MINUTES FOR 4th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 11-12th FEBRUARY, 2016

VENUE: Teesta Hall, Vayu Wing, 1st Floor, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi -110003.

Time : Meeting held at 10: 00 AM

4.1 Opening remarks by the Chairman

Time : 10: 00 - 10: 15 AM

4.2 Confirmation of the Minutes of the 3rd Expert Appraisal Committee (Industry-2) held during 18-19th January 2016.

4.3 Environmental Clearance

4.3.1 Expansion of Pesticide Manufacturing Unit (Unit- 2) at Plot No. 701, 2419/1, 2419/2, Sachin GIDC Estate, Tehsil & District Surat, Gujarat by M/s Anupam Rasayan India Ltd. reg.-EC.

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 16th Meeting of the Expert Appraisal Committee (Industry) held during 20th to 21st February, 2014 for preparation of EIA-EMP report. All technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Anupam Rasayan India Ltd. has proposed for expansion of Pesticide Manufacturing Unit (Unit – 2) at Plot No. 701, 2419/1, 2419/2, Sachin GIDC Estate, Tehsil & District Surat, Gujarat. Total plot area is 5982 m^2 of which greenbelt area will be developed in 1794 m^2. Total cost of expansion project is Rs. 50.0 Crore. No national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, reserve forests etc. are located within 10 km distance. It is reported that water bodies i.e. khadi, Gabheni Lake, Pali Lake, Kansal Lake, Lunej Pond and Canal (Virpara) are located within 10 km distance. The following products will be manufactured:

Sr. No.	Name of Product	Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total after proposed expansion (MT/Month)
Group - A (Insecticides)				
A.	**Intermediates**			
1	Meta Phenoxy Benzaldehyde (MPBAD)	--		

2	Cypermethric Acid Chloride (CMAC)			
3	Lambda Cyhalothric Acid Chloride (TFP Acid Chloride)			
4	Meta Phenoxy Benzyl Alcohol (MPBAL)			
5	2-Chloro 5-Chloromethyl Pyridine (CCMP)			
A1. Synthetic Pyrethroids				
6	Cypermethrin (T) & Beta, Zeta, Theta, etc. Isomers		370	370
7	Alphacypermethrin (T)			
8	Deltamethrin (T)			
9	Permethrin (T)			
10	Lambda Cyhalothrin (T)			
11	Bifenthrin (T)			
12	Tefluthrin (T)			
13	Transfluthrin (T)			
14	Cyfluthrin & Beta Isomers (T)			
15	Cyphenothrin (T) & its [1R-Trans-isomer]			
16	Dimefluthrin (T)			
17	Fenpropathrin (T)			
18	Cycloprothrin (T)			
19	Flumethrin (T)			
20	Acrinathrin (T)			
21	Etofenprox (T)			
22	Flucythrinate (T)			
B. Neo Nicotinoid / Thiazole / Nitro Guanidine				
23	Imidacloprid (T)			
C. Carbamate / Phenyl Ether / Benzoyl Phenyl Urea / Phenyl Pyrazole / Oxadiazine				
24	Fenoxycarb (T)			
25	Pyriproxifen (T)			
Total Production of Groups - A (Insecticides)		**000**	**370**	**370**
Group - B (Amino Diphenyl Ether / Phenoxy Compounds)				
26	2 – Amino – 2', 4' – Dichloro Diphenyl Ether (Y)	250	100	350
27	2 – Amino – 2' – Methyl Diphenyl Ether (Red Ether)			
28	Amino Resorcine Di Ortho Cresyl Ether			
29	2 – Amino Di Phenyl Ether (Orhto Amino Di Phenyl Ether/2 - PA)			
30	4 – Amino Di Phenyl Ether			
31	4 – Amino 4' – Methyl Di Phenyl Ether (4 - PP)			
32	2 – Amino 2', 4, 4'- Tri Chloro Di Phenyl Ether (Benzinamide, 5 – Chloro – 2 – 2 (2, 4 – Dichloro			

	Phenoxy) / Trade)			
33	4 – Amino 2', 4' Di Chloro Di Phenyl Ether (OD Amino)			
34	4, 4' – Di Amino Di Phenyl Ether			
35	3, 4' – Di Amino Di Phenyl Ether			
36	2 – Amino – 4 – Chloro Di Phenyl Ether (PHD Ether)			
37	4 – Amino – 2, 4' – Di Chloro Di Phenyl Ether (GE / Aminophene)			
38	2 – Amino – 4' – Chloro Di Phenyl Ether			
39	2 – Amino – 4'- Chloro – 4 – Trifluoromethyl Di Phenyl Ether (ACTM)			
40	4 – Amino – 4' – Chloro Di Phenyl Ether (PPNA)			
41	1, 2 – Bis (2 – Amino Phenoxy) Ethane			
42	1, 2 – Bis (4 – Amino Phenoxy) Ethane			
43	4 – Amino – 4 ' – Nitro Diphenyl Ether			
44	2 – Amino – 2', 4 – Dichloro Diphenyl Ether			
45	2 – Amino – 4, 4' – Dichloro Diphenyl Ether (PD Amino)			
46	2 – (4 – Nitro Phenoxy) Ethanol			
47	1, 4 – Bis (4 – Amino Phenoxy) Benzene			
48	1, 3 – Bis (4 – Amino Phenoxy) Benzene			
49	1, 3 – Bis (3 – Amino Phenoxy) Benzene			
50	1, 2 – Bis (2 – Methyl Phenoxy) Ethane			
51	1, 2 – Bis (3 – Methyl Phenoxy) Ethane			
52	1, 2 – Bis (3 – Methyl Phenoxy) Ethane			
53	5 – Amino – 2, 2', 3 – Trichloro – 4 – Nitro – Diphenyl Ether			
54	2 – Amino – 4, 4'- Dichloro Diphenyl Ether – 2' – Sulfonic Acid / Sodium Salt			
55	4, 4' – Dihydroxy Diphenyl Ether			
56	2 – Hydroxy – 4, 4' – Dichloro Diphenyl Ether			
57	2 – Hydroxy – 2, 4, 4' – Trichloro Diphenyl Ether			
58	4 – Hydroxy – 2', 4' – Dichloro Diphenyl Ether			
59	2 – Chloro – 4 (4 – Chlorophenoxy) Acetophenone / 4 – Acetyl - 3, 4' – Dichloro Diphenyl Ether			
60	2 – Acetyl – 2', 4, 4' – Trichloro Diphenyl Ether			
61	4, 4' – Dimethyl Diphenyl Ether			
62	4, 4' – Dicarboxy Diphenyl Ether			
63	Diphenyl Ether			
64	4 – Hydroxy Diphenyl Ether / 4 – Phenoxy Phenol			
65	5 Chloro – 6 – (2, 3 Dichloro Phenoxy) – 2 – Methyl Thio – 1H Benzimidazol / Triclabendazole			
66	3, 4' – Di Chloro Diphenyl Ether			

67	3 – Phenoxy Toluene			
	Total Production of Group - B	**250**	**100**	**350**
Group - C (Specialty Phenols)				
68	2, 3 – Dichloro Phenol	50	200	250
69	2, 5 – Dichloro Phenol			
70	3, 4 – Dichloro Phenol			
71	3, 5 – Dichloro Phenol			
72	3 – Methyl Phenol (m-Cresol)			
73	3 – Chloro Phenol			
74	3-Nitro Phenol (Meta Nitro Phenol)/2-Nitro Phenol(Ortho Nitro Phenol)/4-Nitro Phenol(Para Nitro Phenol)			
75	4 – (2 – Methoxy Ethyl) Phenol			
76	Anisole			
77	2, 3 Dichloro Anisole			
78	2, 5 Dichloro Anisole			
79	4 – Bromo – 2 – Chloro Phenol			
80	4 – Bromo 2, 5 Dichloro Phenol			
81	4 – Fluoro Phenol			
82	2 – Fluoro Phenol			
83	o – Benzyl – p – Chloro Phenol			
84	o – Cyano Phenol			
85	p – Chloro – m – Cresol			
86	p – Chloro – m – Xylenol			
87	Dichloro – m – Xylenol			
88	Dichlorophene			
89	Bromochlorophene			
90	5 – Chloro – 2 – Amino Phenol			
91	4 – Chloro – 2 – Amino Phenol			
92	4, 6 – Dichloro – 2 – Amino Phenol			
93	3, 4, 5 Tri Methoxy Toluene			
94	4 – Bromo Anisole			
Total Production of Group - C		**50**	**200**	**250**
Group - D (Amino Benzoic Esters)				
95	3 – Amino – 4 – Methyl Benzoic Acid Methyl Ester	000	250	250
96	3 – Amino – 4 – Methyl Benzoic Acid Isopropyl Ester (AMBI)			
97	3 – Amino – 4 – Methyl Benzoic Acid (2' – Chloro Ethyl Ester) (AMBC)			
98	5 – Amino – 2 – Methyl Benzene Sulphonic Acid Phenyl Ester			

99	Benzene Sulphonic Acid – 3 – Amino Phenyl Ester			
100	2 – Cyano – 3, 4, 5, 6 – Tetrachloro Benzoic Acid Methyl Ester			
101	Benzene Sulphonic Acid – 2 – Methyl – 5 – Nitro phenyl Ester			
102	Bisphenol - A (Amino Benzene Sulfonate)			
Total Production of Group - D		**000**	**250**	**250**
Group - E (Amino Compounds)				
103	3 – Amino – 4 – Methyl Benzoic Acid	50	120	170
104	3 – Amino – 4 – Chloro Benzotrifluoride			
105	3 – Amino Benzotrifluoride			
106	2 – Chloro – 1 , 4 – Phenylene Diamine (2, 5 DCPPD)			
107	2, 5 – Dichloro – 1, 4 – Phenylene Diamine			
108	2 – Chloro – 5 – Methyl – 1, 4 – Phenylene Diamine			
109	2, 5 – Dimethyl – 1, 4 – Phenylene Diamine			
110	3, 4 – Diamino Toluene			
111	2, 3 – Dichloro Aniline			
112	2, 5 – Dichloro Aniline			
113	3, 4 – Dichloro Aniline			
114	3, 5 – Dichloro Aniline			
115	3 – Iso Propoxy Aniline			
116	5 – Amino Benzimidazol – 2 – One			
117	6 – Methyl – 5 – Amino Benzimidazolone			
118	2, 4, 5 Tri Chloro Aniline			
Total Production of Group - E		**50**	**120**	**170**
Group - F (Acetylated Compounds)				
119	2, 4 – Dichloro Acetophenone	--	170	170
120	2, 5 – Dichloro Acetophenone			
121	4 – Fluoro Acetophenone			
122	2, 4 – Dichloro – 5 – Fluoro Acetophenone			
123	4 – Fluoro Phenacyl Chloride			
124	2, 4 – Dichloro Phenacyl Chloride			
125	2, 4 – Dichloro butyro phenone			
Total Production of Group - F		**000**	**170**	**170**
Group - G (Nitro Compounds)				
126	6 – Nitro – 3, 4 – Dichloro Aniline	--	170	170
127	4 – Nitro – 2, 5 – Dichloro Aniline			
128	2 – Nitro – 4 – Methyl Aniline			
129	4 – Nitro – 2, 5 – Dimethyl Aniline			

130	4 – Nitro – 5 – Chloro – 2 – Methyl Aniline			
131	4 – Nitro – 2, 5 – Dichloro Phenol			
132	4 – Nitro – 2, 3 – Dichloro Phenol			
133	6 – Nitro – 2, 4 – Dichloro Phenol			
134	2 –Nitro – 4 – Chloro Phenol			
135	5 – Nitro Salicylic Acid			
136	5 – Chloro – 2 – Nitro Phenol			
137	3 – Nitro – Para Toluic Acid			
138	3 – Nitro – 4 – Chloro Benzotrifluoride			
Total Production of Group - G		**000**	**170**	**170**
Group - H (Hydrogenation Compounds)				
139	3, 5 – Dichloro Aniline	--	85	85
140	2 – Amino Diphenyl Ether			
141	2, 5 – Dichloro Aniline			
142	2, 3 – Dichloro Aniline			
143	3, 4 – Dichloro Aniline			
Total Production of Group - H		**000**	**85**	**85**
Group - I (Triclosan / Diclosan / Amino Hydroxy Ether/ HP 100)				
144	HDC HP 100 (Tinosan HP - 100) (formulated 2 – Hydroxy – 4 – 4 – Dichloro Diphenyl Ether) (30 % Solution)	--	170	170
145	Resorcinol Di (Beta – Hydroxy Ethyl) Ether			
146	Phenofen			
Total Production of Group - I		**000**	**170**	**170**
Total Production		**350**	**1635**	**1985**

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 –May, 2014 and submitted baseline data indicates that ranges of concentrations of $PM_{2.5}$ (34.6 µg/m^3 to 51.89 µg/m^3), PM_{10} (47.4 µg/m^3 to 86.7 µg/m^3), SO_2 (12.3 µg/m^3 to 17.4 ug/m3) and NOx (12.8 µg/m^3 to 21.6 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.123 µg/m^3, 0.256 µg/m^3 and 0.115 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

ESP alongwith adequate stack height will be provided to additional coal/briquette/lignite fired boiler to control particulate emissions. Scrubber will be provided process emission viz. SO2, HBr, HCl, H_2S and Cl_2. Total water requirement will be increased from 131.625 m3/day to 391 m3/day after expansion out of which fresh water requirement from the GIDC water supply will be 269 m^3/day and remaining water requirement (122 m3/day) will be met from recycled water. Quantity of effluent generation will be increased from 50.96 m^3/day to 151 m^3/day after expansion out of which 50 m^3/day shall be treated in MEE out of which 50

m^3/day will go to SBT treatment, another 25 m^3/day which is a High COD stream will go to SBT treatment and ultimately 75 m^3/day will be treated in SBT treatment out of which 65 m^3/day will be reused back in plant. 53.5 m^3/day of wastewater in proposed Scenario will be given primary treatment in ETP and ultimately sent to CETP of M/s. Globe Enviro Care Ltd., Surat. 10 m3/day boiler & cooling blow down shall be reused in scrubbers. ETP Sludge and MEE salt will be sent to TSDF. Fly ash will be sent to brick manufacturers. Iron sludge will be sent to cement industry. Distillation residue will be sent to co-processing or disposal at common incineration site.

The committee also discussed the compliance of conditions stipulated in the existing EC and found satisfactory.

The Committee exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006 as unit is located in the notified GIDC Industrial area.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering 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. ESP shall be provided to additional coal/briquette/lignite fired boiler to control particulate matter. Continuous air emission monitoring system to be installed from the stack.
iii. Scrubber will be provided to control process emissions viz. SO2, HBr, HCl, H_2S and Cl_2. 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. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
v. All necessary steps should be taken for monitoring of VOCs in the plant.
vi. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
vii. Total water requirement from GIDC water supply should not exceed 269 m^3/day and prior permission should be obtained from the Competent Authority.
viii. Industrial effluent generation should not exceed 151 m^3/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. Treated effluent (53.0 m3/day) shall be discharged into CETP for further treatment after conforming to discharge norms. Treated effluent from SBT (65 m^3/day), condensate and recover water shall be treated and recycled/reused within factory premises.

ix. Treated effluent should be passed through guard pond. Continuous Online (24x7) of flow, pH and TOC should be carried out.

x. The Company shall carry out bioassy test for the treated effluent in the guard pond. 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.

xi. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.

xii. 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.

xiii. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

xiv. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.

xv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

xvi. As proposed, green belt over an area of 1794 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.

4.3.2 Expansion of Co-generation Power Plant up to 30 MW and Establishment of new 45 KLPD Molasses based Distillery at Tehsil Solapur South, District Solapur, Maharashtra by M/s Jaihind Sugar Pvt. Ltd.-reg. EC.

The project proponent and their consultant (SGM Corporate Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 19th Meeting of the Expert Appraisal Committee (Industry) held during 28th– 30th May, 2014 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Jaihind Sugar Pvt. Ltd. has proposed for expansion of Sugar unit (from 3500TCD to 4900 TCD), Co-generation Power Plant (from 15.5 MW to 30 MW) and establishment of new 45 KLPD Molasses based Distillery at Tehsil Solapur South, District Solapur, Maharashtra. Total plot area is 121.4 acre. Cost of project is Rs. 172.2 Crore. Sugar unit, will be operated for 160 days. Power Plant will be operated for 160 day (season) and 120 days (off season). It is reported that no such locations within 25 kms from the site. River Bima is flowing at a distance of 20 km.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during 1st March, 2014 – 31st May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (48.3 µg/m^3 to 55.75 µg/m^3), $PM_{2.5}$ (23.52 µg/m^3 to 29.56 µg/m^3), SO_2 (15.13 µg/m^3 to 20.1 ug/m^3) and NO_x (20.09 µg/m^3 to 25.88 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.6 µg/m^3, 3.7µg/m^3 and 0.6 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). ESP will be provided to addition bagasse fired boiler to control particulate emissions. Total fresh water requirement from river water will be 836.6 m^3/day after expansion for distillery, co-generation power plant and sugar unit. Effluent from sugar unit will be treated in the ETP. Spent wash from the distillery will be treated in the bio-digester. Treated spent wash will be concentrated in MEE followed by bio-composting with press mud. Condensate from MEE, spentlees & boiler blowdown will be treated in the condensate polishing unit. 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 the Maharashtra Pollution Control Board on 24th February, 2015. The issues were raised regarding road construction, anticipation of water pollution, 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 found the final EIA/EMP report adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

i. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to additional bagasse fired boiler to control particulate emissions within 50 mg/Nm^3.

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

iii. Total fresh water requirement from river water shall not exceed 836.6 m^3/day after expansion. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.

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 treated in bio-methanation reactor. Treated spent wash will be evaporated in MEE and concentrated spent wash will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and

recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

v. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 30 days.

vi. Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit should be treated in the effluent treatment plant.

vii. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.

viii. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.

ix. Company shall ensure the quality and marketability of bio-compost produced by distilleries by standard labelling such as 'AGMARK'.

x. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should 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 should be monitored.

xi. Bagasse storage should be done in such a way that it does not get air borne or fly around due to wind.

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

xiii. 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.

xiv. 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.

xv. All the issues raised during the public hearing/consultation meeting held on 24th February, 2015 should be satisfactorily implemented.

xvi. As proposed, green belt over 33% of total 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.

xvii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with

financial and physical breakup/details 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.

4.3.3 Molasses based distillery unit (30KLPD) at Mahesh Nagar, Ujana, Taluka Ahmedpur, District Latur, Maharashtra by M/s Siddhi Sugar & Allied Industries Ltd.-reg. EC

The project proponent and their consultant (M/s Vasantdada Sugar Institute) 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 19th Meeting of the Expert Appraisal Committee (Industry -2) held during 28th – 30th May, 2014 for preparation of EIA-EMP report.All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Siddhi Sugar & Allied Industries Ltd. has proposed for setting up of molasses based distillery unit (30KLPD) at Mahesh Nagar, Ujana, Taluka Ahmedpur, District Latur, Maharashtra. Plot area is 15.5 acre of which area earmarked for greenbelt is 4.0 acre. Cost of project is Rs. 39.01 Crore. Out of which amount earmarked for EMP is Rs. 14.07 Crore. It is reported that no eco-sensitive area is located within 10 km distance. However, Yedshi sanctuary in Osmanabad district at approx 130 km from the site.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during February - May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (48.1 µg/m^3 to 77.9 µg/m^3), $PM_{2.5}$ (18.8 µg/m^3 to 30.99 µg/m^3), SO_2 (5.6 µg/m^3 to 8.1 µg/m^3) and NOx (7.1 µg/m^3 to 13.4 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 and 0.62 µg/m^3 with respect to PM10 and SO2 respectively. The resultant concentrations are within the NAAQS. During presentation, PP confirmed that ESP/bagfilter will be provided to bagasse fired boiler to control particulate emissions.

Fresh water requirement from Manar (Manyad) river will be 300 m3/day. Spentwash will be treated in the biomethanation plant followed by concentration in the MEE. Concentrated spent wash will be composted with press mud. MEE condensate will be treated in the condensate Polishing Unit (CPU). Spentlees, condensate of MEE and other effluents will be treated in condensate polishing unit (CPU); treated water will be reused for distillery activities No effluent will be discharge outside the plant premises. Bagasse ash will be used for composting. Sludge from the fermentation will be composted.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 21st February, 2015. The issues were raised regarding pollution control measures, wastewater generation, local employment, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Details of environmental sensitivity including water bodies within 10 km distance to be defined with topo-sheet as per scale.

ii. Water quality monitoring of river to done for drinking water parameters.

iii. Baseline water quality monitoring of ground water around the bio-composting site to reanalyzed.

iv. Detailed plan w.r.t. 5% of projects cost towards CSR activities to be worked out for next 5 years.

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

4.3.4 Expansion of Sugar Cane Crushing Capacity (10,000 TCD to 20,000 TCD), Co-generation Power Plant (from 44 MW to 75 MW) & Molasses based Distillery (from 75 KLPD to 200 KLPD) at Village UgarKhurd, Taluka Athani, District Belgaum, Karnataka by M/s The Ugar Sugar Works Ltd.-reg. EC.

The project proponent and their consultant (M/s Ultra Tech) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 5th Meeting of the Expert Appraisal Committee (Industry -2) held during 31st January, 2013– 1st February, 2013 for preparation of EIA-EMP report.All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s The Ugar Sugar Works Ltd. has proposed for expansion of Sugar Cane Crushing Capacity (10,000 TCD to 20,000 TCD), Co-generation Power Plant (from 44 MW to 75 MW) & Molasses based Distillery (from 75 KLPD to 200 KLPD) at Village UgarKhurd, Taluka Athani, District Belgaum, Karnataka. Total plot area is 251.31 acres. Krishna River is flowing at a distance of 1 km. Total plot area is 255 acres.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during September - November, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (28.1 µg/m^3 to 72.3 µg/m^3), SO_2 (4.0 µg/m^3 to 13.0 µg/m^3) and NOx (7.1 µg/m^3 to 16.6 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.00062 µg/m^3 and 0.20966 µg/m^3 and 0.20912 µg/m^3 with respect to PM_{10}, SO_2 and NOx respectively. The resultant concentrations are within the NAAQS. During presentation, PP confirmed that ESP will be provided to two nos. of additional slope fired boiler to control particulate emissions. The Committee suggested them that ESP/Bagfilter shall be provided in the existing bagasse fired boilers. Fresh water requirement for sugar unit will be 1000 m3/day; for Cogeneration 2388 m3/day and Distillery 2435 m3/day after expansion. The Committee suggested them to reduce fresh water requirement and give unit wise break up. Effluent from sugar will be treated in the ETP. Spent wash from the existing distillery is treated in biomethanation reactor. Treated effluent is concentrated in the MEE and concentrated spent wash is dried in the spray drier. Spent wash from the proposed distillery (125 KLPD) will be concentrated in the MEE and concentrated spent wash will be incinerated. Sewage will be treated in the STP. No effluent will be discharged

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 19th September, 2014. The issues were raised regarding local people, road repairing, vehicular parking area, air pollution control measures etc. The Committee noted that issues have

satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberation, Committee sought following additional information:

i. Commitment for installation of ESP/Bagfilter in the existing bagasse fired boilers instead of wet scrubber

ii. Reduce fresh water requirement of each units and give unit wise break up with detailed plan.

iii. Plan for recycling and ruse of treated effluent and MEE condensate.

iv. Measures suggested to control dust pollution.

v. Detailed plan for Enterprise Social Commitment (ESC) activities with 5% of project cost spread over 5 years.

vi. Detailed green belt development plan

vii. Point-wise action plan and action taken status alongwith photographs of non complied points of EC conditions reported by the Regional Office.

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

4.3.5 Expansion Synthetic Organic Manufacturing Unit at Plot No: 20/C, 20/B, A-1/5 & A-1/10, 1st phase, G.I.D.C, VAPI, Gujarat by M/s Kasyap Sweetners Limited-reg. EC.

The project proponent and their consultant (M/s Eco Chem Sales & Service, Surat) 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 30th Meeting of the Expert Appraisal Committee (Industry -2) held during 22nd-23rd December, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within interstate boundary and involvement of CPA, the proposal is treated as category 'A' and appraised at Central Level.

M/s Kasyap Sweetners Limited has proposed for expansion of Synthetic Organic Manufacturing Unit at Plot No: 20/C, 20/B, A-1/5 & A-1/10, 1st phase, G.I.D.C, VAPI, Gujarat. The existing production capacity is 2400 TPM of Sorbitol/Glucose, proposed production capacity will be 11100 TPM of Sorbitol/Glucose/Dry Starch/Liquid Glucose/Fructose/Dextrose mono hydrate thus after proposed expansion, total capacity will be 13500 TPM of Sorbitol/Glucose/Dry Starch/Liquid Glucose/Fructose/Dextrose mono hydrate (either of the product). Total plot area of the existing unit is 40626 m^2 of which area earmarked for greenbelt is 13500 m^2. The cost of the proposed expansion project is Rs. 132.23 Crore. Daman Ganga River is flowing at a distance of 3 km. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S. N.	Product	Capacity, TPM

		Existing	Proposed	Total after expansion
1	Sorbitol/Glucose	2400	-2400	0
2	Sorbitol/Glucose/Dry Starch/Liquid Glucose/Fructose/Dextrose mono hydrate	0	13500	13500
	Total	2400	11100	13500

S. N.	By-Products	Quantity, TPM		
		Existing	Proposed	Total After expansion
1	Fibre	327.8	1493.3	1821.1
2	Gluten	128.9	587.2	716.11
3	Germ	152.2	693.3	845.5
4	Grit/Cattle feed	46.8	213.2	260

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2014 –February, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (86.2 µg/m^3 to 98.6 µg/m^3), $PM_{2.5}$ (39.9 µg/m^3 to 58.1 µg/m^3), SO_2 (27.8 µg/m^3 to 36.2 ug/m3) and NOx (36.6 µg/m^3 to 47.7 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.878 µg/m^3, 0.878 µg/m^3, 0.575 µg/m^3 and 0.202 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

At present, the unit is having one number of 17 TPH steam boiler& one number of 5 TPH (Standby). ESP has been installed in the existing coal fired boiler. ESP will be installed in the additional coal fired boiler (17 TPH + 50 TPH). Ventury scrubber followed by alkali scrubber will be provided to sulphur burning chamber to control SO_2 and H_2S emission. Two stage wet ventury scrubber followed by alkali scrubber will be provided to Gluten Dryer. Additional DG set (1x 1000 KVA + 1250 KVA) will be installed. Water requirement will be increased from 999.2 m3/day to 5346 m3/day after expansion. Out of which, total fresh water requirement from GIDC water supply will be 2659 m3/day and remaining water 2687 m3/day will be met from recycled/treated effluent. Effluent generation will be increased from 609.1 m3/day to 3311 m3/day after expansion. Effluent will be treated in the ETP comprising anaerobic, aerobic and tertiary treatment facilities. Treated effluent quantity 2709 m3/day will be passed through Reverse Osmosis plant and permeate will be recycled in the process. RO rejects will be sent to MEE. Condensate (249 m3/day) will be recycled. Remaining treated effluent (602 m3/day) will be sent to CETP for further treatment. After proposed expansion; 1212 TPA of waste from the ETP, 4896 TPA from MEE, 3.6 TPA of spent resin, 75 TPA of sludge from wet scrubber will be generated & dispose off into TSDF of Vapi. About 12.0 TPA of Discarded containers shall be partly reused for packing & partly sold to authorized recycler, 1.5 TPA of Used oil will be sold to registered re-refiner, 113 TPA of spent catalyst will be Sent to actual re-processor for manufacture of Nickel salts& 1693 TPA of spent carbon will be sent to cement industries for co-processing .Total power requirement will be 6000 KVA from DGVCL.

Public hearing was exempted as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006.

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

i. Electrostatic precipitator (ESP) and the stack of adequate height shall be provided to additional coal fired boiler.

ii. Scrubber shall be provided to control process emissions viz. SO_2 and H_2S. 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 GIDC water supply shall not exceed 2659 m^3/day.

v. Effluent generation shall not exceed 3311 m3/day. Effluent will be treated in the ETP comprising anaerobic, aerobic and tertiary treatment facilities. Treated effluent quantity 2709 m^3/day will be passed through Reverse Osmosis plant and permeate will be recycled in the process. RO rejects will be sent to MEE. Condensate (249 m^3/day) will be recycled. Remaining treated effluent (602 m^3/day) will be sent to CETP for further treatment. Condensate and recover water will be recycled/reused within factory premises.

vi. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

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

xi. As proposed, green belt of 13500 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.

Reconsideration for Environmental Clearance

4.3.6 Bulk Drug & Intermediate Manufacturing Unit at Sy. Nos. 1019, 1020/A-2 & 1021, Village Jangamaheshwarapadu, Mandal Durgi, District Guntur, Andhra Pradesh by M/s Satyadeva Organosys Pvt. Ltd. –reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 1st meeting held during 30th November, 2015 and the Committee sought following addl. Information:

(i) Recheck/reanalyzing the ground water and surface water parameters.

PP vide letter dated 18thJanuary, 2016 has submitted the above additional Information:

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

i. Bagfilter and the stack of adequate height shall be provided to coal fired boiler (2 TPH & 3 TPH).

ii. Scrubber shall be provided to control process emissions viz. ammonia, HCl and SO_2. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.

iv. Total fresh water requirement from ground water source and tanker supply shall not exceed 90 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

vii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of

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

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

x. Solvent management shall be as follows :

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

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

xii. All the issues raised during the Public Hearing/consultation meeting held on 14thMay, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xiii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

xiv. As proposed, green belt of 4062.15m^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.

4.3.7 Expansion of Dyes and Dyes Intermediates Manufacturing Unit (2,200 MTPM to 6,000 MTPM) and Co-generation Power Plant (5 MW) at Sy. No. 804, 805, 807 to 822, 824 to 839 & 849, Village Dudhwada, Tehsil Padra, District Vadodara, Gujarat by M/s Bodal Chemicals Ltd.- reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 46th meeting held during 20th-21st August, 2015 and the Committee sought Regional Office's Monitoring report on the compliance of non-complied point.

Regional Office, MoEF&CC vide letter no 5-156/2008 (ENV)/403 dated 01.09.2015 has submitted monitoring report on non-complied points of EC conditions. The Committee found satisfactory report.

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

i) ESP shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.

ii) Packed column followed by two venturi scrubbers followed by alkali scrubber shall be provided to Chlorosulphonator & Decomposition section to control process emissions. Two stage cyclone separator followed by wet scrubber will be provided to spray dryer.

iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.

iv) Total fresh water requirement from ground water source shall not exceed 2205 m3/day and prior permission shall be obtained from the CGWA/SGWA.

v) Industrial effluent shall not exceed 1115 m3/day. Concentrated effluent stream (293 m3/day) shall be incinerated to achieve zero discharge. Diluted effluent stream (452 m3/day) shall be treated in existing effluent treatment plant to meet with prescribed norms for the disposal to ECP channel and Effluent (370 m3/day) will be reused in the process. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

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

vii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.

viii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.

ix) Incinerator comprising primary and secondary chamber shall be designed as per CPCB guidelines. SO_2, NOx, HCl and CO emissions shall be monitored in the stack regularly.

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

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

xii) As proposed, green belt over 42,600 m^2 of 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.

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

4.4 Terms of Reference (TOR)

4.4.1 Setting up of Chemcial manufacturing plant (45,330 MTPA) at Plot No. E – 8/1, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s Balaji Benzochem 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 inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level Expert Appraisal Committee (I). However, due to applicability of General Condition w.r.t wildlife sanctuary (GIB sanctuary) within 5 km, the project is treated as 'A' category.

M/s Balaji Benzochem Pvt. Ltd. has proposed Setting up of Chemcial manufacturing plant (45,330 MTPA) at Plot No. E – 8/1, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra. It is reported that the Great Indian Bustard sanctuary is located within 5 km from the proposed project site. No national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance.

Total plot area is 41920 m^2 of which greenbelt will be developed in the area of 7842 m^2 (33%). Cost of project is Rs. 96.20 Crore which includes existing and proposed expansion. Followings products will be manufactured;

Sr. No.	Product	Proposed List of Products (MT / Year)
1.	Ethylenediamine (EDA)	37,350
2.	Piperzine (PIP)	4,050
3.	Diethylenetriamine (DETA)	3,150
4.	Aminoethylpiperzine/ Hydroxyethylpiperzine/ Aminoethylethanolamine	450

5.	Mixture of Higher Amines	330
	Total	**45,330**

Two coal fired boiler having capacities 25TPH and 50 TPH will be installed and provided with bag filter and Electrostatic Precipitator (ESP) as pollution control device and connected with stacks of 45 m and 56 m height.

Fresh water will be supplied by MIDC. Water requirement shall be 2316 m3/day. Against this, a quantity of 254.2 m3/day of wastewater will be generated. Wastewater will be segregated into two streams as stream-I and Stream-II. The Stream – I effluent generated would be treated in Forced Evaporation System and the residue would be forwarded to CHWTSDF. The Stream – II effluent would be treated in Effluent Treatment Plant comprising of Neutralization Tank, Settling Tank, Reverse Osmosis Plant and then would be sent to Multiple Effect Evaporation System thereby achieving Zero Discharge. The residue after evaporation would be sent to CHWTSDF.

Boiler ash will be sold to brick manufacturer. Scrape material, carboys plastic, drums etc will be sold to the authorized recycler. Hazardous waste will handled as per the hazardous waste management rules. Spent carbon, catalyst and ETP sludge will be sent to common disposal facility.

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, 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) Details of Incinerator alongwith pollution control device to be provided.
8) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10) Action plan for utilization of MEE/dryers salts.
11) Material Safety Data Sheet for all the Chemicals are being used/will be used.
12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
13) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
14) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
15) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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. A copy of application submitted to NBWL seeking permission w.r.t GIB.

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.

4.4.2 Setting up of laminated sheets, P.F. Resin, M.F. Resin & U.F. Resin at Survey No. 127, Village Devkaranna Muwada, Taluka Dahegam, District Gandhinagar, Gujarat by M/s Angel Industries-reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All 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 Expert Appraisal Committee (I).

M/s Angel Industries has Setting up of laminated sheets, P.F. Resin, M.F. Resin & U.F. Resin at Survey No. 127, Village Devkaranna Muwada, Taluka Dahegam, District Gandhinagar, Gujarat. As per Form-1, it is reported that no national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance. There is no mention of water body within 10 km radius, however, as per topo sheet, rivers namely Vatrak and Meshwa are flowing within 10 km radius.

Total plot area is 13675 m^2 of which greenbelt will be developed in the area of 4515 $m^{2.}$ Cost of project is Rs. 1.0 Crore. Details about number of employee are not provided. Following products will be manufacture;

No.	Name of Product	Quantity	
1	Phenol Formaldehyde Resin (P. F. Resin)	750	Alternate Production 1100 MT/ Month
2	Melamine Formaldehyde Resin (M. F. Resin)	250	
3	Urea Formaldehyde Resin (U. F. Resin)	100	
4	Laminated Sheets	2,50,000 Nos./Month	

A boiler having 4TPH capacity and Thermic Fluid Heater having 10 lac Kcal/hr will be installed. Additional DG set of 250 KVA capacities will be provided. Electricity will also be drawn from UGVCL to tune of 250 KVA.

Fresh water requirement of 72 m3/day will be sourced from ground water. Against this wastewater of 33.5 m3/day will be generated. The wastewater will be treated in ETP based on Photo Fenton process with RO system. The plant is based on zero liquid discharge and no effluent to be discharged outside the premises. ETP sludge, used oil/spent oil will be collected, stored, transported as per requirement of hazardous waste management rules and finally disposed to TSDF site. Discarded container and bags will be sold to authorized dealer.

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, 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. Details of Incinerator alongwith pollution control device to be provided.
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 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 Boiler fuel should be without wood

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.

4.4.3 Drilling of 1 Geothermal Parametric Well at Village Dholera, Tehsil Dholera, District Ahemdabad, Gujarat by M/s Centre Of Excellence For Geothermal Energy PDPU -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. PP has applied the project acidities under para 1(b) of schedule of EIA Notification, 2006 for Oil and Gas exploration activities which are covered under category 'A' and appraised at central level

PP informed that Govt. of Gujarat took initiative of establishing a centre dedicated to research & development activities in the area of exploration and exploiting of geothermal

energy. With support of Govt., Pandit Dindayal Unitverity established a Centre of Excellence for Geo thermal Energy (CEGE) on 10th October 2013. Since then, Centre of Excellence for Geo thermal Energy is carrying out extensive research in the area of geothermal exploration and exploitation.

In the project activity, the CEGE is planning to drill geothermal parametric well of about 1.5 km deep at Dholera village. This would take 40-60 days time for one well. As from the initial test, geothermal water has been found. Hot water from the well will be then used for generating electricity. It was informed that about drill cutting of 400 MT/well will be generated and waste oil of 2-3 MT/well be produced. Two DG set will be used in drilling operation having 100 HP capacity each.

The Committee noted that though the project is applied under I (b) category of EIA, Notification 2006; according to which all 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, however, it is related to extraction of hot water only for generating electricity. The purpose of activity or drilling is purely R&D based to exploit geo thermal potential for generating electricity, which is not covered under EIA, Notification, 2006. Therefore, The Committee recommended that such activity are exempted from the EIA-EMP process and does not attract provision contained under EIA, Notification 2006 subject to condition that no oil and gas exploration at any stage will be executed.

4.4.4 Setting up of 80 KLPD Molasses Based Distillery Unit at Village Selu, PO Jategaon, Taluka Gevarai, District Beed, Maharashtra by M/s Pingale Sugar & Agro Products 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) under category 'A' and appraised at Central level.

M/s Pingale Sugar And Agro Products Pvt. Ltd. has proposed for setting up of 80 KLPD Molasses Based Distillery Unit at Village Selu, PO Jategaon, Taluka Gevarai, District Beed, Maharashtra. 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. PP did not mention the distance of River Godavari from the project site however, during presentation it was informed that River Godavari is flowing at a distance of 6.5 km.

During discussion Committee noted that the proposed distillery unit will be set up within the existing sugar unit which is also under expansion upto 5000 TCD with 35 MW Cogeneration plant. The Committee observed that PP has applied a separate Environmental Clearance for expansion of sugar unit in the State while application of EC has been filed in Centre seeking EC separately. Therefore, Committee was of the view that piece-meal approach for getting EC from Centre and State at the same time is not acceptable. It was suggested to apply EC with consolidated proposal for sugar and distillery together so that cumulative impact of both project together is assessed. The Committee therefore did not agree with the proposal which is submitted stand alone for distillery only.

4.4.5 Setting up of Specialty Chemicals, Pigments & Pesticide Plant at Plot NO.73, 74, GIDC Saykha, Taluka Vagra, District Bharuch, Gujarat by M/s Hemani Intermediates Pvt. Ltd. (UNIT-V) -reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the

draft Term of References for the preparation of EIA-EMP. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level. 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 Hemani Intermediates Pvt. Ltd. (UNIT-V) has proposed for setting up of Speciality Chemicals, Pigments & Pesticide Plant at Plot NO.73, 74, GIDC Saykha, Taluka Vagra, District Bharuch, Gujarat. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Narmada is flowing at a distance of 10 km.

Cost of proposed project is Rs. 70 Crore. Plot area is 50880 m^2, of which 15000 m^2 of land will be developed as greenbelt. Following products will be manufactured:

Sr. No.	Name of the Products	Quantity in MT/Month
		Proposed
1.	Chlorination Derivatives (E.g. MCB, DCB, ODCB, PDCB,MDCB & TCB)	4000
2.	Nitration of Chlorobenzene (ONCB, PNCB & MNCB)	5000
3.	Calcium Chloride	4000
4.	Di Calcium Phosphate	3000
5.	2,4 Dinitro Chloro Benzene(DNCB) & Derivatives	3000
6. Fungicide		
a)	Hexaconzole (T)	300
b)	Tebuconzole (T)	
c)	Propioconzole (T)	
d)	Mancozeb (T)	
7. Herbicide		
a)	Dicamba (T)	300
b)	Metribuzine (T)	
c)	Metsulfuron Methyl (T)	
d)	Pendimethalin (T)	
8. Insecticide		
a)	Transfluthrin (T)	300
b)	Cyfluthrin & Beta Isomers (T)	
c)	Bifenthrin (T)	
d)	Cypermethrin (T) & Beta Isomers (T)	
e)	Chloropyriphos (T)	
f)	Imidacloprid (T)	
g)	Clodinafop Prpargyl (T)	
h)	Cloquintocet mexyl (T)	
9	Para Nitro Chloro Benzene & Derivatives	1000
10	Ortho Nitro Chloro Benzene & Derivatives	500
11	Para Dichloro Benzene & Derivatives	500
12	Ortho Dichloro Benzene & Derivatives	500
13	Pigment(AZO)	1000
14	3,3 DCB	800
15	Dimethyl Sulphate	200
16	Sulfuric Acid & Allied Products	1500
17	Nitro Benzene & Derivatives	500
18	Chloro Toulene & Derivatives (Benzyl Chloride & Benzaldehyde)	500
19	Pharma Intermediates	200
a)	2,3 Dichloro Benzoyl Chloride	
b)	1-(6-Amino-9H-Purin-9-Yl)Propan-2-Ol	

c)	4-[(5- Hydroxy Pyrimidin-2-yl)Amino] Benzonitrile	
d)	2- Phenyl Benzimidazol -5- Sulphonic Acid	
TOTAL		**27100**

Coal fired boiler with a capacity of 25 TPH will be provided with ESP along with scrubber and connected with a stack of 50 mt. height. Additionally 2500 KVA power shall be sourced from DGVCL. Two DG set having capacity 1000 KVA will be installed. Gases such as HCL and Cl2 will be scrubbed in alkali media.

Fresh water requirement upto 972 m3/day shall be sourced from GIDC water supply. Against this waste water of 634 m3/day will be generated. Effluent will be treated in ETP with tertiary treatment unit. Waste water will be segregated high COD/ TDS and low COD/ TDS streams. High COD/ TDS will be evaporated in MEE while other stream will be treated in ETP. Domestic wastewater (22 m3/day) will be treated in septic tank and soakpit. Committee suggested domestic wastewater shall be treated in a micro STP.

ETP sludge, used container, distillation residue and MEE salt, iron sludge will be collected, stored and transported to nearest TSDF. Flyash will be sent to the brick manufacturer.

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 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.
15 Details on solvents to be used, measures for solvent recovery and for emissions control.
16 Details of process emissions from the proposed unit and its arrangement to control.
17 Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.

18 Action plan for utilization of MEE/dryers salts.
19 Material Safety Data Sheet for all the Chemicals are being used/will be used.

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 banned product will be manufactured.
iii ZLD to be followed.

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.

4.4.6 Expansion of Synthetic Organic Chemicals Manufacturing Unit At SF No. 534, 535, 536, 757, 759, 768, 769, 770 of Village Sinagadibakkam, Taluka and District Kanchipuram, Tamil Nadu By M/s Stahl India Pvt. Ltd. -reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All 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 Stahl India Pvt. Ltd. has proposed expansion of synthetic organic chemicals manufacturing unit at SF No. 534, 535, 536, 757, 759, 768, 769, 770 of Village Sinagadibakkam, Taluka and District Kanchipuram, Tamil Nadu. The plant has obtained EC vide letter no. J-11011/167/2009-IA II(I) dated 03.06.2009 in the name of M/s Clariant Chemical (India) Ltd. 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. Puthugaram Lake, Palar River and Theneri Lake are at a distance of 3.80 km (S), 10.01 km (S) and 6.50 km. (SE).

Total plot area is 19.66 ha. of which an area earmarked for greenbelt is 11.51 ha. Cost of expansion is Rs. 15 Crore. Following products will be manufactured:

Sl. No.	Products	Existing capacity (MT/ Annum) (Phsae-1 & 2)	Proposed (MT/Annum) (Phsae-3)	Total After Expansion (MT/Annum)	End Use
1.	Syntan	9600	16800	26,400	Leather Preparation
2.	Bates	3600	0	0	--
3.	Fat liquor	3600	3600	7200	Leather Preparation
4.	Superplastisicer	2400	2400	4800	Leather

					Preparation
5.	Biocides	4800	3600	8400	Industrial Preservative
6.	Uracil	180	0	0	--
7.	Acrylic Resin	-	4000	4000	Leather Finishing
8.	Urethane Resin	-	4000	4000	Leather Finishing
9.	Solvent based blending's	-	6000	6000	Leather Finishing
10.	Water based blending's	-	10,000	10,000	Leather Finishing
Total		**24180**	**46,620**	**70800**	

Capacity of boiler will increase in order of 5TPH and 6 TPH. Additional DG set having 1000 KVA capacity will be added in existing DG set of 1000 KVA and 160 KVA. Briquettes and furnace oil will be used as fuel for boiler and DG set. Multi cyclone with wet scrubber will be provided as APCS. All vessel/ charging vent are connected with scrubber to control VOC. Local exhaust ventilation will be used near drum/ vessel opening and connected for scrubbing.

The total water requirement for the unit will is 97m3/day (Fresh Water 81 m^3/day and treated water 16 m^3/day) and unit is zero liquid discharge. After proposed expansion the total water requirement will be 260 m3/day (191m3/day Fresh Water & 69 m3/day Treated water) and unit will remain Zero Discharge. The source of fresh water will be surface water from local Panchayat using tanker. The present total waste water generation from Unit is 17.5 m3/day which comprises of 10 m3/day domestic waste water which is treated in STP of 25m3/day and about 7.5 m3/day Trade Effluent is treated in MEE. Treated water from STP in the existing unit is used in Gardening in the unit and the treated water from MEE i.e. condensate is used in Cooling Tower Make-up. After expansion of the unit, waste water generation will be 66 m3/day out of which 50m3/day would be trade effluent to be treated in ETP/ RO followed by RO reject and High TDS effluent treatment in MEE and 16 m3/day domestic waste water would be treated in existing STP of 25m3/day. After the proposed expansion, the treated water from trade effluent treatment shall be used in Plant washings and condensate of Evaporator shall be used in Boiler Feed Water.

Hazardous waste such as sludge of MEE, spent solvent, ETP sludge after expansion will be sent to authorized hazardous waste disposal to the TSDF/Incineration facility at Gummidipoondi. Discarded container and used spent oil will be sold to the authorized 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, 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 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. The company need to change the name from M/s Clariant Chemical (India) Ltd. to M/s Stahl India Pvt. Ltd.

iii. ZLD system to be adopted with reuse-recycling of wastewater.

iv. Permission to be obtained from ground water department.

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.

4.4.7 Setting up of Technical Grade Pesticides at Plot no E-23A, SKS Industrial Area Reengus, Distirict Sikar, Rajasthan by M/s Central Insecticide and Fertilizers-reg. TOR

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

M/s Central Insecticide and Fertilizers has proposed for setting up of technical grade pesticides at Plot no E-23A, SKS Industrial Area Reengus, Distirict Sikar, Rajasthan by M/s Central Insecticide and Fertilizers. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Mendha is flowing at a distance of 1.6 km (NW) from the proposed project. About 25 persons will be employed.

Cost of proposed project is Rs. 6 Crore. Plot area is 3770 m^2, of which 12681 m^2 of land will be developed as greenbelt. Following products will be manufactured:

S. No.	Name of Product	Production(MT/Annum)

1	Thiram	400
2	Ziram	100
	Total	**500**

Power requirement of 300 KVA will be sourced from Electricity Board. Additional DG set of 300 KVA will be installed as power backup using HSD.

Fresh water of 6 M3/day will be sourced from RIICO supply. Industrial effluent of 2.8 m3/day will be generated and treated in ETP. PP did not provide detailed information on process of ETP. The Committee suggested to have full details in the EIA stage.

Main solid wastes of concern include process and effluent treatment sludge, spent catalyst and container residues Hazardous solid waste shall be handled, stored and disposed of as per HWR, 2008 amended till date. PP did not produce relevant documents w.r.t. the area is notified as Industrial Zone by the State.

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 NH3*, chlorine*, HCl*, HBr*, H2S*, 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.

It was recommended that **'TORs' 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.

4.4.8 Setting up of pesticide chemical production facilities (Capacity 22750 MT/Annum) at Plot No.C-393 to 396, GIDC-Estate, Taluka Vagra, Sayakha, District Bharuch, Gujarat by M/s Gharda Chemicals 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 units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Gharda Chemicals Limited has proposed for setting up of pesticide chemical production facilities (Capacity 22750 MT/Annum) at Plot No.C-393 to 396, GIDC-Estate, Taluka Vagra, Sayakha, District Bharuch, Gujarat. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Bhukhi is flowing at a distance of 0.8 km (SE) from the proposed project. About 200 persons direct and 500 indirect will be employed. Cost of proposed project is Rs. 320 Crore. Plot area is 75433.56 m2, of which 33% of land will be developed as greenbelt. Following products will be manufactured:

Sr. no.	Product	Total Production MT/Annum
1.	Para dichloride benzene (PDCB)	6000
2.	OPDA	1000
3.	Amino Ethyle Carbazole (AEc)	150
4.	Chloranil	150
5.	MPB alcohol	100
6.	Poly Ether Ketone (PEK) or Poly Ether Ketone Ketone(PEK) OR Poly benzimidazole (ABPBI)	500
7.	Poly Ether Imide (PEI)	5000
8.	Hexaconazole	300
9.	Propiconazole	500
10.	Dicamba	5000
11.	Profenofos	1000
12.	Bifenthrin	200
13.	Lambda Cyhalothrin	100
14.	Thiamethoxam	500
15.	Diafenthiuron	500
16.	Metalaxyi	1000
17.	Buprofezin	250
18.	Carbendazim	500
	Total	**22750**

Sr. no.	List Of By Product	MT/Annum
1	Calcirlm Chloride	24219
2	Ottho dichloro benzene (ODCB)	1998
3	Trichloro benzene (TCB)	312
4	Calcium Sulfate	9840
5	$NaHSO_3$ Solution	5004
6	Aluminum Chloride Solution	4690
	Potassium Chloride Solution	5000
8	Spent Sulfuric Acid	19095
9	15% Ammonia Solution	162

Coal fired boiler having 10 TPH capacity will be installed and connected with wet scrubber followed by electrostatic precipitator as pollution control device. Therimic fluid heater having capacity of 5 lac cal/ hr will be provided using HSD. Apart from this electricity of 4000 KVA will be sourced from GEB. 2 no. of DG set having 1150 KVA each capacity will be provided as a standby. Process emissions such as HCL, Cl_2, HBr, etc will be sent to co incineration with caustic scrubbing.

Fresh water upto 2360 m3/day will be sourced from GIDC to meet industrial and domestic demands. Wastewater of 1770 m3/day will be generated of which 70 m3/day is from domestic consumption. Wastewater from industrial process will be treated in ETP based on chemical and biological processes. After the treatment effluent will be sent to GIDC drainage system for final discharge through CETP.

Main solid wastes of concern include process and effluent treatment sludge, oily waste, spent carbon, spent catalyst and container residues Hazardous solid waste shall be handled, stored and disposed of as per HWR, 2008 amended till date. Ash from incinerator will be sent to TSDF. Drum, carboys, glass, bottles will be sold to the authorized recycler.

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 NH3*, 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. CAS no. of the product should be given in EIA-EMP report.

It was recommended that **'TORs' 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.

4.4.9 Additional Exploratory Drilling of 15 wells in NELP-I offshore Block KG-DWN-98/2, KG Basin, Tehsil Allavaram, Andhra Pradesh 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 additional exploratory drilling of 15 wells in NELP-I offshore Block KG-DWN- 98/2, KG Basin, Tehsil Allavaram, Andhra Pradesh. The project location is offshore and no coral reef and bio reserves has been indicated as per Form-1.

Following ECs have earlier been issued in the block:

Sl. no.	EC No.	No of locations	Obtained by	Remarks
1	J-11012/2/2001-IA II dated 15th June' 2001	9	CEIL	Drilling completed at all the locations
2	J-11011/18/2004-IA II (I) dated 8th December' 2004	11	CEIL	
3	J-11011/474/2010-IA II (I) dated 11th May' 2011	2	ONGC	
4	J-11011/70/2011-IA II (I) dated 4th September' 2012	7	ONGC	
5	J-11011/189/2013-IA II (I) dated 24th January' 2014	10	ONGC	Drilling completed at 3 Locations

The offshore block KG-DWN-98/2 with an area of 7294.6 sq.km. was initially awarded to Cairn Energy India Limited (CEIL) with 100 % PI in the 1st round of NELP bidding in April, 2000. Subsequently, south-eastern part of the block with an area of 2462 sq.km was relinquished in 2004. In March' 2005, ONGC has acquired 90 % of PI and operatorship. From 28.08.2014 onwards ONGC has become 100% PI holder of the block.

Total cost of project is Rs. 5750 Crores. Area of the block is 7295 m2. Drilling will be done at depth of 400-3100 mts. The location of block from the coast range from 19-190 kms. All proposed well are to be drilled with water based mud only. However, in case of specific down hole problem, low toxic synthetic oil based mud (SOBM) having aromatically less than 1% will be used. Thoroughly washed drill cuttings will be discharged to sea with proper dilution @ 50 bbls/hr intermittently as per GSR.546 (E) dated 30th August, 2005 guidelines. Unused SOBM mud will be collected and reused/ sent to base

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 exploratory locations proposed for Environmental Clearance are located within the state of Himachal Pradesh and grouped under three clusters comprising of 01 priority well and 02 subsequent wells (to be drilled in subsequent years depending on results of priority well) in each cluster, thus totalling One priority well and two subsequent wells making a grand total of three exploratory wells in the present proposal. The three clusters lie within the administrative boundaries of Kangra district.

In the Kangra cluster of 10 km radius, one priority well B-JMI-11 is proposed to depth of 1600m for testing the hydrocarbon prospectively of an amplitude anomaly in the hanging wall of the Jawalamukhi Thrust comprising of Upper Dharamshala and Lower Siwalik formations. Water based mud will be used in drilling process.

The block is spread over 1828 km2. ONGC has not given coordinates of proposed wells despite that the survey has been completed and locations are informed to be defined in the feasibility report.

D.G. sets will be used during drilling operation. Acoustic enclosures will be provided to D.G. sets. Consumption of fuel (HSD) during drilling operations will be approximately 3-4 KL/day

About 15-20 m3/day of water will be required for drilling operation. Waste water will be collected in impervious HDPE lined pits. Water based mud (drilling fluid) will be used for drilling operation. Main constituents of the fluid are Bentonite and Barites, both of which are natural minerals. Storage of Chemicals and additives will be required for proposed activities. All quantities will be below specified thresholds for storage permits under the MSIHC Rules. Precautionary measures will be taken as per The Hazardous Wastes (Management, Handling and Trans-boundary Movement) Amendment Rules, 2009.

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 a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.

7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM_{10}, SO_2, NOx, CO, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, *etc*. during all project phases.
22. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc*. including its disposal options during all project phases.
23. Disposal of spent oil and lube.
24. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
25. Commitment for the use of water based mud (WBM) only
26. Oil spill emergency plans for recovery/ reclamation.
27. H2S emissions control.
28. Produced oil/gas handling, processing and storage/transportation.
29. Details of control of air, water and noise pollution during production phase.
30. Measures to protect ground water and shallow aquifers from contamination.
31. Whether any burn pits being utilised for well test operations.
32. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.
33. Environmental management plan.
34. Total capital and recurring cost for environmental control measures.
35. Emergency preparedness plan.
36. Decommissioning and restoration plans.
37. Documentary proof of membership of common disposal facilities, if any.
38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
39. A copy of Corporate Environment Policy of the company as per the Ministry's O.M.

No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.

40. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

B. Additional TOR

1. Public hearing is exempted due to off-shore site location
2. Well defined coordinate to be given in EIA-EMP
3. Impact on marine life to be assessed due to existing activities in the same block.

It was recommended that **'TORs' without 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.

4.4.10 Proposed Capacity Enhancement by Modernization in Existing Grain Based Distillery (100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village Chulkhana, Tehsil Samalkha, District Panipat, Haryana by M/s Haryana Organics (A Unit of Globus Spirits Ltd.) -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.

4.4.11 Setting up of 200 KLPD Grain based Distillery along with 5.0 MW of Co-Generation Power Plant at Village Lachhmanpur, Tehsil Raghunathpur, District Purulia , West Bengal by M/s Veg Agro India Private 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Veg Agro India Private Limited has proposed Setting up of 200 KLPD Grain based Distillery along with 5.0 MW of Co- Generation Power Plant at Village Lachhmanpur, Tehsil Raghunathpur, District Purulia , West Bengal. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. As per Form-1, it is reported that Forest (Panchet, approx. 4.5 km in NW direction) and many reserved and protected forests fall within 10 km radius of the project site. However, their names are not mentioned. Damodar River is at distance of 9.0 km in North direction and Panchet Dam reservoir (7.5 km in North direction) , Uttala Nadi (4.5 km in NW direction), Pathrtikuri Nadi (8.0 km in WSW direction), Atla Nadi (6.8 km in SW direction), Nala (500 m in East direction) are indicated at their respective distance.

Total project area is 30.00 Acres, out of which green belt will be developed on 10 acres of land. About 100 people will be employed under the project. Total cost of the project is Rs. 152 Crores. Out of this, cost earmarked for Environment Management Plan is Rs. 20.0

Crore and Rs. 1.5 crore per annum is as recurring cost. Distillery will be operated for 350 days.

The requirement of power for the plant and other proposes has been estimated at 4.5 MW. Boiler having 47 TPH capacity will be installed with ESP as pollution control device connected with adequate stack height. Additional 2 nos of DG sets having 1000 KVA capacity will be provided.

Fresh ground water requirement will be 1857 m3/day. Spent wash will be treated through thin slop from Decanter Centrifuge for separation of suspended solids as wet cake. Thin slope from the decanter centrifuge are partly recycled back to process and partly taken to thins slop evaporation plant for concentration of remaining solid to form a syrup. This sysrup will also mixed into the wet cake coming out of centriguge and form apart of cattle feed. DWGS dries-wet cake/DWGS will be passed through steam tube bundle drier for drying cake with 10-12% moistures.

Process condensate from MEE will be recycled back to the process for Grain dilution and cooling tower make up. Spent lees generation from distillation column will be recycled partly to the columns for dilution and balance will be used for cooling tower make up. Rainwater would be utilized to recharge the underground resource through scientifically designed rainwater harvesting system. The project will be based on Zero Effluent Discharge. Fly ash from the Boiler will be utilized in nearby brick manufacturing units/cement manufacturers.

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 Availability of grain from the market to be firmed up.

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.

4.4.12 Installation of Propylene Recovery Unit and revamp of CPP at HPCL Mumbai Refinery, B.D. Patil Marg, Chembur, Mumbai, Maharashtra by M/s HPCL- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s HPCL has proposed for Installation of Propylene Recovery Unit and revamp of CPP at HPCL Mumbai Refinery, B.D. Patil Marg, Chembur, Mumbai, Maharashtra. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site.

Cost of installation of propylene recovery unit is Rs. 242.45 Crore and revamp of CPP is Rs 380 Crore. Project will be executed within the Mumbai refinery boundary. The proposed PRU and CPP revamp project is coming up in the existing premises of HPCL refinery. The estimated capital cost is Rs. 623 Crores. Key features of the project are indicated below.

Process Units and Utilities under PRU and CPP revamp

S. No.	Unit	Capacity
Primary Processing Unit:		
1	PRU	100 KTPA
New Power Generation Units (CPP)		
2	Captive Power Plant (Dual fuel - Naphtha as well as Natural Gas)	81 MW (1 GT + 1 HRSG + 1 STG)

UTILITY SYSTEM	
Recirculating Sea Cooling Water System	
Cooling Tower Cells	CT-1 : Capacity : 2500 m3/hr Number : 1w (for PRU)
Recirculating Sea Cooling Water	CT-1 : Capacity : 2500 m3/hr Number : 1w+1s (for PRU)

Pumps	
Bearing Cooling Water System	
Bearing Cooling Tower Cells	Existing facility is adequate
Bearing Cooling Water Pumps	Existing facility is adequate
Demineralized Water System	
	Existing DM water system is adequate with addition of new DM water pumps 1w+1s
Steam Requirement	41.2 T LP steam is required for PRU for which existing facility is adequate
Captive Power Plant	**New GTG: 1** Power : 1 x 66 MW (Frame VI-FA) (ISO 77 MW) HRSG : 1 X 150 TPH ; Pressure : 100 Kg/cm2(g)
	Steam Turbine Generator: 1. Type : Double Extraction (VVHP to MP & LP) Power : 15 MW
Condensate Recovery Unit	Existing Condensate Recovery Unit is adequate
Air Compressors (plant air, instrument air and Nitrogen)	Existing Air Compressors are adequate
N2 System	Existing N2 system is adequate

Ministry has issued the TOR vide letter no. J-11011/413/2015-IA II(I) dated 18.05.2015 for expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra to M/s HPCL. In the existing proposal M/s HPCL has proposed for installation of propylene recovery unit and revamp of CPP within the Mumbai Refinery. The Committee after deliberation was of the view that consolidated EIA-EMP for both of activities should be prepared by following the conditions prescribed in the TOR dated 18.05.2015 so that cumulative impact of both activities could be assessed. The Committee also prescribed the following TOR:

A. Specific TOR

1. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.
3. Sulphur balance giving input from crude, refinery fuel (if used) and any other outside fuel and output in various products and emissions.
4. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
5. Details of emissions from all the stacks including volumetric flow rate.
6. Details on availability of raw materials (crude oil, natural gas, chemicals, *etc.*), its source and storage at the plant.
7. Details on mode of transportation of crude and products.
8. Details of storage capacity of crude and products.
9. Ambient air quality data should include hydrocarbon (methane and non-

methane), VOC, Ni & V etc.

10. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
11. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.
12. Storm water management plan.
13. Estimation SO_2 and NOx emissions load.
14. Details on flaring system.
15. Details of VOC recovery devices in the storage tanks.
16. Arrangement for spill management.
17. Oily sludge management plan.
18. Risk Assessment & Disaster Management Plan
    i. Identification of hazards
    ii. Consequence Analysis
    iii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
    iv. Arrangement for fire protection and control.

B. Additional TOR

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. Preparation of consolidated EIA-EMP report with the TOR issued on vide letter no. J-11011/413/2015-IA II(I) dated 18.05.2015.

It was recommended that **'TORs' 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.

4.5 Any other

4.5.1 Red Pigments (40 MTPM) & Yellow Pigments (40 MTPM) manufacturing unit at Old Survey No. 81/2, Block No. 142, Village Dabhasa, Taluka Padra, District Vadodara, Gujarat by M/s Globex Laboratories (R&D) Ltd.- reg. amendment in EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 24th meeting held during 29th – 31st September, 2014 and the deferred for want of addl. information. Now, PP explained that while using phosphoric acid in process, dilute phosphoric acid will be generated, which will be sold as by-products. Agro-waste will be used as fuel instead of oil. The Committee agreed for the same with installations of bagfilter and ash so generated should be sent to brick manufacturers.

After detailed deliberation, the Committee recommended the aforesaid amendment in the EC.

4.5.2 Augmentation of Koyali-Sanganer Pipeline by augmenting pumping station at Vadodara, Pali by - reg. Clarification.

M/s IOCL has proposed for augmentation of Koyali-Sanganer Pipeline (5.0 MMTPA to 6.0 MMTPA) by augmenting pumping station. Now, PP seeks clarification on requirement of EC. Length of pipeline is 1285 Kms. Cost of project is Rs. 276.23 Crore. After detailed deliberation, the Committee sought following addl. information:

a) Does pipeline passes through any eco-sensitive area / national parks / wildlife sanctuary.

b) Copy of the existing environmental clearance to be submitted.

c) Risk assessment report of the proposed modification.

d) Details of pumping stations with full configuaration.

12th February, 2016 (Day 2)

4.6 Environmental Clearance

4.6.1 Setting up of surface production facilities- 3 nos. in CB-ONN-2000/01 at Village Ingoli & Ghuma, District Ahemdabad, Gujarat by M/s GSPC Ltd.-reg. EC.

The project proponent and their consultant (M/s Detox) 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 2nd Meeting of the Expert Appraisal Committee (Industry -2) held during 29th-31st October, 2012 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed at 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s GSPC Ltd. has proposed for setting up of surface production facilities- 3 nos. in CB-ONN-2000/01 at Village Ingoli & Ghuma, District Ahemdabad, Gujarat. Details of location wise surface production facilities are as given below:

(1) EPS SE#1 (Cluster Wells SE#1 & SE1#A) - Survey No. 473, 478, 479, (Village: Ghuma, Taluka: Daskroi, District Ahmedabad)

(2) EPS SE1#A1 (Cluster Wells & SE1#A1 & SE Dev#1) - Survey No. 316/P, 322 (Village: Ghuma, Taluka: Daskroi, District Ahmedabad) and

(3) EPS PK#1 - Survey no. 256, 257/P, 257, (Village: Ingoli, Taluka: Dholka, District Ahmedabad)

The production profile at respective wells is as mentioned below:

Proposed EPS / Products	EPS SE#1 (Cluster Wells SE#1 & SE1#A)	EPS SE1#A1 (Cluster Wells SE1#A1 & SE Dev#1)	EPS PK#1
Crude oil	60 m^3/day	60 – 120 m^3/day	18 m^3/day
Associate Gas	1800 m^3/day	1800 – 3800 m^3/day	1000 m^3/day

EPS well	source of supply		EPS SE#1 (Cluster Wells SE#1 & SE1#A)	EPS SE1#A1 (Cluster Wells SE1#A1 & SE Dev#1)	EPS PK#1
Land	Land is taken on lease		12459.62 sq m	22069 sq m	15241 sq m
Raw Material	Only Diesel shall be used as Raw material				
Water	Tanker water/ Ground water	Domestic	0.405 KL/day	0.81 KL/day	0.405 KL/day
		Industrial (for bath heater)	0.3 KL/day	0.6 KL/day	0.3 KL/day
		Fire water make up	2 KL/day	4 KL/day	2 KL/day
		Total	**2.705 KL/day**	**5.41 KL/day**	**2.705 KL/day**
Power	Madhya Gujarat Vij Company Limited (MGVCL)		Motive – 25 HP & Light -15 KVA	Motive – 50 HP & Light- 5 KVA	Motive – 80 HP & Light -25 KVA
Fuel	Diesel shall be procured from local vendors as per requirement.		2 liter/ hour	8 liter/ hour	2 liter/ hour

Cost of project is Rs. 1.0 crore. It is reported that no national park/ wildlife sanctuary is located within 10 km distance.

Particulars	EPS SE#1 (Cluster Wells SE#1 & SE1#A)	EPS SE1#A1 (Cluster Wells SE1#A1 & SE Dev#1)	EPS PK#1	Mode of Disposal
Waste water generation				
Produced Water (later stage of production life)	30 KL/day	60 KL/day	10 KL/day	Pit with impervious bottom liner and side liner with storage capacity of 30 days to be constructed Later send to CETP for further treatment. GSPC is also planning to use the generated produced water for water-injection in existing wells to maintain reservoir pressure.
Domestic	0.2 KL/day	0.4 KL/day	0.2 KL/day	Domestic waste water shall be sent to septic tank/ soak pit
Total	**30.2 KL/day**	**60.4 KL/day**	**10.2 KL/day**	**-**

Solid waste generation				
Domestic waste	2 Kg/day	2 Kg/day	2 Kg/day	disposed through local door to door collection facility from municipality
Hazardous waste generation				
Used oil	15 liters/year	15 liters/year	15 liters/year	Due to negligible quantity shall be used for internal purpose for greasing
Oily Cotton Waste	10 kg/month	10 kg/month	10 kg/month	will be send to approved TSDF site
Oily sludge	4 scm/year	4 scm/year	4 scm/year	Will be handed over to authorized recyclers

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during 15th December, 2012 – 15th January, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (60 µg/m^3 to 125 µg/m^3), $PM_{2.5}$ (15 µg/m^3 to 55 µg/m^3), SO_2 (3.23 µg/m^3 to 14 ug/m^3) and NOx (5.45 µg/m^3 to 29.07 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.336 µg/m^3, 0.655 µg/m^3 and 2.211 µg/m^3 with respect to PM, SO_2 and NOx. The resultant concentrations are within the NAAQS.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 30th August, 2014. The issues were raised regarding water uses etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee also discussed the compliance of existing EC and found satisfactory response except monitoring of ambient data, which agreed to be fulfilled by 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. 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.

ii. VOC shall be monitored regularly in the ambient air.

iii. Total fresh water requirement from tanker supply shall not exceed 11 m^3/day.

iv. Produced water shall be sent to CETP after meeting the standards prescribed by the SPCB. No process effluent should be discharged in and around the project site.

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

vi. Oil spillage prevention and mitigation 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/re-processors.

vii. 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.

viii. 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.

ix. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

x. All the commitments made to the public during public hearing/public consultation meeting held on 30th August, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

xii. Company shall have own Environment Management Cell having qualified persons with proper background.

xiii. 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. Remote monitoring of site should be done.

xiv. On completion of project, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

4.6.2 Construction of Storage tanks associated facilities at Mumbai Refinery– II, Village Anik, Tehsil & District Chembur, Maharashtra by M/s HPCL-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 Draft Terms of References (TORs) awarded in the 12th Meeting of the Expert Appraisal Committee (Industry -2) held during 30th September, 2013 and 1st October, 2013 for preparation of EIA-EMP report. All isolated storage & handling of hazardous chemicals are listed at S.N. 6(b) under category 'B' and appraised at state level. However, project is integral part of the adjoining existing refiner, the project proposal is treated under category 'A' project.

M/s HPCL has proposed for construction of Storage tanks associated facilities at Mumbai Refinery– II, Village Anik, Tehsil & District Chembur, Maharashtra. The proposed project is a green field project which is coming adjacent to Mumbai refinery of Hindustan Petroleum Corporation Limited (HPCL). The total land required for proposed Calico project is

57 acres. Out of area earmarked for greenbelt is 11.86 acre. Cost of project is Rs. 800 crores.

The proposed project comprises of the following major facilities as part of it:

- Storage facility for six different types of White Oils (MS grade-I, MS grade-II, HSD grade- I, HSD grade- II, SKO, ATF, Naphtha and Slop).
- MS I/MS II Storage Tanks – 8 Numbers (4 Numbers of 29620 Kl gross capacity each + 4 Numbers of 14525 Kl gross capacity each)
- HSD I/ HSD II Storage Tanks – 6 Numbers (4 Numbers of 29620 Kl gross capacity each + 2 Numbers of 14535 Kl gross capacity each)
- SKO Storage Tanks – 5 Numbers of 14535 Kl gross capacity each
- ATF Storage Tanks – 5 Numbers (4 Numbers of 14927 Kl gross capacity each + 1 Numbers of 1584 Kl gross capacity)
- Naphtha Storage Tanks – 2 Numbers of 4964 Kl gross capacity each
- Slop Storage Tanks – 2 Numbers of 4964 Kl gross capacity each

- Pipelines to receive all types of oils from the refinery.
- 2 numbers of 12" Pipe for MS-I & MS-II
- 2 numbers of 14" Pipe for HSD-I & HSD-II
- 2 numbers of 8" Pipe for SKO
- 1 number of 10" Pipe for ATF
- 1 number of 6" Pipe for SCN
- 24" new pipeline for MS-I/ MS-II, which will join existing pipeline corridor located just outside the refinery.
- 24" new pipeline for HSD-I/ HSD-II, which will join existing pipeline corridor located just outside the refinery.
- 10" diameter pipeline for dispatch of ATF from Calico to refinery.
- Slop will be transferred to refinery through 3" new pipeline.
- SCN will be transferred to refinery through 6" new pipeline.
- One 8" diameter new pipeline from SKO (Sales) for receipt and one 14" diameter new pipeline for SKO (Sales) for dispatch to Reliance industry through existing pipeline.
- Other associated facilities

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during January-April, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (40 µg/m^3 to 112 µg/m^3), PM2.5 (14 µg/m^3 to 58 µg/m^3), SO_2 (6.7 µg/m^3 to 26.5 ug/m^3) and NOx (11.5 µg/m^3 to 34.5 µg/m3) respectively.

Water requirement for proposed project is 5 m3/hr. The water will be sourced from Brihanmumbai Municipal Corporation (BMC). Wastewater from tankages will be treated in the existing ETP of the Refinery. Storm water will be passed through oil and grease trap. Total power requirement shall be 2.3 MW

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 17th March, 2015. The issues were raised regarding CSR activities, local residents, local employment, medical facilties safety training etc. The Committee

noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. The Committee discussed the Monitoring Report dated 01.09.2015 of MoEF&CC.

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

i) Adequate buffer zone around the oil tankages, as may be required as per OISD or other statutory requirements.

ii) Regular online monitoring of VOC and HC in the work zone area in the plant premises should be carried and data be submitted to Ministry's Regional Office at Bhopal, CPCB and State Pollution Control Board.

iii) Total fresh water requirement from ground water source shall not exceed 5.0 m^3/hr and prior permission should be obtained from the concerned Authority.

iv) The company shall construct the garland drain all around the project 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 streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted and ensured that monitoring parameters shall not exceed the prescribed standards.

v) The oil draw off shall be treated in the existing ETP of the refinery. The treated effluent will be used for gardening/horticulture purpose. Oily sludge will be disposed off through approved TSDF facilities. No effluent shall be discharged outside the premises.

vi) Storm water should pass through efficient oil and grease catchers to trap leaked oil and grease

vii) Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. shall be followed. Company should ensure no oil spillage occur during loading / unloading of petroleum products.

viii) The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 and its subsequent amendments.

ix) Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.

x) The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.

xi) All storage tanks shall be provided with design features based on applicable OISD standards.

xii) Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.

xiii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.

xiv) Bottom oil sludge shall be handled, stored and disposed as per CPCB/ MoEF guidelines.

xv) Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.

xvi) At least 10 meter wide thick green belt shall be developed 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.

xvii) The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.

xviii) All the recommendations mentioned in the EMP/DMP shall be implemented.

xix) All the commitment made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented. Adequate budgetary provision to be kept for implementation.

xx) Under Corporate Social Responsibility (CSR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.

xxi) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

4.6.4 Proposed manufacturing of Agro Chemicals & Organic intermediates (702 MTPM) at Plot. No. Z/96/E, SEZ:II, DahejIndustrial Estate, TahsilVagra, District Bharuch, Gujarat by M/s Yashashvi Rasayan Pvt. Limited.-reg. EC.

The project proponent and their consultant (Eco Chem Sales & Services) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Meeting of the Expert Appraisal Committee (Industry) held during 16th to 17th March, 2015 for preparation of EIA-EMP report. All technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Yashashvi Rasayan Pvt. Limited. has proposed for setting up of manufacturing of Agro Chemicals & Organic intermediates (702 MTPM) at Plot. No. Z/96/E, SEZ:II, Dahej Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat. Plot area is 62526 m^2, of which 19996 m^2 will be developed under greenbelt/plantation. Cost of project is Rs. 215 Crore. It is reported that no national park/wildlife sanctuary/eco sensitive zone is located within 10 km distance. River Narmada is flowing at a distance of 7 km from the project site. Following products will be manufactured:

Sl. No.	Product	Capacity, TPM
1	3,6 DI CHLORO METHOXY BENZOIC ACID	500.00
	OR	
2	DI POTASSIUM SALT OF 3,6 DI CHLORO SALICYLIC ACID	701.50
	OR	
3	2,5 DI CHLORO PHENOL	510.92
	OR	
4	2,5 DI CHLORO ANILINE	664.75
	By-products	
1	Methanol	108.9

Either of one products will be manufactured

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March,2015 - May, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (70.5 µg/m^3 to 93.7 µg/m^3), $PM_{2.5}$ (39.6 µg/m^3 to 72.5 µg/m^3), SO_2 (7.4 µg/m^3 to 16.4 ug/m^3) and NOx (17.1 µg/m^3 to 28.4 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.11 µg/m^3, 0.256 µg/m3 and 0.092 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. ESP will be provided to coal/lignite fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. SO_2.

Total water requirement will be 384 m3/day. Out of which fresh water requirement from GIDC water supply will be 296 m^3/day and remaining water requirement (88 m^3/day) will be met from recycled water. Total industrial wastewater generation will be 234 m^3/day. Out of which, effluent (136 m3/day) will be collected and finally taken to MEE. Balance 98 m3/day of normal effluent from cooling tower , boiler bloc down, scrubber & floor /container washing will be treated in RO plant. About 122 m^3/day of condensate from MEE and 10 m^3/day of RO rejection will be treated in Soil Biotechnology treatment scheme. Treated effluent will be disposed off into treated effluent drainage line of GIDC Dahej for ultimate disposal into Arabian Sea. Used oil, process waste & residue, spent carbon from ETP, used rubber hand glove/pipes will be incinerated in the unit own incineration system. The evaporation salts and ETP sludge will be sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers.

The Committee exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006 as unit is located in the notified GIDC Industrial area.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering 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. ESP shall be provided to additional coal/briquette/lignite fired boiler to control particulate matter. Continuous air emission monitoring system to be installed from the stack.
iii. Scrubber will be provided to control process emissions viz. SO2. 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. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
v. All necessary steps should be taken for monitoring of VOCs in the plant.
vi. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
vii. Total water requirement from GIDC water supply should not exceed 296 m^3/day and prior permission should be obtained from the Competent Authority.
viii. Industrial effluent generation should not exceed 234 m^3/day. Effluent (136 m3/day) will be collected and finally taken to MEE. Balance 98 m3/day of normal effluent from cooling tower , boiler bloc down, scrubber & floor /container washing will be treated in RO plant. About 122 m^3/day of condensate from MEE and 10 m^3/day of RO rejection will be treated in Soil Biotechnology treatment scheme. Treated effluent will be disposed off into treated effluent drainage line of GIDC Dahej for ultimate disposal into Arabian Sea.

ix. Treated effluent should be passed through guard pond. Continuous Online (24x7) of flow, pH and TOC should be carried out.

x. The Company shall carry out bioassy test for the treated effluent in the guard pond. 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.

xi. Incinerator shall be designed as per CPCB guidelines.

xii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.

xiii. 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.

xiv. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

xv. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.

xvi. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

xvii. As proposed, green belt over an area of 19996 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.

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

The project proponent and their consultant (M/s Envirotech East (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 24th Meeting of the Expert Appraisal Committee (Industry) held during 29th– 30th September, 2014 for preparation of EIA-EMP report. All grain based distillery are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Transways Exim Pvt. Ltd. has proposed for setting up of Grain based Distillery (60 KLD) at J.L. No. 104 & 105, Village Basudevpur, Tehsil (Block) Kulpi, District 24 Paraganas (South), West Bengal. Total plant area is 13 acre. No additional land is required for expansion. Cost of project is Rs. 120.82 Crore. River Hoogly is flowing at a distance of 2km from project site. It is reported that no national park/wildlife, wetlands, sanctuaries/bird sanctuaries are located within 10 Km distance. Following products will be manufactured:

Product	Quantity
ENA/Ethanol/Industrial Alcohol	60 KLD

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during December, 2014- March, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (48 µg/m^3 to 72 µg/m^3), PM2.5 (18 µg/m^3 to 39 µg/m^3), SO_2 (6 µg/m^3 to 18 ug/m^3) and NO_2 (10 µg/m^3 to 38 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.45 µg/m^3, 1.54 µg/m^3 and 1.31 µg/m^3 with respect to PM, SO2 and NOx. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal fired boiler (20TPH) to control particulate emissions.

Total fresh water requirement from ground water source will be 550 m3/day. Spent wash will be passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). Spentlees, MEE condensate and utilities wastewater will be treated in the effluent treatment plant followed by tertiary treatment facility and treated effluent will be recycled/reused for cooling tower make up. No effluent will be discharged outside the factory premises and 'Zero' effluent discharge concept will be implemented. Storage capacity for spent wash lagoon will be 5 days. DDGS will be sold as cattle feed. Fly ash will be sold to the brick manufacturers. Used oil will be sent to the authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the WB State Pollution Control Board on 25th June, 2015. The issues were raised regarding local employment, pollution control measures, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.

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

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

iv. Total fresh water requirement from ground water source/ surface water supply shall not exceed 550 m^3/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

v. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.

vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.

vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.

viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring shall be carried out for parameters required for drinking water purposes.

ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.

x. biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.

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

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

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

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

xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 25.06.2015 shall be satisfactorily implemented.

xvi. At least 5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. As informed, activities to be emphasized on sanitation, education and medical facilities of the area in consultation of concerned town panchyat and action plan to be drawn. Implementation of such program shall be ensured accordingly in a time bound manner.

4.6.6 Grain based Distillery (60 KLPD), Malt Spirit (6 KLPD) along with Cogeneration Power Plant (3 MW) at Village Pacharia (Changsari), District Kamrup, Assam by M/s Mangalam Distillers & Bottling Industries-reg. EC.

The project proponent and their consultant (M/s En-Vision) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 20th Meeting of the Expert Appraisal Committee (Industry) held during 23rd – 24th June, 2014

for preparation of EIA-EMP report. All grain based distillery are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Manglam Distillers & Bottling Industries has proposed for setting up of Grain based Distillery (60 KLPD), Malt Spirit (6 KLPD) along with Cogeneration Power Plant (3 MW) at Village Pacharia (Changsari), District Kamrup, Assam. Cost of project is Rs. 80 crores. Out of which, Rs. 9.5 crores and Rs. 0.75 crores are earmarked towards capital cost and recurring cost per annum for environmental management. A Fund of Rs. 2,58 crores has been earmarked for CSR. River Brahmputra flows at a distance of 5 Km. It is reported that Deepor Bheel Bird Sanctuary is located at a distance of 12 Km. Total plot area is 36,120.7 m^2.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during November, 2014- January, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (36.2 µg/m^3 to 89.3 µg/m^3), PM2.5 (17.1 µg/m^3 to 45.3 µg/m^3), SO_2 (4.8 µg/m^3 to 9.3 ug/m^3) and NO_2 (12.5 µg/m^3 to 24.6 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.163 µg/m^3, 1.979 µg/m^3 and 0.727 µg/m^3 with respect to PM, SO2 and NOx. The resultant concentrations are within the NAAQS.

ESP along with stack height of 45m will be provided to coal/rice husk fired boiler (30 TPH). DG set (900 KVA) will be installed as standby arrangement. Fresh water requirement from ground water source will be 660 m3/day. Spent wash will be passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). Spentlees, MEE condensate and utilities wastewater will be treated in the effluent treatment plant followed by tertiary treatment facility and treated effluent will be recycled/reused for cooling tower make up. No effluent will be discharged outside the factory premises and 'Zero' effluent discharge concept will be implemented. DDGS will be sold as cattle feed. Fly ash will be sold to the brick manufacturers/cement plant. Used oil will be sent to the authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the State Pollution Control Board, Assam on 23rd July, 2015. The issues were raised regarding pollution control measures, water quality study, monitoring facility etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.

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

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

iv. Total fresh water requirement from ground water source shall not exceed 600 m^3/day for distillery and cogeneration unit and prior permission shall be obtained from the

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

v. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.

vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.

vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.

viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring shall be carried out for parameters required for drinking water purposes.

ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.

x. Rice husk storage shall be done in such a way that it does not get air borne or fly around due to wind.

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

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

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

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

xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 23rd July, 2015 shall be satisfactorily implemented.

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

Reconsideration for Environmental Clearance

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 44th meeting held during 20th – 21st July, 2015 and the Committee sought following additional information:-

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

PP vide letter dated 05.08.2015 has submitted the above mentioned information. The Committee after deliberation found satisfactory response.

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

i) Adequate stack height shall be provided to oil fired boiler.

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

iii) Total fresh water requirement from ground water source shall not exceed 40 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iv) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE. Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

v) No effluent from the plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be followed.

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

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) As proposed, green belt over 0.18 hectare area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

ix) All the issues raised during the Public Hearing/consultation meeting held on 30th January, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

x) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.

4.6.8 Expansion of Organic Chemical Manufacturing Plant at Khalapur, district Raigarh (Maharashtra) by M/s Dujodwala Products Limited- reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 40th meeting held during 18th – 19th May, 2015 and the Committee sought following additional information:-

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

PP has submitted the above mentioned information. The Committee after deliberation found satisfactory response.

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

i) Bagfilter alongwith stack of adequate height shall be provided to coal fired boiler to control particulate emission within 50mg/Nm^3..

ii) Total fresh water requirement from Patalganga River shall not exceed 212 m^3/day.

iii) Effluent generation shall not exceed 86.6 m3/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. Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

iv) No effluent from the plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be followed.

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

vi) As proposed, green belt over 7.5 acres 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.

vii) All the issues raised during the Public Hearing/consultation meeting held on 11th September, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

viii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.

4.6.9 Proposed capacity expansion of existing facility at survey no. 265 (P), Express Way, Village Manali, Taluk Thiruvottiyur, District Thiruvallur, Tamil Nadu by M/s. Indian Additives Limited- REG EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 2nd meeting held during 16th – 17th December, 2015 and the Committee sought following additional information:-

(i) Quantity of fresh water consumption will be reduced after recycling of treated effluent. Water balance need to be reassessed.
(ii) VOC to be monitored in the Indoor air quality.
(iii) 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.
(iv) Toxic material profile to be submitted.

PP has submitted the above mentioned information. The Committee after deliberation found satisfactory response.

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

i) Adequate stack height will be provided to additional oil fired boiler and thermic fluid heater.

ii) Scrubber should be provided to control process emissions viz. H_2S.

iii) Total fresh water requirement from CMWSSB water supply shall not exceed 200 m^3/day.

iv) Effluent generation shall not exceed 310 m3/day. Effluent will be treated in the ETP followed by RO and MEE. Sewage will be treated in the STP. Treated effluent will be recycled for process reuse through RO and greenbelt development.

v) No effluent from the plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be followed.

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

vii) As proposed, green belt over 8.56 acres area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

viii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.

4.7 Terms of Reference (TOR)

4.7.1 Setting up of Pesticide Intermediates, Fungicide, Herbicide and Insecticide products at Plot. No. C-195 & 196, Sayakha Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat by M/s Heranba Industries 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 units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Heranba Industries limited has proposed for setting up of pesticide intermediates, fungicide, herbicide and insecticide products at Plot. No. C-195 & 196, Sayakha Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Narmada is flowing at a distance of 10 km.

Cost of proposed project is Rs. 169.75 Crore. Plot area is 33640 m^2. Committee suggested 33% should be covered as greenbelt. Total employment deployed shall be 170 person. Following products will be manufactured:

Sr. No.	Product	Capacity, TPM
	Pesticide Intermediates	
1.1	Cyper methric Acid Chloride	50
	Or	
1.2	M-Phenoxy Benzaldehyde	75
	Insecticides	
2.0	Acephate Technical	50
3.0	Deltamethrin Technical	10
4.0	Alpha Cypermethrin Technical	30
5.0	Permethrin Technical	25
6.0	Chlorpyriphos Technical	80
	Fungicides	
7.0	Tri cyclazole Technical	10
8.0	Hexaconazole Technical	15
9.0	Propiconazole Technical	15
10.0	Mancozeb Technical	400
	Herbicides	
11.1	Glyphosate Technical	25
	Or	
11.2	Dicamba Technical	150
12.0	Pendimethlin Technical	30
	Total	**890**

Sr. No.	By- Product	Capacity, TPM
1	Ammonium Chloride Powder (85%)	29.9
2	Sodium Sulphite Powder (80%)	127.5
3	Hydro Chloric Acid solution (30%)	114.7
4	Hydro Bromic Acid solution (20%)	97.4
5	Sodium Sulphate powder (80%)	86.1
6	Spent sulphuric acid acid (40-60%)	1296
7	Cypermethrin (2nd crop)	12
8	Aluminum Chloride soln (20%)	427.7
9	Bromo benzene	44
10	SS-CMAC	27.5
11	KCl powder	43.2
	Total	**2306.0**

Two Coal fired boiler will be installed having 15 TPH capacity each. Furnace Oil @ 300 Kgs/hr shall be required for operating Incinerator. 3 DG set using HSD having 1000 KVA capacity will be provided. Air pollution control devices such as Multi-cyclone dust collector followed by Electro static precipitator for Steam boiler will be provided. Two stage alkali scrubber for reaction vessel and Ventuary scrubber for Incinerator shall be installed.

Fresh water of 774 m3/day will be sourced from GIDC Water Supply Department. Against this 412 m3/day of wastewater shall be generated of which 283 m3/day of high TDS & high COD of effluent will be sent to MEE and 9 m3/day will be treated in incineration

system. Remaining 120 KLD shall be treated in RO system. The condensate (239 m3/day) from MEE and 20 m3/day of reject from RO shall be treated together in catalytic advance oxidation followed by soil bio reactor and finally discharge into effluent drainage line to Arabian Sea.

Solid/Hazardous wastes such as ETP waste, Salt from MEE, Used Oil, Discarded containers, Incineration ash will be generate from proposed project. Hazardous waste shall be collected, stored and disposed to TSDF, Vapi. Process waste and residue, used rubber hand gloves/ pipes, used oil, etc. will be incinerated within the plant. Incineration ash will be sold to brick manufacturer.

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 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.
15. Details on solvents to be used, measures for solvent recovery and for emissions control.
16. Details of process emissions from the proposed unit and its arrangement to control.
17. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
18. Action plan for utilization of MEE/dryers salts.
19. Material Safety Data Sheet for all the Chemicals are being used/will be used.

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 banned product will be manufactured.

It was recommended that **'TORs' 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.

4.7.2 Expansion of pesticide products (from 93.3 TPM to 840 TPM) at Plot No C1-76/523, 77/524, 78/525, 65/551, 66/550, 100 shed area, G.I.D.C, VAPI District Valsad, Gujarat by M/s NetMatrix Crop Care 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 units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s NetMatrix Crop Care Limited has proposed for expansion of pesticide products (from 93.3 TPM to 840 TPM) at Plot No C1-76/523, 77/524, 78/525, 65/551, 66/550, 100 shed area, G.I.D.C, VAPI District Valsad, Gujarat. Ministry vide letter no. J – 11011/145/2003-IA II (I) dated 23rd June, 2005 issued the EC in the name of M/s Ankur Agro Chem Ltd. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Daman Ganga is flowing at a distance of 5 km.

Cost of proposed project is Rs. 15.93 Crore. Recurring cost against capital cost could not defined properly. Plot area is 4225 m^2. Committee suggested 33% should be covered as greenbelt. Total employment deployed shall be 20 person. Following products will be manufactured:

Sr. No.	Product	Capacity (TPM)		
		Existing	Proposed	Total
1.	Chlorpyriphos Or PritlaChlor (2-Chloro-N-(2,6-Di ethyl phenyl)-N-(2-Propoxy Ethyl) Acetamide Or TBEE-Trichlopyr Butoxy Ethyl Ester	93.30	356.7	450
2.	DDVP (2,2 Di Chloro Vinyl Di Chloro Methyl phosphate)	0	390	390
	Total	**93.3**	**764.7**	**840**

Sr. No.	By-Products	Quantity, TPM		
		Existing	Proposed	Total After expansion
1	Hydro Chloric Acid (30%)	59.8	228.79	288.59

Total power requirement of 1000 KVA will be sourced from Dakshin Gujarat Vij Company Ltd./ Captive generation. Coal fired boilers 3 TPH and 2.8 TPH will be installed along with theremic fluid heater having 100 KGS/hr capacity. Bag filter will be provided to the

boilers for control of particulate emission and connected with stack of adequate height. Similarly bagfilter will also be attached to the theremic fluid heater and connected to stack of 30 mt. height. Process emissions will be controlled by alkali scrubber with stack of sufficient height. In the proposed project emission will be controlled by spray dryer connected with stack of sufficient height.

Fresh water requirement will increase from 34.76 m3/day to 145.21 m3/day against this quantity of wastewater generation will increase from 28.34 m3/day to 105.47 m3/day. Existing effluent will be treated in primary ETP followed by solvent stripper, MEE & ATFD to achieve zero liquid discharge. In proposed expansion effluent will be treated in the ETP followed by proposed Spray drying system. Thus after Spray drying treatment there will zero liquid discharge.

Solid/Hazardous wastes such as ETP waste, Salt from MEE, Used Oil, Discarded containers, Incineration ash will be generated and disposed off to TSDF site and authorized recycler. Process residue will be incinerated in own proposed incineration and its ash will be sent to brick manufacturer.

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 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.
15. Details on solvents to be used, measures for solvent recovery and for emissions control.
16. Details of process emissions from the proposed unit and its arrangement to control.
17. Authorization/Membership for the disposal of liquid effluent in CETP and

solid/hazardous waste in TSDF, if any.

18. Action plan for utilization of MEE/dryers salts.
19. 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. 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. Recommendation of the SPCB.

iv. The company needs to change the name of existing EC from M/s Ankur Agro Chem Ltd. before submission of EIA report.

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

4.7.3 Expansion of Epoxy Hardening Plant at Sy. Nos. 206 & 207, Village Luna, Tahsil Padra, District Vadodara, Gujarat by M/s Admark Polycoats Pvt. Ltd - reg. TOR -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 Admark Polycoats Pvt. Ltd. has proposed for Expansion of Epoxy Hardening Plant at Sy. Nos. 206 & 207, Village Luna, Tahsil Padra, District Vadodara, Gujarat. Ministry vide letter no. J – 11011/91/2009-IA II (I) dated 1st September, 2009 issued the EC 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.

Total plot area is 14215 m2 out of which greenbelt will be developed on 5010 m2 of land. Total Cost of the project is Rs. 0.75 crore. Following are the details of products of existing and proposed expansion:

Sr. No.	Name of Product	Quantity		
		As per earlier EC granted	Proposed additional quantity	Total Quantity
1	Epoxy Hardeners	1000 MT/month	1000 MT/month	2000 MT/month

The power requirement will increase from 200 KVA to 300 KVA which will be sourced from Gujarat Electricity Board. Theremic fluid heater and DG set having 320 KVA capacity will be provided using LDO. PP informed there will be no process emission.

Total water requirement after expansion will be 41 m3/day against which 11.8 m3/day of wastewater will be generated. Existing wastewater is being sent for recovery of amines at Multichem, Nandesari, in accordance with the earlier EC & GPCB consent. The same practice will be continued for the increased quantity of wastewater. There will be no increase in the quantity of domestic sewage and utilities effluent. Domestic sewage will continue to be disposed through septic tank - soak pit system and wastewater from utilities will be disposed through CETP of EICL (Umaraya).

Hazardous wastes generated are being disposed off through authorized TSDF site in accordance with the statutory requirements as per Hazardous Waste Management Rules. The same practice will be continued upon expansion

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

iii. Recommendation of SPCB.

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.

4.7.4 Expansion of drug intermediates at Sy No: Parts of 300 & 301, Village Malkapur, Mandal Choutuppal, District Nalgonda, Telangana by M/s Ortin Laboratories Ltd. Unit – II -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 Ortin Laboratories Ltd. Unit – II has proposed for Expansion of drug intermediates at Sy No: Parts of 300 & 301, Village Malkapur, Mandal Choutuppal, District Nalgonda, Telangana. The unit was established prior to 2006 and obtained CFE vide letter no. NAL-222/PCB/ZO/RCP/CFE/2006-1268 dated 31.03.2006. As reported in Form-1, no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Following water bodies and reserve forests are within 10km radius from the proposed site:

- Tangallapalli Chervuvu - 7.9 KMs (SSE)
- Chinna Musi River - 3.7 KMs (NNW)
- Mukthapuram Chervuvu - 8.2 KMs (NNW)
- Bhudan Pochampalli Chervu - 6.5 KMs (N)
- Nagaram Chervuvu - 6.6 KMs (SSE)
- Mammaiah Vagu - 7.8 (WSW*)*
- Malkapuram RF Block - I - 310 Meters -(SSW)
- Malkapuram RF Block - II - 2.8 KMs (S)
- Malkapuram RF Block - III - 5.1KMs (SSW)
- Jalapur RF - 4.2 KMs (NW)
- Lakkaram RF - 4.9 KMs (ESE)
- Ailapur RF - 7.6 KMs (S)
- Hafizpur RF - 6.1 KMs (SSW)
- Dandu Mailaram RF - 9.8 KMs (SSW)

Total plot area is 27214.9 m2 out of this area about 10182.30 m2 (37.41%) area will be developed as greenbelt. Total cost for proposed expansion is Rs. 20 crore. Following will be manufactured:

Table: List of Existing Products

S. No	Name of the Products	Quantity In Kg/Day

S. No	Name of the Products	Quantity In Kg/Day
1	Lovastatin cyclohexyl amide phenyl bronate(Simvastatin intermidiate	31.50
2	n-butyl lithium	186.67
3	(2S, 3S, 5S)-2-amino-3-hydroxy-5-(tert-butyloxy carbony)amino-1 6-diphenylhemi succinic acid salt (BDH)(Ritanovir intermediate)	46.67
4	Carbonic acid-4-nitro phenyl -5-thiazolyl methyl ester(NCT)(Ritanovir intermediate)	66.67
5	(2S)-3-methyl-2-{(methyl-{(2-(1methyl methyl)thiazole-4-yl)methyl)carbonyl)amino)butanoic acid(MTV)(Ritanovir intermediate)	24.00
6	2S, 3S, 5S)-2-amino-3-hydroxy-5-(1-tetra hydropyrmid-2-on-yl-)-3-methyl butanoyl)amino-1-6-diphenyl hexane –S- Pyro Glutamate (THP)(Lopinavir intermediate)	13.33
7	2 ,6-dimethyl phenoxy actyl chloride(DPC)(Lopinavir intermediate)	18.33
8	lsopropyl}-b-{d}-thiogaiactopyranoside(IPTG)(fine chemical)	20.00
9	1-cyclo propyl -7-chloro-6-fluoro-4-oxo-3-quinoline carboxylic acid(Ciprpfloxacin intermediate)	16.67
10	6-chlor-5-(2, 3-dichloro phenoxy)-2-methyl thiol-1h-benzo(a)-imidazole(Trical Bendazole)	13.33
11	Tert-butyl(5R)-6-cyano-5-hydroxy-1- 3di-oxo hexanoate(Rosuvastatin intermediate)	36.00
12	Methyl-2-(4-(2-cyano benzyl)benzylamino)-3-metyl butanoate (Valsartan intermediate)	46.67
	Total(Any 6 Products with Max production capacity of 414.17 Kg/Day at any point of Time)	**414.17**

Table: List of Proposed Products

S. No	Name of the Product	CAS Number	Therapeutic Category	Quantity In MT/Month
1	Amitriptyline hydrochloride	549-18-8	Antidepressant.	1.62
2	Ciprofloxacin Hydrochloride	86483-48-9	Anti-infective	3.00
3	Cisapride mono hydrate	260779-88-2	Gastroprokinetic agent	1.40
4	Domperidone	57808-66-9	Antiemetic	2.00
5	Fexofenadine Hydrochloride	153439-40-8	Antihistamine	3.00
6	Fluconazole	86386-73-4	Antifungal	3.00
7	Lopinavir	19275-17-0	Antiretroviral Agent.	2.00
8	Nadolol	42200-33-9	Cardiovascular Agent.	1.00
9	n-Butyl Lithium	109-72-8	Organolithium Reagent	35.00
10	Pantoprazole sodium	138786-67-1	Proton pump inhibitor	2.00
11	Pregabalin	148553-50-8	Neuropathic Pain Agent	2.00
12	Ritonavir	155213-67-5	Antiretroviral Agent	2.00
13	Sildenafil Citrate	171599-83-0	Anti-erectile dysfunction agent.	2.00
	Total			**60.02**

Table: List of By-Products From Proposed Products

S. No	Name of the Product	Name of the By-Product	Quantity In Kg/Day
1	Ciprofloxacin Hydrochloride	Piperazine Hydrochloride	41.00
2	N-Butyl Lithium	Lithium Chloride	171.00
3	Ritonovir	4-Nitro phenol	46.00

Existing DG sets of 380 KVA & 500 KVA will be expanded with another DG set of capacity 500 KVA. Coal fired boiler of 4 TPH capacity will be installed in addition to existing boiler of 2 TPH capacity. Process emission will be scrubbed through chilled water media. Committee suggested to provide adequate treatment for boiler emissions

Total fresh water requirement after expansion will be 130.22 m3/day which will be sourced from ground water. Against this wastewater of 59.57 m3/day will be generated. Wastewater will be segregated into two streams as High TDS (HTDS) and Low TDS (LTDS). HTDS Effluent after neutralization, filtration sent to MEE. LTDS effluents along with MEE condensate will be sent to Biological treatment and finally to RO system. RO Rejects to MEE system and RO permeate to reuse; MEE residue to ATFD for drying

Inorganic waste, MEE salt, ETP sludge will be sent to TSDF for final disposal. Organic waste, spent carbon and solvent distillation residue will be sent to co processing in cement industry. Used oil and lead acid battery will be sold to the authorized dealer.

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, other process-specific pollutants* like NH_3*, 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

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. ZLD system to be adopted with reuse-recycling of wastewater.

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.

4.7.5 Setting up of synthetic organic resins namely Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin and Laminated Sheets at Survey No.: 668, At Post Ghadkan, Majara-Talod Road, Taluka Prantij, District Sabarkantha, Gujarat by M/s Damas Laminates Pvt. Ltd. -reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry 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 Damas Laminates Pvt. Ltd. has proposed for setting up of synthetic organic resins namely Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin and Laminated Sheets at Survey No. 668, At Post Ghadkan, Majara-Talod Road, Taluka Prantij, District Sabarkantha, Gujarat. 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. River Sabarmati and River Khari are flowing at a distance of 5.3 km (NW) and 5.5 km (SE) respectively.

Total plot area is 16334 m2, of which an area earmarked for greenbelt is 5400 m2. Total project cost including existing facilities is Rs. 7 Crore. About 150 persons will be employed. Following products will be manufactured:

Sr. No.	Name of Product	Quantity
1	Formaldehyde (37 %)	3000 MT/Month
2	Phenol Formaldehyde Resin	600 MT/Month
3	Melamine Formaldehyde Resin	300 MT/Month
4	Urea Formaldehyde Resin	300 MT/Month
5	Laminated Sheets	2,00,000 Nos./Month

Coal/Briquettes fired boiler having 4 MTD capacity and Thermic Fluid Heater (15 00000 Kcal/Hr will be installed and connected with common stack of 30 m height. Dust Collector followed by bag filters with a suitable stack height will be installed for controlling the Particulate emissions (within statutory limit). Stack of 7mt. height will be provided to the Proposed DG sets of 480 KVA. Source of methanol is from laminated sheet dryer which will be scrubbed.

Ground water will be used as source of water. Total 130 m^3/day of water will be used. Against which 59 m^3/day will be generated. Effluent generated from process, will be treated in ETP based on Photo Fenton treatment followed by RO and then evaporator. Sludge so generated from the ETP will be sent to TSDF site. Chemically treated water, Boiler blow down, RO reject, cooling tower blow down water will be collected in treated water collection

tank and then will be evaporated in steam based evaporation system followed by condenser. The plant is based on ZLD.

Solid/ Hazardous waste will be segregated and stored in containers/ HDPE bags and place in elevated covered platform with leachate collection system before sending to authorized agencies. ETP Sludge and Evaporation residue will be sent to TSDF. Used Oil used within premises as a lubricant / 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, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, 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 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.

4.7.6 Expansion of the system capacity of MDPL from existing 5.0 MMTPA to 8.00 MMTPA by installation of additional pump facilities at Bachau and Pindwara and laying 280 Kms. extension spur pipeline from Palanpur station to HPCL

proposed Marketing terminal Near Vadodara in Districts of Sirohi and Gandinagar in Rajasthan and Gujarat by M/s HPCL -reg. TOR

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

M/s HPCL has proposed for expansion of the system capacity of MDPL from existing 5.0 MMTPA to 8.0 MMTPA by installation of additional pump facilities at Bachau and Pindwara and laying 280 Kms. extension spur pipeline from Palanpur station to HPCL proposed Marketing terminal Near Vadodara in Districts of Sirohi and Gandinagar in Rajasthan and Gujarat. As per form-1, it is reported that the proposed pipeline is not passing through national parks/sanctuaries./coral reefs /ecologically sensitive areas. Therefore, as per EIA Notification, 2006 the proposal does not attract preparation of EIA-EMP report for Environment Clearance. Further it is noted that M/s HPCL has obtained the Environmental Clearance vide letter no. J-11011/93/2005-IA II(I) dated 20.06.2005 for the existing pipeline which was obtained under EIA Notification 1994. In this context Committee was of the view that existing proposal may be considered for amendment rather consideration of TOR for making EIA-EMP report. Since, project is expanding the capacity with additional of pumping station and extension of pipeline, it was deferred for want of additional information w.r.t. full configuration of pumping station that include designed capacity, DG set, location of PS, etc. for amendment in the existing EC including compliance of existing EC.

4.7.7 Expansion of Bulk Drugs and Intermediates Manufacturing Unit (capacity from 10.5 TPM to 495 TPM) at Sy.No. 240, 242, 243, 247, 248 & 249 , Village Dhotigudem, Mandal Pochampally, District Nalgonda , Telangana by M/s Hazelo Lab Pvt. Ltd. (formerly known as Venlar Labs Pvt. Ltd.) -reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk 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 Hazelo Lab Pvt. Ltd. has proposed for expansion of drug intermediates at Sy No: Parts of 300 & 301, Village Malkapur, Mandal Choutuppal, District Nalgonda, Telangana. Ministry vide letter no. J-11011/87/2010-IA II(I) dated 23.11.2010 has granted Environmental Clearance in the name of M/s Venlar Labs (P) Ltd. regarding change in product mix and bulk drug intermediate to bulk drug unit. As reported in Form-1, no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Chinna Musi River is passing from SW to NW at a distance of 5.8 Km in NW direction to the site. There are seven reserve forests in the study area; Lakkaram RF at a distance of 0.8 km in northeast direction, Chauttuppal RF at a distance of 4.7km in northeast direction, Malkapuram RF at a distance of 2.6 km in west direction, Hafizpura RF at a distance of 6.8 km in southwest direction, Ailapur RF at a distance of 6.9 km in south west direction, Meharnagar RF at a distance of 5.2 km in northwest direction and Jalapur RF at a distance of 7.1 km in NW direction of the site

Total area after expansion is 33.485 acres out of this area about 11.5 acre area will be developed as greenbelt. Total cost for proposed expansion is Rs. 45 crore. Following will be manufactured:

Manufacturing Capacity – After Expansion

S.No	Name of the Product	Capacity	
		TPM	TPD
1	Amlodipine Besylate	10	0.33
2	Bupropion	25	0.83
3	Clopidogrel	10	0.33
4	Desvelofloxin	5	0.17
5	Divolproex sodium	17	0.57
6	Dulaxetine	5	0.17
7	Esomeprazole MG Trihydrate	10	0.33
8	Glimepiride	5	0.17
9	Mesalamine	5	0.17
10	Metaprolol	15	0.50
11	Pantoprazole Na	15	0.50
12	Pragabalin	15	0.50
13	Rosuvastatin	3	0.10
14	Sertraline HCl	10	0.33
15	Tramadal	20	0.67
16	Valaciclovir	10	0.33
17	4-[4-Chloro-1-oxobutyl]-2,2- dimethyl phenyl acetic acid methyl ester (CDP)	3	0.10
18	N2-(1-(S)-ethoxy carbonyl-3-phenyl propyl-N6-trifluoro acetyl-L-lysine (LCPP)	5	0.17
19	2-[2-[3(S)-[3-[2-(7-Chloro-2-Quinolinyl)-ethenyl]phenyl]-3-hydroxypropyl]phenyl-2-propanol (CQHP)	3	0.10
20	2,8-Diazo bicyclo Nonane	5	0.17
21	2,3,4,5-Bis-O- (1- methylethylidene)-b-D-fructopyranose(Gemini)	25	0.83
22	2- Acetyl Ethoxy acetyl methoxy ether (AEA)	34	1.13
23	N,N-Carbonyl di imidazole (ZEC)	50	1.67
24	(2S,3S,5S)-2-Amino-3-Hydroxy-5-Tert-Butylcarbonyl Amino 1,6-diohenyl (BDH Pure)	3	0.10
25	Trans-4-(4-chlorophenyl)-cyclohexane carboxylic acid(Mantra)	3	0.10
26	Guanine	50	1.67
27	Poly allyl amine HCl	15	0.50
28	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-flurophenyl)-6-isopropyl-2-(N-methylmethane sulfonamido)Pyrimidin - 5-yl)vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate (TIN)	5	0.17
29	5-Cyano phthalide	20	0.67
30	1,1-Cyclohexanediacetic acid (CDA)	50	1.67
31	Carbamyl Methyl-5-Methyl hexanoic Acid (CMM)	15	0.50
32	2',3'-Di-O-acetyl-5'-deoxy-5-fluorocytidine (IDBA)	4	0.13
33	N-(2-Methyl-5-aminophenyl)-4-(3-pyridyl)-2-pyrimidine amine (Mediciti)	10	0.33
34	4-[(4-Methylpiperazin-1-yl)methyl]benzoic acid dihydrochloride (NBA)	10	0.33
35	2, 3-Epoxy-2-methyl-N-[4-cyano-3-(trifluoromethyl) phenyl] propanamide (Agni)	5	0.17
	Total	**495**	
	Worst Case : Maximum 20 products on Campaign basis		**14.2**

List of Utilities

S.No	Utility	Permitted	Proposed	After Expansion
1	Coal Fired Boilers	1 x 2 TPH	2 x 10 TPH	2 x 10 TPH 1 x 2 TPH
2	Thermic Fluid Heater	1 Lakh. K. Cal	--	1 Lakh. K. Cal
3	DG Sets *	1x 250 kVA	2 x 1000 kVA	2 x 1000 kVA

				1x250 kVA

**DG sets will be used during load shut down by TSPDCL.*

The sources of air pollution from the existing plant are 2 TPH, 600 kg/hr coal fired boilers and DG set of 1 x 250 kVA. The expansion proposal shall include establishment of 2 x 10 TPH Coal fired boilers and backup DG sets of 2X1000 KVA. The proposed air pollution control equipment for coal fired boiler is Bag filters. DG sets shall be provided with stack heights based on CPCB formula for effective stack height.

Gaseous emissions from process are Hydrogen Chloride, Sulfur dioxide, Carbon dioxide, Oxygen and Hydrogen. HCl and SO2 are scrubbed in two stage scrubbers. Water is used as scrubbing media in primary scrubbers and caustic in secondary scrubbers. Sodium Chloride, Sodium bicarbonate solutions are sent to ETP. Hydrogen, Oxygen and carbon dioxide gases are let out into atmosphere by following a standard operating procedure. Hydrogen gas is let out into atmosphere through water column.

Existing water consumption and effluent generation is 13.76 m^3/day and 8.02 m^3/day respectively. The total water requirement after the proposed expansion is 413.3 m^3/day out of which 248.3 m^3/day will be fresh water and 165 m^3/day is recycled water.

The effluents are treated in "Zero Liquid Discharge" system. The high TDS effluents in the order of 147.4 m^3/day are sent to Stripper followed by MEE, AFTD. The condensate from MEE and ATFD is treated along with LTDS effluent from utility blow downs and domestic wastewater of 44 m^3/day in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers make-up and scrubbers.

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

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-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, other process-specific pollutants* like NH_3*, 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 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. Existing EC required to be changed in the name from M/s Venlar Labs Pvt. Ltd. to M/s Hazelo Lab Pvt. Ltd.

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.

4.7.8 Expansion of Bulk Drug and Intermediate products (form 12.94 TPM to 295 TPM) at Sy. No: 299 & 299 / AA, Village Malkapur, Mandal Choutuppal, District Nalgonda, Telangana by M/s Shree Jaya Laboratories 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 Shree Jaya Laboratories Pvt. Ltd. has proposed for expansion of bulk drug and intermediate products (form 12.94 TPM to 295 TPM) at Sy. No: 299 & 299 / AA, Village Malkapur, Mandal Choutuppal, District Nalgonda, Telangana.

The unit was established prior to 2006 and obtained CFE vide letter no. NAL-217/PCB/ZO/RCP/CFE/2006-1189 dated 06.03.2006. As reported in Form-1, no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant

Reserves, Wildlife Corridors etc. lies within 10 km distance. Following water bodies and reserve forests are within 10km radius from the proposed site:

- Tangallapalli Chervuvu - 7.9 KMs (SSE)
- Chinna Musi River - 3.7 KMs (NNW)
- Mukthapuram Chervuvu - 8.2 KMs (NNW)
- Bhudan Pochampalli Chervu - 6.5 KMs (N)
- Nagaram Chervuvu - 6.6 KMs (SSE)
- Mammaiah Vagu - 7.8 (WSW*)*
- Malkapuram RF Block - I - 310 Meters -(SSW)
- Malkapuram RF Block - II - 2.8 KMs (S)
- Malkapuram RF Block - III - 5.1KMs (SSW)
- Jalapur RF - 4.2 KMs (NW)
- Lakkaram RF - 4.9 KMs (ESE)
- Ailapur RF - 7.6 KMs (S)
- Hafizpur RF - 6.1 KMs (SSW)
- Dandu Mailaram RF - 9.8 KMs (SSW)

Total plot area is 30755.87 m2 out of this area about 10800 m2 (35.12%) area will be developed as greenbelt. Total cost for proposed expansion is Rs. 30 crore. Following will be manufactured:

Table: List of Existing Products

S. No.	Products	Capacity (Kg/Day)
1.	5-Methoxy-2{[(4-methoxy-3,5-dimethylpyridin- 2yl]methyl] -1H-Benzimidazole	75
2.	5-(Difluoromethoxy)-2{[3,4-dimethoxypyridin-2-yl)methyl]sulfanyl}-1H-Benzimidazole sodium(13stages)	80
3.	8-Chloro-11-(1-methylpiperidin-4-ylidine)-6,11-dihydro-5H-benzo[5,6] Cycloheptal[1,2-b] pyridine (Intermediates I -6 stages, Intermediate II-6stages, 13th stage coupling of intermediates)	51.20
4	Ethyl4-[(5-butyl-2-formyl-1-h- imidazol-1yl)methyl benzoate (Intermediates I – 3 stages, Intermediate II- 1 stage, 3rd stage coupling of intermediates)	101.33
5.	4 –[4-(di methyl amino]-1-(4- fluorophenyl) -1- hydroxybutyl]-3-(hydroxyl methyl) benzo nitrile	163.33
6.	11- PiperzinyL dibenzo [b,f] [1,4] thiazepine HCL(6 stages)	86.66
Worst combination		**431.33**

Table: List of Proposed Products

S. No	Name of the Product	CAS Number	Therapeutic Category	Quantity In Kg/Month
1	Benzyl Magnesium chloride	6921-34-2	Organic Reagent	10000.00
2	Butyl Magnesium Chloride	693-04-9	Organic Reagent	15000.00
3	Domperidone	57808-66-9	Antiemetic.	5000.00
4	Escitalopram oxalate	219861-08-2	Antidepressant.	3000.00
5	Esomeprazole Magnesium trihydrate	217087-10-0	Antiulcer Agent	5000.00
6	Ethyl magnesium Chloride	925-90-6	Organic Reagent	15000.00
7	Linezolid	165800-03-3	Antibiotic	2000.00
8	Loperamide hydrochloride	34552-83-5	Ant diarrheal	2000.00
9	Magnesium tert.Butoxide	32149-57-8.	Organic Reagent	15000.00
10	Metformin hydrochloride	1115-70-4	Hypoglycemic	50000.00

11	Methyl magnesium chloride	676-58-4	Organic Reagent	20000.00
12	N,N-Dimethyl propyl magnesium chloride	19070-16-7	Drug Intermediate	20000.00
13	Omeprazole	73590-58-6	Proton pump inhibitor.	20000.00
14	Pantoprazole sodium	138786-67-1	Gastric Acid Secretion Inhibitor	15000.00
15	Phenyl magnesium chloride	100-59-4	Organic Reagents	15000.00
16	Quetiapine Fumarate	111974-72-2	Antipsychotic,	5000.00
17	Rabeprazole Sodium	117976-90-6	Gastric Acid Secretion Inhibitor	5000.00
18	Sodium Methoxide	124-41-4	Organic Reagent	50000.00
19	Sodium tert butoxide	865-48-5	Organic Reagent	20000.00
20	Telmisartan	144701-48-4	Anti hypertensive	3000.00
	Total			**295000.00**

Table: List of By-Products From Proposed Products

S. No	Name of the Product	Name of the By-Product	Quantity In Kg/Day
1	Magnesium tertiary Butoxide	Magnesium chloride	360.00
2	Omeprazole	Ammonium chloride	224.00
		Sodium sulphate	287.53
		Sodium nitrate	140.00
3	Pantoprazole sodium	Potassium sulphate	114.00
		Ammonium phosphate	66.00
		Sodium acetate	205.00
		Ammonium chloride	135.00
4	Rabeprazole Sodium	Sodium nitrate	50.00
		Sodium acetate	58.00
		Ammonium chloride	32.00
5	Telmisartan	Sodium phosphate	151.00
		1,Bromo-5,5-dimethyl imidazoline 2,4-dione	52.00
		Ammonium acetate	23.00

Existing DG sets of 275 KVA & 500 KVA will be expanded with another DG set of capacity 275 KVA. Coal fired boiler of 10 TPH & 6 TPH capacity will be installed in addition to existing boiler of 3 TPH capacity. Process emission will be scrubbed through chilled water media. Committee suggested to provide adequate treatment for boiler emissions

Total fresh water requirement after expansion will be 265.82 m3/day which will be sourced from ground water. Against this wastewater of 94.89 m3/day will be generated. Wastewater will be segregated into two streams as High TDS (HTDS) and Low TDS (LTDS). HTDS Effluent after neutralization, filtration sent to MEE. LTDS effluents along with MEE condensate will be sent to Biological treatment and finally to RO system. RO Rejects to MEE system and RO permeate to reuse; MEE residue to ATFD for drying

Inorganic waste, MEE salt, ETP sludge will be sent to TSDF for final disposal. Organic waste, spent carbon and solvent distillation residue will be sent to co processing in cement industry. Used oil and lead acid battery will be sold to the authorized dealer. Coal ash from boiler will be sent to brick manufacturer.

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, other process-specific pollutants* like NH_3*, 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 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 with reuse-recycling of wastewater.

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.

4.7.9 Drilling of 9 no. of development wells, laying of subsea & on-land pipelines, installation of 6 no. of unmanned Production platforms in shallow waters and installation of new Onshore terminal, Teshsil Sakhinetipalle, Allavaram East Godavari district, Andhara Pradesh 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 Drilling of 9 no. of development wells, laying of subsea & on-land pipelines, installation of 6 no. of unmanned Production platforms in shallow waters and installation of new Onshore terminal, Teshsil Sakhinetipalle, Allavaram East Godavari district, Andhara Pradesh.

Cost of project is Rs. 3750 Crore. Drilling will be done for 45-60 days for each well. As per Form-1, It is reported that no national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, etc. lies within 10 km distance. However during presentation PP informed that pipeline is passing through forest land and stage-1 forest clearance for this area has been obtained for S-1 Vashishta. The Committee took a serious note for supplying incomplete information in Form-1 and instructed PP that Form-1 should be filled up with full detail. The details of the project are as follow:

a. Integrated Development of block KG-OSN-2004/1 and GS-49-2 field in KG Offshore by constructing new onshore facilities at Odalarevu/Mori.
b. Drilling and completion of 7 new wells in KG-OSN-2004/1 and 2 new wells in GS-49-2 prospect.
c. Drilling of 7 wells in KG-OSN-2004/1 with cased hole gravel pack completion.
d. Two new wells of GS-49-2 with dual packer and dual string completions with 2 7/8 tubing.
e. Subsea pipeline from offshore to new onshore terminal with a carrying capacity of 6.4 MMSCMD of gas.
f. 6 platforms, one each at AL-1-A, SA-1-A, SA-1-B, NL-2-A and NL-3-B proposed well locations with one more platform at GS-49-2-A/B proposed well location in GS-49-2 prospect. Two subsea wells tied back to the nearest platform AL-1-A. Subsea pipeline tied back to the new onshore facilities at Odalarevu/Mori.
g. New onshore facility is to be constructed for 8 MMSCMD of gas

Platform & Well Co-Ordinates are as under:

Sl. No.	**Well Name**	**Well Co-ordinates (WGS-84) /UTM Zone-44, CM-81**		**Platform Name**	**Platform Co-ordinates (WGS-84) /UTM Zone-44, CM-81**	
		Latitude/ Northing	Longitude/ Easting		Latitude/ Northing	Longitude/ Easting
1	SA-1-A	16^0 12'16.8"/ 1791678.50	81^0 37'27.24"/ 566720.37	SA-1A	16^0 12' 16.8" / 1791678.5	81^0 37' 27.24" / 566720.37
2	SA-1-B	16^0 13' 30.7" 1793952.49	81^0 38' 32.01" 568636.27	SA-1B	16^0 13' 30.7"/ 1793952.49	81^0 38' 32.01"/ 568636.27
3	NL-2-A	16^0 14'52.26"/ 1796467.96	81^0 40'8.86"/ 571503.41	NANL-2A	16^0 14'52.26"/ 1796467.96	81^0 40'8.86"/ 571503.41
4	AL-1-A	16^0 12'01.61"/ 1791252.56	81^0 44'47.64"/ 579798.25	AL-1A	16^0 12'01.61"/ 1791252.56	81^0 44'47.64"/ 579798.25
5	NL-3-A	16^0 13'18.19"/ 1793596.25	81^0 43'13.038"/ 576980.97	NANL-3A	16^0 13'18.19"/ 1793596.25	81^0 43'13.038"/ 576980.97
6	GS-49-2#1	16^0 17' 16.02" 1800900.97	81^0 42'39.47" 575958.97	GS-49-2	16^0 17' 16.02" 1800900.97	81^0 42'39.47" 575958.97
7	GS-49-	16^0 17' 7.68"/	81^0 42'27.93"/			

	2#2	1800643.50	575617.36			
8	NL-3-B	16^0 09'23.92"/ 1786398.78	81^0 43'25.93"/ 577389.05	Sub Sea well		
9	CS-1-A	16^0 09'02.016"/ 1785741.51	81^0 45'54.08"/ 581791.35	Sub Sea Well		

In Block KG-OSN-2004/1 and Block IA (GS-49-2), Total 7 Environmental Clearance have been issued for exploratory drilling at various stages. As both the fields are marginal and economically not viable on standalone development basis, in order to exploit the hydrocarbon reserves ONGC proposes for integrated development comprising of total 10 development wells (7 dry wells & 2 subsea wells), 06 offshore production platforms and 01 onshore terminal of 6.4 MMSCMD capacity.

PP informed that all these wells are proposed to be drilled with water based mud only. However, in case of specific hole problems, low toxic synthetic oil based mud (SOBM) having aromaticity of <1% will be used. Thoroughly washed drill cuttings will be discharged to sea with proper dilution @ 50 barrels/hr intermittently as per GSR.546 (E) dated 30th Aug 2005 guidelines. Unused SOBM mud will be collected and reused/ sent to base. Sewage and effluents will be treated on board and disposed to sea after complying the disposal standards. Low sulphur diesel and emission stacks with bag filters will be used in DG sets to minimise emissions. All the mud additives having low toxicity and bio degradable will be used. Good international drilling practices will be adopted to minimise the effects of drilling on marine bio data and ecology.

About 25-30 m3/day of water will be required for drilling operation and domestic purposes. About 100-150 m3/day of drill cutting will be produced. For making the use of DG set 8-2 KLD/rig of HSD will be used. Wastewater generated during production will be sent to the authorized Common Effluent Treatment for disposal. Precautionary measures will be taken as per The Hazardous Wastes (Management, Handling and Trans-boundary Movement) Amendment Rules, 2009 for drilling cutting, spent drilling mud and waste oil etc.

PP requested for exemption of public hearing as already public hearing conducted in the district. In view of the Group Gathering Facility at onshore which making greater impact to environment, it was emerged to go for public hearing.

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 a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.
7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.

8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM_{10}, SO_2, NOx, CO, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, *etc*. duringallprojectphases.
22. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc*. including its disposal options during all project phases.
23. Disposal of spent oil and lube.
24. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
25. Commitment for the use of water based mud (WBM) only
26. Oil spill emergency plans for recovery/ reclamation.
27. H2S emissions control.
28. Produced oil/gas handling, processing and storage/transportation.
29. Details of control of air, water and noise pollution during production phase.
30. Measures to protect ground water and shallow aquifers from contamination.
31. Whether any burn pits being utilised for well test operations.
32. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.
33. Environmental management plan.
34. Total capital and recurring cost for environmental control measures.
35. Emergency preparedness plan.
36. Decommissioning and restoration plans.
37. Documentary proof of membership of common disposal facilities, if any.
38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
39. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
40. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

B. Additional TOR

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

ii. A separate chapter on status of compliance of Environmental Conditions granted by 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.

iii. Clearance under CRZ Notification to be obtained

iv. Forest Clearance to be obtained

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.

4.7.10 Expansion of Synthetic Organic Resins at 133,134,135,136,164,165, Mahagujarat Industrial Estate, Moraiya, Taluka Sanand, District Ahmedabad, Gujarat by M/s Macro Polymers 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 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 Macro Polymers Pvt. Ltd. has proposed for expansion of synthetic organic Resins at 133,134,135,136,164,165, Mahagujarat Industrial Estate, Moraiya, Taluka Sanand, District Ahmedabad, Gujarat. 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. During presentation it is reported that Zahirabad RF is at 0.77 km (S).

Total plot area is 11,971 m2 out of which greenbelt will be developed on 1,061 m2 of land. Total Cost of the project is Rs. 2 crore. Following are the details of products of existing and proposed expansion:

Sr. No.	Name of Products	Production Capacity (MT/Month)		
		Existing as per CC & A*	Proposed	Total after Expansion
1	Resin Solutions (by Formulation)	2000	(-) 1500	500
2	Industrial Polymers	500	00	500
3	Resin manufacturing by synthesis	Nil	3000	3000

	A. Alkyd Resins			
	B. Polyamide Resins			
	C. Polyester Resins			
	D. Acrylic Resins			
	E. Rosin Esters and Derivatives			
	F. Epoxy Derivatives G. Epoxy Hardeners			
4	Resin manufacturing by synthesis A. Amino Resins (Melamine resin/ Urea resin/ Phenol Resins)	Nil	500	500
	B. Ketonic Resins			
	By-Product			
1	Caustic Lye (45%)	Nil	870	870

Power of 275 KW will be sourced from Gujarat Vij Company Ltd. Additional Thermic Fluid Heater having 10 lac K cal/hr will be installed in addition to 3 Thermic Fluid Heaters. In the proposed project multi-cyclone separator followed by bag filter will be installed as pollution control device.

Fresh water requirement will remain same i.e 12m3/day after expansion. Existing ETP is designed to treat 50 m^3/day effluents and therefore it has sufficient capacity to treat proposed effluent efficiently.

No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.

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

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.

4.7.11 Expansion of Manufacturing of Bulk Drug & Intermediate at Gut No.204, Nasik Mumbai Highway, Vadivarhe, Taluka Igatpuri. District Nashik, Maharashtra by M/s Vadivarhe Specialty Chemicals Ltd. -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.

4.7.12 DHDS revamp to increase the capacity from 1.80 MMTPA to 2.34 MMTPA at Teshsil Ambattur, Manali, Tamil Nadu by M/s Chennai Petroleum Corporation 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 the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level. The project is also located under critically polluted area.

M/s Chennai Petroleum Corporation Limited has proposed for DHDS revamp to increase the capacity from 1.80 MMTPA to 2.34 MMTPA at Teshsil Ambattur, Manali, Tamil Nadu. It is reported that there is no National Park, Wildlife Sanctuary within the distance of 10 km. Bakingham Canal is flowing adjacent to project site. Korttalaiyar River is flowing at a distance of 2.5 km. and Ennore Creek is at a distance of 8.2 km. from the project site.

Refinery plant area is 800 acres. Cost of the project is 350.33 Crore. About 20 personals will be employed. Ministry has issued EC vide letter no. 11011/94/1996_IA II(I) dated 09.04.1997 and subsequent EC was also issued.

The existing Diesel Hydro-desulphurisation (DHDS) unit in CPCL is designed for treating the feed consisting of straight run gas oil, light vacuum gas oil, spindle oil and FCCU's and LCO / HCO to produce treated diesel to meet the required specifications.

The DHDS unit is proposed to be revamped to meet the new specifications for diesel as outlined in "AUTO FUEL VISION & POLICY 2025" (AFV), submitted in the year 2014. Presently BS-IV specification diesel with sulphur content of 350 ppm wt is being supplied to major cities and BS-III specification diesel with sulphur content of 50 ppm wt is being supplied to rest of the country. As per AFV recommendation, 100% BS-IV specification fuels have to be supplied by 1st April 2017 and 100% BS-V specification fuels by 1st April 2020.

The proposed DHDS revamp is to increase the capacity from 1.80 MMTPA to 2.34 MMTPA and to meet the BS-V standards by producing treated diesel having sulphur content of less than 10 ppm wt. The proposed Revamp is also for treating Straight Run VGO with a capacity of 0.5 MMTPA.

Power requirement will increase from 2.5 MW to 3.2 MW which will be met from existing captive power plant. Consumption of fuel gas will remain same i.e. 0.29 TPH.

Existing water requirement is 770 m3/day and no additional water would require for proposed expansion. The water is sourced from CMWSSB and Desalination CPCL.

The hazardous wastes generated from CPCL are collected, stored and disposed through authorized disposal cum recycle facilities as per the authorization from PCB and the unit has agreements with all waste disposal facilities for the same. There is no internal disposal facility availability within the site.

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

A. Specific TOR

1. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.
3. Sulphur balance giving input from crude, refinery fuel (if used) and any other outside fuel and output in various products and emissions.
4. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
5. Details of emissions from all the stacks including volumetric flow rate.
6. Details on availability of raw materials (crude oil, natural gas, chemicals, *etc.*), its source and storage at the plant.
7. Details on mode of transportation of crude and products.
8. Details of storage capacity of crude and products.
9. Ambient air quality data should include hydrocarbon (methane and non-methane), VOC, Ni & V etc.
10. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
11. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.
12. Storm water management plan.
13. Estimation SO_2 and NOx emissions load.
14. Details on flaring system.

15. Details of VOC recovery devices in the storage tanks.
16. Arrangement for spill management.
17. Oily sludge management plan.
18. Risk Assessment & Disaster Management Plan
    I. Identification of hazards
    II. Consequence Analysis
    III. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
    IV. Arrangement for fire protection and control.

B. Additional TOR

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. Past one year data may be used and additional one month data to be collected for EIA-EMP report.

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

IV. Action point recommended by CPCB and SPCB for Manali as a CPA to be followed and reported.

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.

4.8 Any Other

4.8.1 LPG pipeline from IOCL Import Terminal to Kochi Refinery in district Ernakulam, Kerala by M/s Kochi Salem Pipeline Private Lmt. –reg Clarification

M/s Kochi Salem Pipeline Pvt. Ltd. has envisaged the construction of 12" dia 42 km long pipeline from the proposed LPG Import Terminal at Puthuvypin, Kochi to Kochi Refinery to transport LPG at as estimated cost of Rs. 124 Crores. MoEF&CC vide letter no 11-21/2010-IA –II dated 05.07.2010 has granted CRZ clearance to the PP. PP confirmed that the pipeline does not pass through eco-sensitive area / national parks / wildlife sanctuary. Therefore, the Committee recommended that the proposed pipeline does not require environmental clearance.

4.8.2 **Proposed expansion cum backward integration project at village Sarigam, Umbergaon, Valsad, Gujarat by M/s Madura Industrial Textile LTd.- F.No. – amendment in existing EC.**

MoEF&CC dated 30.12.2013 has issued EC for the following products :

S. No.	Name of the Product	Phase - 1* (TPM)	After Phase – 2 (TPM)
1.	N – 6 Dipped Fabrics*	1666	
2.	Grey Fabrics*		**1950**
3.	N – 6 Yarn	**NIL**	
*Note: For Phase-1, EC was not applicable and GPCB Consent to Establish (NOC) No. 23152, dated 09/06/2011 has been obtained.			

Now, PP requested for following amendment in the product list :

S. No.	Name of the Product	As per existing EC	After Phase – 2 (TPM)
1.	N – 6 Dipped Fabrics*	1950 TPM	
2.	Grey Fabrics*		**1950**
3.	N – 6 Yarn		
4	Nylone 6 Chips		
5	Dry VP Lump		**2.5**
	Total	**1950**	**1952.5**

The Committee noted that Dry VP lumps are generated from the residue of Latex formaldehyde resorcinol mix which is used in treating nylone tyre cord. Nylone 6 Chips is the intermediate product of the existing product Nylon-6 Yarn. The Committee recommended for the aforesaid amendment. However, the Committee did not agree the request of the PP for change of fuel from natural gas to coal.

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

The project proponent and their consultant (ABC Techno Lab India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 44th Meeting of the Expert Appraisal Committee (Industry) held during 20th to 21st July, 2015 for preparation of EIA-EMP report. All the Isolated Storage & Handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) activities is listed at 6(b) of the Schedule of EIA Notification, 2006 under category 'B' and appraised at State level. However, due to applicability of general condition i.e. Wildlife Sanctuary, proposal is appraised at Central Level.

M/s Indian Oil Corporation Ltd. has proposed for setting up of Bulk LPG Storage (1800 MT)& LPG throughput of 1,20,000 MTPA through 2 LPG Filling Carousels at B37/pt to B43/pt, B50/pt, B51/pt, C30 to 41 etc, SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluka & District Tamil Nadu. Total plot area is 42 acres of which greenbelt will be developed in 13.86 acres. Cost of project is Rs. 78.58 Crores. It is reported that Gangaikondan spotted deer sanctuary is at a distance of 1.32 Km (E). Water bodies /Reservoir namelyTamirabaranai River (5.9 Km), GangaikondanKulam (3.8 Km), Indira Kulam (7 Km) are located within 10 km distance. Reserved Forests namely, Gangaikondan RF (91 m), Talaiyuthu RF (919 m) and Melpattam RF (6.6 Km) are located within 10 km distance. Following is the plant configuration:

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

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during February-April, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (37 µg/m^3 to 66 µg/m^3), PM2.5 (17 µg/m^3 to 35.7 µg/m^3), SO_2 (5.1 µg/m^3 to 8.5 ug/m^3) and NOx (9.7 µg/m^3 to 15.3 µg/m3) respectively.

The Committee noted that project is being considered as per the NGT direction in response of application filed by the applicant. Further it is noted that project involves violation under the provision of E(P), Act, 1986 and EIA Notification, 2006. The matter will be dealt as per the prevailing laws for dealing such cases. The project is also require to obtain Wildlife clearance.

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 4th MEETING OF EAC (INDUSTRY-2) HELD ON 11-12th FEBRUARY, 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	P (1st day) A (2nd day)
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	P
MOEF Representatives			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P