will be provided to oil and biogas fired boiler to disperse the waste gas. Total fresh water requirement from river basin bed of Gomukh for the proposed distillery will be 463 m^3/day. After deliberation, Committee suggested that Spent wash should be treated through bio-methanation unit followed by concentration in MEE. Concentrated MEE will be bio-composted with press mud. Condensate of MEE and Spent lees will be treated in the ETP. No effluent will be discharge outside the plant premises.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by Tamil Nadu Pollution Control Board on 18th February, 2016. The issues were raised regarding impact on ground water, timely payment to cane grower, local employment, measures for air and water pollution 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 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) Distillery unit shall be based on molasses based only and no grain based distillery unit shall be operated.

ii) Stack of adequate height will be provided to oil/biogas fired boiler. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

i) Company shall follow good management practices viz. collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units; minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; effective composting of the spent wash by controlled effluent spraying through mechanical system to avoid spillages & over application, blending of sludge in correct proportion with press mud; and properly finished compost and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.

ii) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.

iii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB guidelines. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

iv) Total fresh water requirement from river basin bed of Gomukh for distillery unit shall not exceed 450 m^3/day after expansion.

v) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation process and evaporated in MEE. Concentrated spent wash shall be shall be mixed with pressmud for biocomposting to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

vi) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

vii) As proposed, no effluent from distillery shall be discharged outside the premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

ix) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 30 days capacity.

x) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Chennai and SPCB.

xi) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.

xii) Risk Assessment shall be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the Ministry and its Regional Office at Chennai within six months.

xiii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.

xiv) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

xv) As proposed, green belt over 33% of the land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xvi) All the commitments made during the Public Hearing / Public Consultation meeting held on 18th February, 2016 should be satisfactorily implemented and adequate budget provision should be made accordingly.

xvii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner.

9.6.5 Expansion of Viscous Filament rayon (25000 TPA to 30000 TPA) at P.B. no 22, Murbad Road, Village Shahad, Tehsil Ulhasnagar, district Thane, Maharashtra by M/s Century Textiles and Industries 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 in the 32nd Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 20th– 21st January2015 for preparation of EIA-EMP report.

M/s Century Textiles and Industries Ltd. has proposed for expansion for manufacturing of Viscous Filament rayon (25000 TPA to 30000 TPA), P.B. no 22, Murbad Road, village Shahad, Tehsil Ulhasnagar, district Thane, Maharashtra. Total existing plot area is 37500 m^2. No additional land will be acquired for proposed expansion. Out of which, 33% area is earmarked for greenbelt. Total cost of project is 125 crore, of which Rs. 7.0 crore and Rs. 1.6 Crore/ Annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that no National Park, Wildlife Sanctury, Biosphere Reserve, Tiger/Elephant reserve, Protected forests and other environmental sensitivity exist within 10 km radius. River Ulhas is flowing about 1.2 km from the project site and Kalu River is flowing at a distance of 4.5 Km. Following products will be manufactured;

Sl. No.	Product Name	Existing Quantity(MT/A).	Proposed Additional Quantity (MTPA)	Total (MTPA)
1	Viscose Filament Rayon Yarn	25,000	5000	30,000
2	CS_2	20,000	--	20,000
3	Sulphuric Acid	76,000	--	76,000
4	(By-Product)	16272		19,350

	Anhydrous Sodium Sulphate			

Capacity of Captive Power Plant will be 18 MW. Steam requirement will be 180 MTPD)

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December 2015 to February 2016 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (65.3 µg/m^3 to 96.8 µg/m^3), $PM_{2.5}$ (29.1 µg/m^3 to 46.7 µg/m^3), SO_2 (6.3 µg/m^3 to 13.3 µg/m^3), NOx (14.6 µg/m^3 to 29.3 µg/m^3), CS_2 (11-43 µg/m^3) and H_2S (6-20 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.46 µg/m^3 and 0.95 µg/m^3 with respect to CS_2 and H_2S. The resultant concentrations are within the NAAQS. ESP has been provided to existing coal fired boiler to control particulate emissions. Bagfilter and cyclone separator have been provided to coal crushing plant. Alkali scrubber and mist eliminator have been provided to existing sulphuric acid plant. Air washer and air exhaust system have been connected to stack. Power requirement will meet from Maharashtra State Electricity Distribution Company Limited (MSEDCL) and capacity of Captive Power Plant will be increased from 24.6 MW to 26.2 MW. Sulphuric Acid Plants have been provided with DCDA system in order to avoid gas nuisance. A scrubbing system has been provided in the CS2 so that the gases get scrubbed before going to the atmosphere.

Total water requirement will be increased from 15,500 m^3/day to 19,550 m^3/day after expansion. Out of which, fresh water requirement from Ullas River will be 17,550 m^3/day and balance water requirement (2,000 m^3/day) will be met from recycled/treated effluent. The total wastewater generation after proposed expansion will be 15585 m^3/day. The capacity of existing installed ETP is 16,000 m^3/day which is sufficient to treat the increased effluent quantity. Treated effluent will be discharged to the Saline zone of Ulhas Creek through existing pipeline. Fish pond will be constructed in the close vicinity of Effluent Treatment Plant of which Bioassay tests will be conducted which will analyze the survival rate and health of fishes. Yarn waste will be sold to registered vendors. Fly Ash and Bottom Ash will be sent to brick manufacturers. Sulphur Waste is sent to CHWTSDF of M/s. Mumbai Waste Management Limited, Taloja, Dist. Thane (Maharashtra). The Committee suggested them to send spent Vanadium Pentoxide catalyst to the aurhorized recyclers. Effluent from VFY plant having high concentration of trace element i.e. Zinc is passed through Zinc equalization tank and then pumped to Clariflocculator tank where pH is maintained between 9 to 11 to separate out zinc from effluent. Finally, after concentration of Sludge in decanter, the treated sludge is sent to CHWTSDF of M/s. Mumbai Waste Management Limited, Taloja, Dist. Thane (Maharashtra). Waste heat recovery boiler have been installed to recover waste heat from sulphuric acid plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by Maharashtra Pollution Control Board on 13th January, 2016. The issues were raised regarding local employment, measures to control CS_2 emissions, CSR activities to be undertaken etc. regarding local employment, PP committed that preference will be given to local people in employment as per their qualifications. Latest pollution control equipment installed / will be installed to control the pollution. Regarding pollution control measures, PP informed that Company has allocated Rs. 7 Crores as Environmental Protection measures and Rs. 1.7 Crores as recurring cost for the proposed expansion project. As regard to CSR , PP informed that Company has spent Rs. 44.78 Lakhs for the various CSR activities in the area so far. Company has now proposed Rs. 488 Lakhs to be spent in various CSR activities in the next five years.

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

i) ESP and adequate stack height shall be provided to coal fired boiler to control the air emissions within the limit stipulated by CPCB. Low NOx burner shall be provided in Captive Co-generation Power Plant to reduce the NOx emissions.

ii) The gaseous emissions (SO_2, NOx, CS_2, H_2S, CO, HC) and particulate matter from process and CPP units shall conform to the norms prescribed by the CPCB/GPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Continuous emission monitoring system (CEMS) should be installed to measure SO_2, NOx and Particulate from the CPP stack and SO_2, CS_2 and H_2S from process plant stacks.

iii) The Company shall make the effort to clean exhaust containing CS_2 and H_2S gas from rayon plant by adopting state of art technology.

iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the SPCB.

v) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

vi) Total fresh water requirement from Ullas River should not exceed 17,550 m3/day and prior permission shall be obtained from the concerned Authority. No ground water should be used. Efforts should be made to reduce the fresh water requirement by adopting 3 R's (Reduce, Reuse and Recycle) concept.

vii) Total industrial wastewater generation shall not exceed 15585 m3/day. As proposed, effluent should be treated in the effluent treatment plant. Treated effluent shall be discharged into conveyance system for marine disposal after conforming to the standards prescribed for marine discharge norms and obtaining permission from the SPCB. Treated effluent should be passed through guard pond. Online pH meter, TOC analyzer and flowmeter should be installed. No process effluent shall be discharged in and around the project site. Sewage should be treated in STP. The water quality monitoring report for treated effluent should be submitted to the CPCB and Ministry's regional Office at Bhopal.

viii) As proposed, effluent recycling RO plant shall be installed to produce 2000 m^3/day recycle water. Efforts shall be made for recovery of sodium thiosulphate.

ix) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Sulphide contents in the effluent should also be monitored

x) Fish pond will be constructed in the close vicinity of Effluent Treatment Plant of which Bioassay tests will be conducted which will analyze the survival rate and health of fishes.

xi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

xii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. A copy of the same shall be submitted to the Ministry and Ministry's Regional Office at Bhopal.

xiii) Efforts shall be made for recovery of Zinc from the Zinc sludge. The Company shall conduct study in association with reputed Institution. Action taken report shall be submitted to the Regional Office of MoEF&CC and CPCB.

xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 *as* amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xv) All the recommendations mentioned in the Environmental Management Plant, Rapid Risk Assessment Report, Disaster Management Plan and safety guidelines shall be implemented.

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

xvii) All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2008.

xviii) Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.

xix) Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

xx) As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xxi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 13th January, 2016 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.

xxii) As proposed, Rs 4.88 Crore 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 should be ensured accordingly in a time bound manner.

9.6.6 Expansion of Sugar plant (from 5000 TCD to 7500 TCD) and 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.

The project proponent and their consultant (M/s Pioneer Enviro 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 in the 42nd Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 16th–17th June 2016 for preparation of EIA-EMP report.

NSL Sugars Limited is an operating Sugar, Co-generation power&Distillery plant in Survey Numbers 60 to 62, 88 to 98 & 100 to 105 of ChikkonahalliVillage and Survey Numbers 55, 78 to 83 & 86 of HurugalawadiVillage, Koppa – Hubli, MaddurTaluk, Mandya District, Karnataka. The Integrated Sugar Complex is being operated with the following capacity

a) Sugar Plant : 5000 TCD
b) Co-generation Power plant : 26 MW
c) Distillery plant : 60 KLPD Molasses Based

M/s NSL Sugar Limited has proposed for expansion of Sugar plant (from 5000 TCD to 7500 TCD) and molasses based Distillery Plant (from 60 KLPD to 75 KLPD). Plot area is 110 acres. No additional land will be acquired. Cost of the project is Rs. 45.00 Crore. Shimshariver is flowing at a distance of 2.2 km from the site. It is reported that there is no National Park, Wildlife Sanctuary within the distance the distance of 10 km form the site. Sugar will be operated for 240 days.

Following are the existing and proposed products to be manufactured:-

S. No.	**Unit**	**Product**		**In Operation**	**Proposed Additional**	**Total after expansion**
			Existing Capacity			
1	Sugar	White Crystal Suagr	5000 TCD	5000 TCD	2500 TCD	7500 TCD
2	Co-gen	Power	26 MW	26 MW	--	26 MW
3	Distillery	RS/ENA/Ethanol	60 KLPD Molasses/cane juice based 60 KLPD grain based Total capacity:120 KLPD	60 KLPD	15 KLPD Molasses based	75 KLPD Molasses/Cane juice based 60 KLPD grain based Total capacity:135 KLPD

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October 2015 to December 2015 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (18.4 µg/m^3 to 59.5 µg/m^3), $PM_{2.5}$ (11.3 µg/m^3 to 35.7 µg/m^3), SO_2 (6.3 µg/m^3 to 15.8 µg/m^3) and NOx (7.0 µg/m^3 to 19.3 µg/m^3), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 µg/m^3, 4.3 µg/m^3 and 1.6 µg/m^3 with respect to PM10, SO_2 and NOx. The resultant concentrations are within the NAAQS.

In the sugar unit, the existing 100 TPH co-gen boiler will be upgraded to 110 TPH with minor modifications. A stack height of 83 m already been provided for the existing co-gen boiler and same is adequate after up gradation to 110 TPH. High efficiency Electrostatic Precipitator

already has been provided for bringing down PM emission to less than 50 mg/Nm^3. The Existing boiler 25 TPH Boiler is sufficient for the proposed expansion of distillery plant. Stack height of 55 m already has been provided to 25 TPH Boiler. Electro Static Precipitator already has been provided for bringing down PM emission to less than 50 mg/Nm^3. Water requirement for integrated sugar complex is 4023 KLD. There will not be any additional water requirement due to the proposed expansion**.** The existing plant water requirement is being met from Shimsha River flowing at a distance of 3.0 Km from the plant. The Committee suggested them to re-estimate the water requirement as data provided seems to be higher side. It was suggested to use condensate water from sugar unit which will reduce water requirement significantly. Recycle treated effluent for cooling tower make up and boiler feed for cogeneration power plant. Condensate from MEE should be recycled for process water in distillery.

The trade effluent generation will be restricted to less than 750 KLD effluent from sugar plant will be treated in the existing 800 KLD capacity of Effluent treatment plant and the treated effluent will be utilized for land for irrigation. The Spent wash generated from Molasses based distillery will be 600 KLD and the same will be treated in the existing Biomethanisation plant followed by concentration in Multiple Effect Evaporation (MEE) and Part of the treated effluent from MEE will be sent to Bio composting to achieve zero discharge and the remaining quantity will be sent to Rotary dryer to obtain the mixture of spent wash & Bagasse, which will be incinerated in the existing 25 TPH Boiler. Bagasse from sugar plant will be used as fuel in existing Boilers.

The Committee also noted that PP has obtained several environmental clearance and amendment to EC from MoEF&CC. However, PP has not implemented entire grain based distillery so far. It was suggested that PP should provide detailed implementation plan (PERT and CPM Chart) of the existing distillery and proposed distillery unit. After deliberation, the Committee sought following additional information:

i. Detailed execution schedule plan for the existing distillery (grain based) and proposed molasses based distillery.
ii. Revised water requirement for sugar unit, distillery unit and cogeneration power plant.
iii. Water conservation methods to reduce water requirement.
iv. Scheme for treatment of spent wash. Quantity of spent wash to be used for incineration mode and bio-composting mode.

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.

9.6.7 Expansion of Bulk Drugs Manufacturing Unit (from 8.925 MTPA to 62.10 MTPM) at Sy. No. 542, 538, 539, Village Chollair, Mandal Yadagirigutta, District Nalgonda, Telangana by M/s Sanrog Laboratories Pvt. Ltd. – reg EC.

The project proponent and their consultant (M/s Right Source Industrial Solution Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 15th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 29th– 30th January 2014 for preparation of EIA-EMP report.

M/s Sanrog Laboratories (P) Ltd. has proposed for Expansion of Bulk Drugs Manufacturing Unit (from 8.925 MTPA to 62.10 MTPM) at Sy. No. 542, 538, 539, Village Chollair, Mandal Yadagirigutta, District Nalgonda, Telangana. Total plot area is 11.81 acres (47822.36 m^2) of

which greenbelt will be developed in 16327 m^2. No additional land is required. Cost of expansion project is Rs. 10.67 crores. Reserved Forests namely Mala gutta RF -5.9 KMs (E) and Mallapa gutta RF -7 KMs(ENE) are located within 10 km distance. Following products will be manufactured:

S. N	Name of the product	CAS NO.	Application	Quantity In MT/Month
1	Fluconazole	86386-73-4	Antifungal	5.00
2	Gabapentin	60142-96-3	Anticonvulsant	5.00
3	Itraconazole	84625-61-6	Antifungal	1.00
4	Rosavastatin Calcium	287714-41-4	Anti lipemic	1.00
5	Escitalopram oxalate	128196-01-0	Antidepressant	1.00
6	Domperidone	57808-66-9	Antiemetic	5.00
7	Tramadol Hydrochloride	46941-76-8	Analgesic	10.00
8	Omeprazole	73590-58-6	Antiulcer	5.00
9	Esomeprazole Magnesium	217087-09-7	Antiulcer agent	1.00
10	Lansoprazole	103577-45-3	Antiulcer	1.00
11	Pantoprazole sodium	138786-67-1	Proton Pump Inhibitor	2.50
12	Rabeprazole sodium	117976-90-6	Proton Pump Inhibitor	2.50
13	Losartan potassium	124750-99-8	Antihypertensive	2.00
14	Telmisartan	144701-48-4	Antihypertensive	2.00
15	Valsartan	137862-53-4	Antihypertensive	1.00
16	Tamsulosin HCl	106463-17-6	Anti-adrenergic	0.10
17	Duloxitine	217087-09-7	Antidepressant	5.00
18	Levo cetirizene Dihydrochloride	103577-45-3	Antiallergic agent	2.00
19	Ornidazole	138786-67-1	Antiprotozoal	10.00
	TOTAL			**62.10**

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March 2014 to May 2014 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (40.10 µg/m^3 to 59.8 µg/m^3), $PM_{2.5}$ (8.10 µg/m^3 to 19.60 µg/m^3), SO_2 (8.10 µg/m^3 to 12.5 µg/m^3) and NOx (12.10 µg/m^3 to 16.5 µg/m^3), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.76 µg/m^3, 2.3 µg/m^3 and 2.97 µg/m^3 with respect to SPM, SO_2 and NOx. The resultant concentrations are within the NAAQS.

Bagfilter will be provided to additional Coal fired boilers (2. 0 TPH and 5.0 TPH)to control particulate emissions. Two Scrubbers in two stages will be provided to control process emissions viz. HCl and SO_2. Total water requirement will be increased from 32.48 m3/day to 207.83 m3/day after expansion. Out of which fresh water requirement from ground water source will be 171.8 m^3/day and remaining water requirement (36.8 m3/day) will be met from treated effluent. The Committee noted that project site is located in negative area of ground water. Therefore, it was suggested to adopt water conservation measures and reduce the water requirement. Effluent generation will be increased from 14.4 m^3/day to 99.3 m^3/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/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Organic Residue and spent carbon will be sent to cement industry. ETP sludge and Evaporation salt will be sent to TSDF. Boiler ash will be sent to cement brick manufacturers. The committee suggested them to send spent catalyst to authorized recycler/re-processors.

After deliberation, the Committee sought following additional information:

i. Effort shall be made to explore the use of surface water instead of ground water.
ii. Water conservation measures to be adopted.
iii. Commitment to use air cooled condenser instead of water cooling tower.
iv. Revised water balance to be submitted.

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.

2nd Session: Time: 2.00 PM

Reconsideration of EC

9.6.8 Proposed expansion of Pesticides (capacity from 47.38 to 589.75 MTPM) at Plot. No. 1504, 1505, 1506 GIDC Vapi, Di: Valsad, State Gujarat by M/s Heranba Industries Limited (Unit:I) – reg EC

Proposal was considered in the 6th EAC meeting held on 2nd April, 2016 and the Committee deferred the proposal for want of addl. information. In response PP submitted the copy of CTE and CTO. Existing unit was established in 1996. Cost of the existing project is Rs. 12 Crore. Regarding water balance, PP informed that after revised water balance for proposed expansion the total fresh water consumption will be 339.7 m3/day and effluent generation will be 170.98 m^3/day. Out of which, 48.74 m3/day of high TDS effluent will be evaporated in their own evaporation system. 22.14 m3/day of high COD/NH3 effluent will be incinerated in the proposed incineration system. And Balance 100.5 m3/day will be treated in the ETP and treated effluent will be discharged into CETP Vapi for further treatment and ultimate disposal. PP informed that they have obtained membership of CETP for 114 m3.day of effluent discharge into CETP.

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

i) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.

ii) Adequate stack height shall be provided to gas fired boiler and thermic fluid heater to control particulate emissions.

iii) scrubber shall be provided to process vent to control process emissions. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the GPCB.

v) A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.

vi) Continuous monitoring system for chlorine as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.

vii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

viii) Solvent management shall be carried out as follows :

   i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
   vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

ix) Total water requirement from GIDC water supply shall not exceed 339.7 m^3/day and prior permission should be obtained from the Competent authority.

x) Industrial effluent generation shall not exceed 170.98 m^3/day. As proposed, high TDS effluent stream (48.74 m3/day) will be evaporated in MEE. High COD/NH3 effluent

stream (22.14 m3/day) will be incinerated in the proposed incineration system. Remaining effluent (100.5 m3/day) shall be treated in the 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. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.

xi) Treated effluent shall be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.

xii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

xiii) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xiv) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.

xv) As proposed, ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.

xvi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 *as* amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xvii) 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.

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

xix) Green belt should be developed at least in 2950 m^2 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.

xx) All the recommendations made in the risk assessment report should be satisfactorily implemented.

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

9.6.9 Proposed expansion of pesticide (from 5595 MTPA to 17378.17 MTPA) at plot no. 903,923, GIDC Estate, Vapi, Gujarat by M/s Aarti Industries Ltd.- reg EC

Proposal was consider by EAC in its 6th meeting held during 30th March to 2nd April 2016 and the Committee sought following addl. information:

(a) Submit the action taken report on non complied points.
(b) A note on handling of chorine and Bromine at work place.
(c) Toxic material profile to be submitted.

PP vide letter dated 12.05.2016 has submitted the addl. Information.

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

i) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.

ii) As proposed, no boiler will be installed as steam is being procured from nearby unit.

iii) Scrubber will be provided to control process emissions viz. Br_2, HBr, Cl_2 and HCl. Water scrubber shall be provided to SFD dryer to control particulate matter. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the GPCB.

v) A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.

vi) Continuous monitoring system for chlorine, Br_2, HCl and HBr shall be installed at all important places/areas. All necessary steps should be taken for monitoring of VOCs in the plant. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.

vii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

viii) Solvent management shall be carried out as follows:

   i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
   ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
   iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
   iv. Solvents shall be stored in a separate space specified with all safety measures.
   v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

ix) Total water requirement from GIDC water supply shall not exceed 599 m^3/day and prior permission shall be obtained from the Competent Authority.

x) Industrial effluent generation shall not exceed 302 m3/day. Effluent shall be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream shall be evaporated in MEE. Low TDS/COD effluent stream shall be treated in ETP followed by RO. Treated effluent, Condensate and recover water shall be treated and recycled/reused within factory premises.

xi) 'No' effluent shall be discharge outside the plant premises and 'Zero' effluent discharge condition shall be followed.

xii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

xiii) Ground water quality monitoring including the pesticides shall be carried out every month the monitored data shall be submitted to the Ministry's Regional Office, Bhopal and GPCB.

xiv) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xv) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.

xvi) As proposed, ETP sludge and inorganic waste should be sent to TSDF site. High calorific value waste such as spent organic should be sent cement plant for co-incineration. Fly ash shall be sent to cement plant/brick manufacturing unit.

xvii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 *as* amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.

xviii) Special care shall be given for handling transportation and storage of Bromine. The Company shall made arrangement to transport Br_2 through ISO Tanker.

xix) 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.

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

xxi) As proposed, green belt over an area of 2346 m^2 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.

xxii) All the recommendations made in the risk assessment report shall be satisfactorily implemented.

xxiii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on need of the surrounding villages 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.

9.7 Terms of Reference (TOR)

9.7.1 Setting up of resin manufacturing plant at at Survey No. 411, Village Zulasan, Taluka Kadi, District Mehsana, Gujarat by M/s Shree Nilkanth Lamkraft – 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 Shree Nilkanth Lamkrafthas proposed for setting up of resin manufacturing plant at at Survey No. 411, Village Zulasan, Taluka Kadi, District Mehsana, Gujarat. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Narmada Canal is flowing at 10.15 Km distance in SSW direction from the project site.

During presentation the Committee observed that total fresh water requirement for the project will be 227.2 m3/day, which will be met from ground water through bore well. It is also noted that project site is located in over exploited zone where depth of potable ground water is more than 100 m . Therefore committee was of the view the existing site using ground water is not suitable for establishment of industrial activity and proposal is therefore rejected with the suggestion to go for option analysis for accessing water.

9.7.2 Expansion of synthetic organic dyes (from 2233 MTPM to 3215 MTPM) at Plot No. 243, Village Ekalbara, Taluka Padra, District Vadodara, Gujarat by M/s Colorband Dyestuff 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 located outside the notified industrial area/estate are listed at 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Colorband Dyestuff Pvt. Ltd. has proposed for expansion manufacturing activity of synthetic organic dyes(from 2233 MTPM to 3215 MTPM) (expansion of reactive dyes & proposed addition of new group Direct & Acid Dyes). It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. PP did not mention the Mahi River in form 1. The existing plant was established prior to EIA, Notification 2006 and 1994. The industry has obtained NOC vide letter no PC/NOC-VRD-932/7089 dated 30.04.1993.

Total plot area is 19020 m^2 of which 33% will be developed as green belt.The project cost is Rs. 3.0 crores & additional cost for the proposed expansion is around Rs. 5.0 crores, out of which cost earmarked for Environment Protection Measures will be Rs. 1.5 crore. Existing unit has a capacity of 110 employees and additional employment for proposed expansion will be 130. Following products will be manufactured:

Sr. No.	Name of Products	Qty. (MTPM)		
		Existing	Proposed	Total
1.	**Reactive DyesReactive Yellows** Reactive yellow 145	33	782	815

	Reactive yellow S3R Reactive yellow ME4GL Reactive yellow P6G (95) Reactive yellow HEXL Reactive yellow 81 Reactive yellow HE4R Reactive yellow 18 **Reactive Oranges** Reactive orange W3R Reactive orange 122 Reactive orange H2R Reactive orange 84 Reactive orange 107 Reactive orange 2R **Reactive Reds** Reactive red 195 Reactive red 111 Reactive red 194 Reactive red 198 Reactive red 245 Reactive red 24 Reactive red CD Reactive red 120 Reactive red 141 Reactive red 21 Reactive red 250 **Reactive Blacks** Reactive Black 5 & Mixture Reactive Black 39 **Reactive Blues** Reactive Blue HEXL Reactive Blue HER Reactive Blue 220 Reactive Blue P3R Reactive Navy RGB(250) Reactive Carmine RGB Reactive Violet 2R			
2.	**Direct Dyes** Direct yellow 86/1SD & its mixture Direct Blue 71 & its mixture Direct Red 239 & its mixture	0	100	100
3.	**Acid Dyes** Acid Red 182 & its mixture Acid Yellow 151 & its mixture Acid Blue 171 & its mixture	0	100	100
4.	Blending of SO Dyes	**1000**	00	**1000**
5.	Blending of Auxiliary products	**200**	00	**200**
6.	Spray drying of liquid dyes	**1000**	00	**1000**
Total		**2233**	**982**	**3215**

Proposed project will requires 1200kVA electricity from proposed MGVCL. The existing unit has a LDO/HSD fired boiler of 105 lit/hr capacity, a coal fired Hot Air generator of 25 lakhs K Cal/ hr capacity and 2 nos of Spray Dryer. Under proposed expansion Coal fired boiler of 5 TPD will be installed and connected to cyclone separator followed by Bag Filter with 21 m stack height , additional coal fired Hot Air generator of 25 lakhs K Cal/ hr capacity will be installed and connect to cyclone separator followed by Bag Filter with 30 m stack height and 2 nos of Spray Dryer connected to venture scrubber with 30 m stack height. Existing unit has a DG Set of 200 KVA and proposed DG Set of 900kVA. HSD is used in DG Set.

Existing fresh water demand is 70.7 m^3/day. After expansion total fresh water demand will be 201 m^3/day. Existing Wastewater generation is 37.9 m^3/day. After expansion wastewater generation will be 140 m^3/day. Wastewater will be treated in ETP. Treated effluent will be sent CETP-EICL, Umraya for final disposal. Domestic effluent is disposed to soak pit followed by septic tank

Hazardous waste like ETP sludge will be sent to TSDF site. Used spent oil will be sold to registered re-processor. Discarded drums-Containers/ Liners/bags will be sold to registered recycler.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) 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

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. Fresh water requirement to be reduced by measures adopting recycle and reuse.

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

9.7.3 Drilling of One Exploratory Well PDAL (RPD-11) at District Sivasagar, Assam by M/s ONGC- reg 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 Drilling of One Exploratory Well PDAL (RPD-11) at District Sivasagar, Assam. It is reported that no national parks, Reserve/ protected forest lies within 10 km distance. Panidihing Bird Sanctuary is situated at a distance of 5.5 km from the well site. Dimow River, Disang River and Brahmaputra River are flowing at distance of 1 km, 10 km and 9 km respectively from the proposed well site. Locals will be employed in non-technical or casual labour jobs for a limited duration. Particulars of drilling location:

S. No.	Proposed Location	Co-ordinates		Nearest town	District	Depth (m)
		Latitude	Longitude			
1	PDAL	$27^0$08'12.17" N	$94^0$43'06.06" E	Dimow (2.5 km)	Sivasagar, Assam	4500

Estimated cost of well will be Rs. 58.50 crores. Each well required 1.96 hectare of land.

The power requirement for this exploratory well will be met through the operation of AC-SCR DG set. One DG set will be operated during site construction and out of two operable, of which one standby during drilling operation and one for lighting and other power requirements.

Fuel requirement will be 4.8 KLD of diesel during drilling Phase. Fuel will be supplied onsite by local supplier through mobile tankers.

The daily water consumption will be 25 m3/d of which 15 m3/d will be used for mud preparation and 10 m3/d will be used for domestic purposes including drinking. Water will be sourced from contractors through tanker or tube well after validating their permission from concerned authorities. A total of 1400-1800 m^3 of Drilling and Wash Wastewater will be generated peak drilling period.

It was informed that detailed geological and geophysical studies, mostly 2D-seismic mapping have been carried out to finalize these locations, keeping in mind the results of previously drilled wells.

The temporarily storage of drilling waste will be in an HDPE lined pit and will be subsequently treated to ensure conformance with CPCB designated Best Use Standards and Oil Drilling & Gas Extraction Industry Standards and guidelines provided by the MoEFCC under the Hazardous Wastes (Management, Handling &Trans boundary Movement) Rules, 2008.The major solid waste generated during peak drilling period will be 410-585$m^3$of mud Cuttings, 15-20 m^3per day of waste water would also be generated.

Drill cuttings generated will be collected and separated using a solid control system and temporarily stored on-site in HDPE lined pits. Drilling and wash wastewater generated will also be stored at an onsite HDPE lined pit. The water will be adequately treated in a mobile ETP.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Standard TOR

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.
6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NOx and background levels of hydrocarbons and VOCs.
12. Details on estimation and computation of air emissions (such as nitrogen oxides*, sulphur oxides*, carbon monoxide*, hydrocarbons*, VOCs*, *etc*.) resulting from flaring, DG sets, combustion, *etc*. duringallprojectphases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.

19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, *etc*. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followed.
26. Handling of spent oils and oil from well test operations.
27. H_2S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
32. Total capital and recurring cost for environmental pollution control measures.

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 copy of application seeking clearance from NBWL w.r.t. Panidihing Bird Sanctuary.

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

9.7.4 Drilling of Five Exploratory Wells (NRAA, CHAS, MHAE, LKBE and PDAK) at District Sivasagar, Assam 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 Ltd. has proposed for Drilling of Five Exploratory Wells (NRAA, CHAS, MHAE, LKBE and PDAK) at District Sivasagar, Assam. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance.

Following Environmental sensitivity involved:

1. Dikhow river is flowing at a distance of 2.6 km and 6.2 km from NRAA and CHAS drilling location respectively.
2. Disang river is flowing at a distance of 5.0 km and 2.5 km from MHAE and LKBE drilling location respectively.
3. Buri Dihing and brahmaputra river is flowing at a distance of 4.3 km and 9.0 km from PDAK drilling location.

Following are the drilling locations:

S. No.	Proposed Location	Co-ordinates		Nearest town	District
		Latitude	Longitude		
1	NRAA	$26^0$59'38.761" N	$94^0$41'21.751" E	Sivasagar (4.6 km)	Sivasagar, Assam
2	CHAS	$26^0$53'43.01" N	$94^0$40'15.75" E	Nazira (5.6 km)	Sivasagar, Assam
3	MHAE	$27^0$03'01.64" N	$94^0$47'19.65" E	Sivasagar (17.6 km)	Sivasagar, Assam
4	LKBE	$27^0$02'35.752" N	$94^0$49'51.334" E	Lakwa (4.4 km)	Sivasagar, Assam
5	PDAK	$27^0$12'06.475" N	$94^0$45'03.613" E	Sivasagar (25 km)	Sivasagar, Assam

Particulars of 5 wells are as follows:

S. No.	Proposed Location	Estimated Cost	Depth (m)
1	NRAA	Rs. 49.40 crores	3800
2	CHAS	Rs. 63.70 crores	4900
3	MHAE	Rs. 63.70 crores	4900
4	LKBE	Rs. 49.40 crores	3800
5	PDAK	Rs. 59.15 crores	4550

Estimated cost of 5 wells will be Rs. 270.725 crores. Each well required 1.96 hectare of land. The power requirement for each exploratory well will be met through the operation of AC-SCR DG set. Fuel requirement will be 4.8 KLD of diesel during drilling Phase. Fuel will be supplied onsite by local supplier through mobile tankers.

The daily water consumption will be 25 m3/d of which 15 m3/d will be used for mud preparation and 10 m3/d will be used for domestic purposes including drinking. Water will be sourced from contractors through tanker or tube well after validating their permission from concerned authorities.

It was informed that detailed geological and geophysical studies, mostly 2D-seismic mapping have been carried out to finalize these locations, keeping in mind the results of previously drilled wells.The temporarily storage of drilling waste will be in an HDPE lined pit and will be subsequently treated to ensure conformance with CPCB designated Best Use Standards and Oil Drilling & Gas Extraction Industry Standards and guidelines provided by the MoEFCC

under the Hazardous Wastes (Management, Handling &Trans boundary Movement) Rules, 2008

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Standard TOR

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.
6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NOx and background levels of hydrocarbons and VOCs.
12. Details on estimation and computation of air emissions (such as nitrogen oxides*, sulphur oxides*, carbon monoxide*, hydrocarbons*, VOCs*, *etc*.) resulting from flaring, DG sets, combustion, *etc*. during all project phases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.
19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, *etc*. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followed.
26. Handling of spent oils and oil from well test operations.

27. H_2S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
32. Total capital and recurring cost for environmental pollution control measures.

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 Copy of certified compliance report to the environmental conditions prescribed in the existing EC. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.
III. Distance of nearest habitat to confirmed and measure to be taken for noise management.

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

9.7.5 Expansion of Bulk Drugs and Intermediates Manufacturing Unit (24 TPM to 120 TPM) at Sy. No. 76/1 and 76/3, Village Pydiparru, Mandal Tanuku, District West Godavari, Andhra Pradesh by M/s Plutus Techlabs Limited. –reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk drug and intermediate) 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 Plutus Techlabs has proposed for Expansion of Bulk Drugs and Intermediates Manufacturing Unit (24 TPM to 120 TPM) at Sy. No. 76/1 and 76/3, Village Pydiparru, Mandal Tanuku, District West Godavari, Andhra Pradesh.Eixting plant has been in operation since 2002 by consent order no. 3052/PCB/ZO-VSP/Tech./2000-2187 dated 05.02.2002.

It is reported that no national parks, Protected Forests (PF) and Biosphere Reserves etc. lies within 10 km distance. River Gosthani and velpur canal is flowing at distance of 2.3 Km in north east direction. Cost of proposed project is Rs 2 crores. Plot area is 5.01 acres out of which 1.64 acres of land of the total land area developed as green belt. About 45 personnel will be employed under the proposed project.

Following products will be manufactured:

S.No	Name of Product	Capacity (TPM)	
		Permitted*	After Expansion#
1	(+/-)-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-napthalenimina	15	96
2	9-[(R) -2-(Phosphonomethoxy) propyl] adenine (PMPA)	15	12
3	Glucosamine HCl	9	12
	Total	**24**	**120**

List of By – Products after Expansion

S.No	Name of Product	Stage	Name of By-Product	Capacity	
				TPD	TPM
1	Glucosamine HCl	I	HCl (20%)	3.96	118.8
2	(+/-)-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-napthalenimina	I	Aluminium Hydroxide (20%)	5.38	161.4

Husk fired boiler of 3 TPH and DG set of 320 KVA capacity is already installed connected with multi-cyclone separator and attached with stack of adequate height. No additional utilities are proposed for expansion.

Fresh water (Groundwater) requirement is 56 m^3/day against which wastewater of 27.4 m3/day will be generated. Process effluent will be segregated into high TDS/COD and low TDS/COD. The high TDS effluents in the order of 29.6 KLD are sent to Stripper followed by MEE, AFTD. The condensate from MEE and ATFD is treated along with LTDS effluent from utility blow downs of 10.5 KLD in biological treatment plant followed by RO for reuse in cooling towers make-up. The plant is based on in “Zero Liquid Discharge” system Domestic wastewater of 4 KLD sent to septic tank followed by soak pit.

Hazardous 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, sludge from effluent treatment plant and Filter media like activated carbon sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers. 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.

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, other process-specific pollutants* like NH3*,chlorine*,HCl*,HBr*,H2S*,HF*, CS_2*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation 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.
12. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14. Details on solvents to be used, measures for solvent recovery and for emissions control.

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.

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

9.7.6 Setting up of Bulk Drug & Pharmaceuticals manufacturing unit at Survey No. 309, Village Amadi (Amri), Taluka Parseoni, District Nagpur, Maharashtra by Adroit Pharmaceuticals 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 drug and intermediate) 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 Adroit Pharmaceuticals Pvt. Ltd. has proposed for setting up of Bulk Drug & Pharmaceuticals at Survey No. 309, Village Amadi (Amri), Taluka Parseoni, District Nagpur, Maharashtra. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance. Forest area is situated at a distance of 3.0 km in NE direction. Pench River is flowing at a distance of 6.0 km in SW direction.

Cost of proposed project is Rs. 2.30 Crore. Plot area is 8000 m^2, of which 3000 m^2 of land will be developed as greenbelt. About 11 personnel will be deployed under the proposed project. Following products will be manufactured:

S.no.	Product	Type	Capacity MTPM
1	Paracetamol	Bulk Drug	1000
2	Ferrous Ascorbate	Bulk Drug	100
3	Metformin HCL	Bulk Drug	500
4	Paracetamol- D.C.Granules	Pharmaceuticals	200
5	Paracetamol- Tablets	Pharmaceuticals	50
6	Acetic Acid – 33 % (by product)	Inorganic chemicals	800
7	Sodium Acetate(by product)	Inorganic chemicals	34
	Total		**2684**

Total Power requirement for the unit is 300 KVA and drawn from MSEDCL. D. G. set of 100 KVA capacities will be installed as standby. Coal or Bio mass fired boiler with a capacity of 3 TPH will be provided and connected to stack of adequate height with suitable Cyclone Separator for dust control. Committee suggested to provide bagfilter in place of Cyclone.

Fresh water requirement of 68 m^3/day will be met from ground water. Against this wastewater of 42.9 m3/day will be generated and treated in ETP based on neutralization, forced evaporation and solar evaporation. Domestic wastewater after collection in soak pit will be used for Gardening. The Committee suggested to have adequate treatment for process and DM water. The plant should be based on ZLD by segregation of process wastewater into high and low concentration of waste.

Hazardous waste so generated will be managed as per Hazardous Waste (Management & Handling) Rule, 1989. Process Influent (Metformin) will be Recycled in Process after Distillation and Disposal to CHWTSDF.

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, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation 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.
12. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14. Details on solvents to be used, measures for solvent recovery and for emissions control.
15. Details of process emissions from the proposed unit and its arrangement to control.
16. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
17. Action plan for utilization of MEE/dryers salts.
18. Material Safety Data Sheet for all the Chemicals are being used/will be used.

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. Surface/canal water to be use in place of underground 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.

9.7.7 Expansion of existing API manufacturing unit at 52A, Jarod-Samlaya Road, village Gardhiya, P.O, Taluka Savli, District Vadodara, Gujarat by M/s Kalintis Healthcare 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 drug and intermediate) 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 Kalintis Healthcare Pvt. Ltd. has proposed for expansion of existing API manufacturing unit at 52A, Jarod-Samlaya Road, village Gardhiya, P.O, Taluka Savli, District Vadodara, Gujarat. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance.

Existing plant was set up prior to EIA, Notification 2006 and industry has obtained NOC in the year 2001. Cost of proposed expansion project is Rs. 12 Crores. Of which cost earmarked for EMP will be Rs. 80 lacs. Total Plot area is 11,059 m2, of which 3,650 m2 of land will be developed as greenbelt. About 100 personnel (existing 50 and additional 50) will be deployed under the proposed project. Following products will be manufactured:

SR. NO	PRODUCT	PRODUCTION CAPACITY (KG/MONTH)

		EXISTING	PROPOSED	TOTAL
1.	Activated Pharmaceutical Ingredients (API) in Pilot Plant	0	1000	1000
2.	Folic acid	0	1000	1000
3.	Frovatriptan	0	500	500
4.	Isosulfan blue	0	500	500
5.	Lorazepam	0	400	400
6.	Oxazepam	0	350	350
7.	S(+) Pregabalin	0	550	550
8.	Levetiracetam	0	550	550
9.	Teneligliptin hydro bromide hydrate	0	650	650
10.	FlupirtineMeleate	0	500	500
11.	2,6-Di-tert-butyl-4-(dimethylaminomethyl) phenol	0	3000	3000
12.	3-Methoxyphenethylamine	500	0	500
13.	4-Methoxyphenethylamine	1000	0	1000
14.	3,4-Dimethoxyphenethylamine	1000	0	1000
15.	3,4-(Methylenedioxy) phenethylamine	200	0	200
16.	3-(Trifluromethyl) phenethylamine	50	0	50
17.	5-Methoxy-1 Indianone	300	0	300
18.	5,6-Dimethoxy-1-indianone	300	0	300
19.	1-[2-(Hydroxyethoxy) ethyl] piperaxine	1000	0	1000
20.	1-Piperazinecarboxaldehyde	500	0	500
21.	1-Phenylcyclopentanecarboxylic Acid	500	0	500
22.	Cyclopropymethylamine	200	0	200
23.	3-(Trifluoromethyl) acerophenone	200	0	200
24.	4-(2,4-Diflurobenzoyl) piperidine HCl	300	0	300
25.	1-Benzylpiperidine-4-methanol	200	0	200
26	Cyclohexyl methyl ketone	200	0	200
BY-PRODUCT				
1.	Ammonium Chloride	118.4	0	118.4
2.	Sodium Bromide	868.3	0	868.3
3.	Methanol	152.1	0	152.1
4.	Carbon Dioxide	1120.6	0	1120.6
5.	Ammonium Sulphate	173.6	0	173.6
6.	Cuprous Bromide	152.5	0	152.5
7.	Magnesium Chloride	101.1	0	101.1
8.	Potassium Bromide	0	2300	2300
9.	Sodium Sulphate	0	3220	3220

Existing unit has 500 Kg/Hr and Thermic Fluid Heater of 4 Lac Kcal/hr capacity LDO fired boiler. Proposed additional 2000 Kg/Hr LDO fired boiler with adequate stack height. Total power requirement for the proposed expansion project will be 500 KVA sourced from MGVCL (Madhya Gujarat Vij Company Limited). D.G. Set of 500 KVA will be utilized for emergency purpose only. Process emissions emit from Glass vessels will be scrubbed out by Water Scrubber with 10 m stack height. HCl and HBr will be scrubbed out by Alkali Scrubber followed by Water Scrubber with 20 m stack height. Ammonia will be scrubbed out by Acidic Scrubber followed by Water Scrubber with 20 m stack height.

The existing water requirement is 1.4 m^3/day which will increase upto 78.25 m^3/day. Accordingly wastewater generation will increase to 38.33 m3/day from 0.75 m^3/day. Effluents so generated from manufacturing process & washing, Cooling and boiler blow down, RO reject and will be treated in ETP through tankers. Treated effluent will be sent to CETP operated by M/s. Enviro Infrastructure Co. Ltd. (EICL), Umaraya for further treatment and final disposal.

Used Oil and Discarded Containers/Barrels/plastic will be sent to send to authorized re-processors. ETP Sludge, Spent Carbon from ETP and MEE Salt will be send to TSDF. Process Residue & Waste will be sent for incineration. Spent Solvent will be send to re-processor. Spent Carbon/Hyflow and Off Specification Drugs will be sent for incineration. PP requested for collection of summer data. The committee advised to collect the data after filing the application i.e. 16.05.2016 and one full season to be used for the purpose.

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, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation 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.
12. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14. Details on solvents to be used, measures for solvent recovery and for emissions control.

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. Treatment plan be designed for ZLD.
III. Full Season data to be collected after submission of the application 16.05.2016
IV. Make a plan for Rain water Harvesting.

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.

9.7.8 Expansion of petrochemical based products at Manali, Tehsil Ambattur, District Thiruvallur, Tamil Nadu by M/s Tamilnadu Petroproducts Limited.- reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petrochemical chemical based processing unit (Process other than cracking & reformation and not covered under complexes) located inside the notified industrial area/estate are listed at S.N. 5(e) under category 'B' and appraised at State Level Expert Appraisal Committee (I). However, due to CPA at Manali, the project is treated as A category.

M/s Tamilnadu Petroproducts Limited has proposed for Expansion of petrochemical based products at Manali, Tehsil Ambattur, District Thiruvallur, Tamil Nadu. As per form 1 there is no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc.

MoEF&CC vide letter no J-11011/280/2013- IA II (I) dated 15.05.2015 has issued EC for Product mix change at existing Epichlorihydrin plant. Public hearing was exempted.

Cost of proposed expansion project is Rs. 100 Crores. Total Plot area is 25 acres. PP did not mention the development of green within the premises. The Committee suggested to develop the 33% of land or adequate green belt within the existing premise. About 150 personnel (existing 75 and additional 75) will be deployed under the proposed project. Following products will be manufactured:

S. No.	**Product**	**Production (MTPA)**		
		Existing (MTPA)	**Proposed (MTPA)**	**Total (MTPA)**
1	Epoxy Resin BLR	25,000	0	25,000
2	Epoxy Resin SR & SR Solution	7,000	0	7,000
3	Epoxy Resin FM	5,000	0	5,000
4	Polyol	0	1,50,000	1,50,000

Total Power requirement will be 10 MW and will be met by TNEB power. Total requirement of steam for the Polyol plant will be 10 - 12 T/hr. This will be supplied from the adjacent ECH facility. There are 3 numbers of existing boilers at ECH facility, each of which produces 14 T/hr steam at 17 ksc (g).Two numbers, each of 1250 KVA generator set are available.

The existing water requirement is 800 m^3/day. Proposed expansion will increase fresh water requirement upto 2920 m^3/day. This total water requirement is met by Chennai Metro water. Against which 1088 m^3/day effluent will be generated and will be treated at the existing ETP. Domestic waste water will be discharge to sewage water. Committee suggest to treat domestic wastewater in STP.

Used oil will be sold to authorized recycler. Solid cake waste will be incinerated in incinerator. Hazardous waste so generated will be disposed as per hazardous waste 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:

1. Details on requirement of raw material, its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Details on requirement of auxiliary chemicals, solvents, catalysts, reactors and utilities to support the unit processes.
4. Brief description of equipment for various process.
5. Details of proposed source-specific pollution control schemes and equipment to meet the national standards.
6. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, *etc*.
7. Details on proposed LDAR protocol.
8. Ambient air quality should include hydrocarbon (methane and non methane), VOC and VCM (if applicable).
9. Risk Assessment & Disaster Management Plan
   - Identification of hazards
   - Consequence Analysis
   - Measures for mitigation of risk.

C. Additional TOR

I. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process

II. Air cooled condenser to be used.

III. 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.

IV. Compliance to action plan to be given drawn by SPCB/CPCB for CPA.

It was recommended that **'TORs' without Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification.

9.7.9 Setting up of Molasses based distillery (50 KLPD) cum Ethanol plant and expansion of existing sugar mill (2500 TCD to 5000 TCD) and Cogeneration plant (12 MW to 22 MW) at Sy.no.234, Village Rajewadi, Tehsil Atpadi, District Sangali, Maharashtra by M/s Sadguru Sri Sri Sakhar Karkhana Ltd. (SSSSKL)- 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 Sadguru Sri Sri Sakhar Karkhana Ltd. (SSSSKL) has proposed for setting up of Molasses based distillery (50 KLPD) cum Ethanol plant and expansion of existing sugar mill (2500 TCD to 5000 TCD) and Cogeneration plant (12 MW to 22 MW) at Sy.no.234, Village Rajewadi, Tehsil Atpadi, District Sangali, Maharashtra.

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Two Reserved Forest are situated at a distance of 5.4km in NW direction and 6.2km in SE direction. Rivers Mhasvad is flowing at a distance of 5.6km in SW direction and Manganga River is flowing at a distance of 5.6km in SW direction from the project site.

Total cost of proposed expansion sugar mill and setting up of distillery unit will be 115 Crores. Project will be executed within 103.6 Acres of land, of which 20 acre will be developed as greenbelt. About 235 persons will be employed. Following products will be manufactured:

Sr. No.	Name of the Products	Quantity			No. of Working days
		Existing	Proposed	Total	
1	Sugar Plant	2500 TCD	2500 TCD	5000 TCD	180
2	Cogen Power Plant	12 MW	10 MW	22 MW	-
3	Distillery (Fuel Ethanol/Extra Neutral Alcohol (ENA) / or Absolute alcohol/ Rectified spirit)	-	50 KLPD	50 KLPD	270

Existing sugar and Cogen unit has 70 TPH Bagasse fired boiler attached to 72 m stack height. Additional 50 TPH Bagasse fired boiler will be installed and connected to 55.7 m stack height. PP did not provide the existing and proposed air pollution control measures. Committee suggested to install ESP.

Total Fresh Water requirement for Sugar and Cogen unit will be 1253 m^3/day and distillery unit requires 487 m^3/day, which will be drawn through pipeline from Mhasvad Dam. Existing unit has ETP of 360 m^3/day capacity and will be upgraded to 700 m^3/day capacity. The Committee suggested to design of ETP should meet the standard of 30mg/l in place of 100 mg/lit. STP of 50 m^3/day capacity will be constructed to treat domestic wastewater.

ETP sludge will be used as manure for plants and bottom ash will be used as manure and fly ash will be sold to brick manufacturers. Spent oil will be disposed by authorized vendors.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipment s to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and press mud.
23. Flyash management plan for bagasse and action plan.
24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO2*, NOx*, 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

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. Reduce fresh water requirement as per 6 KL/KL production of Alcohal production and 100 lit/ Ton of cane crushing.
iii. ETP of sugar unit should be designed to meet 30mg/lt of BOD.

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.

9.7.10 Setting up of 45 KLPD (RA/ AA/ ENA) Molasses/ grain based distillery and 2 MW Co-generation unit at village P.O. Majhaulia, Tehsil Majhula, District West Champaran, Bihar by M/s Majhaulia Sugar Industries Pvt. Ltd.- reg 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) and all molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Majhaulia Sugar Industries Pvt. Ltd. is proposing for setting up of 45 KLPD (RA/ AA/ ENA) Molasses/ grain based distillery and 2 MW Co-generation unit at village P.O. Majhaulia, Tehsil Majhula, District West Champaran, Bihar. As per Form-1, it is reported there is no Biosphere Reserve, National Park and Wild Life sanctuary falls within 10 km radius from the project site.

Total plot area is 40468 m^2 (10 acres), of which 14176.14 m^2 (35 %) will be developed as green belt. Total Cost for the project is Rs. 97 Crores, out of which cost earmarked for EMP will be Rs. 8 crores. About 82 peoples will be employed under this expansion project.

Power requirement will be 1040 KWH sourced from its own Co-gen unit. Slop/ Baggase fired boiler of 15 TPH will be installed and connected to ESP as air pollution control equipment. PP confirmed that online air quality monitoring system for stack emission will be installed and transfer online to Bihar pollution Control Board and CPCB.

Fresh water requirement will be upto 450 m3/day and sourced from ground water. Spent wash generated from molasses process would be concentrated in Multi-effect evaporator and then used as fuel in the boiler. Process condensate from MEE will be treated and recycled back in the process. Complete spent wash will be concentrated and incinerated. Plant is based on ZLD. PP has not clearly defined the treatment scheme for grain based distillery. In grain based measurement the DWGA (Distillers Wet Grain soluble) dryer will be installed to dry the Semi-solid waste.

Fly ash from the Boiler will be utilized in nearby brick manufacturers/ as per CPCB guidelines. Grain residue will be sold to the farmers as cattle feed.

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

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/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

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. Cumulative impact to be assed that include the existing sugar plant.
III. One season monitoring data to be collected after the date of submission of application, i.e 12 May 2016

It was recommended that **'TOR' 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.

9.7.11 Setting up of Bulk Drugs, Drug Intermediates and Organic chemicals manufacturing (26.4 TPM) unit at Sy. No 3,4,5,9 to 14, Village Donivanilakshmipuram, Mandal Nakkapalli, District Visakhapatnam, Andhra Pradesh by M/s BSG Chemicals and Pharmaceuticals Private 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 (Bulk Drugs &Intermediates and Synthetic organic chemical) 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 BSG Chemicals and Pharmaceuticals Private Limited has proposed for setting up of Bulk Drugs, Drug Intermediates and Organic chemicals manufacturing unit (26.4 TPM) at Sy. No 3,4,5,9 to 14, Village Donivanilakshmipuram, Mandal Nakkapalli, District Visakhapatnam, Andhra Pradesh. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Tandava River is flowing at 6.63 Km from the project site. PP did not mention any Reserved forest in their form 1. During presentation PP informed that Vempadu Reserved forest is situated at a distance of 0.4 km from the project site.

Total plot area is 70.4 Acres, out of which greenbelt will be developed on 28.16 Acres of land. Total Cost of project is Rs. 15.6 Crores of which Rs. 2.5 crores will be invested on Environmental Protection Measures. Following products will be manufactured:

S.NO.	**Product Name**	**Production Capacity TPM**	**Product Description Drug/ Intermediate/ Multipurpose chemical**
Bulk Drugs			
1	Losatran potassium	2.4	Drug
2	Fluconozole	3.0	Drug
3	Ketrolactromethamine	3.0	Drug
4	Ondansetron Hydrochloride dihydrate	3.0	Drug
5	Atrovastatin Calcium	4.5	Drugs
6	Olanzapine	2.4	Drugs
7	Linezolid	1.5	Drugs
8	Sumartriptan	0.6	Drugs
9	Quetiapine Fumarate	3.0	Drugs
10	Dronedrone HCL	3.0	Drugs
	Total Bulk Drug	26.4 TPM	

S.NO.	Product Name	Production Capacity TPM	Product Description Drugs/ Intermediate/ Multipurpose chemical

Drugs Intermediates			
1	CIS (+) Hydroxylactum	10.0	Drug Intermediate
2	PramipexoleHydro chloride Intermediate	4.5	Drug Intermediate
	Total Drug Intermediate	14.5 TPM	
Multipurpose chemical			
1	Sodium Methoxide	9.0	Chemical
	Total Multi- Purpose Chemicals	9.0 TPM	
Custom Synthesis Product & R&D Products			
1	Drugs and Intermediate in Piolet scale	0.1 TPM	
	Total	50.0 TPM	

The Power requirement will be 250 KW sourced from APCPDCL. Two (02) Coal fired Boilers of 6 and 4 TPH (4 TPH boiler shall be kept as standby) will be installed and connected with Bag Filter to control the particulate matter with adequate stack height. Two (02) D.G. set of 750 and 380 KVA will be used as standby.

Total fresh water requirement will be 81.5 m^3/day and met from ground water through bore well. Against this 71.1 m^3/day of wastewater will be generated. Wastewater will be segregated into two streams depending upon concentration of effluent. Wastewater will be segregate into high COD and High TDS stream and Low COD and Low TDS streams. High TDS and High COD stream will be treated in stripper followed by MEE and ATFD. The Low TDS stream would be treated along with MEE/ATFD condensates in biological ETP followed by RO. Thus the treatment system proposed is based on “Zero Liquid Discharge” (ZLD).

MEE salts, ETP Sludge, Process/ organic Residue, organic salt from process and spent Carbon will be sent to TSDF site. Ash from boilers will be Sold to brick manufacturers. Waste /Used Oil and mixed solvent will be sent to the Authorized Recyclers/ Re-processors. Container & container liners of hazardous waste & chemicals after detoxification will be given to the recycler

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry’s web site) 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

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. No extraction of ground water.
iii. No Coal to be used in boiler and alternate green fuel to be used.
iv. Impact on reserved forest to be assessed and GLC to be measured adequately.

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.

9.7.12 Laying of Branch Pipeline (65 km length and 12"dia) from Jhugian (Punjab) to Una (Himanchal Pradesh) from existing Panipat- Ambala-Jalandhar Pipeline by M/s IOCL-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 Oil and gas transportation pipe line (crude and refinery/ petrochemical products), passing through Notified Eco-sensitive/ Wild life Sanctuary are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I). The pipe alignment is passing through Nangal wildlife sanctuary in Punjab.

M/s IOCL has proposed for Laying of Branch Pipeline (65 km length and 12"dia) from Jhugian (Punjab) to Una (Himanchal Pradesh) from existing Panipat- Ambala-Jalandhar Pipeline. As per Form-1, no National Parks and Protected forest/ Reserved forest etc. falls within 10 km radius from the plant site. The proposed pipeline is passing through ESZ of Nangal Wild life Sanctuary. Tandava River is flowing at 6.63 Km from the project site..

Total length of pipeline is 65 Km and will passing through 2 districts in Punjab i.e. Shahid Bhagat Singh Nagar and Hoshiarpur and 1 district of Himachal Pradesh i.e. Una. Pipeline will originate from Jhugian T-point of existing Panipat-Ambala-Jalandhar Pipeline in Punjab and will

terminate at upcoming terminal in Himachal Pradesh. Proposed project cost is Rs. 151 crores. Capacity will be 0.7 MMTPA.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

1. Justification of the project
2. Route map indicating project location.
3. Details of land to be acquired. Details of projects vis-à-vis Ecological Sensitive Areas and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centre line) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Status of clearance from NBWL for pipeline passing through wildlife sanctuary/ Eco-logical sensitive area.
8. Recommendation of SCZMA /CRZ clearance for the proposed pipeline (if applicable).
9. Present land use based on satellite imagery for the study area of 10 km radius.
10. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
11. Process Description along with Process Flow Diagram.
12. Details of associated facilities/utilities to be installed.
13. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
14. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
15. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
16. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
17. Ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM2.5, PM10, SO2, NOx, CO, HC, VOC for one season (Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
18. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
19. Water monitoring to be conducted including surface & ground water for one season (Non Monsoon).
20. Soil sample analysis within the study area for one season (Non Monsoon).
21. Noise Monitoring will be taken up for one season (Non Monsoon)
22. Demography & socio-economics of the study area.
23. Ecological features (terrestrial & Aquatic) of the study area for one season (Non Monsoon)
24. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
25. A detailed note on method to be used for crossing road, nalla, stream, rivers, railway line etc.

26. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
27. Details of proposed preventive measures for leakages and accident.
28. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.
29. Corrosion Management of Pipeline
30. Details of proper restoration of land after laying the pipelines.
31. Details of proposed Occupational Health Surveillance program for the employees and other labour
32. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.
33. Public hearing to be conducted in all three districts 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 (Shahid Bhagat Singh Nagar and Hoshiarpur in Punjab and Una district of Himachal Pradesh) 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.

9.7.13 Setting up of Polyester (PET) Granules (96000 TPA), Polyester Filament Yarn (POY/FDY) from PET Granules (96000) TPA and Polyester Texturized Yarn from POY/FDY (88000 TPA) at Survey no. 196, 206, 207/1 & 208/1-2, Industrial Zone, Village Velugam, Silvassa, U.T. of Dadra and Nagar Haveli by M/s Dodhia Synthetics 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 fibre and other fibres unit located inside the notified industrial area/estate are listed at S.N. 5(d) under category 'B' and however, due to General Condition of Interstate boundary (0.98 km from Maharashtra) in the project will be treated as A category and appraised at Expert Appraisal Committee.

M/s Dodhia Synthetics Ltd. has proposed for setting up of Polyester (PET) Granules (96000 TPA), Polyester Filament Yarn (POY/FDY) from PET Granules (96000) TPA and Polyester Texturized Yarn from POY/FDY (88000 TPA) at Survey no. 196, 206, 207/1 & 208/1-2, Industrial Zone, Village Velugam, Silvassa, U.T. of Dadra and Nagar Haveli. As per Form-1, DNH Wildlife sanctuary is situated at a distance of 1.10 Km in North direction, A Reserved forest is situated at a distance of 2.78 Km in North direction from the plant site. Damanganga River is flowing at a distance of 8.7 Km north from the proposed project site.

Total Land area after proposed 36223.00 m^2 (3.62 Hectare) out of which 11975.00 m^2 green belt will be develop within the premises. Total cost of proposed project will be 244.97 Crore, out of which cost earmarked for EMP will be 5 crores. About 300 persons will be employed under this proposition. The Following products will be manufactured:

S. No.	Name of the products	Quantity (MT/Year)
1	Polyester (PET) Granules (by recycling of PET Bottle scrap)	**96,000**
2	Polyester Filament Yarn (POY/FDY) from PET Granules	**96,000**
3	Polyester Texturized Yarn from POY	**88,000**

Power requirement is 20 MW and will be sourced from the Electricity department, Silvassa. Three DG set of capacity 500KVA each will be installed as stand by. Diesel/FO fired steam boiler of 8 TPH capacity (2X4 TPH each) will be used.

Fresh water requirement will be 1070 m^3/day, which will be sourced from bore well within premises. The committee suggested for not using ground water and fresh water to be drawn from nearby surface water body. Wastewater will be treated in ETP and the treated water will be completely reused in process & washing and in watering green belt area.

The plastic waste will be recycled back/ sold to actual user as per Plastic waste rules-2016. The ETP waste will be sent to TSDF site. Used oil will be sold to registered refiners/ sent to TSDF site. Empty drums and will be sold to authorized recycler/ Scrap dealers.

PP requested for exemption of public hearing being located in a notified industrial area but the committee recommended to go for public hearing as project is a green field.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (Refer Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR

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 (SOx, NOx, VOC, CO, CO_2, *etc*.) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc*.
6. Details on chemical releases – acetonitrile, CS_2, ethylene, ethylene glycol, HCl, methanol, *etc*., and its management.
7. Details on existing ambient air quality and expected, emissions for PM10, PM 2.5, SO_2*, NOx*, CO_2*, CO*, CS_2*, VOC*, H_2S, *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

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. No Ground water to be extracted.
III. Copy of application submitted to seek permission from NBWL with respect to DNH wild life sanctuary.

It was recommended that **'TOR' 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.

9.7.14 Expansion of Bulk Drugs and Intermediates Manufacturing Unit (34.7 TPM to 173 TPM) at Sy.No. 305, 369 to 371, 373, 374 and 377, Village Gundlamachnoor, Mandal Hatnoora, District Medak, Telangana by M/s Aurobindo Pharma Limited (Unit IX)-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 (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 Aurobindo Pharma Limited (Unit IX) has proposed for expansion of Bulk Drugs and Intermediates Manufacturing Unit (34.7 TPM to 173 TPM) at Sy.No. 305, 369 to 371, 373, 374 and 377, Village Gundlamachnoor, Mandal Hatnoora, District Medak, Telangana. Ministry has issued EC vide letter no. J-11011/83/2004-IA II (I) dated 21st June, 2005 for production of 162 TPA or 13.5 TPM capacity .

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Manjeera river is flowing at a distance of 2.5 km in W direction from the project site.

Existing plot area is 22.04 acres, out of which 8 acre land already been developed as greenbelt. Total Cost for the expansion is Rs. 35 crore. Proposed expansion project will be provided employment to 100 peoples. Following are the details of products of existing and proposed expansion:

List of Existing Products

S.No	Name of the Products	Quantity in TPA	Quantity in TPM
1	2 Methyl 5 Nitro Imidazole	144	12
2	D-Oxyphene base	18	1.5
	Total	162	13.5

List of Proposed Products

S.No	Name of Product	Capacity TPM
1	Ciprofloxacin HCl (Crude to Tech Grade)	12.00
2	Metoprolol(base)	11.25
3	N-Isopropyl-2-methyl-2-n-propyl-3-hydroxypropyl carbamate (monocarbamate)	6.00
4	Losartan Potassium	7.50
5	Aminocarbinol Tartrate	6.75
6	N-[2-Amino-4,6-dichloro-5-pyrimidinyl] formamide	6.75
7	(2S,3S,5S)-2-Amino -3-Hydroxy-5-[2S-(1-Tetrahydropyrimid-2-Onyl)-3-Methyl butanoyl} Amino-1,6-Diphenylhexane, (S)-Pyroglutamic acid Salt	6.75
8	Trityl Losartan	6.00
9	[R-(R*,S*[[2-Methyl-1-(1-oxopropoxy) propoxy] (4-phenyl butyl) phosphinyl] acetic acid Cinchonidine salt (MOPPA)	6.75
10	Prenyl Half Ester	6.00
11	Metaprolol Tartrate	6.75
12	Candesartan Methyl Ester	4.50
13	N-Methyl Paroxetine	3.75
14	N,N-Dimethyl -3-Chloropropyl Amine (Citalopram – int –A)	3.00
15	Dichloro Compound of Famicyclovir	3.00
16	Iron Sucrose	3.00
17	2,6-Dimethylphenoxy acetic acid	3.30
18	Lamivudine	3.00
19	Simvastatin	3.00
20	Zidovudine	3.00
21	Polyphosphate Ester	3.00
22	4-(Dimethylamino) Butanal Diethyl Acetal	3.00
23	Cilexetil Chloride	3.00
24	O Acetyl Thio Ester	3.00
25	Bis Methyl Silyl Urea (BSU)	3.00
26	4-Amino-2-Hydroxymethyl-1-Butanol Hydrochloride (Famciclovir side chain)	3.00
27	(2S,3S,5S)-5-amino)-2-[N-[5-Thiazolyl)MethoxyCarbonyl] Amino]-1,6-Diphenyl-3-Hydroxyhexane(ATADH)	2.63
28	IndinavirSulfate	1.50
29	N-{[N-Methyl-N{(2-Isopropyl-4-Thiazolyl) Methyl] Amino] Carbonyl]-L-Valine (MITAVA)	1.50
30	L-Valine Methyl Ester	1.50
31	N-(Trifluoro Acetyl)-L-Lysine (Lisinopropril)	1.50
32	2-Ethoxy-1-Naphthoic Acid	1.50
33	Sevelamer Hydrochloride/ Carbonate	1.50
34	AR Modafinil	1.50
35	(Bromomethyl)Biphenyl Methyl Ester (Telmisartan Stage II)	1.13
36	1-Bromo-4a,5,9,10-Tetrahydro-3-Methoxy-6-Oxo-6H-Benzofuro{3a,3,2-ef}[2] Benzazepin-11-(12H)-Carboxaldehyde (Bromoformylnarnorvedine)	1.05
37	Rabeprazole Sodium	0.75

38	Methyl (2E)-3-[4-(4-Florophenyl)-6-Isopropyl-2-[N-methyl (N-Methyl sulfonyl) amino]Pyrimidine-5-yl]acrylate ([E] Pyrimidine Alkene) (substituted HydroxyPentanoic Acid)	0.75
39	Pitavastatin Intermediate	0.75
40	Benzyl(2S,3aR,7aS)Octahydro-1H-Indole-2-Carboxylate Hydrochloride (BOHI HCl)	0.60
41	1-[4-(Pyridin-2-yl)phenyl]-5(s)-2,5-Bis-[(tert-Butyloxycarbonyl)-Amino]-4(S) Hydroxy-6-Phenyl-2-Azahexane (DIBOC Intermediate)	0.45
42	N-[(S)-Ethoxy Carboxyl-1-Butyl]-(S)-Alanine-(ECBA)	0.38
43	Benzyl(2s,3as,7as) Octahydro-1H-Indole-2-Carboxylate P-Toluenesulfonic acid (OHI ESTER)	0.38
44	6-Hydroxy-2-(4-hydroxyphenyl) benzo[b]thiophene (Dihydroxybenzothiophene)	0.38
45	NelfinavirMesylate	0.30
46	(3S,4aS,8aS)-2-(2R)-2-{(4S)-2-(3-Hydroxy-2-methyl phenyl-4,5-dihydrooxazol-4-yl]-2-hydroxyethyl} decahyro isoquinoline-3-carboxyic acid-tert-butylamide (Nelfinavir stage viii)	0.30
47	Trans-4-Cyclohexyl-L-Proline (CHP)	0.30
48	3-Chloro-trans-Octahydro-1H-Quindin-2-One (Bohi)	0.30
49	2-(2-Ethoxy Phenoxy) Ethyl Methane Sulfonate (EPE Mesylate)	0.30
50	8-Methoxy Quinoline Boron Difluoride Chelate (Moxifloxacillin)	0.30
51	N-(Methoxy Carbonyl)-(L)-TertLeucine (MOC Leucine)	0.30
52	3-(Methylamino)Propionitrile	0.30
53	N-(4-Aminobenzoyl)-b-Alanine (4ABBA)	0.15
57	(6S)-(-)2,6-Diamino-4,5,6,7-tertahydro benzothiazole (Pramipexoldiamine)	0.15
55	(2S,4S)-FMOC-4-Cyclohexyl-Pyrrolidine-2-Carboxylate (FMOC-ChxPro-OH)	0.03
56	BT Hydrazine Sulfonic acid	0.02
57	Silodosin (intermediate)	0.38
58	FosaprepitantDimeglumine	0.38
59	Mirabegron	0.75
60	Colesevelam	1.13
61	3-Hehyan-2-ol	0.08
62	Methoxitil	0.08
63	Rivastigimine	0.08
64	Bezafibrate	0.08
65	2-Isopentyl-2-Isopropyl-1,3-Dimethoxy propane	0.38
66	Efavirenz	1.50
67	Tramadol Hydrochloride	3.75
68	Lorcaserin Hydrochloride	0.30
69	Teriflunomide	0.15
70	Apixaban	0.08
71	Canaglifluzine	0.03
72	Atovaquone	0.75
73	Sodium Ferric Gluconate	2.25
74	Fluvastatin Sodium	2.25
75	DiprotectedRosuvastatin	2.25
76	Lamivudine Coupled Ester	1.13

77	Oxocompound Free Base	0.08
78	Sofosbuvir	0.08
79	Raltegravir Potassium	1.01
80	Flecanide acetate	0.38
81	Nebivilol	0.38
82	Clobazam	0.12
83	Nefopam	0.08
84	Carbimazole	0.08
85	ledipasvir	0.08
86	R & D Pilot Plant Trial Run Products (Bulk Drugs and Intermediates)	0.50
	Total	**173**

During presentation Committee noted that this proposed expansion project is for production of bulk drug from 34.7 TPM to 173 TPM. However, it is also noted that as per existing EC issued by the Ministry, the production quantity was given to be 13.5 TPM, while in this proposal enhancement is being sought from 34.7 TPM to 173 TPM in place of 13.5 TPM to 173 TPM. Further on perusal of CTO issued by SPCB, it is noted that production capacity is permitted 1.156 TPD (34.7 TPM). Therefore the committee concluded that the industry has enhanced the production capacity without taking prior EC and same is reported in inspection of Regional Office made on 31.10.2002. Hence it is a case of violation and Ministry may take action under provision of E(P) Act, 1986.

9.7.15 Proposed Expansion of Existing Pesticide (2940 to 4260 TPA) Project at 2KM Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak, Haryana by M/s Bharat Rasyan- reg TOR.

Proposal was considered by the EAC in its meeting held during 30th March to 2nd April 2016 and the Committee asked the PP to submit a copy of EC for existing project could be produced or a copy of CTO or CTE obtained prior to EIA, Notification 1994 exiting plant is not available.

Accordingly, PP has submitted the copy of CTO issued vide dated 25.08.1993 by Haryanya Pollution Control board, which shows that unit was established prior to EIA, Notification 1994.

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

A. Specific TOR

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_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including ssegregation 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

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. ZLD system to be adopted.

It was recommended that **'TOR' 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.

9.8 Any Other

9.8.1 Exploratory/Appraisal For 15 Wells In Onshore Oil & Gas Exploration BLOCK AA-ONN-2002-1 at Districts Dhalai, West Tripura and South Tripura, Tripura by M/s Jubilant Oil and Gas Pvt. Ltd.- reg. Extension of EC.

MoEF&CC vide letter J-11011/1109/2007-IA II(I) dated 11.06.2009 has granted environmental clearance to M/s Jubilant Oil and Gas Pvt. Ltd. for Exploratory/Appraisal for 15 Wells In Onshore Oil & Gas Exploration BLOCK AA-ONN-2002-1. PP informed that M/s Jubilant Oil and Gas Pvt. Ltd had applied for extension of EC validity on 5.11.2014. It was noted that EC dated 11.06.2009 was valid upto 11.06.2014 and PP had applied for extension of validity after expiry. In this proposal, PP informed that out of 15 wells, seven wells have been drilling in July 2013 and others are pending for drilling due to forest clearance and for other reasons. As per the amendment Notification, the validity of EC has now been extended from 5 to 7 years. Since PP has applied in time limit of 7 years. Therefore, the Committee recommended for extension of EC for another 5 years.

9.8.2 Molasses based Distillery (30 KLPD) at Village Havargaon, Tehsil Kallam, District Osmanabad in Maharashtra by M/s Shambhu Mahadeo Sugar & Allied Industries Limited- reg. Corrigendum in EC.

MoEF&CC vide letter J-11011/31/2010- IA II (I) dated 16.05.2015 has granted environmental clearance to M/s ShambhuMahadeo Sugar & Allied Industries Limited for setting up of molasses based distillery with following specific condition:

"Spentwash shall be treated through bio-methanation process and concentration in MEE followed by incineration"

Now, PP has requested to drop treatment process of bio-methanation process from the treatment scheme of spent wash. The Committee noted that EIA study has been carried out based on the above mentioned treatment scheme. Therefore, the Committee did not agree for the proposed amendment in EC.

9.8.3 Expansion of the existing Pesticide Formulation Plant (90 MTPD) by installing Pesticide Manufacturing Unit (21 MTPD) at Village Nathupur, District Sonepat, Haryana by M/s Crystal Phosphates Limited- reg. Amendment in EC.

MoEF&CC vide letter J-11011/120/2011-IA-II(I) dated 23.05.2012 has granted environmental clearance to M/s Crystal Phosphates Limited for expansion of pesticide. Now, PP intend to amend the products list as per market scenario. The Committee noted that the proposed project falls under change in product mix. Therefore, the Committee suggested them to submit form1 through online system in TOR category.

9.8.4 Integrated Sugar Complex of 5000 TCD Sugar Plant, 33.5 MW Cogeneration Plant and 120 KLPD Ethyl Alcohol (RS/ENA/Ethanol) at Village Gangapur&Siranahalli, Taluka Mundargi, District Gadag, Karnataka by M/s Vijaynagar Sugar Pvt. Ltd. – reg. Amendment in EC.

MoEF&CC vide letter no J-11011/366/2007 IA II (I) dated 15.04.2008 has issued environmental clearance to M/s Vijaynagar Sugar Pvt. Ltd. for setting up of Integrated Sugar Complex of 5000 TCD Sugar Plant, 33.5 MW Cogeneration Plant and 120 KLPD Ethyl Alcohol (RS/ENA/Ethanol) with spent wash treatment technology based on evaporation followed by incineration. Now, PP intends to treat 200 m3/day spentwash through bio-composting route and remaining spent wash (450 m^3/day) through MEE followed by incineration. The Committee noted that biocomposting route can not be allowed without treating spent wash through biomethanation process.

After detailed deliberation, the Committee sought following addl. information:

(a) Detailed proposed spent wash treatment scheme alongwith flow chart.
(b) To explain why the Company is not proposing to install bio-methanation plant for treatment of spent wash once it is established technology for bio-methanation followed by Biocomposting.
(c) Quantity of spent wash will be treated from incineration route and biocomposting route.
(d) Details of monitoring mechanism to be followed for dual treatment scheme alongwith monitoring of treated effluent.
(e) Ground water analysis report around the spent wash lagoon area.
(f) Cost benefit analysis by adopting both treatment schemes.
(g) Quantity of treated effluent to be recycled/reused.
(h) Certified compliance report of the existing conditions stipulated in the EC by the Regional Office of MoEF&CC.

9.8.5 Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam district, Andhra Pradesh by M/s Coromandel

International Limited (Formerly M/s Coromandel Fertilizer Limited)- reg. TOR – Site Visit reg.

As per the recommendation of the Expert Appraisal Committee (Industry -2) in its 6th meeting held during 30th March, 2016 – 2nd April, 2016, a sub-Committee comprising of Shri R K Singh, Vice Chairman, Prof. J.R. Mudakavi, Member and Member Secretary shall visit the project site to assess the existing environmental scenario and recommend for the additional studies to be undertaken by the above mentioned projects. Shri R K Singh could not attend the visit due to his own reasons.

Site visit was conducted on 10.6.2016. At the outset, Project proponent gave the detailed presentation and explained the Committee members about the existing facilities and proposed project to be undertaken. The Committee visited the following facilities:

i. Process area
ii. ETP area
iii. Gypsum sludge storage area
iv. Remediation site
v. Intake and outlet water channel

Observations:

i. Gypsum storage area was seen to be upgraded. Storage area was surrounded by unlined garland drain. There was no greenbelt around the gypsum storage area.
ii. Sulphuric acid plant based on DCDA has been installed.
iii. Total water requirement from Greater Visakha Municpal Corporation is 9000 m3/day. Besides, 63,000 KL per day sea water will be used for cooling purpose.
iv. ETP was found to be operational. It was informed that treated effluent is being recycled/reused in the process.
v. Online monitoring system for Sulphuric acid plant was seen.
vi. Four stage scrubbing system is installed in the granulation plant.

After visit Sub-committee prescribed the following additional TOR:

i. Installation of wind breaker to be done around the unloading site of the dry gypsum from the conveyor belt to reduce the wind blown dust emission.
ii. Proper garland drain to be constructed around the gypsum storage area.
iii. Proper leachate collection system around the gypsum storage area. Arrangement to be provided to collect and treat leachate in the ETP.
iv. Action plan for greenbelt development around the gypsum storage area. Also provide greenbelt plan around the industry.
v. Ground water monitoring shall be carried out in 8 peizometer wells around gypsum storage area.
vi. Proper plan to be drawn for reduction of fresh water requirement.
vii. Action plan for installing continuous fluorine monitoring facility in the Phosphoric plant.
viii. Action plan to install online Fluoride and Phospohate monitoring system in the outlet of ETP.

The Committee discussed the recommendations of sub-committee and After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR given at Annexure-I for preparation of EIA-EMP.

A. Specific TOR

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

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 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.
3. Installation of wind breaker to be done around the unloading site of the dry gypsum from the conveyor belt to reduce the wind blown dust emission.
4. Proper garland drain to be constructed around the gypsum storage area.
5. Proper leachate collection system around the gypsum storage area. Arrangement to be provided to collect and treat leachate in the ETP.
6. Action plan for greenbelt development around the gypsum storage area. Also provide greenbelt plan around the industry.
7. Ground water monitoring shall be carried out in 8 peizometer wells around gypsum storage area.
8. Proper plan to be drawn for reduction of fresh water requirement.
9. Action plan for installing continuous fluorine monitoring facility in the Phosphoric plant.
10. Action plan to install online Fluoride and Phospohate monitoring system at the outlet of ETP.

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.

9.8.6 Expansion of Grain/ Molasses Based Distillery unit (100 to 125 KLPD) and 3 MW to 3.8 MW CPP at Village Chulkhana, Tehsil Samalkha, District Panipat, Haryana by M/s Haryana Organics (A unit of Globus Spirits 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) and all Mollases based distillery are listed at 5 (g) (i) under category 'A' and appraised at Central level.

M/s Haryana Organics (A unit of Globus Spirits Ltd.)has proposed for Expansion of Grain/ Molasses Based Distillery unit (100 to 125 KLPD) and 3 MW to 3.8 MW CPP at Village Chulkhana, Tehsil Samalkha, District Panipat, Haryana

MoEF&CC has issued EC vide letter no. J-11011/714/2009- IA II (I) dated 28.02.2011 for setting up of 25 to 100 KLPD Grain/ Molasses based distillery.

As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. While a Western Yamuna Canal (New Delhi parallel branch) is flowing at a distance of 5.5 km in West direction.

The Existing plot area is 6.878 ha and no additional land is required for the proposed expansion. About 2.269 Ha area has already been developed as green belt. Total cost of the proposed project is Rs. 10 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 3.0 Crores. Distillery will work on 350 days. The following product will be manufactured under proposed project:

S. NO.	Unit	Existing Capacity	Proposed Capacity Enhancement	Total capacity after enhancement
1	Distillery (RS, ENA, Country Liquor (IMIL), FO, IMFL & Ethanol)	100 KLPD Grain Based or 75 KLPD Grain based + 25 KLPD Molasses Based	25 KLPD Grain Based	125 KLPD Grain Based or 100 KLPD Grain based + 25 KLPD Molasses Based
2	Co- Generation Power Plant	3.0	0.8	3.8

PP informed that existing power requirement is 3.0 MW and additional 0.2 MW power will be required under proposed expansion which will be met from own CPP. Existing steam

requirement is 31 TPH and there will be no additional steam requirement for the proposed Capacity Enhancement project. Source:- Boiler- 2 in nos. of capacity of 25 & 14 TPH.

Existing fresh water requirement is 657 m3/day for Molasses or 552 m3/day for grain based operations. Grain Slops (Spent Wash) is being/will be taken through Centrifuge Decanters followed by evaporation, DWGS and DDGS and plant is based on Zero liquid discharge system. Process condensate is being/will be cooled and collected into a neutralization tank with sufficient residence time. After Neutralization and filtration (UF+RO) this process condensate is being/will be recycled into process use.

DDGS will be used as cattle feed.Ash from the boiler is being/will be sold to brick manufacturers. Used oil generated from plant machinery as hazardous waste is being / will be sold out to the CPCB authorized recyclers.

PP informed that the enhancement shall be taken without increase the water and land requirement and requested for exemption of Public consultation since there is 25 % capacity enhancement. The committee agree and recommended for exemption of Public consultation as per para 7 (ii) of EIA Notification. 2006.

However, after detailed deliberations, the committee recommended for site visit by the sub committee to assess the existing status of pollution control measures adopted by the PP.

******

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 30th 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 heath 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 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. 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.

TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of

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

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 9th MEETING OF EAC (INDUSTRY-2) HELD ON 27-28th June , 2016

S.N.	Name	Designation	Attendance
1	Dr. J. P. Gupta	Chairman	P
2	Sh. R. K. Singh	Member	P
3	Dr. Ahmed Kamal	Member	A
4	Prof. J.R. Mudakavi	Member	P
5	Dr. Ajay Gairola	Member	A
6	Dr. N. Nandini	Member	P
7	Prof. (Dr.) H.R. V Reddy	Member	P
8	Dr. Shashank Shekhar	Member	P
9	Ms. Saloni Goel	Member	P
10.	Shri Suhas RamchandraPharande	Member	P
11.	Shri G. C. Pati	Member	A
12	Dr. S. K. Peshin	Member	A
MOEF Representatives			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P

****