MINUTES FOR 38th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) HELD DURING 20-21st APRIL , 2015

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

Time : Meeting held at 10: 00 AM

38.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 30 AM

38.2 Confirmation of the Minutes of the 36th Reconstituted Expert Appraisal Committee (Industry-2) held during 16- 17th March 2015

20th April, 2015 (Day 1)

38.3 Environmental Clearance

1st Session: Time: 10.30 AM

38.3.1 Drilling of Development Wells (4 Nos.) in Kanward field at Village Kanward, District Anand, Gujarat by M/s Heramec Ltd – reg EC

The project proponent and their consultant (M/s Kadam Environmental Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 3rd Meeting of the Expert Appraisal Committee (Industry) held during 3rd to 5th December, 2012 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Heramec Ltd. has proposed for additional drilling of Development Wells (4 Nos.) in Kanward field in Gujarat. Kanawara field is situated in Cambay basin, in Tarapur taluka, district Anand, Gujarat. The field is having an aerial extent of 6.3 sq. km. The field was awarded to Heramec – GSPC Joint Venture under Production Sharing Contract (PSC). Two wells Kanawara#2 (K#2) & Kanawara (K#3) were existing at the time of awarding the field to Heramec. Basic EPS was established by ONGC at K#2 in Jan 1990. Heramec proposes drilling of four (4) development wells within the field. The field was awarded to Heramec – GSPC Joint Venture under Production Sharing Contract (PSC). Two wells Kanawara#2 (K#2) & Kanawara (K#3) were existing at the time of awarding the field to Heramec. Basic EPS was established by ONGC at K#2 in Jan 1990. Production Sharing Contract (PSC) of the block was signed on 23.02.2001. Consortium ML granted by Government of Gujarat on 27.02.2003. It is reported that there is no National Park/ Wild life Sanctuary/ reserve Forest/ Eco sensitive area in the study area. There is no forest land involved in the proposed project. Oil and gas mixture is extracted from drilled well and sent to separator columns for separation. 2 nos. of separator column are installed at the site, where oil and gas mixture are separated. Gas is sent the nearby industries for their use and oil is collected in oil storage tanks. Tanker of 20 Kl from ONGC are filled with oil from K#2 loading platform and sent back

for further processing. PP intends to drill the wells to a depth from 1650m to 1750m. Water based mud will be used.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during summer season 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (10 µg/m^3 to 95 µg/m^3), SO_2 (8.1 µg/m^3 to 13.3 ug/m^3) and NOx (13.5 µg/m^3 to 27.5 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.229 µg/m^3, 72.9 µg/m^3 and 0.229 µg/m^3 with respect to SO2 NOx and SPM, The resultant concentrations are within the NAAQS. Adequate stack height will be provided to DG set. Water requirement from surface water will be 19.15 m3/day. Wastewater alongwith spill over mud will be diverted to wastewater mud pit whose bottom would be lined with HDPE sheet so as to avoid percolation of water contaminants in the soil. Wastewater (5 m^3/day) will be discharged in HDPE lined evaporation pit. Sewage will be disposed off through soak pits. During presentation, PP informed that no produced water will be generated. The drill cuttings, cut by the drill bit will be removed from the fluid by the shale shakers and centrifuges and transferred to the cuttings containment area. Once the drilling fluid/mud have been cleaned it will be returned to the fluid tank and pump down the drill string again. It is estimated that 130 MT of formation cutting and few hundred m^3 of mud from spent drilling fluid will be generated in the form of solid waste, during drilling operation. Drill cutting and drilling mud will be disposed off in accordance with Notification dated 30th August, 2005-GSR 546 E point no C " Guidelines for disposal of solid waste, drill cutting and drilling fluids for offshore and onshore drilling operation.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 5th July, 2014. The concerns raised were regarding crop damage; pipe network for gas distribution; local employment; fund for village development; compensation against land acquisition etc. The Committee noted that these concerns 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 Environment Clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

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

ii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.

iii. Approach road shall be made pucca to minimize generation of suspended dust.

iv. Drilling site should be selected 500 m away from the nearest village.

v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.

vi. Total water requirement shall not exceed 20 m^3/day and prior permission shall be obtained from the concerned agency.

vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhopal.

ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

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

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

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

xiv. On completion of drilling, the companies have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned Authority.

xv. Blowout Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

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

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

xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

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

xx. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.

xxi. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.

xxii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxiii. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

xxiv. At least 2.5 % 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.

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

xxvi. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

38.3.2 Resin manufacturing unit at Sy no. 219 Paiky 220 & 223 Paiky-1, Village Junasadulka, opposite Dadashrinagar, Taluka Morbi, District Rajkot, Gujarat by M/s Aatmajyot Chem Pvt. – reg. EC.

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 19th Meeting of the Expert Appraisal Committee (Industry) held during 28th to 30th May, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Aatmajyot Chem Pvt. Ltd. has proposed for setting up of Resin manufacturing unit at Sy. No. 219 Paiky, 220 & 223 Paiky-1, Village Junasadulka, Opposite Dadashrinagar, Taluka Morbi, District Rajkot, Gujarat. Total plot area is 26507 m^2 of which 8748 m^2 area is earmarked for development of greenbelt. Cost of project is Rs. 5.30 crores. The following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Formaldehyde	3000
2	Hexamine	150
3	Phenol Formaldehyde Resin	250
4	Melamine Formaldehyde Resin	250
5	Urea Formaldehyde	250

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March -May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (58.3 µg/m3 to 95.5 µg/m3), PM2.5 (20.8 µg/m3 to 39.2 µg/m3), SO_2 (7.4 µg/m^3 to 14.9 ug/m^3) and NOx (13.5 µg/m^3 to 23.4 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.5 µg/m^3, 3 µg/m3 and 15 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Multi-cyclone dust collector will be provided to bio-coal/coal fired Thermic fluid heater to control particulate emissions. DG set (300 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total water requirement is 127 m^3/day, of which fresh water requirement from ground water source will be 102 m^3/day. Remaining water requirement (i.e. 24.35 m3/day) will be met from treated effluent and condensate. Industrial effluent generation will be 27.65 m^3/day. Industrial effluent from resin unit will be treated in ETP with photo fenton oxidation process method followed by evaporator. Effluent from utilities i.e. cooling tower and boiler blow down will be collected in collection tank and treated. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 5th December, 2014. The issues were raised regarding disposal of hazardous waste, benefits to local villagers etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.

ii) Bag filter along with stack of adequate height should be installed to coal fired boiler& Thermic fluid heater to control particulate emissions.

iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.

iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.

v) Total fresh water requirement from ground water source should not exceed 102 m^3/day and prior permission should be obtained from the CGWA/SGWA.

vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

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

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 5th December, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

38.3.3 Technical Pesticide Intermediate and Specialty Chemicals Manufacturing Plant at Plot No. 905/1, Jhagadia Industrial Estate Jhagadia ,District Bharuch, Gujarat by M/s Anupam Rasayan India Ltd. (Unit-3). 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 17th Meeting of the Expert Appraisal Committee (Industry) held during 18th-19th March, 2014 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Anupam Rasayan India Ltd. has proposed for setting up of a Pesticide Technical Pesticide Intermediates and Specialty Chemical Manufacturing Plant at Plot No. 905/1, Jhagadia Industrial Estate Jhagadia, District Bharuch Gujarat. Total plot area is 81494 m2 of which greenbelt will be developed in 24,446 m2. Cost of project is Rs. 70 Crore (as per page 6-647 of EIA report). Of which, Rs. 13.48 Crore is earmarked towards implementation of environmental management plan. It is reported that no national park, wildlife sanctuary, biosphere reserves and reserve forest is located within 10 km distance. Following products will be manufactured:

Sr. No.	Name of Product	Proposed Capacity (MTPM)
Group - 1 (Insecticides) - 450 MTPM		
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 Pyrethroid		
6	Cypermethrin (T) & Beta, Zeta, Theta etc Isomers (T)	
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)	

A. Neo Nicotinoid/ Thiazole / Nitro Guanidine		
23	Imidacloprid (T)	
24	Acetamiprid (T)	
B. Carbamate / Phenyl Ether /Benzoyl Phenyl Urea/Phenyl Pyrazole/ Oxadiazine		
25	Fenoxycarb (T)	
26	Pyriproxifen (T)	
Total Production of Groups - 1 (Insecticides)		**450**
Group - 2 (Herbicides) - 600 MT/Month		
C. Amide / Nitro phenyl Ether Herbicides		
27	Fomesafen (T)	
28	Halosafen (T)	
29	Napropamide (T)	
E . Anilide /Pyridine/ Aryloxyphenoxypropionic Herbicides		
30	Metamifop (T)	
31	Picolinafen (T)	
32	Chlorazifop (T) & Chlorazifop Propargyl (T)	
33	Clodinafop & Clodinafop Propargyl (T)	
34	Cyhalofop & Cyhalofop Butyl (T)	
35	Diclofop (T) & Diclofop Methyl (T)	
36	Fenoxaprop (T) & Fenoxaprop P Ethyl (T)	
37	Fluazifop (T) & Fluazifop P Butyl	
38	Haloxyfop (T) & Haloxyfop Methyl	
39	Quizalofop (T) & Quizalofop Ethyl (T)	
40	Cloquintocet Mexyl (T)	
41	Quizalofop-P-Tefuryl	
42	Haloxyfop Ethoxy Ethyl (Etotyl)	
D. Phenyl Ether /Phenoxy Carboxyllic Acid / Pyridine / Nitro Phenyl Ether		
43	Acifluorfen (T)	
44	Aclonifen (T)	
45	Chlomethoxyfen (T)	
46	Fluoroglycofen (T)	
47	Lactofen (T)	
48	Oxyfluorfen (T)	
49	Dicamba(T)	
50	Fluoroxypyr-Meptyl	
51	Picloram	
52	Triclopyr – Butotyl	

E. Triazinone Herbicides / Cyclohexene Oxime Herbicides		
53	Metamitron (T)	
54	Metribuzine (T)	
55	Clethodim (T)	
Total Production of Groups - A (Herbicides)		**600**
Group – 3 (Fungicides) - 500 MT/Month		
A. Conazole Fungicide		
56	1,2,4 Triazole	
57	3- Methyl 1,2,4 Triazole	
58	Difenoconazole (T)	
59	Azaconazole (T)	
60	Bromuconazole (T)	
61	Epoxiconazole (T)	
62	Etazonazole (T)	
63	Hexaconazole (T)	
64	Penconazole (T)	
65	Propiconazole (T)	
66	Tebuconazole (T)	
67	Fenbuconazole (T)	
68	Ipconazole (T)	
69	Metconazole (T)	
70	Tetraconazole (T)	
71	Cyproconazole (T)	
72	Prothioconazole (T)	
73	Fluquinconazole (T)	
74	Myclobutanil (T)	
75	Imazalil (T)	
76	Triadimenol (T)	
77	Triadimefon (T)	
78	Triticonazole (T)	
B. Strobilurin / Methoxyacrylate / Carbanilate / Amide/Fungicides		
79	Dimoxystrobin (T)	
80	Kresoxim Methyl (T)	
81	Trifloxystrobin (T)	
82	Flufenoxy Strobin (T)	
83	Picoxystrobin (T)	
84	Triclopyricarb (T)	
85	Azoxy Strobin (T)	
86	Metominostrobin (T)	
87	Fluoxastrobin (T)	
88	Orysastrobin (T)	
89	Pyraclostrobin (T)	
90	Fenoxanil (T)	
91	Cymoxanil (T)	

C .Acylamino / Anilide / Aromatic Fungicides/Quinoline/Dicarboxymide/Oxazole		
92	Metalaxyl (T)	
93	Benalaxyl (T)	
94	Chlorothalonil (T)	
95	Fluazinam (T)	
96	Quinoxyfen (T)	
97	Famoxadone (T)	
Total Production of Group - 3 (Fungicides)		**500**
Group – 4 AMINO DIPHENYL ETHER / PHENOXY COMPOUNDS - 300 MT/Month		
98	2-Amino-2', 4'-Dichloro Diphenyl Ether (Y)	300
99	2-Amino - 2'- Methyl Diphenyl Ether (Red Ether)	
100	Amino Resorcine Di Ortho Cresyl Ether	
101	2- Amino Di Phenyl Ether (O- Amino Di Phenyl Ether)	
102	4- Amino Di Phenyl Ether	
103	4-Amino 4'- Methyl Di Phenyl Ether (4-PP)	
104	2- Amino 2', 4, 4'- Tri Chloro Di Phenyl Ether (Benzinamide, 5-chloro-2-2(2,4-Dichloro Phenoxy) / TADE)	
105	4- Amino 2', 4' Di Chloro Di Phenyl Ether (OD Amino)	
106	4, 4'- Di Amino Di Phenyl Ether	
107	3, 4' - Di Amino Di Phenyl Ether	
108	2- Amino -4- Chloro Di Phenyl Ether (PHD Ether)	
109	4- Amino -2, 4' -Di Chloro Di Phenyl Ether (GE/Aminophene)	
110	2- Amino - 4' - Chloro Di Phenyl Ether	
111	2- Amino -4'- Chloro -4 -Trifluoromethyl Di Phenyl Ether (ACTM)	
112	4- Amino - 4' - Chloro Di Phenyl Ether (PPNA)	
113	1, 2- Bis (2- Amino Phenoxy) Ethane	
114	1,2-Bis(4-Amino Phenoxy) Ethane	
115	4-Amino-4'-Nitro Diphenyl Ether	
116	2-Amino-2',4 -Dichloro Diphenyl Ether	
117	2-Amino-4,4'-Dichloro Diphenyl Ether (PD Amino)	
118	2-(4-Nitro Phenoxy) Ethanol	
119	1,4-Bis(4-Amino Phenoxy) Benzene	
120	1,3 – Bis(4-Amino Phenoxy) Benzene	
121	1,3-Bis(3-Amino Phenoxy) Benzene	
122	1,2-Bis(2-Methyl Phenoxy) Ethane	
123	1,2-Bis(3-Methyl Phenoxy) Ethane	
124	1,2-Bis(3-Methyl Phenoxy) Ethane	
125	5-Amino-2,2',3-Trichloro-4-Nitro-Diphenyl Ether	
126	2-Amino -4,4'-Dichloro Diphenyl Ether-2'-Sulfonic Acid/Sodium Salt	
127	4,4'-Dihydroxy Diphenyl Ether	
128	2-Hydroxy-4,4'-Dichloro Diphenyl Ether	
129	2-Hydroxy-2,4,4'-Trichloro Diphenyl Ether	
130	4-Hydroxy-2',4'-Dichloro Diphenyl Ether	
131	2-Chloro-4-(4-Chlorophenoxy) Acetophenone/4-Acetyl-3,4'-Dichloro Diphenyl Ether	
132	2-Acetyl-2',4,4'-Trichloro Diphenyl Ether	
133	4,4' Dimethyl Diphenyl Ether	
134	4,4'-Dicarboxy Diphenyl Ether	

135	Diphenyl Ether	
136	4-Hydroxy Diphenyl Ether / 4-Phenoxy Phenol	
137	5 Chloro-6-(2,3 Dichloro Phenoxy)-2-methyl thio -1H Benzimidazole /Triclabendazole	
138	3,4'-Dimethyl Diphenyl Ether	
139	3-Phenoxy Toluene	
Total Production of Group - 4		**300**
Group - 5 Specialty Phenols/ Specialty Chloro Phenol - 500 MT/Month		
140	2, 3-Dichloro Phenol	500
141	2, 5-Dichloro Phenol	
142	3, 4-Dichloro Phenol	
143	3, 5-Dichloro Phenol	
144	3-Mehtyl Phenol (m-Cresol)	
145	3- Chloro Phenol	
146	3-Nitro Phenol	
147	4-(2- Methoxy Ethyl) phenol	
148	Anisole	
149	2,3 Dichloro Anisole	
150	2,5 Dichloro Anisole	
151	4-Bromo-2-Chloro Phenol	
152	4-Bromo 2,5 Dichloro Phenol	
153	4-Fluoro Phenol	
154	2-Fluoro Phenol	
155	O-Benzyl-p-Chloro Phenol	
156	O-Cyano Phenol	
157	P-Chloro-m-Cresol	
158	P-Chloro-meta Xylenol	
159	Dichloro-meta –Xylenol	
160	Dichlorophene	
161	Bromochlorophene	
162	5 - Chloro-2-Amino Phenol	
163	4-Chloro-2-Amino Phenol	
164	4,6-Dichloro-2-Amino Phenol	
165	3,4,5 Tri Methoxy Toluene	
166	4- Bromo Anisole	
Total Production of Group - 5		**500**
Group – 6 Amino Benzoic Esters - 250 MT/Month		
167	3-Amino-4-Methyl Benzoic Acid Methyl Ester	250
168	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)	
169	3-Amino 4-Methyl Benzoic Acid(2' - Chloro Ethyl Ester) (AMBC)	
170	5-Amino-2-Methyl Benzene Sulphonic Acid Phenyl Ester	
171	Benzene Sulphonic Acid 3-Amino Phenyl Ester	
172	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester	
173	Benzene Sulphonic Acid 2-Methyl-5-Nitrophenyl Ester	
174	Bisphenol - A (Amino Benzene Sulfonate)	
175	3,5 Di Amino 4- Chloro Benzoic Acid Iso Butyl Ester	
Total Production of Group - 6		**250**

Group - 7 Amino Compounds / Hydrogenation Compounds - 200 MT/Month		
176	3-Amino-4-Chloro Benzoic Acid	200
177	3-Amino-4-Methyl Benzoic Acid	
178	3-Amino-4-Chloro Benzotrifluoride	
179	3-Amino Benzotrifluoride	
180	2-Chloro-1,4 - Phenylene Diamine (2,5 DCPPD)	
181	2, 5-Dichloro-1, 4-Phenylene Diamine	
182	2-Chloro-5-Methyl-1, 4 - Phenylene Diamine	
183	2, 5-Dimethyl – 1, 4 – Phenylene Diamine	
184	3,4-Diamino Toluene	
185	2,3-Dichloro Aniline	
186	2, 5-Dichloro Aniline	
187	3, 4-Dichloro Aniline	
188	3, 5-Dichloro Aniline	
189	3-Iso Propoxy Aniline	
190	5-Amino Benzimidazole –2-One	
191	6-Methyl-5-Amino Benzimidazolone	
192	2,4,5 Tri Chloro Aniline	
193	Ortho Toluidine	
194	Meta Toluidine	
195	Para Toluidine	
196	Aniline	
Total Production of Group - 7		**200**
Group – 8 Acetylated Compounds -200 MT/Month		
197	2, 4-Dichloro Acetophenone	200
198	2, 5-Dichloro Acetophenone	
199	4 – Fluoro Acetophenone	
200	2,4-Dichloro-5-Fluoro Acetophenone	
201	4-Fluoro Phenacyl Chloride	
202	2,4-Dichloro Phenacyl Chloride	
203	2,4-Dichlorobuterophenone	
Total Production of Group - 8		**200**
Group – 9 Nitro Compounds - 200 MT/Month		
204	6 Nitro-3,4-Dichloro Aniline	200
205	4 Nitro-2,5-Dichloro Aniline	
206	2 Nitro-4-Methyl Aniline	
207	4 Nitro-2,5-Dimethyl Aniline	
208	4-Nitro-5-Chloro-2-Methyl Aniline	
209	4 -Nitro-2,5-Dichloro Phenol	
210	4 -Nitro-2,3-Dichloro Phenol	
211	6 -Nitro-2,4-Dichloro Phenol	
212	2 -Nitro-4-Chloro-Phenol	
213	5-Nitro Salicylic Acid	
214	3-Nitro - Para Toluic Acid	
215	3-Nitro-4-Chloro-Benzotrifluoride	
216	Nitro Benzene	
217	2,5 - Dichloro Nitro Benzene	
218	2,3 - Dichloro Nitro Benzene	
219	3,4 - Dichloro Nitro Benzene	

220	2- Nitro Toluene	
221	3 - Nitro Toluene	
222	4 - Nitro Toluene	
223	1,3 - Dinitro Benzene	
224	3,5 - Dinitro Benzoic Acid	
225	4- Chloro – 3,5 – Dinitro Benzoic Acid	
Total Production of Group - 9		**200**
Group - 10 TRICLOSAN / DICLOSAN /AMINO HYDROXY ETHER /HP 100 - 150 MT/Month		
226	HDC HP 100 (TINOSAN HP -100) (Formulated 2-Hydroxy-4-4 Dichloro Di phenyl Ether) (30% Solution)	150
226	Resorcinol Di (Beta - Hydroxy Ethyl) Ether	
227	Phenofen	
Total Production of Group - 10		**150**
Group – 11 Chlorinated Compounds / Carbonyl Chlorides -500 MT/Month		
228	Chloro Benzene	500
229	Ortho Dichloro Benzene & Para Dichloro Benzene	
230	1,3 Di Chloro Benzene	
231	Ortho Chloro Toluene & Para Chloro Toluene	
232	2,4 – Dichloro Toluene	
233	Ortho Chloro Phenol & Para Chloro Phenol	
234	2,4 Dichloro Phenol	
235	2,6 Di Chloro Phenol	
236	N- Valeroyl Chloride	
237	4- Nitro Benzoyl Chloride	
238	3- Nitro Benzoyl Chloride	
239	4- Chloro Benzoyl Chloride	
240	4- Methyl Benzoyl Chloride	
241	2,4 Di Chloro Benzoyl Chloride	
242	2- Methoxy -5- Bromo -6- Methyl Benzoyl Chloride	
243	Terephthaloyl Chloride	
244	4- Chloro Butyryl Chloride	
245	Pivaloyl Chloride	
246	Propargyl Chloride	
Total Production of Group - 11		**500**
Group – 12 Oxidation Compounds - 100 MT/Month		
247	Para Nitro Benzoic Acid	

248	Ortho Chloro Benzoic Acid	100
249	Para Chloro Benzoic Acid	
250	2,4 Di Chloro Benzoic Acid	
251	Para Toluic Acid	
Total Production of Group - 12		**100**
Total Production of all Groups (from 1 to 12)		**3950**
By-Product		
1.	Sodium Sulphite 20 % Solution & Salt 95 %	6000
2.	Potassium Chloride 20 % Solution & Salt 95 %	
3.	Sodium Chloride 15 % Solution & Salt 95%	
4.	Sodium Bi Sulphite 20 % Solution & Salt 95 %	
5.	Ammonium Chloride 15 % Solution & Salt 95 %	
6.	Ammonium Sulphate 25 % Solution & Salt 95 %	
7.	Sodium Sulphate 20 % solution & 95 %	
8.	Sodium Bromide 20 % Solution & Salt 95 %	
9.	Sodium Fluoride 20 % Solution & Salt	
10.	Potassium Bromide 20 % Solution & Salt 95 %	
11.	Potassium Fluoride 20 % Solution & 9& Salt 95 %	
12.	Aluminum Chloride 20 % Solution	
13.	Sulphuric Acid (70%)	
Total		**6000**

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (67.05 µg/m^3 to 88.91 µg/m^3), $PM_{2.5}$ (31.17 µg/m^3 to 58.77 µg/m^3), SO_2 (7.88 µg/m^3 to 11.45 ug/m^3) and NOx (12.42 µg/m^3 to 18.21 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.30125 µg/m^3, 0.56106 µg/m^3, 0.18893 µg/m^3 and 0.02596 µg/m^3 with respect to PM, SO_2, NOx and HCl. The resultant concentrations are within the National Ambient Quality Monitoring Standards (NAAQM). Adequate Stack height will be provided to gas fired boiler/thermic fluid heater. ESP with online monitoring system will be provided to imported coal fired boiler to control particulate emission. Scrubber will be provided to control process emissions viz. HCl, SO_2 and HBr. Total water requirement will be 285 m3/day. Out of which fresh water requirement from GIDC water supply will be 115 m^3/day and remaining water requirement (170 m3/day) will be met from recycled water. Quantity of effluent generation will be 190 m3/day. Effluent will be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream will be evaporated in MEE. Low TDS/COD effluent stream will be treated in ETP . Treated effluent will be discharged into CETP for further treatment. During presentation, PP has requested for option -2, which emphasised on discharge of treated effluent to deep sea through NCTL pipeline. The Committee stated that EIA-EMP report mentions about recycle/reused of treated effluent for industrial use purpose. Therefore, treated effluent shall be recycled/reused for the industrial process instead of discharging into sea and 'Zero' effluent

discharge concept shall be followed. DG set (1250 KVA+1250 KVA) will be installed. 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 exempted the public hearing as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006.

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 coal/briquette fired boiler to control particulate matter.
iii. Scrubber will be provided to control process emissions viz. HCl, SO2 and HBr. 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 115 m^3/day and prior permission should be obtained from the Competent Authority.
viii. Industrial effluent generation should not exceed 181 m3/day. Effluent shall be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream shall be evaporated in MEE. Low TDS/COD effluent stream shall be treated in ETP. Treated effluent, Condensate and recover water shall be treated and recycled/reused within factory premises.
ix. 'No' effluent shall be discharge outside the plant premises and 'Zero' effluent discharge condition shall be followed.
x. 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 24,446 m2 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.

38.3.4 Expansion of Pesticide Manufacturing Unit at Plot No. 8104, 8109, 8110, 8111 & 268/1, Sachin GIDC Estate, Tehsil & District Surat, Gujarat by M/s Anupam Rasayan India Ltd. (Unit -1) - 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-21st February, 2014 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Anupam Rasayan India Ltd. (Unit-1) has proposed for Expansion of Pesticide Manufacturing Unit at Plot No. 8104, 8109,8110, 8111 & 268/1, Sachin GIDC Industrial Estate, Tehsil &District Surat, Gujarat. The proposed expansion will be carried out within the existing unit having land area of 19,508 m^2. Greenbelt will be developed in 6,676 m^2. Total cost of expansion project is Rs. 50.0 Crore. Rs. 5.0 Crore is earmarked as capital cost towards air & water pollution control system and environmental monitoring equipment. It is reported that no national parks, wildlife sanctuaries, biosphere reserves, heritage sites, reserve forests etc. are located within 10 km distance. Mindhora River, Gabheni Lake, Pali lake, Kansad lake, Lunej pond are located at the distance of 5.0 Km, 3.24 Km, 3.70 Km, 5.50 Km and 2.70 Km respectively. The following products will be manufactured:

S.N.	Product	Existing (MTPM)	Proposed (MTPM)	Total after expansion (MTPM)
1	Herbicides	--	500	500
	Fungicides	--	375	375
2	Amino Diphenyl Ether /Phenoxy Compounds	200	133	333
3	Speciality Phenols	40	210	250
4	Amino Benzoic Esters	20	230	250
5	Amino Compounds	--	167	167

6	Acetylated Compounds	--	167	167
7	Nitro Compounds	--	167	167
8	Triclosan/Diclosan/amino hydroxyl ether/ HP100	70	100	170
	Total	330	2133	2463
By-products				
1	Sodium Sulphite 20 % Solution & Salt	--	2460	2500
2	Potassium Chloride 20 % Solution & Salt	40		
3	Sodium Bi-Sulphite 20 % Solution & Salt	--		
4	Sodium Bromide 20 % Solution & Salt	--		
5	Sodium Fluoride 20 % Solution & Salt	--		
6	Potassium Bromide 20 % Solution & Salt	--		
7	Sodium Bromide 20 % Solution & salt 95%	--		
8	Aluminum Chloride 20-30 % solution	--		
9	Sulphuric Acid (70 %)	301		
Total		341	2460	2501

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (47.4 µg/m^3 to 86.71 µg/m^3), $PM_{2.5}$ (34.6 µg/m^3 to 51.89 µg/m^3), SO_2 (12.3 µg/m^3 to 19.4 ug/m^3) 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 0.521 µg/m^3, 1.008 µg/m^3, 0.1 µg/m^3 and 0.34 µg/m^3 with respect to PM, SO_2, NOx and HCl. The resultant concentrations are within the National Ambient Quality Monitoring Standards (NAAQM). Adequate Stack height will be provided to gas fired boiler/thermic fluid heater. ESP with online monitoring system will be provided to additional proposed coal/briquette fired boiler to control particulate emission. Scrubber will be provided to control process emissions viz. HCl, SO2 and HBr. Total water requirement will be increased from 127 m^3/day to 321 m3/day after expansion. Out of which fresh water requirement from GIDC water supply will be 228 m3/day and remaining water requirement (92.75 m3/day) will be met from recycled water. Quantity of effluent generation will be increased from 56 m^3/day to 181 m3/day. Effluent will be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream will be evaporated in MEE. Low TDS/COD effluent stream will be treated in ETP comprising SBT plant. Treated effluent will be discharged into CETP for further treatment. DG set (500 KVA+125 KVA) will be installed. 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 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 coal/briquette 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. HCl, SO2 and HBr. 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 228 m3/day and prior permission should be obtained from the Competent Authority.

viii. Industrial effluent generation should not exceed 181 m3/day. Effluent shall be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream shall be evaporated in MEE. Low TDS/COD effluent stream shall be treated in ETP. Treated effluent shall be discharged into CETP for further treatment after conforming to discharge norms. 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 6,676 m^2shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

38.3.5 Proposed installation of GT-6 along with HRSG-6 at Gujarat Refinery, Koyali, District Vadodara, Gujarat by M/s Indian Oil Corporation Limited (IOCL)- reg EC

The project proponent and their consultant (Envirotech East 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 Meeting of the State Level Expert Appraisal Committee, Gujarat held during 20th December, 2011 for preparation of EIA-EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level. Any modification or installation within existing refinery will be considered as integrated project and treated as Category 'A' project.

Indian Oil Corporation Limited has proposed for installation of Additional Gas Turbine (GT-6) along with HRSG-6 at Gujarat Refinery, Koyali, District Vadodara, Gujarat. PP informed that Residue Upgradation project (RUP) comprising of units like HGU, DHDT, ISOM, VGO HDT, Delayed Coker Unit (DCU), SRU etc. were commissioned in the Refinery. All these units are for up-gradation of fuel quality and distillate yield. The power and steam requirement is met from the captive generation. There are 5 Gas Turbines (GTs) each of 30 MW capacity and 2 Turbo Generators (TGs) each of 12 MW capacity and one TG of 12.5 MW with the commissioning of residue up-gradation project, the power consumption has gone up. To meet the power requirement, Gujarat Refinery has proposed for installation of 6th Gas Turbine of 30 MW capacity with HRSG of 125 MT per hour HP steam. Mahi River is flowing at a distance of 4.5 Km from the project site. It is reported that no National Park / Wildlife Sanctuary is located within 10 km radius of the project site. No additional land will be required for the proposed project. The vacant space beside GT/HRSG-5 will be utilized for erection of GT-6 & HRSG-6. Cost of project is Rs. 375 Crore. Natural Gas will be procured from existing GAIL/ GSPL pipeline network.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during February, 2013 and April, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (47 µg/m^3 to 101 µg/m^3), $PM_{2.5}$ (15 µg/m^3 to 44 µg/m^3), SO_2 (8 µg/m^3 to 26 ug/m^3) and NO2 (14 µg/m^3 to 42 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.54 µg/m^3 and 0.07 µg/m^3 with respect to NOx and PM. The resultant concentrations are within the NAAQS except PM10. There will be 2 nos. of stacks. One attached HRSG-6 as main stack (60 m height) and another with GT-6 as bypass

stack (30 m). DM water injection will be done in the gas turbine to reduce NOx concentration. Additional water requirement from Mahi River will be 20 m^3/hr. Around 16 m3/hr of effluent will be generated from GT-6. However, there will be net reduction of 57 m3/hr. effluent discharge due to stoppage of 2 STGs and 2 Boilers. The entire effluent from the GT-6 project will be treated in the existing CETP of the Refinery. The maximum treated effluent will be recycled back to the refinery and balance will be disposed to Effluent Chanel of ECPL, leading to Gulf of Cambay. Used oil/spent oil will be sent to authorized recyclers/re-processors.

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 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) The gaseous emissions from Additional Gas Turbine (GT-6) along with HRSG-6 shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines. The stack emissions from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.

ii) Additional fresh water requirement from Mahi River should not exceed 20 m^3/hr..
iii) Additional industrial effluent generation should not exceed 16 m^3/hr. Additional effluent shall be treated in the CETP of Refinery.
iv) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website

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

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

M/s Oneiro Chemicals Ltd. has proposed for expansion of Bulk Drugs Manufacturing Plant at plot no./block no. 475/P, 469/A, 469/B/1, 469/B/2, 470/1, 472/A, 472/B, 473, Village Ekalbara, Taluka Padra, District Vadodara, Gujarat. Total plot area is 38241 m^2 of which 18539 m^2 area is already being utilized for existing production. Proposed expansion activities will be carried out in the adjoining land measuring area of 19702 m^2. Greenbelt will be developed in 12700 m^2. It is reported that no ecologically sensitive area, historical place, wildlife sanctuary is located within 10 km distance from the project site. Following products will be manufactured:

S. N.	Name of Product	Existing Quantity in MT/month	Addition/ Deletion in MT/Month	Total Proposed Quantity in MT/Month
1.	Thio Di Phenol	12.0	- 12.0	0
2.	2-Chloromethyl-3, 5-diemthyl-4-methoxy pyridine hydrochloride (Omeprazole-Chloro compound) or Omeprazole Powder/& its Intermediate	3.0	+ 17.0	20.0
3.	Trans-1-methyl (3S) hydroxyperoxitine methyl (4S)-4 Flurophenyl) peperidine	0.5	- 0.5	0
4.	Clopidogrel HS/& its Intermediate	1.0	+ 4.0	5.0
5.	Tramadol	3.0	- 3.0	0
6.	Pentaprazole	0	+ 5.0	5.0
7.	4,7-dichloroquinoline	0	+ 2.0	2.0
8.	4-(2, 3-Epoxypropoxy)-9H-carbazole	0	+ 2.0	2.0
9.	Dextromethorphan HBr	0	+ 3.0	3.0
10.	Montelucast	0	+ 0.5	0.5
	Total	**19.5**	**+18.0**	**37.5**
By-Products				
11.	Ammonium sulphate powder/solution	0	+ 178.0/ 575	178.0/575
12.	Sodium Nitrate solution	0	+ 121.0	121.0
13.	Hydrochloric acid	120.0	+ 75.0	195.0
14.	Ortho phosphoric Acid	0	+51.5	51.5
15.	Caustic Solution	0	+60.0	60.0
	Total	**120.0**	**+ 485.5**	**605.5**

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March – May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (43.1 µg/m3 to 76.4 µg/m3), $PM_{2.5}$ (29.3 µg/m3 to 51.9 µg/m3), SO_2 (8.1 µg/m3 to 21.1 ug/m3) and NOx (12.2 µg/m^3 to 25.9 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.142 µg/m^3, 0.225 µg/m^3 and 0.25 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Bagfilter along with stack of adequate height will be provided to additional 2 nos. agro briquettes fired boiler/thermic fluid heater. Scrubber will be provided to control process emissions viz. HCl, Cl_2 and ammonia. Total fresh water requirement from the ground water source will be increased from 135 m^3/day to 176 m^3/day after expansion. Industrial effluent generation will be increased from 80 m^3/day to 89 m^3/day after expansion and treated in the ETP. All tanks will have chilled water condensers. Treated effluent will be sent to EICL (Common Effluent Treatment Plant), CETP at Padra for its further treatment and disposal. ETP sludge will be sent to TSDF. Distillation residue, spent carbon hyflo, process waste will be sent to CHWI. Fly ash to be sent to brick manufacturers. Used oil /spent solvent and spent catalyst will be sent to authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 21st January, 2015. The issues were raised regarding source of water supply, rain water harvesting, local employment, village development program, discharge of waster to CETP, accident due gas leakages etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

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

38.3.7 Proposed 45 KLPD distillery unit alongwith sugar (5000TCD) and CPP (28 MW) at village Gopuj, Tehsil Khatav, district Satra, Maharashtra by M/s Green Power Sugar Ltd.

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 during the 24th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th September, 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 Green Power Sugar Ltd has proposed for setting up of molasses based Distillery unit (45 KLPD) alongwith sugar (5000TCD) alongwith CPP (28 MW) at Village Gopuj, Tehsil Khatav, District Satara, Maharashtra. Total plot area is 283421.0 m^2. Out of which greenbelt will be developed in 15052.8 m^2. Cost of project is Rs. 328 Crore. Rs. 24 Crore and Rs. 9.24 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation environmental management plan. Yerala River is flowing at a distance of 9.7 Km. It is reported that no eco-sensitive area is located within 10 km distance. Following facilities will be created:

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

Sugar plant, power plant and Distillery will be operated for 180 days, 180 days and 270 days respectively.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March, 2014-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (36.8 µg/m3 to 50.8 µg/m3), $PM_{2.5}$ (9.2 µg/m3 to 13.1 µg/m3), SO_2 (11.4 µg/m3 to 17.5 µg /m3) and NOx (14.4 µg/m^3 to 21.2 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.2 µg/m^3 and 1.2 µg/m3 with respect to SPM and SO_2. The resultant concentrations are within the NAAQS. ESP will be provided to bagasse/biogass fired boiler (100 TPH + 60 TPH) to control particulate matter. DG set (2x 1000 KVA) will be installed. Total water requirement for sugar unit will be 831 m^3/day of which fresh water requirement will be 281 m^3/day and remaining water demand will be met from recycled water. Total fresh water requirement for cogen unit will be 600 m^3/day. Total water requirement for distillery will be 550 m3/day of which fresh water requirement will be 435 m3/day and remaining water requirement 115 m3/day will be met from recycled water. Fresh water requirement will be met from Hingangaon dam. Spent wash will be treated through bio-methanation followed by evaporator. Concentrated treated spent wash will be sent for bio-composting with press mud. Effluent from sugar, co-gen, distillery (other effluent) and condensate from MEE will be provided anaerobic treatment followed by aeration treatment. After tertiary treatment treated effluent will be recycled/reused in process, cooling tower make up and boiler blow down make up. No effluent will be discharged outside the plant premises. The Committee suggested them to construct RCC tanks for collection of spent wash. Bagasse ash will be used as manure. PP informed that they committed to use 5 % of project cost (i.e. 16.40 Crores), based on concerns arisen from public consultation proceedings.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 10th February, 2014. The issues raised were regarding air pollution control equipments, spent was treatment scheme, facilitation of organic fertilizer, recycling of treated effluent, 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 bagasse/biogas 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 Hingangaon dam shall not exceed 435 m^3/day for distillery (Molasses), 281 m^3/day for sugar unit and 600 m^3/day for cogeneration unit. 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 5 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. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.

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

ix. 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.

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

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

xii. 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.

xiii. 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.

xiv. All the issues raised during the public hearing/consultation meeting held on 10th February, 2014 should be satisfactorily implemented.

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

xvi. 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 Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

Lunch Break: 1:30 – 2:00 PM

2nd Session: Time: 2.00 PM

Reconsideration for Environmental Clearance

38.3.8 Expansion of Aliphatic Amines and its Derivatives Manufacturing Unit at Gat No.197, Tamalwadi, Tehsil Tijapur, District Osmanabad, Maharashtra by M/s Balaji Amines Ltd – reconsideration of EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 8th meeting held during 28th – 30th April, 2014 and the Committee deferred the proposal for want of following additional information:

1 Status and Copy of latest order of High court case.
2 Certified compliance report to the conditions stipulated in the existing EC by the MOEF' Regional office at Bhopal.
3 Odour management plan to be submitted.
4 CSR plan to be submitted.
5 Occupation health management plan to be submitted.
6 VOC monitoring report to be submitted
7 Safety system for handling and storage of hazardous chemicals.

PP vide letter no BAL/TAM/EC/07/14-15 has submitted the above addl. information. A court case was filed by the PP against irrigation department for usage of water from borewell in own premises, which has been disposed off. The Committee also discussed the compliance status report dated 9th January, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. It is reported that about 920 m3/day water was being required in the process consumption & 180.5 m3/day effluent being generate. Effluent is segregated into two different streams. Stream –I is evaporated through forced evaporation system to achieve zero discharge. Stream –II is treated in the ETP followed by RO. Permeate is recycled/reused for cooling tower make and boiler feed. No effluent is discharged outside the plant premises. ESP has been provided to boiler. Fly ash is being sent to brick manufacturers. 1453 no of trees covering an area of 13416 m^2 have already been planted comprising of flowering, non flowering, ornamental and fruit bearing trees. The Committee found satisfactory response on compliance 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) Scrubbers shall be provided to process vents to control process emission. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.

ii) 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.

iii) Total fresh water requirement from ground water source should not exceed 1100 m^3/day and prior permission should be obtained from the CGWA/GWA.

iv) Total industrial effluent generation should not exceed 327 m^3/day. Effluent shall be segregated in two different effluent streams viz stream –I and stream –II. Effluent stream-I will be treated through steam stripper followed by evaporated in forced evaporation system. Stream II comprising cooling blow down and boiler blow down, back wash of filter, DM plant and softner regeneration will be treated in the primary treatment followed by RO. Permeate of RO will be reused for boiler feed. MEE condensate will be reused/recycled for cooling tower make up.

v) No effluent shall be discharged outside the factory premises and zero effluent discharge concept shall be adopted.

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

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

viii) All the issues raised during the public hearing/consultation meeting held on 10th February, 2014 should be satisfactorily implemented.

ix) As proposed, green belt over 13416 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.

x) At least 2.5 % 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 Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

38.3.9 Molasses based Distillery Unit (60 KLPD) along with Cogeneration Power Plant (2.0 MW) at Village Jangraulipul Tehsil Pilibhit District U.P. by M/s L H Sugar Factories Ltd. - reg. EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 32nd meeting held during 20th – 21st January 2015 and the Committee recommended for EC with following specific condition :

"*Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be Concentrated spent wash will be mixed with press mud generated from sugar unit for manufacturing organic manureto achieve 'Zero' discharge. Evaporator Condensate shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained*."

In the meantime, CPCB vide letter B-410/PCI-III/DIST/NGRBA/2K14-2K15 dated 4th March, 2015 has issued direction for ensuring the achievement of ZLD by distilleries to all the State Boards in the Ganga Basin. Therefore, Ministry has referred the case to Expert Appraisal Committee for review of treatment technology. PP vide letter dated 21.04.2015 has committed to install incinerator boiler. The storage of spent wash will be atleast of 10 days capacity. Distillery will be operated for 330 days. After detailed deliberations, the Committee recommended the proposal with following additional specific condition:

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

ii. 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.

iii. Bagfilter shall be provided to incinerator boiler (25 TPH) to control particulate emissions.

iv. 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 10 days.

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

The project proponent and their consultant (M/s San Envirotech 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 10th Meeting of the Expert Appraisal Committee (Industry) held during 29th-31st July, 2013 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Asahi Songwon Colors Ltd. have proposed for expansion of Pigment Manufacturing Unit (290 MTPM) at Sy. No.161, 162, 163, 164, 167 & 168, Village Indrad, Tehsil Kadi, District Mehsana, Gujarat. Total plot area is 41000 m^2. Out of which greenbelt will be developed in 14000 m2. Total cost of Project is Rs. 16.00 crore. Out of which Rs.3.5 crore and Rs. 1.75 Crore per annum earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. MoEF vide letter no. J-11011/1060/2007-IA II (I) Ltd. dated 22nd September, 2008 has issued environmental clearance for the existing unit. It is reported that no wildlife Sanctuary/ Reserve Forest is located within 10 Km distance. Following Products will be manufactured:

S.N.	Products	Existing capacity (MTPM)	Additional capacity MTPM)	Total capacity (MTPM)
1.	Pigment Green-7	120	120	240
2.	Violet -23	---	50	50
Total		120	170	290
By-Product				
1.	Copper sulphate	---	30	30

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2013-Decemberc, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (55.2 µg/m3 to 72.5 µg/m3), $PM_{2.5}$ (23.5 µg/m3 to 49.4 µg/m3), SO_2 (12.1 µg/m3 to 25.5 ug/m3) and NOx (13.3 µg/m^3 to 27.3 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.464 µg/m^3, 0.535 µg/m^3 and 0.804 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Bagfilter will be provided coal fired boiler/thermic fluid heater to control particulate emissions. Scrubbing system comprising of ventury scrubber followed by water and alkali scrubbers to absorb the process gasses generating from the process reactors. Bagfilter will be installed at outlet of spin flash dryer. Three stage water scrubber followed by alkali scrubber to control process emissions viz. HCl and Cl2. Total water requirement will be increased from 185.8 m3/day to 865 m3/day after expansion. Out of which fresh water requirement from ground water source will be 460 m^3/day and remaining water requirement (430 m^3/day) will be met from recycled/treated effluent. Effluent generation will be increased from 35 m3/day to 449.5 m3/day after expansion. Entire quantity of the industrial wastewater will be segregated into two parts depending upon the concentration. Concentrated mother liquor containing Aluminum Chloride will be directly sold to textile mill after copper recovery as ETP treatment chemicals. Dilute stream will be taken to effluent treatment plant finally pass through micro filtration & Reverse Osmosis and condensate from MEE will be reused. No effluent will discharged outside the plant premises and 'Zero' effluent discharge condition will be followed. ETP sludge /MEE salt will be disposed to secured landfill site operated by M/s Naroda Enviro Projects Ltd. Inorganic acid (HCl) & Halogenated compounds (Aluminum Oxy Chloride) will be disposed by selling to Arvind Mills Ltd. Ash will be sent to brick manufacturers, cement plant and prefabricated concrete manufacturing unit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 17th July, 2014 under the chairmanship of Additional District Collector. The issues were raised regarding local employment, steps to be taken to control pollution etc. The Committee discussed the issues and found satisfactory.

The Committee also discussed the compliance status report dated 12th January, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. About 159 m3/month water was consumed in the process and about 158 m3/month wastewater was generated in two different streams. Mother liquor containing $AlCl_3$ solution were sold during 2013 as a bye product which was not reflected in the consent. Dilute stream was mixed with other effluent and sent for primary treatment which finally passed through RO and reject stream of RO sent to MEE of M/s Aksharchem which is sister concern. Permeat of RO and condensate MEE reuse in the process. The treated effluent was stored in four solar evaporation ponds of average 410 sq. m area. The capacity was found in-adequate. Huge quantity of sludge was found accumulated in the premises. Company has not installed rain water harvesting. Regarding greenbelt, it is reported that few thousand trees have been grown within premises covering an area of 30 %. Cyclone & bagfilter were provided to control SPM. HCl was being recovered as by-products. Eco-development measures including community welfare measures have not been taken up. Committee recommended that PP should submit action taken report alongwith photographs for non complied points and partly complied points observed by the Regional Office.

After deliberation, the Committee sought following additional information:

1. Action taken report alongwith photographs for non complied points and partly complied points observed by the Regional Office.

2. Layout plan of existing unit as well as proposed expansion highlighting process area, storages, utilities, greenbelt etc.

3. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

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

38.3.11 Proposed expansion of dyes & pigments in existing unit at Survey no. 73 behind GEB Sub-station, village Karkhadi, Taluka Padra, district Vaodara, Gujarat by M/s Philoden Agrochem Pvt. Ltd. –reg EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 2nd meeting held during 29th – 31st October, 2012 and the Committee deferred the proposal for want of following additional information:

1. Recommendation on project proposal from Gujarat Pollution Control Board to be submitted.
2. Revised effluent treatment scheme considering entire plant zero discharge.
3. Detailed specification of incinerator.

PP vide letter dated 21.02.2015 has submitted the above mentioned information. GPCB vide letter no. GPCB/CCA-VRD-492(3) ID-22447 dated 20.02.2015 has recommended the following:

The project with additional discharge of 93 KLD of their treated effluent to CETP at EICL and 20 KLD of high COD stream to MEE / Incinerator and ATFD Units. However, we may impose the following conditions:

(i) The unit will maximize their recycling efforts in order to reduce the discharge quantity of the effluent.

(ii) In case EICL is unable to accept additional quantity of effluent of this expansion project, the unit will go for Zero Liquid Discharge (ZLD) by using RO Plant with MEE /Incinerator and ATFD.

The Committee noted that SPCB itself not clear whether the unit will get approval from EICL for discharge of treated effluent. Therefore, at this stage, the Committee suggested for ZLD. After detailed deliberations, the Committee found EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

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

ii) 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.

iii) Total fresh water requirement from ground water source shall not exceed 176 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iv) Industrial effluent shall be segregated into high COD, high TDS and low COD/TDS effluent streams. As proposed, High COD effluent stream shall be incinerated. High TDS effluent shall be treated with steam stripper followed by RO. Low COD/TDS effluent will treated in ETP. Rejects from RO should be evaporated in MEE. Treated effluent and Condensate and recovered water shall be recycled/reused within factory premises. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

v) 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.

vi) All the solvent storage tanks should 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 should be disposed off

to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.

viii) 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.

ix) 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.

x) 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.

xi) Solvent management should be as follows :

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

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

xiii) At least 5.0 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

38.3.12 Sugar Plant (5000 TGD), Cogeneration Power Plant (25 MW) and Molasses based Distillery Unit 60 KLPD) at Village Turk Pimpari, Tehsil Barshi, District solapur, (Maharashtra), by M/s Indian sugar Manufacturing Company Ltd. (Unit-2)- 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 during the 7th Meeting of the Expert Appraisal Committee (Industry) held during 4th-5th April, 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 Indian sugar Manufacturing Company Ltd. (Unit-2) has proposed for setting up of Sugar Plant (5000 TGD), Cogeneration Power Plant (25 MW) and Molasses based Distillery Unit 60 KLPD) at Village Turk Pimpari, Tehsil Barshi, District solapur, (Maharashtra). Total plot area is 44.92 ha. Out of which greenbelt will be developed in 15.00 ha. Cost of project is Rs. 234.89 Crore. Rs. 24.51 Crore and Rs. 9.15 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation environmental management plan. Sina River is flowing at a distance of 5 Km. It is reported that no eco-sensitive area is located within 10 km distance. Following facilities will be created:

S.N.	Unit	Capacity
1	Distillery	60 KLPD
2	Sugar	5000 TCD
3	Co-Generation Power Plant	25 MW

Sugar plant, power plant and Distillery will be operated for 180 days, 180 days and 240 days respectively.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2013-May, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (43.5 µg/m3 to 84 µg/m3), SO_2 (5.1 µg/m3 to 19 µg /m3) and NOx (10.1 µg/m^3 to 31 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m^3 and 4.57 µg/m3 with respect to PM10 and SO_2. The resultant concentrations are within the NAAQS. ESP will be provided to bagasse fired boiler (140 TPH) and coal/concentrated spent wash fired boiler (22 TPH) to control particulate matter. DG set (1x 1000 KVA + 1x500 KVA)) will be installed. Total water requirement for sugar unit will be 781 m^3/day of which fresh water requirement will be 231 m^3/day and remaining water demand will be met from recycled water. Total fresh water requirement for cogen unit will be 520 m^3/day. Total water requirement for distillery will be 718 m3/day of which fresh water requirement will be 587 m3/day and remaining water requirement 131 m3/day will be met from recycled water. Fresh water requirement will be met from Sina River. Spent wash will be evaporated in MEE. Concentrated treated spent wash will be incinerated in the incinerator boiler. Effluent from sugar, co-gen, distillery (other effluent) and condensate from MEE will be provided anaerobic treatment followed by aeration treatment. After tertiary treatment treated effluent will be recycled/reused in process, cooling tower make up and boiler blow down make up. No effluent will be discharged outside the plant premises. The Committee suggested them to construct RCC tanks for collection of spent wash. Fly ash will be sent to cement plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 28th February, 2014. The issues raised were regarding quality of treated effluent, local employment, air pollution control measures, molasses management etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information:

1. Layout plan of the proposed unit indicating process area, storages, utilities, greenbelt etc.
2. 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.
3. PM10 and PM2.5 to be monitored for 1 month in the study area.
4. Submit scheme indicating treated effluent to be used in co-generation power plant instead of fresh water. Treated effluent from sugar unit, spentlees, condensate from MEE to be recycled.

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

38.4 Terms of Reference (TOR)

38.4.1 Expansion of Synthetic Organic Manufacturing Unit at Plot No. 1398, Village Moti Bhoyan, Tehsil Kalol, District Gandhinagar, Gujarat by M/s Balaji Formalin 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 Balaji Formalin Pvt. Ltd. has proposed for Expansion of Synthetic Organic Manufacturing Unit at Plot No. 1398, Village Moti Bhoyan, Tehsil Kalol, District Gandhinagar, Gujarat. Cost of project is Rs. 8 Crores. Out of which, 0.8 Crore will be earmarked for development of Environment Management System. Plot area is 4281 m2. Following products will be manufactured :

S.N.	Products	Existing (MTPM)	Additional	Total

			(MTPM)	**(MTPM)**
1	Formaldehyde	5000	7500	12500
2	Para Formaldehyde	00	835	835
3	Reprocessing of Silver (Purification of Silver)	00	1.5	1.5

No additional utilities are required recovered heat from exothermic reaction is utilized in process. Power requirement will be increased from 400 kVA to 1350 kVA after expansion. Water requirement will be increased from 129 m^3/day to 610 m^3/day after expansion. Out of which, fresh water requirement from ground water source will be increased from 104 m3/day to 535 m3/day after expansion. Wastewater generated from inter-reaction is retained with the products. RO/DM reject, wastewater generated from silver refining & cooling bleed off will be directly sent to force effect evaporator and sent to mechanical evaporator. Condensate will be reused for utility for cooling. No effluent will be discharged outside the plant premises. Evaporated salt will be sent to TSDF. Used oil will be sent to authorized recycler/re-processors. PP has obtained environmental clearance for the existing unit vide letter dated 24.08.2010.

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

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

B. Additional TOR

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. Copy of Certified Compliance Report to the environmental condition prescribed in the existing environmental clearance dated 24.08.2010.

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.

38.4.2 Expansion of Synthetic Organic Chemical Manufacturing Unit at Gut No 167, 169, 170, 171, 296, Village. Jamghar -Lakhamapur, Tahsil Wada, District Thane, Maharashtra by M/s Aarav Fragrances & Flavors 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 Aarav Fragrances & Flavors Pvt. Ltd. has proposed for expansion of Synthetic Organic Chemical Manufacturing Unit at Gut No 167, 169, 170, 171, 296, Village. Jamghar - Lakhamapur, Tahsil Wada, District Thane, Maharashtra. River Tansa is around 3 kilo-meter North from site. Plot area is 90,075 m2. Out of which, greenbelt will be developed in 14863 m^2. Cost of project is Rs. 10 Crore. Tansa wildlife sanctuary is located at a distance of 8.2 Km. Tansa River is flowing at the distance of 3.5 Km. Following products will be manufactured :

S.N.	Products	Quantity (MTPM)
1	Fragrances/Perfumes & Flavors	210
2	Perfumery& Flavor Esters	300
3	Perfumery & Flavor Alcohol	
4	Perfumery & Flavor Aldehyde & Aldehyde Derivatives	
5	Dimerization and Trimerization of simple olefins.	
6	Ketals / Acetals / substituted 1,3-propanediols	
7	Macro cyclic and polycyclic musks derived from propylene or butadiene and other propylene derivatives	
8	Aldehydes & Ketones by Aldol Condensation	
9	Acetylene and other alkyne derivatives	
10	Cyclo Alkylation/Acetylation ,Diel Alders Reactions /Friedel Craft Reactions	
11	Hydrogenation	
12	Inorganic Salts	50

	Total	560

Agriculture waste/bio-coal or furnace oil or coal or NG fired boiler and Thermic fluid heater will be provided. The Committee suggested to install bagfilter to control particulate emission if agricultural waste/bio-coal or coal will be used as fuel. Fresh water requirement from ground water source/tanker supply will be 115.5 m^3/day. Effluent generation will be 11.5 m3/day and treated in the ETP. Domestic effluent will be treated in the STP. Fly ash will be sold to brick manufacturers. ETP sludge will be sent to TSDF. Distillation residue will be sent to common incineration facility. Used oil will be sent to authorized recycler/re-processors. During presentation PP confirmed that unit is not located in the Approved Industrial Area as mentioned in the Form-1 otherwise, it is category 'B' project.

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

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

B. Additional TOR

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

ii. A copy of application submitted for clearance from National Board for Wildlife

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.

38.4.3 Expansion of existing manufacturing activity at Plot .No: 136/E- Phase II, GIDC Estate, Vapi, Tahsil Pardi, District Valsad, Gujarat by M/s. Tridev Resins (I) Pvt Ltd – reg TOR

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

38.4.5 Resin Manufacturing Unit at Survey No. 565/p (Old 394/2), Village Nava Sadulka, District Morbi, Gujarat by M/s Nelson Laminate 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 (resin) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Nelson Laminate Pvt Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 565/p (Old 394/2), Village Nava Sadulka, District Morbi, Gujarat. Cost of resin project is Rs. 1 Crore and cost of laminated sheets plant is Rs. 4.96 Crore. Plot area is 17604 m2 of which greenbelt will be developed in 5911 m2. Following products will be manufactured:

S.N.	Products	Total (MTPM)
1	**Phenol Formaldehyde Resin**	**1100**
2	Melamine Formaldehyde Resin	500
3	Urea Formaldehyde Resin	1200
4	Laminated sheet	2,00,000 Nos. /Month.

Bagfilter will be provided to coal fired boiler and Thermic Fluid Heater to control particulate emission. DG set (250 KVA) will be installed Water requirement from ground water source will be 24 m^3/day. Effluent will be treated in the ETP based on photo Fenton Treatment facility. Treated effluent will be evaporated and condensate will be reused from cooling tower make up . No effluent will be discharged outside the plant premises. Evaporated salt will be sent to TSDF. Used oil will be sent to authorized recycler/re-processors

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

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

B. Additional TOR

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

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

38.4.6 Bulk Drug Manufacturing Unit at Survey No: 42, Alinagar H/O Chatlapotharam Village, Jinnaram Mandal, Medak District, Telangana by M/s. Virupaksha Laboratories Pvt. Ltd, Unit- III- Reg TOR.

The project authorities and their Consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken 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. Virupaksha Laboratories Pvt. Ltd, Unit- III has proposed for setting up of Bulk Drug Manufacturing Unit at Survey No: 42, Alinagar H/O Chatlapotharam Village, Jinnaram Mandal, Medak District, Telangana. Plot area is 25798.5 m^2, of which greenbelt will be developed in 8600 m^2. Cost of project is Rs. 20 Crores. It is reported that no protected area and eco-sensitive zone is located within 10 km distance. Dundigal RF (0.5 Km), Wailal RF (1.84 Km, Suraram RF (5.0 Kms), Kistaipally RF (0.8 Km), Kazipally RF (1.8 Km) are located within 10 km distance. Prishab Cheruvu and Tank near Chetlapotharam are located within 10 Km distance. List of Proposed products & Capacities is as given below:

S. No	Product Name	CAS No	Therapeutic Category	Quantity in Kgs/Month	Quantity in Kgs/Day
1	Atenolol	29122-68-7	Cardiovascular Agent	3000.00	100.00
2	Cinnarizine	298-57-7	Antihistamines.	5000.00	166.67
3	Cyano diol base	103146-25-4		5000.00	166.67
4	Dextromethorphan Hydrobromide	6700-34-1	Anti tussive	5000.00	166.67
5	DFTA (2,4-Difluoro-2-(1h)-1, 2, 4-Triazol-1yl-Acetophenone)	86404-63-9	Antifungal activity	2000.00	66.67
6	Epoxy Mesylate	86386-77-8	Anti fungal	4000.00	133.33
7	Escitalopram Oxalate	219861-08-2	Antidepressant.	1500.00	50.00
8	Fexofenadine HCl(BCN)	153439-40-8	Antihistamine	5000.00	166.67
9	Fexofenadine HCl(MAC)	153439-40-8	Antihistamine	5000.00	166.67
10	4-[1-hydroxy-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-butyl] dimethyl benzeneacetic acid hydrochloride			5000.00	166.67
11	Fluconazole	86386-73-4	Systemic antifungal	5000.00	166.67
12	Metaprolol Succinate	51384-51-1	Antihypertensive, anti anginal.	10000.00	333.33
13	Tramadol Base	27203-92-5		2000.00	66.67
14	Tramadol Hydrochloride (MBA)	36282-47-0	Analgesic	25000.00	833.33
15	Tramadol Hydrochloride (MCA)	36282-47-0	Analgesic	25000.00	833.33
16	Tramadol nitrate	36282-47-0	Analgesic	5000.00	166.67
	Total			**112500.00**	**3750.00**

Bagfilter will be provided to coal fired boiler (2.0 TPH and 4.0 TPH) to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl and Ammonia. DG set (1 x 500 KVA + 1x 380 KVA) will be installed. Total water requirement from ground water source will be 189 m^3/day. Effluent generation will be 106 m3/day. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. All the solvent storage tanks are connected with vent condensers.

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

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

B. Additional TOR

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

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

38.4.7 Salaya-Mathura Pipeline (SMPL) system feeds crude oil to the three landlocked refineries of Indian Oil viz. Koyali, Mathura and Panipat by M/s IOCL- reg TOR.

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

M/s IOCL has proposed for laying of Salaya-Mathura Pipeline (SMPL) system feeds crude oil to the three landlocked refineries of Indian Oil viz. Koyali, Mathura and Panipat. In order to cater to the peak processing crude oil requirement of Mathura, Panipat (post P-15) and Koyali refineries in the short term, it is proposed to debottleneck/augment the capacity of Salaya-Viramgam section from 21 MMTPA to 25 MMTPA, Viramgam-Koyali section from 8.5 MMTPA to 9 MMTPA, Viramgam-Chaksu section from 13.5 MMTPA to 16.5 MMTPA, Chaksu-Mathura section from 7.5 MMTPA to 9.2 MMTPA and Chaksu- Panipat section from 6 MMTPA to 7.3 MMTPA. Besides replacement of 17 old MLPUs/ Engines of SMPL is under consideration for approval. The same has also been considered in the project scheme. The pipeline alignment is within 10 km range of two wildlife sanctuaries namely Jessore Sloth Bear Sanctuary and Balaram – Ambaji Wildlife sanctuary in Banaskantha District, Gujarat. Cost of project is Rs. 1584 Crore. It is reported there are 440 river crossings in Gujarat and Rajasthan. Pipeline will pass Gujarat, Rajasthan and Haryana. Forest area of 5.03 ha is involved in the said project.

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

1. Justification of the project
2. Route map indicating project location.
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Copy of application submitted for clearance from NBWL.
8. Recommendation of SCZMA /CRZ clearance for the proposed pipeline.
9. Present land use based on satellite imagery for the study area of 10 km radius.
10. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
11. Process Description along with Process Flow Diagram.
12. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
13. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.

14. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
15. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
16. ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM10, SO2 , NOx, CO, HC, VOC for one month (Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
17. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
18. At about 10 locations, water monitoring will be conducted including surface & ground water for one month (Non Monsoon)
19. Soil sample analysis within the study area for one season (Non Monsoon).
20. Noise Monitoring will be taken up for one season (Non Monsoon)
21. Demography & socio-economics of the study area.
22. Ecological features (terrestrial & Aquatic) of the study area for one season (Non Monsoon)
23. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
24. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
25. Details of proposed preventive measures for leakages and accident.
26. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.
27. Corrosion Management of Pipeline
28. Details of proper restoration of land after laying the pipelines.
29. Details of proposed Occupational Health Surveillance program for the employees and other labour
30. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.

The Committee observed that M/s IOCL had earlier laid pipeline on the same alignment, where this project is proposed. It is noted that in the same corridor and within the Right of Way of 18 m acquired land. Therefore, public hearing is exempted as per para 7 (ii) of EIA Notification, 2006.

38.4.8 Drilling of 66 Wells & Development of 8 EPS in Tarapur Block at District Anand, Gujarat by M/s GSPC- 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. 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 GSPC has proposed for drilling of 66 Wells & Development of 8 EPS in Tarapur Block at District Anand, Gujarat. Cost of project is Rs. 1236 Crore. Production capacity will be Crude Oil-30-40 m^3/day, Associated Gas - 5000-7000 m^3/day and Produced Water- 20

m^3/day. Tarapur block is located in Cambey – Tarapur tectonic block and covers an area of 1618 Km^2. With a subsequent development of more wells in Tarapur block, GSPC has planned to connect additional 12 Wells to existing Tarapur-EPS and therefore facility is required to be upgraded/modified for managing the additional production from the new wells. Land required for drill site will be 15,000 sq. m. and for production facility will be27000 Sqm. Water requirement will be 40 m3/day, which will be made available through nearest surface water or through Road tankers. Wastewater generation will be 11 m^3/day and treated in the ETP. Power requirement will be 380 KVA× 2 (Drilling Rig Operation and Lighting purpose) and Power will be sourced from Madhya Gujarat Vij Company Limited (MGVCL) and one DG will be kept as standby in case of power failure ; 5-10 KLD Diesel per well during drilling and 10-15 Liters/hr of Diesel will be consumed in D.G set (82.5 KVA).

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

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. 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, if applicable.
7. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).
8. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
9. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
10. 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.
11. 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.

12. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
13. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM10, SO2, NOx, CO, VOCs, Methane and non-methane HC.
14. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
15. Ground and surface water quality in the vicinity of the proposed wells site.
16. Measurement of Noise levels within 1 km radius of the proposed wells.
17. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation, flaring etc.
19. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority.
21. Detailed water balance, wastewater generation and discharge.
22. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
23. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, etc. during all project phases.
24. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio activematerials, other hazardous materials, etc. including its disposal options during all project phases.
25. Disposal of spent oil and lube.
26. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
27. Commitment for the use of water based mud (WBM) only
28. Oil spill emergency plans for recovery/ reclamation.
29. H2S emissions control.
30. Produced oil/gas handling, processing and storage/transportation.
31. Details of control of air, water and noise pollution during production phase.
32. Measures to protect ground water and shallow aquifers from contamination.
33. Whether any burn pits being utilised for well test operations.

34. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.

35. Environmental management plan.

36. Total capital and recurring cost for environmental control measures.

37. Emergency preparedness plan.

38. Decommissioning and restoration plans.

39. Documentary proof of membership of common disposal facilities, if any.

40. 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.

41. 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.

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

B. Additional TOR

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

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

38.4.9 Technical Grade Pesticides at Plot No. D-2, CH/12/C, GIDC, Dahej-II Industrial Estate, Tehsil Vagra, District Bharuch, Gujarat by M/s Agrico Organics Limited- reg. TOR.

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

M/s Agrico Organics Limited has proposed for setting up of Technical Grade Pesticides at Plot No. D-2, CH/12/C, GIDC, Dahej-II Industrial Estate, Tehsil Vagra, District

Bharuch, Gujarat. Cost of project is Rs. 70 crore. Total plot area of the project is 46560.13 m^2. Following products will be manufactured :

S.N.	Product	Quantity (MTPM)
1	**A Herbicides** Imazethapyr Technical	15
2.	Pendimethalin Technical	10
3.	Sulfosulfuron	10
4.	Atrazine Technical	50
5.	Metribuzine Technical	20
6.	Glyphosate Technical	150
7.	Clodinafop- propargyl Technical	20
8.	Pretilachlor Technical	50
9.	2,4-d Ethyl Ester Technical	100
10.	Metsulfuron Methyl	05
11.	Paraquat Dichloride	20
12.	2,4-d Sodium Salt	300
13.	Indoxacarb Technical	15
B	**Fungicides**	
14.	Tricyclazole Technical	50
15.	Hexaconazole Technical	50
16.	Difenoconazole Technical	50
17.	Propicoazole Technical	50
18.	Myclobutanil Technical	15
19.	Thiophenate Methyl	50
20.	Tebuconazole Technical	50
	C Intermediate Chemicals	
21.	Mono Chloro Acetic Acid	100
22.	IDA	100

23.	PMIDA	500
24.	CMAC	200
25.	MPBD	100
26.	CCMP	100
27.	Triazoles	50
	D Insecticides	
28.	Thiamethoxam Technical	100
29.	Buprofezin Technical	50
30.	Temephos Technical	50
31.	Diafenthiuron Technical	50
32.	Imidacloprid Technical	100
33.	Fipronil Technical	100
34.	Permethrin Technical	20
35.	Chloropyriphos Technical	100
36.	Cartap Hydrochloride Technical	150
37.	Metalyxyl Technical	50
38.	Allethrin Technical	15
39.	Alpha Cypermethrin Technical	50
40.	Cypermethrin Technical	30
41.	D-Transallethrin	10
42.	Lambda Cyhalothrin Technical	50
43.	Novaluron	50
44.	Bifenthrin	50
	E Fermentation Technology	
45.	Abamectin	50
46.	Emamectin Benzoate	50
47.	Azoxy Strobin	50

	Total	**3405**

Multicyclone followed by bagfilter will be provided to coal fired boiler/ Thermic fluid heater to control particulate emissions. DG set (1000 KVA) will be provided. Water followed by alkali scrubber will be provided to process emissions viz. HCl, Cl_2 and SO_2.Total water requirement will be 769m^3/day out of which fresh water requirement from GIDC water supply will be 719 m^3/day and remaining (50 m2/day) will be met from recycled water. The Committee suggested the PP to make effort to recycle entire effluent. The wastewater generation is 469 m^3/day. The industrial effluent will be sent to proposed ETP consists of primary, secondary & tertiary treatments and treated effluent shall be discharged into GIDC drainage line. ETP sludge will be sent to TSDF. Process sludge from CaCl2 will be sent for agriculture use. Used oil and spent oil will be sent authorized recycler/re-processors. Fly ash will be sent to brick manufacturers. PP informed that PCPIR is in process for obtaining environmental clearance for the said SEZ. So far, the said SEZ has not obtained environmental clearance.

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

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

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like 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

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

2. Detailed plan for odor control
3. Efforts to be made to recycle entire treated effluent.

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.

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

M/s. Nisol Manufacturing Company Private Limited (Unit-II) has proposed for Nicotine Sulphate plant at Survey No.210, Opp.The H.M.Patel Eng. Medium School, Village: Vadadla, Tahsil Petlad, District Anand , Gujarat. PP informed that the extraction of nicotine from Tobacco dust/ leaf consist of four major steps, namely:

i) Mixing of blending.

ii) Percolation with water

iii) Extraction with solvent

iv) Packing and forwarding

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

38.4.11 Synthetic Organic Chemicals at Sy. No. 29, Village Tupakulagudem, Mandal Tallapudi, District West Godavari, Andhra Pradesh by M/s. Vensub Laboratories Private Limited- Reg TOR

The project authorities and their Consultant (Team Lab) 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. Vensub Laboratories Private Limited has proposed for setting up of Synthetic Organic Chemicals at Sy. No. 29, Village Tupakulagudem, Mandal Tallapudi, District West Godavari, Andhra Pradesh. PP informed that existing EC was obtained on 14.10.2009. However, existing EC was expired. Plot area is 11.8 acres of which greenbelt will be developed in 6.5 acres. Cost of project is Rs. 6 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 10 km distance of project site. The major forest in the study area is Karakapadu Reserve forest is at a distance of 9.2 km in Northwest direction to the plant site. Following products will be manufactured:

S.No	Product name	Capacity	
		TPA	TPM
1	Niacin – API	312	26
2	Paracetmol - API	168.48	14.04
3	N-Methyl –4-Piperidone (NMP) – Drug Intermediate	137.9	11.49
4	Sodium Methoxide (SMO) – Drug Intermediate	99.84	8.32
5	5-(difluromethoxy)-2-mercapto-1H-benzimidazole(BZL) – Drug Intermediate	62.4	5.2
6			
7	Terbinafine hydrochloride		
	Total	**780.62**	**65.05**

Note: The above products will be manufactured on campaign basis only. Only two products i.e., two Bulk drugs / two drug intermediates will be in production at any given time.

List of By-Products

S No	Name of the By-Product	Quantity (Kg/day)	Name of the Product
1	Sodium nitrate	1073.17	Niacin
2	Ammonium sulfate	561	Niacin
3	Acetic acid	199.57	Paracetamol
4	Sodium carbonate	414.07	N-Methyl –4-Piperidone (NMP)
5	Disodium sulfide	72.22	5 difluromethoxy)-2-mercapto-1H-benzimidazole

Bagfilter alongwith stack of adequate height will be provided to coal fired boiler(3 TPH). Distillation column/dedicated reactors with condensers for effective recovery of solvents will be installed. All the solvent storage tanks are connected with vent condensers. Scrubber will be provided to control process emissions. Water requirement from ground water source will

S.N.	Existing (Product List)	Quantity
1	Calcium Glycerophosphate	75.0 TPA
2	Sodium Glycerphosphate	8.0 TPA
3	Magnesium Glycerphosphate	3.5 TPA
4	Manganese	3.5 TPA

be 40 m3/day. Wastewater generation will be 16.35 m^3/day. Industrial wastewater will be

segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. DG set (250 KVA) will be installed.

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

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

B. Additional TOR

1. Environmental monitoring shall be carried out for one month .

2. . Public hearing is exempted as per para 7 (ii) of EIA Notification, 2006 as public hearing was conducted earlier.

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

38.4.12 Synthetic Organic Manufacturing Unit at Sy. No. 32, Tupakulagudem Village, Tallapudi Mandal, West Godavari District, Andhra Pradesh by M/s. Vensar Laboratories Private Ltd. – Amendment in TOR

MoEF&CC vide letter no. J-11011/368/2014IA II (I) dated 10th March, 2015 has issued TOR for preparation EIA-EMP report alongwith public hearing. Now. PP vide letter dated 19.03.2014 has requested for exemption in public hearing as public hearing was conducted for site in 2009. This project had earlier obtained Environmental Clearance from the Ministry. However, validity of EC has been expired and PP has applied afresh application of TOR.

After detailed deliberation, the Committee recommended for public hearing exemption as per Para 7 (ii) of EIA Notification, 2006 and also for conducting Environmental monitoring analysis for one month .

38.5 Any Other Items

38.5.1 Expansion of Synthetic Organic Chemicals of M/s Ideal Cures Ltd. t Survey no. 194/4, Lunej Raod, Village Sokhada, Tehsil Khambhat, District Anand, Gujarat-reg Amendments in existing EC.

Environmental Clearance was granted by MoEF&CC vide letter no. J-11011/187/2012-IA II (I) dated 27th August, 2014 with following product mix:

Sr. No.	Product	Existing Scenario (MT/M)	Proposed Scenario (MT/M)
1.	Methacrylic acid co-polymer L-55 (Ecopol L 100 – 55)	10	360
2.	Methacrylic acid co-polymer L-30 D (Ecopol L 30 D 55)		4
3.	Methacrylic acid co-polymer L-100/ (Ecopol L 100)		32
4	Methacrylic acid co-polymer S-100 (Ecopol S 100)	-	4
	TOTAL	**10**	**400**

Now, PP vide letter dated 16.01.2015 has requested for correcting in product mix as per details given below:

Sr. No.	Product	Existing Scenario (MT/M)	Proposed Scenario (MT/M)
1.	Methacrylic acid co-polymer L-30D 55 (Ecopol L 30 D 55)	10	360
2.	Methacrylic acid co-polymer L-30 D 55 (Ecopol L 100 - 55)		4
3.	Methacrylic acid co-polymer L-100 (Ecopol L 100)		32
4	Methacrylic acid co-polymer S-100 (Ecopol S 100)	-	4

	TOTAL	**10**	**400**

After detailed deliberation, the Committee recommended the said amendment requested.

38.5.2 Bulk Drugs Manufacturing Unit at Village Peddapally, Mandal Jadcherla, District Mehabubnagar, Andhra Pradesh by M/s Virchow Petrochemical Pvt Ltd – Amendment in EC.

MoEF&CC vide letter no. J-11011/57/2013-IA II (I) dated 24th September, 2014 has granted Environmental Clearance to M/s Virchow Agrochemical Pvt. Ltd. with the following by-products :

List of By-products:

S.N.	Products	Stage	Name of the By-product	Capacity	
				Kg/day	TPM
Phase-I					
1	P-methoxy Benzyl 2-(p-toluene sulphonyl thio) a-(1-Chloromethyl ethenyl-4-oxo-3-phenacetamido-1- azetidine acetate (GCLE)	I	Potassium Chloride	1154.1	34.6
			Spent HCl	1519.4	45.6
2	Meta-Chloro Anisol	I	Sodium Hydroxide (48%)	2924	87.7
3	Cefdinir	I	2-mercapto benzothiazole	705	21.1
4	Cefixime	I	Tri phenyl phosphine oxide	2489.9	74.7
		II	Phenyl Acetic Acid	999.5	30
		III	2-mercapto benzothiazole	1228.8	36.9

Phase –II					
1	Aciclovir	I	Acetic Acid	998.3	29.9
		III	Di-methyl ammonium acetate	3112.1	93.4
2	Amoxicillin	III	Trimethylsilanol	822.8	24.7
			Methyl acetoacetate	1059.1	31.8
			Pivalic acid	931.7	28
3	Cefalexine	III	Pivalic acid	980	29.4
			Ethyl aceto acetate	1123.9	33.7
4	Ibuprofen	III	Chromic sulfate	2114.3	63.4

Now, PP vide letter 17.10.2014 has requested for amendment in the by-products as per details given below:

List of By-products:

S.N.	Products	Stage	Name of the By-product	Capacity	
				Kg/day	TPM
Phase-I					
1	7-Phenylacetamido-3-Chloromethyl-Cephalosporanic acid para methoxy benzylester (GCLE)	I	Potassium Chloride	1547	46.4
			Spent HCl	5702	171
2	Meta-Chloro Anisol	I	Sodium Hydroxide (48%)	2924	87.7
3	Cefdinir	I	2-mercapto benzothiazole	705	21.1
4	Cefixime	I	Tri phenyl phosphine oxide	2260	67.8
		II	Phenyl Acetic Acid	937	28.1
		III	2-mercapto benzothiazole	1228.8	36.9
Phase –II					
1	Aciclovir	I	Acetic Acid	998.3	29.9
		III	Di-methyl ammonium acetate	3112.1	93.4
2	Amoxicillin	III	Trimethylsilanol	821	24.6
			Methyl acetoacetate	1059.1	31.8
			Pivalic acid	930.5	27.9
3	Cefalexine	III	Pivalic acid	984.6	29.5
			Ethyl aceto acetate	1123.9	33.7
4	Ibuprofen	III	Chromic sulfate	2114.3	63.4

After detailed deliberation, the Committee recommended the said amendment requested.

38.5.3 Enhancement of Complex fertilizer plant capacity from 3200 MTPD to 4500 MTPD in the existing facility at Kakinada, East Godavari District, Andhara Pradesh by M/s Coromandel Fertilizer Ltd.- Amendment in EC.

Environmental Clearance was issued vide letter no. J- 11011/1303/2007-IA.II (I). to M/s Coromandel Fertilizer Ltd. PP has submitted proposal for incorporation of the following activities in the existing environmental clearance:

i) Multifuel option (Natural Gas and Liquefied Petroleum Gas/Propane) in the existing facility.

ii) Installation of 3 x 100 MT mounded LPG/Propane tanks and supporting facilities.

iii) Installation of connecting pipelines to supply petroleum gas to process units and boilers.

The Committee prescribed the following Specific TOR for preparation of Report in addition to Generic TOR provided at Annexure-I.

(i) Details on Natural Gas and Liquefied Petroleum Gas/Propane to be stored alongwith storage quantities at the facility, their category.

(ii) Mode of receiving Natural Gas and Liquefied Petroleum Gas/Propane in isolated storages and mode of their dispatch.

(iii) Layout plan of the storage tanks and other associated facilities.

(iv) Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps,monitoring equipments, systems for emissions control safety controls including relief systems.

(v) Details of existing and proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.

(vi) Certified Compliance report on the environmental condition prescribed in the existing environmental clearance.

(vii) Arrangements to control loss/leakage of chemicals and management system in case of leakage.

(viii) Risk Assessment & Disaster Management Plan

a. Identification of hazards

b. Consequence Analysis

c. Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.

d. Onsite and offsite emergency preparedness plan.

38.5.4 Proposed 40 KLD distillery unit of M/s GMR Technologies & Industries Limited at Sankili village, Srikakulam district, Andhra Pradesh- Amendment of EC

Environmental Clearance was accorded vide MoEF&CC letter no J-11011/157/2003 - IA II dated 8th March, 2004 to M/s GMR Technologies & Industries Ltd. for setting up of

Distillery (40 KLPD). PP vide letter no. EID/Distillery/MoEF&CC/2015-16 dated 10.04.2015 has requested for the following :

S.N.	As per Existing EC	Requested for Amendment
1	Operating Days of Distillery is 270 days.	Increase in no. of operating days of distillery from 270 to 365 days.
2	The Spent wash generated (400 m3/day) after bio-methanation shall be composted with press mud.	During Monsoon Period : Spent wash shall be treated through bio-methanation followed by RO. Permeates will be recycled/reused for process and cooling tower make up. Rejects will be concentrated in MEE. Concentrated will be dried through ATFD and drum dryer to achieve dried powder. Dried powder will be sold as potash fertilizer. During non-Monsoon Period: Spent wash treatment can either be with Bio-methanation followed by RO plant and MEE with bio-composting or with RO plant followed by concentration & Drying.

The Committee noted that by introducing the above new spent wash treatment process, excess recycled /treated water will be generated at the tune of 375 m3/day, which will be used for process and cooling tower make up. Therefore, fresh water requirement will reduced from 700 m^3/day to 325 m^3/day.

After detailed deliberation, the Committee recommended the said amendment with following additional specific condition:

i. Spent wash shall be treated through bio-methanation followed by RO. Permeates will be recycled/reused for process and cooling tower make up. Rejects will be concentrated in MEE. Concentrate will be dried through ATFD and drum dryer to achieve dried powder. Dried powder will be sold as potash fertilizer. By using this technology, the Distillery can be operated for 365 days.

ii. Spent wash shall be treated through bio-methanation followed by RO. Permeates will be recycled/reused for process and cooling tower make up. Rejects will be concentrated in MEE. Concentrate will be bio-composted with press mud. By using this technology, the Distillery can be operated for 270 days except monsoon season.

iii. 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.

iv. As proposed, no effluent from distillery should be discharged outside the premises and Zero discharge shall be achieved.

v. No effluent shall be discharged into river. In the event of failure of any effluent treatment plant adopted by the unit, the distillery plant shall not be restarted until the control measures are rectified to achieve the desired efficiency.

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

viii. Fresh water requirement shall not exceed 325 m^3/day. Remaining water requirement shall be met from recycled/treated water.

ix. 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. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Chennai and SPCB/CPCB.

The Committee also noted that existing EC was granted in the name of M/s GMR. Now, The Company should also apply for transfer of environmental clearance in the new name alongwith requisite documents.

38.5.5 Bifurcation of EC issued for expansion of 9 MMTPA Refinery to 60 MMTPA with petro-chemical complex of M/s Essar Oil Ltd, Vadinar, Khambhaliya, Gujarat-Amendment in EC.

MoEF has granted environmental clearance to M/s Essar Oil Ltd. on 20.07.2007 for expansion of 9.0 MMTPA Refinery to 60 MMTPA with Petrochemical Complex at Khambalia, Jamnagar, Gujarat by M/s Essar Oil Ltd. Further, MoEF vide letter no J-11011/320/2006 IA II (I) dated 16.09.2008 has bifurcated EC in the name of two group companies (i) Essar Oil Limited and M/s Vadinar Power Company Ltd. Now, PP vide letter no EOL/ENV/MoEF/2015/491 dated 15th January, 2015 has requested for trifurcation of environmental clearance in the name of M/s ESSAR OIL Ltd., M/s Vadinar Oil Terminal Ltd. and M/s Vadinar Ports & Terminal Ltd. The Committee noted that partition of environmental clearance has to be seen from operational angle in terms of enactment of Environment implications. Therefore, the Committee recommended that PP has to prepare three different reports considering all the parameters. Responsibilities of each company has to be fixed. The Committee recommended the following TOR for preparation of report:

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

2. Plot area of each unit.
3. Layout map of Greenbelt.
4. Power Requirement of each units alsong with source.
5. Details of utilities.
6. Status of construction of Unit.
7. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
8. Details of intermediate product, their storages and final products to be manufactured.
9. Sulphur balance giving input from crude, refinery fuel (if used) and any other outside fuel and output in various products and emissions.
10. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
11. Details of emissions from all the stacks including volumetric flow rate.
12. Details on availability of raw materials (crude oil, natural gas, chemicals, *etc.*), its source and storage at the plant.
13. Details on mode of transportation of crude and products.
14. Details of storage capacity of crude and products.
15. Latest Ambient air quality data should include PM10, PM2.5, SO2, NOx, CO, hydrocarbon (methane and non-methane), VOC, Ni & V etc.
16. Trend analysis of latest baseline data with the initial data.
17. Details of water consumption and effluent generation and its disposal methods.
18. 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.
19. Storm water management plan.
20. Estimation SO_2 and NOx emissions load.
21. Details on flaring system.
22. Details of VOC recovery devices in the storage tanks.
23. Arrangement for spill management.
24. Solid Waste Management Plan as well as Oily sludge management plan.
25. 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.

21st April, 2015 (Day 2)

38.6 Environmental Clearance

38.6.1 Granulated Single Super Phosphate (12000 TPA) Manufacturing Plant, Sulphuric Acid (98.5%)- 60000 TPA alongwith CPP (1.2 MW) proposed Mouza- Mantageriya, Chakturia, Sanmaninath, PS- Kharagpur (Local), Paschim Medinipur, West Bengal by M/s Ishika Fertilizer Ltd. – reg. EC

The project proponent and their consultant (Mantec 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 Meeting of the State Level Expert Appraisal Committee, West Bengal vide memo No. 2672N-77/2013 (E) dated 21.03.2014 for preparation of EIA-EMP report. Single Super Phosphate alongwith Sulphuric Acid are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

M/s Ishika Fertilizer Ltd. has proposed for setting up of Granulated Single Super Phosphate (12000 TPA) Manufacturing Plant, Sulphuric Acid (98.5%)- 60000 TPA alongwith CPP (1.2 MW) proposed Mouza- Mantageriya, Chakturia, Sanmaninath, PS- Kharagpur (Local), Paschim Medinipur, West Bengal. Plot area is 8.41 ha. It is reported that no eco-sensitive area is located within 10 Km distance. Cost of project is Rs. 60 Crore. Kelaghi River, Kasaiwada River, Mantageria Pond, Sanmaninathpur Pond and Chakturia Pond are located within 10 km distance. Project will consist of the following main plants :

S.N.	Plant	Capacity
1	SSP Plant	400 TPD or 120,000 TPA
2	SSP Granulation Plant	400 TPD or 120,000 TPA
3	Sulphuric Acid Plant	200 TPD or 60,000 TPA
4	WHR Boiler	1.5 MW
5	DG set	500 KVA

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2014-June, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (54 µg/m3 to 80 µg/m3), $PM_{2.5}$ (31 µg/m3 to 67 µg/m3), SO_2 (6 µg/m3 to 16 ug/m3), NOx (12 µg/m^3 to 30 µg/m^3) and ammonia (5 ug/m^3 to 22 ug/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.89 µg/m^3, 6.01 µg/m3, 1.11 µg/m3 and 0.936 µg/m3 with respect to SPM, SO_2, NOx and F. The resultant concentrations are within the NAAQS. DCDA process in sulphuric acid plant for >98.5% conversion of SO2, thereby reducing the emission of SO2 in the tail gas. High efficiency candle filters in the top portion of the absorption towers to remove acid mist from the tail gas before its discharge into atmosphere. Bag filter in the grinding unit for control of dust. Ventury scrubber, followed by 3-stage scrubber for control of fluoride emission. Cyclones in Dryer and Cooler outlet streams for control of dust. Stacks of adequate heights for discharge of effluent gases from point sources. Online fluoride and SO2 monitors for monitoring of emissions. Water requirement from ground water source will be 200 m3/day. There will be no wastewater discharge from the processes. Blow down from the wet scrubber, containing H2SiF3 will be recycled to the mixer after removal of precipitated silica in a sump. Cooling tower blow down and DM plant egeneration will be recycled to the mixer in the SSP plant.

No effluent will be discharged outside plant premises. Spent catalyst will be sent to authorized recycler/re-processors. Sulphur sludge will be crushed and used as filler in the product SSP. Dust collected in the bagfilter in grinding unit will be recycled to the grinder. Fluosilic acid (H2SiF6) formed during scrubbing will be collected in a sump and will be recycled to the Mixer. This will result into reduce consumption of sulphuric acid.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 23rd December, 2012. The issues were raised regarding pollution control measures, effluent treatment and siposal scheme, socio-economic development, vocational training program, 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 deliberation, Committee sought following additional information:

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

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

38.6.2 Expansion of Synthetic Organic Manufacturing Unit of M/s Shree Vallabh Chemical at Sy. No. 163,174/2 & 175/4, Village Ahmedpura-Sampa.Dahegam-Modasa Road, Taluka Dahegam District Gandhinagar, Gujarat- reg EC.

The project proponent and their consultant (M/s Pavan Envitech Consultant 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 14th Meeting of the Expert Appraisal Committee (Industry) held during 19th-20th December, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Bulk Drugs Manufacturing Unit) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' project and appraised at the Central level. Since storage of Ethylene Oxide is more than 5 ton (exceed the threshold limit), proposal can not be considered as small scale unit.

M/s Shree Vallabh Chemical have proposed for expansion of Synthetic Manufacturing Unit at Sy.No. 163,174/2 & 175/4, Village Ahmedpura-Sampa. Dahegam-Modasa Road, TalukaDahegam District Gandhinagar, Gujarat. Total plot area is 9592 m^2 of which greenbelt will be developed in 3400 m^2. It is reported that there is no eco-sensitive area is located within 10 km distance. Total cost of expansion project is Rs. 148.97 lakhs.

Following products will be manufactured:

S.N.	Product	Quantity (MTPM)		
		Existing	Proposed Expansion	Total after proposed expansion
1	Nonyl Phenol Ethoxylate	31.0	129.0	160.0
2	Octyl Phenol Ethoxylate	1.5	28.5	30.0
3	Dodesyl Phenol Ethoxylate	-	10.0	10.0
4	Castor Oil Ethoxylate	1.5	98.5	100.0
5	Poly EhtyleneEthoxylate	--	80.0	80.0
6	Fatty alcohol Ethoxylate	5.5	114.5	120.0
7	HCO (Hydrogen Castor Oil)	0.5	19.5	20.0
8	Poly OI Ethoxylate (De-emulsifier)	--	40.0	40.0
	Total	40.0	520.0	560.0

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (36.9 µg/m3 to 74.5 µg/m3), PM2.5 (15.7 µg/m^3 to 30.2 µg/m^3), SO_2 (6.09 µg/m^3 to 12.3 ug/m^3) and NOx (12.3 µg/m^3 to 25.1 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.408 µg/m^3, 1.13 µg/m^3 and 0.827 µg/m^3 with respect to PM_{10}, SO2 and NOx. The resultant concentrations are within the NAAQS. Multicyclone type dust collector will be provided to additional coal fired boiler. The Committee suggested them to provide bagfilter instead of dust collector for better efficiency. Water requirement from ground water source will be increased from 2 m^3/day to 11.43 m^3/day after expansion. Effluent generation will be increased from 0.5 m3/day to 2.33 m3/day after expansion. Industrial effluent will be treated in ETP. Treated effluent will be evaporated to achieve zero effluent discharge. Total power requirement will be increased from 75 HP to 134 HP after expansion. LDO, imported coal, HSD will be used as fuel. DG set (100 KVA) will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 20th December, 2014. The issues were raised regarding benefits of project, local employment, steps taken to control pollution etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) As proposed, Bagfilter shall be provided to the imported 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) Total fresh water requirement from ground water source should not exceed 11.5 m^3/day and prior permission should be obtained from the CGWA/SGWA.

iii) Effluent shall be treated in the ETP. Treated effluent will be evaporated. condensate shall be recycled/reused for cooling tower make up and horticulture purpose. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

iv) 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.

v) As proposed, green belt should be developed in the area of 3400 m^2 with atleast 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.

vi) At least 2.5 % 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

38.6.3 Manufacturing of Resins & Adhesives of M/s Setco Chemicals (I) Pvt. Ltd. at Plot No. 788/1, 40 Shed Area, GIDC Estate Vapi, Taluka Paradi, District Valsad, Gujarat. Reg EC.

The project proponent and their consultant (Green Circle Stay order no. SCA/9970/2012 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 21st Meeting of the Expert Appraisal Committee (Industry) held during 30th– 1st August, 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, proposal is treated as category 'A' and appraised at Central Level.

M/s Setco Chemicals (I) Pvt. Ltd. has proposed for setting up of Manufacturing Unit of Resins & Adhesives at Plot No. 788/1, 40 Shed Area, GIDC Estate Vapi, Taluka Paradi, District Valsad, Gujarat. No Eco-sensitive Zone is located within 15 km distance. Interstate boundary is located at the distance of 1.7 Km. Plot area is 8801m^2 of which greenbelt will be developed in 1164.6m^2. Cost of project is Rs 8 crores. Following products will be manufactured:

S.N.	Name of Product	Quantity,(MTPM)		
		Existing	Proposed	Total
1	Printing	500	-----	500
2	Ink Medium	100	-----	100
3	Retarder	100	-----	100
4	Foil wash	100	-----	100
5	Alkyd Resin	----	100	100
6	Pure Phenolic Resins	----	50	50
7	Reduced phenolic Resin	----	150	150
8	Polyurethane Resin	----	300	300
9	Polyester Resin (saturated & unsaturated)	----	50	50
10	Epoxy resin	-----	50	50
11	Polyamide Resin	-----	200	200
12	MF Resin	------	50	50
13	UF Resin	-----	50	50
14	Ketonic Resin	-----	100	100
15	Acrylic Resin	-----	50	50
16	Emulsions	------	50	50
17	Adhesives	-----	50	50
Total of Product Quantity		**800**	**1250**	**2050**

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 and December 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (65 µg/m^3 to 105 µg/m3), $PM_{2.5}$ (29 µg/m^3 to 58 µg/m3), SO_2 (12.10 µg/m^3 to 26.30 ug/m^3), NOx (19.40 µg/m^3 to 39.50 µg/m^3) and CO(0.04 to 0.56 µg/m^3) respectively. The AAQM data is within the NAAQS except PM10. The Committee also observed that CO level data also indicating lower side. Adequate stack height will be provided to gas fired thermic fluid heater. Natural gas will be used as fuel in thermic fluid heater. Wet scrubber will be provided to control process emissions. Fresh water requirement from GIDC water supply will be 8.2 m3/day. Effluent generation will be 4.7 m3/day. Effluent will be treated in the ETP and evaporated. Condensate will be reused/recycled.

After deliberation, the Committee sought following additional information:

i) To conduct one month monitoring for ambient air quality.

ii) Reasons for getting high value of PM10 during ambient air quality monitoring.

iii) Layout map indicating process area, storage area, utilities area and greenbelt.

iv) Treatment scheme of effluent w.r.t. phenol. Use of condensate to be elaborated.

v) Types of solid waste generation and its disposal scheme.

vi) Recalculation of emission load.

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

38.6.4 Drilling of exploratory wells (8) in Block RJ- ONN- 2005/1 in Jaisalmair district, Rajasthan by M/s Hindustan Oil Exploration Company Ltd. – reg EC.

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

38.6.5 Expansion of LPG and Propylene Handling Facilities at LPG Bottling Plant, Near Mathura Refinery, Mathura, Uttar Pradesh by M/s IOCL –reg EC.

The project proponent and their consultant (Chola MS Risk 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 7th Meeting of the Expert Appraisal Committee (Industry) held during 4th– 5th April, 2013 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. Since utilities of proposed facilities are common for the Mathura refinery and considering the integrate project in nature, proposal is treated as Category 'A' project.

M/s IOCL have proposed for expansion of LPG (650 KMTPA) and Propylene Handling Facilities (34.46 KMTPA) at LPG Bottling Plant, Near Mathura Refinery, Mathura, Uttar Pradesh. Total plot area is 41 acres. No additional land is required for the expansion. Project falls under Taj Trapezium Zone. Yamuna River is flowing at a distance of 6 Km. Cost of project is Rs. 65 Crore. EC for FCCU revamp for LPG yield and reliability improvement obtained vide MoEF's letter no J-11011/283/2006 dated 22nd March, 2007. LPG production will be enhanced from 256 to 386 TMPTA. The existing infrastructure is equipped to transfer 650 KMTPA of LPG and 35 KMTPA of propylene, however after the proposed expansion it will be equipped to transfer 215 KMTPA propylene and same amount of LPG. No additional land will be acquired for proposed expansion and the total capital cost is estimated as INR 35 Crores. List of existing storages and proposed storages to be created is as given below:

Item	***Existing Facilities in LPG Bottling Plant***	***Proposed Facilities in LPG Bottling Plant***	***Remarks***
LPG Mounded Bullet	*Three numbers with capacity 1200 MT each*	*NIL*	*No additional LPG mounded bullet is envisaged*
Propylene Mounded Bullet	*Two numbers with capacity 200 MT each*	*One bullet with capacity 600 MT*	*One additional propylene mounded bullet with capacity 600 MT is proposed*
Auto LPG Bullet	*Two numbers with capacity 150 MT each*	*NIL*	*No additional Auto LPG bullet is envisaged*
Auto Propylene Bullet	*Two numbers with capacity 200 MT each*	*NIL*	*No additional Auto Propylene bullet is envisaged*
LPG Loading Bays	*Nine numbers*	*Four Numbers*	*Four additional LGP loading bays are proposed*
Propylene Loading Bays	*Three numbers*	*Four Numbers*	*Four additional Propylene loading bays are proposed*

Item	*Existing Facilities in LPG Bottling Plant*	*Proposed Facilities in LPG Bottling Plant*	*Remarks*
LPG and Propylene Compressors	*One each*	*One propylene compressor*	*One additional propylene compressor is proposed. It will be used as standby.*
LPG and Propylene handling pumps	*Necessary numbers of LPG and Propylene transfer pumps and sick tanker unloading compressors*	*One LPG pump with capacity 150 m^3/hr and two Propylene pumps with capacity 48 m^3/hr*	*One additional LPG handing pump with capacity 150 m^3/hr and two Propylene handling pumps with capacity 48 m^3/hr are proposed*

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2011 and January,2012 and submitted baseline data indicates that ranges of concentrations of PM_{10} (94 µg/m3 to 98.19 µg/m3), PM2.5 (44.91 µg/m^3 to 51.62 µg/m^3), SO_2 (14.05 µg/m^3 to 14.75 ug/m^3) and NOx (18.22 µg/m^3 to 19.37 µg/m^3) respectively. The resultant concentrations are within the NAAQS. No additional boilers or DG sets are proposed in the expansion activity, thus no point source emission is envisaged from the same. The additional power required for the expanded LPG Bottling facilities will be met from the existing captive power plant of the refinery for which necessary approvals and permits has been already obtained. The total water consumption at the LPG Bottling facility after expansion will be in the order of 16m^3/day, which will be met from existing Refinery sources. About 2m^3/day will be used for all cooling applications and 5m^3/day for fire water requirements. Since no liquid petroleum products will be handled no oily wastewater and no oily sludge will be generated. About 6m^3/day of raw water will be used for domestic applications and the wastewater from all domestic applications will be sent to soak pits. Thus no domestic wastewater is envisaged. Except lube oils no major solid and hazardous waste will be generated from the LPG Bottling facility. The lube oil also will be sent to adjoining refinery for processing. The QRA study predicts no scenario with higher risk value than the acceptable level with the present process conditions, population distribution and whether condition. But however to maintain the risk level below the acceptable levels relevant suggestions were made

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the UP State Pollution Control Board on 5th September, 2014. The issues were raised regarding anticipated pollution from the proposed activities; development of the area; appropriate study to be carried out prior to commencement of the activities; steps to be taken for medical facilities 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 EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

i. Adequate buffer zone around the LPG Marketing Terminal shall be provided, as may be required as per OISD or other statutory requirements.

ii. Regularly monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data be submitted to Ministry's Regional Office at Bhubaneswar, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office at Lucknow.

iii. Total fresh water requirement from Mathura Refinery should not exceed 16 m^3/day. No ground water shall be used.

iv. The company should 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 should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains should be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond should be conducted.

v. 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.

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

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

viii. Additional safety measures should be taken by using remote operated shut off valve, double block & bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe.

ix. Unit should carry out safety audit and report submitted to the Ministry and its Regional Office at Lucknow within six months.

x. LPG transfer line from refinery to the this LPG terminal shall be laid underground with adequate Cathodic protection against External Corrosion and the SCADA system.

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

xii. Green belt should be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around factory premises should be ensured.

xiii. The Company should 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.

xiv. All the recommendations mentioned in the EMP/DMP should be implemented.

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

xvi. All the issues raised during the public hearing/consultation meeting held on 5th September, 2014 shall be satisfactorily implemented.

38.6.6 Development Drilling of 40 wells at East Godavari, West Godavari and Krishna District Andhra Pradesh by M/s ONGC Ltd. (Amendment in EC)

MoEF&CC vide letter F. No. J-11011/31/2012-IA II (I) dated 25.11.2014 has granted environmental clearance to M/s ONGC for 18 development wells of Krishna and West Godavari district. However, TOR was issued vide letter dated 17.07.2012 for 40 wells in East Godavari, West Godavari and Krishna district, Andhra Pradesh. However the public hearing in East Godavari district in respect of the remaining 22 wells out of the total of 40 wells could not be conducted despite the same was planned to be held first in March 2014, then in April 2014 and again in June 2014 due to the unavoidable reasons such as Samaikhya Andhra Agitation, Municipal/ Local/ General Elections and the unexpected GAIL pipeline incident respectively.

- Part 2- Development Drilling of 22 wells in KG Basin in East Godavari district of A.P.

This part was not considered for grant of EC earlier as the Public Hearing could not be conducted. The EAC advised giving a separate proposal for these wells. Subsequently, a proposal was submitted for grant of TORs in respect of Part 2 of the Project and the same was listed in the agenda of the 23rd EAC meeting held on 29.10.2014. It was informed by EAC that in view of the decision of MoEFCC to extend validity of the TORs issued originally for a period of two years to three years, it is advised to conduct the public hearing in respect of the Part 2 of the project and submit the minutes of the same for consideration of EAC for issuance of EC.

Accordingly, the Public Hearing in respect of Part 2 of the project titled - Development Drilling of 22 wells in KG Basin in East Godavari district of A.P. was duly conducted on 06.01.2015 at Mandapeta and the Minutes of Meeting issued by APPCB, EG District Kakinada duly uploaded in the MoEF site for consideration for grant of EC. Location of proposed development wells are as given below:

S.No	Field / No. of wells (Anticipated Locations)/Name/Target Depth(m)	PML Block	Coordinates	Village (No. of wells)	Mandal
1	Mandapeta / 8/3100	Godavari Onland	Lat 16 deg 48 min 5 sec Long 81 deg 54 min 15 sec	Alamuru (3)	Alamuru
				Mandapeta (5)	Mandapeta
2	Kesavadasupalem / 1/ 1800	Godavari Onland	Lat 16 deg 20 min 2.66 sec Long 81 deg 46 min 9.81 sec	Kesavadasupalem (1)	Sakhinetipalli
3	Kesanapalli west / 5/ 2500	Godavari Onland	Lat 16 deg 23 min 31.45 sec Long 81 deg 54 min 37.78 sec	Kesanapalli (5)	Malkipuram
4	Kammapalem / 7/ 2700	Godavari Onland	Lat 16 deg 28 min 26.87 sec Long 81 deg 49 min	Kammapalem (7) Hamlet of Sivakodu	Razole

			8.38 sec		
5	Vygreswaram / 1/ 4000	Godavari Onland	Lat 16 deg 37 min 49.54 sec Long 81 deg 56 min 16.96 sec	Vygreswaram (1)	Ambajipeta
Total	**22 wells**				

Cost of project is Rs. 242 Crores for drilling of 22 wells. Water requirement from tanker supply will be 15 m^3/day. Land requirement will be Approx. 5-6 acres for each location. Development drilling is a temporary activity. Each location takes around 3 to 4 months in normal conditions. Three 700 KVA D.G sets (AC-SCR Type.) will be installed with a peak diesel consumption of about 3-4 m^3/day, whereas during testing and other operations the diesel consumption is about 0.5-2 m^3/day. Water based mud (WBM) is used as drilling fluid in development drilling to maintain hydrostatic pressure control in the well and to lubricate the drill bit. Drill Cuttings (DC) will be properly washed and unusable drilling fluids (DF) to be disposed off in a well-designed lined pit with impervious liner. Drilling wastewater is collected in the disposal pit and the same gets evaporated in course of time. The waste pit after it is filled up needs to be covered with impervious liner, over which, a thick layer of native soil with proper top slope is to be provided. All equipment will be operated within specified design parameters during construction, drilling and operational phases. Well testing (flaring) will be undertaken so as to minimize impacts of emissions. Use of ear muffs/plugs and other protective devices will be provided to the workforce in noise prone areas. Enclosures around noise sources may be provided depending on the size of the unit. Waste reduction effort will concentrate on reuse, recycling, minimization of packaging material, reduction in size of waste material and finally reduction of time spent on location via optimization of drilling efforts. Hazardous waste such as Waste oil and lubricants generated in the drilling process will be sent to authorized recyclers. All spent lead acid batteries will be sent for recycling to authorized waste contractors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 06.01.2015. The issues were raised regarding information about project site, Land Subsidence, salt water intrusion etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

ii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.

iii. Approach road shall be made pucca to minimize generation of suspended dust.

iv. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.

v. Total water requirement shall not exceed 15m^3/day and prior permission shall be obtained from the concerned agency.

vi. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

vii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bangalore.

viii. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

ix. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

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

xi. 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.

xii. 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.

xiii. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

xiv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

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

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

xvii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

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

xix. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bangalore.

xx. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bangalore.

xxi. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.

xxii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxiii. A social audit shall be carried out for the whole operation area with the help of reputed institute like Madras Institute of Social Science etc.

xxiv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

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

xxvi. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

xxvii. All the commitments made during the Public Hearing/Public Consultation meeting held for both Districts shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

38.6.7 Exploratory drilling (9 wells) in Pre-NELP Block AA-ONJ/2 at district Cachar, Assam by M/s ONGC Ltd.– reg EC

The project proponent and their consultant (SENES Consultants 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 34th Meeting of the Expert Appraisal Committee (Industry) held during 13th – 14th April,2012 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

The proposal is for onshore exploratory drilling of hydrocarbons (9 wells) of M/s. ONGC in Pre-NELP Block AA_ONJ/2 in Cachar District of Assam. The pre-NELP Block AA-ONJ/2 of ONGC covers 1277 sq. km area encompassing 802 sq. km of Cachar District, Assam. 220 sq. km of Jiribam District, Manipur. 255 sq. km of Aizawl and Kolasib Districts of Mizoram. PP informed that nearest wildlife sanctuary/protected area is Borail WLS, which is outside the block boundary on the NW side. As per page no 3 of EIA/EMP report, three proposed wells i.e. RBK-3, RTNG-1 and RTDN-2 are falling under the forest land. Cost of the project is Rs. 270 crore. The names of the six wells, located in part of the block falling in Cachar district of Assam are RBK-1, LBAA, RPAA, RBK-3, RLBK-1, and RTDN-1. The names of the three wells located in the part of the block falling in the states of Manipur and Mizoram are RJDR, RTNG-1, and RTDN-2.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during May-June 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (44 µg/m^3 to 63 µg/m3), SO_2 (4.8 µg/m^3 to 6.6 ug/m^3) and NO_2 (19.2 µg/m^3 to 24.8 ug/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.00108 µg/m^3, 0.00414µg/m^3 and 0.1795 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS.

The estimated land required per drill site is approximately 2.25 ha and will be taken on temporary lease. The power requirement of the drilling rig will be met by using 3 Nos. of DG Sets of capacity 750 KW, each. Air emissions from D.G. sets will be dispersed by providing adequate stack height of around 5.5 m and will be equipped with acoustic enclosure to attenuate noise. Fresh water requirement from surface or ground water will be 20 m^3/day. Effluent will be treated in effluent treatment plant (ETP) comprising equalization, chemical coagulation, flocculation and clarification by settling and residual unusable mud will be collected in HDPE lined pits and solar evaporated. Drill cuttings (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud which is non toxic and non hazardous will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Assam Pollution Control Board on 26th August, 2014 and 27th August, 2014 for Cachar District. The issues were raised regarding pollution control, land compensation, development of road, drinking water etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. PP informed that public hearing for wells located in Mizoram and Manipur was not conducted. Therefore, PP intends to drop the proposal of drilling at this place.

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

i. The Company shall obtain forest clearance.
ii. No drilling shall be carried out in the wells falling states of Manipur and Mizoram as proposal for drilling has been dropped.
iii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, methane & Non-methane HC etc.
iv. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
v. Approach road shall be made pucca to minimize generation of suspended dust.
vi. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
vii. Total water requirement shall not exceed 20 m^3/day and prior permission shall be obtained from the concerned agency.
viii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
ix. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.
x. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
xi. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

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

xiii. 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.

xiv. 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.

xv. On completion of drilling, the companies have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

xvi. Blowout Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

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

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

xix. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

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

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

xxii. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Shillong.

xxiii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Shillong.

xxiv. Under Enterprise Social Responsibility (ESR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project during drilling period.

xxv. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxvi. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

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

xxviii. 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.

38.6.8 Onshore Oil and Gas Exploration Development & Production in Block CB-ONN-2010/8 of M/s Bharat Petro Resources Ltd., in NELP, Cambay Basin, located in the common boundary of Ahmedabd, Kheda, and Gandhinagar Districts, Gujarat – reg EC

The project proponent and their consultant (Detox Corporation 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 15th Meeting of the Expert Appraisal Committee (Industry) held during 29th – 30th January, 2014 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Bharat Petro Resources Ltd. has proposed for Onshore Oil and Gas Exploration Development & Production in Block CB-ONN-2010/8 in Gujarat. There is no national park, sanctuary or forest land in surrounding 10 km radius. The NELP IX block CB-ONN-2010/8 is located in common boundary of Ahmedabad, Kheda and Gandhinagar District, Gujarat. The area covered under part A of the block is 14 sq. km and under part B is 28 sq. km. Meshwa River is flowing within the block. It is reported that no protect area notified under Wildlife (Protection) Act, 1972, Notified Eco-Senitive Area is located 10 km distance. Cost of project is Rs. 26 US $ Million. BPRL intends to drill wells to depth ranging between 1800 m to 3500 m. Following are the coordinates of the blocks:

Geographical coordinates of Block 'A'

	Latitude			Longitude		
A	23	0	54	72	50	10
B	23	0	54	72	48	6
C	23	3	0	72	48	6
D	23	3	0	72	50	11
A	23	0	54	72	50	10

Geographical coordinates of Block 'B'

	Latitude			Longitude		
A	23	0	0	72	46	38
B	23	0	0	72	50	10
C	22	57	26	72	50	8

D	22	57	26	72	46	38
E	23	0	0	72	46	38

Details of each wells are as given below:

Well Locations	Villages	Village Distance	Distance of Road from Well Location
Well -1	Karoli	1.53 Km	0.12 Km (Village Road of Pasunj – Karoli)
Well-2	Kodrali	0.48 Km	1.76 Km (Village Road of Pasunj-Karoli)
Well - 3	Kuha	2.12 Km	0.80 Km (Village road of Kuha – Pasunj
Well-4	Demaliya	0.97 Km	1.05 Km (Village Raod)
Well-5	Chandial	0.41 Km	900 meter (Ahmedabad Zalod Highway)
Well-6	Bhavda	1.79 Km	200 meters (Village Road) 1.85 Km (Ahmedabad – Zalo Road)
Well-7	Vadod	1 Km	1.85 Km (Village Road to Chandial)
Well-8	Ranodra	1.35 Km	0.14 Km (Village Road)

PP informed that drilling will be carried out in Gandhinagar and Ahmedabad Districts.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 and May 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (63 µg/m^3 to 129 µg/m^3), $PM_{2.5}$ (20 µg/m^3 to 60 µg/m^3), SO_2 (1.49 µg/m^3 to 31.36 ug/m^3) and NOx (7.21 µg/m^3 to 36 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.906 µg/m^3, 2.324 µg/m^3 and 29.51 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS except PM_{10}. PP informed that high PM_{10} may be due to construction activities near sampling point. Flare stack height will be 30 m. Water requirement from tanker supply will be 35 m^3/day.

Wastewater generation will be 5 m3/day. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 3rd November, 2014 for Gandhinagar District and 5th November, 2014 for Ahmedabad District. PP informed that public hearing for Kheda district was not conducted as no drilling will be carried out in the said district. The issues raised during Public Hearing were regarding benefit of the project, steps to be taken control pollution, restoration of site, wastewater treatment, abandoned well to be sealed, restoration etc. Public Hearing issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. The present EC is for Exploratory Drilling only. In case Development drilling to be done in future, prior environmental clearance must be obtained from the Ministry.
ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, methane & Non-methane HC etc.
iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
iv. Approach road shall be made pucca to minimize generation of suspended dust.
v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
vi. Total water requirement shall not exceed 35 m^3/day and prior permission shall be obtained from the concerned agency.
vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhopal.
ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting

proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

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

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

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

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

xv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

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

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

xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

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

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

xxi. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.

xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.

xxiii. 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. Implementation of such program shall be ensured accordingly in a time bound manner.

xxiv. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

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

xxvii. 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.

38.7 Reconsideration for Environmental Clearance

38.7.1 Expansion of molasses based distillery (from 20 KLD to 60 KLD) at Block no. 459/1, Garg, district Dharwad, Karnataka by M/s Sri Lakshmi Narshima Distilleries Pvt. Ltd. – reg EC

Proposal was considered in the 18th EAC (I-2) meeting held during 20th-21st January, 2011, the Committee recommended to conduct public hearing and issues emerged should be incorporated in the EIA –EMP report. PP vide letter no EIA/SLN/2015 dated 05.03.2015 has submitted the EIA-EMP report alongwith proceedings of public hearing. Public hearing was conducted on 20.02.2013.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka Pollution Control Board on 20.02.2013. The issues were raised regarding Local employment, spent wash treatment, smell nuisance compensation to farmer, greenbelt etc.

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

(i) Reasons for late submission of revised EIA report after conducting public hearing.
(ii) Certification of Accreditation of consultant
(iii) Ambient air quality data to be collected for one month.
(iv) Water requirement is in higher side. Plan to reduce water requirement upto 8 KL per KL of alcohol produced.
(v) Details of Spent wash, spent lees generation, wastewater generation from Utilities etc.
(vi) Treatment scheme for Spent wash, spent lees generation, wastewater generation from Utilities.

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

38.7.2 Active Pharmaceutical Ingredients & Intermediate Manufacturing Unit at Plot No.211 & 213, GIDC, Sarigam, Tehsil Umargam, District Valsad, Gujarat by M/s Aarti Drugs Ltd.– reconsideration of EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 34th meeting held during 17th-19th February, 2015 and the Committee recommended to conduct Hydrocarbon and CO data once again and deferred the proposal for want of following additional information.

PP vide letter dated 30.03.2015 has submitted the addl. information. CO was observed in the range of 0.7 mg/m^3 to 1.24 mg/m^3.

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

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

ii. 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.

iii. Total fresh water requirement from GIDC water supply shall not exceed 245 m3/day. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

iv. Trade effluent shall be treated in the effluent treatment plant (ETP) having primary, secondary and tertiary treatment facility. Treated effluent shall be evaporated. Condensate shall be recycled/reused within factory premises.

v. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

vi. Continuous online monitoring for flow and pollutants to be installed within the plan and data to be uploaded to company's website and provided to respective RO of MoEF&CC and SPCB.

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

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

38.7.3 Expansion of Synthetic Organic Chemicals Manufacturing Unit at Village Ukharal, Tehsil Ghogha, District Bhavnagar, Gujarat by M/s Medinex Specialty Chemicals Pvt. Ltd – reg. EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 30th meeting held during 22nd – 23rd December, 2014 and the Committee noted that PP has submitted the draft EIA-EMP report for two units together and with different products list. Therefore, the Committee was of the view to recast final EIA-EMP report for the proposed unit i.e. M/s Medinex Specialty Chemicals Pvt. Ltd. as per the procedural requirement.

PP vide letter dated nil (received in the Ministry on 11.02.2015) has submitted the final copy of EIA-EMP report.

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

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

ii. 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.

iii. Total fresh water requirement from GIDC water supply shall not exceed 4.95 m^3/day.

iv. Trade effluent shall be treated in the effluent treatment plant (ETP) having primary, secondary and tertiary treatment facility. Treated effluent shall be recycled/reused within factory premises.

v. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

vi. Continuous online monitoring for flow and pollutants to be installed within the plan and data to be uploaded to company's website and provided to respective RO of MoEF&CC and SPCB.

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

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

38.7.4 Expansion of synthetic drug API (656 TPA to 1268 TPA) and R&D products (o to 5 TPA) at Plot No. 89A/B, 90, 91 F10 & 80 village Pologround Industrial Estate, Tehsil and district Indore, Madhya Pradesh by M/s IPCA Laboratories Ltd. – reg EC.

The project proponent and their consultant (M/s J M Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 30th Meeting of the Expert Appraisal Committee (Industry) held during 15th–16th December, 2011 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'. However, applicability of general condition due to project location within CPA, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Ipca Laboratories Ltd. has proposed for the expansion of Synthetic Drug API (656 TPA to 1268 TPA) and R & D Products (0 to 5 TPA) at Plot No. 89A/B, 90, 91, Village Pologround Industrial Estate, Tehsil and District Indore, Madhya Pradesh. Khan River is approx. 0.7 Km in NE. Sirpur lake is located at 5.0 Km. Total plot area is 7626.73 m^2. Out of

which 930 m2 area earmarked for greenbelt development. Total project cost is Rs. 22.00 Crores. Rs. 7.5 Crore and Rs. 2.0 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. It is reported that no national park/wildlife sanctuary/ reserve forests are located within 10 km distance. Following products will be manufactured:

S.N.	Products	Existing Capacity (TPA)	Proposed Capacity (TPA)	Total Capacity (TPA)
1	Synthetic Drugs API	656	612	1268
2	R & D Products	--	5	5

List of Existing Products and Proposed Products as given below:

S.No	Products	Consented Capacity (Tonne)	Proposed Qty.(Tonne)
Existing Products			
1	4,7 Dichloro Quinoline	48.00	200.00
2	Amodiaquine Base/ Hcl	36.00	200.00
3	Chloroquine Phosphate	500.00	700.00
4	Chloroquine Sulphate	24.00	10.00
5	Probenecid	1.00	To be deleted in new consent
6	B.C.F.I. (2-butyl-4-chloro-5-formyllmidzone)	9.00	To be deleted in new consent
7	Chlorinated Compound (ACETAMIDO-5-CHLORO-3-METHOXY-BENZOIC ACID METHYL)	30.00	To be deleted in new consent
8	Dimethyl Compound	8.00	To be deleted in new consent
New Products			
9	Aceclofenac	-	30.00
10	Allopurniol	-	2.00
11	Celecoxib	-	5.00
12	Citrizine Di Hcl	-	5.00
13	Fluconazole	-	10.00
14	Glimipride	-	2.00
15	Hydroxy Chloroquine Sulphate	-	25.00
16	Metachlopramide Hcl	-	10.00
17	Nifidipine	-	10.00
18	Pipraquine Phosphate	-	15.00
19	Primaquine Phosphate	-	10.00
20	Triclabendazole	-	30.00
21	AVMSS (L-norvaline-n-[1-methyl -2-oxo-2 Phenylmethoxy) Ethyl] Ethyl Ester Malece Acid	-	2.00
22	Telmisartan	-	2.00
	TOTAL	656.00	1,268.00

LIST OF BY-PRODUCTS

S.No	Name of By- Products	QUANTITY	END USE
1	Diluted Solvate	100 MT/Year	Sale to authorized Recyclers
2	Diluted Caustic Lye	540 MT/Year	Sale to authorized Recyclers
3	Discarded Containers / Barrels / Liners / Glass Bottles	100 MT/Year	Authorized scrape dealer
4	Fly Ash	100 MT/Year	Brick Manufacturer
5	Bottom Ash From Boiler	1500 MT/Year	Brick Manufacturer

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during January to March, 2012 and submitted baseline data indicates that ranges of concentrations of PM_{10} (120.55 µg/m3 to 176.18 µg/m3), PM2.5(42.82 µg/m3 to 70.47 µg/m^3), SO_2 (6.13 µg/m3 to 13.67ug/m3) and NO_2 (18.02 µg/m^3 to 38.35 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.38 µg/m^3, 1.61 µg/m^3 and 2.09 µg/m^3 with respect to PM_{10}, SO2 and NOx. The resultant concentrations are within the NAAQS except PM10. Scrubber will be provided to control process emissions. Presently coal being used as a fuel for boiler and also has taken PNG connection for supply of natural gas. Bagfilter will be provided to the existing coal fired boiler. Water requirement will be increased from 82 m3/day to 340 m3/day after expansion. Out of which fresh water requirement from municipal water supply/hired water tanker supply and ground water source will be 220 m3/day and remaining water requirement (120 m3/day) will be met from recycled water/ treated effluent. Waste water generation will be increased from 38.5 m^3/day to 168 m^3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE). Low TDS effluent stream will be treated in ETP followed by reverse osmosis (RO). Sewage will be treated in the STP. 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. Catalyst, waste oil and used batteries will be sent to the Authorised recyclers.

The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.

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

i. Bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/KSPCB guidelines.

ii. The levels of PM10, SO2, NOx, VOC, CO and HCl shall be monitored in ambient air.

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

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

v. Total fresh water requirement from tanker supply/municipal supply/ground water source shall not exceed 220 m3/day and prior permission shall be obtained from the CGWA/SGWA.

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

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

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

ix. 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.

x. 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.

xi. Solvent management should be as follows :

xii. Reactor should be connected to chilled brine condenser system

xiii. Reactor and solvent handling pump should have mechanical seals to prevent leakages.

xiv. The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

xv. Solvents should be stored in a separate space specified with all safety measures.

xvi. Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.

xvii. Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

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

xix. 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.

38.7.5 Exploratory Drilling (6 Nos.) in the NELP Block CY-OSN-2009/2 in Cauvery Off-shore Sedimentary Basin, Off the Coast of Thoothukudi (Tuticorin), Tamil Nadu by M/s Oil India Ltd – reg. Environmental Clearance.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 30th meeting held during 22nd – 23rd December, 2014 and the Committee sought the following additional information:

(i) Recheck sea water quality in respect of oil and grease.
(ii) Clarification to be submitted regarding the location of drilling wells whether they are outside the notified eco sensitive zone of Gulf of Mannar National Park (GoMNP) and Gulf of Mannar Biosphere Reserve (GoMBR).

PP vide letter no. E&D-CEMG/Cauv offs/drlg/04/2015 dated 01.04.2015 has submitted the above mentioned addl. information. Oil and grease was found in the range of 14 ppm to 18.66 ppm. Minimum distance of Drilling locations is 21 km from Gulf of Mannar National Park and 8 Km from Gulf of Mannat Biosphere Reserves.

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

i. Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur clean diesel shall be used. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

ii. Gas produced during testing shall be flared with appropriate flaring booms.

iii. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.

iv. Total water requirement shall not exceed 30 m^3/day/well and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.

v. Water based drilling mud shall be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30th August, 2005.

vi. The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall undertake conservation measures to protect the marine animals/biota in the region. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.

vii. Treated wastewater (produced water or formation water) shall comply with the marine disposal standards notified under the Environment (Protection) Act, 1986. Sewage treatment on board of the rig as per MARPOL regulation. Residual chlorine shall not exceed 1 mg/l before disposal.

viii. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.

ix. All the guidelines shall be followed for the disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30th August, 2005. Different types of wastes shall be kept segregated.

x. High efficiency equipment shall be used to separate solids, hydrocarbons and water such as shale shakers with improved capacity to filter smaller solids, low shear pumps for use in produced water shall be employed.

xi. Good book keeping practices shall be put in place to manage wastes such as waste tracking program i.e. identify where and when the waste generated, the type of waste and its volume, the disposal method and its location, and the personnel responsible for the waste management.

xii. A waste minimization plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimized equipment maintenance schedules.

xiii. Only essential rig personnel shall be on board the rig. Emergency Response Plan and health, safety and environment (HSE) system shall be installed. Geo- hazard and geotechnical studies shall be carried out to ensure safe drilling operations.

xiv. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MoEF/CPCB authorized recyclers/re-processors only.

xv. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick within 500 meters shall be provided.

xvi. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.

xvii. The International 'Good Practices' adopted by the Petroleum Industry following International norms to safeguard the coastal and marine biodiversity shall be implemented by the company.

xviii. The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MoEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.

xix. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.

xx. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.

xxi. Full drawings and details of Blow Out Preventorto encounter well kick due to high formation presence, if encountered, shall be submitted to the Ministry within 3 months of the issue of environment clearance.

xxii. On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well. The position at the end of the activities shall be communicated in detail to the Ministry indicating the steps taken i.e. whether all the wells are plugged or abandoned and necessary precautions taken.

xxiii. A brief report on environmental status & safety related information generated and measures taken as well as frequency of such reporting to the higher Authority shall be submitted to this Ministry and its respective Regional Office at Bhubaneshwar.

xxiv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD should be strictly adhered to.

xxv. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.

xxvi. Adequate funds both recurring and non-recurring shall be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.

xxvii. An independent audit shall be done to ensure that the Environment Management Plan is in place in totality.

38.7.6 Residue Upgradation and Distillate Yield Improvement project with 11 MMTPA Crude Processing of Mathura Refinery of M/s Indian Oil Corp. Ltd., Mathura, U.P – reg EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 24th meeting held during 29th September, 2014 – 31st September, 2014 and the Committee sought the following additional information:

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

PP vide letter no. MR/HSE/EC/02 dated 20th March, 2015 has submitted the addl. information.

The Committee found that monitored methane and non-methane data is inadequate. After deliberations, the Committee desired following additional information:

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

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

38.8 Terms of Reference (TOR)

38.8.1 Expansion of Molasses based Distillery from 30KLPF to 55 LPD alongwith 1 MW Co-Gen Power Plant at unit Rosa, Tehsil Sadar, District Shahjhanpur, Uttar Pradesh by M/s United Spirits Limited. – TOR reg.

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

M/s United Spirits Limited has proposed for expansion of Molasses based Distillery from 30KLPF to 55 LPD alongwith 1 MW Co-Gen Power Plant at unit Rosa, Tehsil Sadar, District Shahjhanpur, Uttar Pradesh. Total plot area is 33.8 acres. Expansion will be carried out within the existing area. Greenbelt will be developed in 11.2 acres. It is reported that no national parks/wildlife sanctuaries / biosphere reserves are located within 10 km distance. Khanaut River (0.4 Km), Garra River (0.7 Km), Bhaksi Nala (6.0 Km) and Garai Nala (7.5 Km) are flowing within 10 km distance. Cost of project is Rs. 48.66 Crore. Rs. 10.00 Crore and Ra. 1.0 Crore /annum are earmarked towards capital cost and recurring cost per annum for implementation environmental management plan. ESP alongwith stack of adequate height will be provided to rice husk/concentrated spent wash Fresh water requirement from ground water source will be 771 m^3/day. Spent wash will be treated through bio-methanation process followed by concentration in MEE. Concentrated spent wash will be incinerated in the boiler. No effluent will be discharged outside the plant premises. Fly ash will be sent to brick manufacturers. PP has submitted the revocation letter issued by CPCB vide letter dated 6th January, 2014 subject to installation of MEE, dryer and incineration boiler.

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

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

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

B. Additional TOR

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

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

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

38.8.2 Expansion of Chemical Fertilizer Manufacturing Unit of Sulphate of Potash (SOP) from 100000 MTA to 400000 MTA, Bromine from 12500 MTA to 80000 MTA, Co-Generation Power Plant (CPP) from 10 MW to 45 MW, production of Bromine derivatives and recovery of Industrial chemicals from waste streams at Greater Rann of Kachchh, Near Hajipir village, Tehsil Bhuj, District Kachchh, Gujarat by M/s Archean Chemical industries Pvt. Ltd. Reg TOR.

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA-EMP report. All the Fertilizer Plant are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

M/s Archean Chemical industries Pvt. Ltd. has proposed for expansion of Chemical Fertilizer Manufacturing Unit of Sulphate of Potash (SOP) from 100000 MTA to 400000

MTA, Bromine from 12500 MTA to 80000 MTA, Co-Generation Power Plant (CPP) from 10 MW to 45 MW, production of Bromine derivatives and recovery of Industrial chemicals from waste streams at Greater Rann of Kachchh, Near Hajipir village, Tehsil Bhuj, District Kachchh, Gujarat. A total investment of approx. Rs. 1,400 crores will be made for the proposed expansion project. Forest land is not involved. It is reported that no eco-sensitive or protected area is located within 10 km distance. Total plot area is 50 ha. Following products will be manufactured:

S. No	Name	Capacity (MTPA)		
		Existing	Proposed	Total
Products				
1	Sulphate of Potash (SOP)	1,00,000	3,00,000	**4,00,000**
2	Bromine (Br_2)	12,500	67,500	**80,000**
3	Green Bromine	2,500	0	**2,500**
4	Epsomite ($MgSO_4.7H_2O$)	81,000	1,62,000	**2,43,000**
5	Magnesium Oxide (MgO)	0	2,00,000	**2,00,000**
6	Tetra BromoBisphenol -A(TBBA)	0	10,000	**10,000**
7	Bis-di-BromoPropyle Ether (BDDP)	0	5,000	**5,000**
8	DecaBromoDiphenyl Ether (DBDE)	0	4,000	**4,000**
9	HexaBromo Benzene (HBB)	0	1,000	**1,000**
10	Hydro Bromic Acid- 48%(HBR)	0	5,000	**5,000**
11	Magnesium Chloride-46 % ($MgCl_2$)	0	6,00,000	**6,00,000**
12	Magnesium Sulphate-98 % ($MgSO_4$)	0	6,00,000	**6,00,000**
Co-Generation Power Plant				
	CO-GEN	10 MW	35 MW	**45 MW**

Adequate stack height and proper pollution control equipment like ESP will be provided for flue gas stacks. Bromine escape during bottling activity would be the probable source of emission for which adequate caustic scrubbing system will be provided. The total sea water requirement is approximately 55,000 KLD (Existing: 15,000 KLD + Proposed: 40,000 KLD). Power requirement of 45MW (Existing: 10 MW + Proposed: 35 MW) will be sourced from own Co-Generation Power Plants. Existing Two DG Sets shall be used for emergency backup supply. Fuel will be sourced from local depot/suppliers. Waste water stream from SOP will be sent to solar ponds for further recovery. Waste water from bromine plant shall be treated in proposed ETP and treated waste water shall be used for production of magnesium chemicals and bromine derivatives from available liquid bromine. Sewage will be treated in proposed STP of 200 KLD capacity. ETP sludge after natural drying at sludge pond will be utilized for strengthening of bunds and roads. Ash from incineration of hazardous waste shall be suitably disposed off. Fly Ash from coal fired boiler will be sent to brick manufacturing units. Inorganic solid waste will be send to authorized vendors/recyclers. Kitchen waste will be used for biogas generation. STP sludge will be utilized as manure in green belt development.

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

1. Details on requirement of energy and water alongwith its source and authorization from the concerned department.

2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.

3. Details of Bromine storage and risk assessment thereof.

4. Measures for reduction of fresh water requirement.

5. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.

6. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst etc.

7. Details on existing ambient air quality for PM10, PM2.5, SO2*, NOx*, CO, Br_2, Hydrocarbon (Methane and Non-Methane) etc., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*as applicable)

B. Additional TOR

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

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

3. Site visit is recommended with the issue of TOR.

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. Site visit is proposed by the Committee to oversee the existing facility.

38.8.3 Expansion of Multi-Purpose Plant/ Fluorospeciality Plant (3000 TPA to 6000 TPA); Installation of New Generation Refrigerants & Refrigerant Blends Plant (90,000 TPA) and Change in Product Mix of Chloromethanes and HC134a at Village & P.O. Jhiwana, Tehsil - Tijara, District - Alwar (Rajasthan) by M/s. SRF Limited.- reg TOR

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

M/s. SRF Limited has proposed for Expansion of Multi-Purpose Plant/ Fluorospeciality Plant (3000 TPA to 6000 TPA); Installation of New Generation Refrigerants & Refrigerant Blends Plant (90,000 TPA) and Change in Product Mix of Chloromethanes and HC134a at Village & P.O. Jhiwana, Tehsil - Tijara, District - Alwar (Rajasthan). Total plot area is 24 ha. out of which greenbelt will be developed in 12.24 ha. No additional land is required for the proposed expansion project, as the same will be done within the existing plant premises. It is reported that no national park, wildlife sanctuary, biosphere reserve, Tiger/Elephant reserve, wildlife corridors within 10 km distance. Rangala and Idaur RF are located within 10 km distance. Sahibi River (9.0 Km), Idori Lake (9 Km) and Idori Nala (8.5 Km) area located within 10 km distance. Cost of project is Rs. 20 Crore. Rs. 2 Crore and Rs. 0.5 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation environmental management plan. Following products will be manufactured:

SRF Limited is now proposing expansion of Multi-Purpose Plant / Fluorospeciality Plant (3000 TPA to 6000 TPA); Installation of New Generation Refrigerants & Refrigerant Blends Plant (90,000 TPA) and Change in Product Mix of Chloromethanes and HFC 134a.

Unit	Existing Capacity (TPA)	Proposed Expansion Capacity (TPA)	Total Capacity after Expansion (TPA)
Multi-Purpose Plant/ Fluoro speciality Plant	3000	3000	6000
New Generation Refrigerants & Refrigerant Blends*	Nil	90,000	90,000
Chloromethane Plant	50,000 (Product range Methylene Chloride, Chloroform, Carbon tetra chloride)	Nil (Extraction of intermediate Methyl chloride as a product)	50,000 (Product range Methyl chloride, Methylene chloride, Chloroform, Carbon tetra chloride)
HFC134a Plant	12000 (Product range HFC134a)	Nil (Swing over plant for HFC32)	12000 (Product range HFC 134a & HFC 32)

Total water requirement from ground water source/recycled water will be increased from 2300 m^3/day to 2600 m^3/day after expansion. Effluent will be treated in the ETP. Spent oil will be sent to authorized recycler/re-processors. Sludge containing CAF_2 will be recycled.

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

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

B. Additional TOR

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

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

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

38.8.4 Expansion of Nylon chip from 750 to 3750 tons/month by M/s Gujarat Polyfilms Pvt. Ltd. – reg TOR

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

38.8.5 Proposed 8 no of exploratory drilling in ML areas of Sivasagar, Assam by M/s ONGC - reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

The proposal is for 8 onshore exploratory drilling locations for hydrocarbons of M/s. ONGC in ML areas of Sivasagar District of Assam. All the proposed drilling locations are situated in revenue land and are neither located in forest land nor within 10 km distance of any Protected Areas. Cost of the project is approx.. Rs. 320 crore. The names of the proposed eight wells, are GKBS in SE Geleki ML,GKBT in Geleki ML, MKAD&NGAB in Makeypore-Santak-Nazira ML, DGAJ &LKBB Lakwa ML, CHAQ &CHAR in Charali ML areas of ONGC in Sivasagar district of Assam. ONGC has drilled hundreds of well in the district and is producing hydocarbons for decades. The tentative target depth of the wells will be from 3000-3300 m. Forest land is involved in the project.

The estimated land required per drill site is approximately 2.25 ha and will be taken on temporary lease. The power requirement of the drilling rig will be met by using 3 Nos. of DG Sets of capacity 750 KW, each. Air emissions from D.G. sets will be dispersed by providing adequate stack height of around 5.5 m and will be equipped with acoustic enclosure to attenuate noise. Fresh water requirement from surface or ground water at the rate of 20-25 m3/day will be sourced. Effluent will be treated in effluent treatment plant (ETP) comprising equalization, chemical coagulation, flocculation and clarification by settling and residual unusable mud will be collected in HDPE lined pits and solar evaporated. Drill cuttings (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud which is non toxic and non hazardous will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers. The abandoned drill sites will be restored back to its near original condition.

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

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. 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, if applicable.

7. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).

8. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.

9. Does proposal involve rehabilitation and resettlement? If yes, details thereof.

10. 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.

11. 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.

12. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.

13. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM10, SO2, NOx, CO, VOCs, Methane and non-methane HC.

14. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.

15. Ground and surface water quality in the vicinity of the proposed wells site.

16. Measurement of Noise levels within 1 km radius of the proposed wells.

17. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.

18. Incremental GLC as a result of DG set operation, flaring etc.

19. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.

20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority.

21. Detailed water balance, wastewater generation and discharge.
22. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
23. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, etc. during all project phases.
24. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio activematerials, other hazardous materials, etc. including its disposal options during all project phases.
25. Disposal of spent oil and lube.
26. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
27. Commitment for the use of water based mud (WBM) only
28. Oil spill emergency plans for recovery/ reclamation.
29. H2S emissions control.
30. Produced oil/gas handling, processing and storage/transportation.
31. Details of control of air, water and noise pollution during production phase.
32. Measures to protect ground water and shallow aquifers from contamination.
33. Whether any burn pits being utilised for well test operations.
34. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.
35. Environmental management plan.
36. Total capital and recurring cost for environmental control measures.
37. Emergency preparedness plan.
38. Decommissioning and restoration plans.
39. Documentary proof of membership of common disposal facilities, if any.
40. 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.

41. 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.

42. 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.

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.

38.8.6 Proposed LPG Pipeline from Kochi Refinery to Coimbatore at District Ernalkulam, Kerala by M/s BPCL reg amendment of TOR.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 24th meeting held during 29th – 31st September, 2014 and the Committee suggested them to conduct public hearing for Coimbatore District in Tamil Nadu. Now, PP informed that they have approached Tamil Nadu Pollution Control Board for expediting the public hearing. However, they were given to understand that unless they get a formal direction from Tamil Nadu Government about laying of cross country pipelines, which is a policy matter of the Government, they will not in a position to allot public hearing date. Since they were uncertain about when the issue will be cleared by Tamil Nadu Government. BPCL have started looking for alternate land close to Kerala/ Tamil Nadu Border and was able to locate one in the Industrial Estate at Kanchikode, Palakkad, Kerala so as to meet its urgent requirement of evacuation of additional LPG post KR expansion which is progressing on schedule. Now, they have requested for reconsideration of EC proposal delinking Tamil Nadu portion. Tamil Nadu portion of the line will be taken up as an amendment as and when we receive clearance from the Government about the routing of the pipeline.

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

i. Prior clearance under the Wildlife (Protection) Act, 1972, shall be obtained from the Standing Committee of the National Board for Wildlife as the pipeline project passes through Eco-sensitive Zone of Peech-Vazhani Wildlife Sanctuary.

ii. Forest clearance for the forest land involved in the pipeline project shall be obtained.

iii. The project authority i.e. M/s BPCL shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.

iv. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.

v. Annual safety audit shall be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.

vi. The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and / dykes shall be restored adequately after installation of crossings.

vii. Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.

viii. The company shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.

ix. The project authorities shall install SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.

x. The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.

xi. All the recommendations mentioned in the risk assessment report shall be implemented.

xii. All the issues raised during the public hearing/consultation meetings held on 18.04.2014 for Thrissur district, 21.05.2014 for Palakkad district, 22.05.2014 for Kakkanad Koch district shall be satisfactorily implemented.

xiii. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.

xiv. The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.

xv. The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.

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

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

xviii. 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.

xix. At least 1 % 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 Chennai. Ms/ BPCL shall utilized the earmarked funds for implementation of sanitation program under Swach Bharat Abhiyan. Implementation of such program should be ensured accordingly in a time bound manner.

38.8.7 Molasses based Distillery (30 KLPD), Expansion of Sugar Unit (2500 TCD to 3500 TCD) and Co-generation Power Plant (18 MW) at Village & Tehsil:Walwa, District: Sangli, Maharashtra by M/s Padmabushan Krantiveer Dr Nagnathanna Nayakawadi Hutatma Kisanahir Sahakari Sakhar Karkhana Ltd- -reg TOR

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

M/s Padmabushan Krantiveer Dr Nagnathanna Nayakawadi Hutatma Kisanahir Sahakari Sakhar Karkhana Ltd has proposed for expansion of Molasses based Distillery (30 KLPD), expansion of Sugar Unit (2500 TCD to 3500 TCD) and Co-generation Power Plant (18 MW) at Village & Tehsil:Walwa, District: Sangli, Maharashtra. Total plot area is 26.0 acres. Environmental clearance was granted vide letter MoEF& CC letter no J-11011/661/2007 IA II (I) dated 17th September, 2007for establishment of molasses based distillery (30 KLPD) expansion of Sugar Unit (2500 TCD to 3500 TCD) and Co-generation Power Plant (18 MW). But EC was expired and further extension was not issued. Public hearing was conducted on 13.02.2007. Krishna River is flowing at a distance of 2.4 Km. Plot area is 26 ha. An additional area of 5.10 ha for composting is available at a distance of 3 Km. Cost of project is Rs. 44 Crore. Fresh water requirement is 600 m3/day. Spent wash will be treated in bio-methanation followed by MEE and Composting. No effluent will be discharged outside the plant premises. Fly ash will be sent to brick manufacturers.

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

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 Environmental monitoring shall be carried out for one month .

II Public hearing is exempted as per para 7 (ii) of EIA Notification, 2006 as public hearing was conducted earlier.

It was recommended that **'TORs'** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Public hearing is exempted as per para 7 (ii) of EIA Notification, 2006 as public hearing was conducted on 13.02.2007.

38.9 Any other

38.9.1 Setting up of POL Terminal for storage and marketing of Petroleum products at Khunti, Ranchi, Jharkhand by IOCL Ltd. – reg amendment (reduction in Greenbelt) – amendment in EC.

MoEF&CC vide letter no. J-11011/289/2011-IA II (I) dated 29th November, 2012 has issued environmental clearance to M/s IOCL for the above mentioned project with following specific condition:

i. Green belt shall be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.

Now, PP vide letter dated 23.02.2015 has informed that total area of the project is only approx. 27.99 acres. Only 18.75 acres would be left if 33% area is earmarked for green belt which will be not be suitable to maintain inter-distances among the facilities as per OISD STD 118. Since the project is being built up on Govt. Of Jharkhand's land, there is no adjoining Govt. Owned land where IOCL could develop green belt of 33% of project area. Purchase of private land from a tribal belt with the implication of Rehabilitation & Resettlement Policy would be a difficult and time consuming process and the overall cost of the project would go up considerably.

Khunti Terminal once commissioned will cater POL supplies to a large area of Jharkhand, particularly the districts around Ranchi and Jamshedpur and would contribute towards industrial development of that area. Proposed Khunti Terminal is to be built up with all modern state of the art facilities with automated tank farm system with storage of volatile hydrocarbon e.g. Motor Spirit in Internal Floating Roof tanks to minimize emission to the environment, bottom loading facilities for Tank Truck Loading with vapour recovery system, fully automated fire fighting system and modern PCB approved DG sets. Proposed green belt area is 2.83 acres.

After detailed deliberation, the Committee recommended the following amendment:

i) Green belt shall be developed in 2.83 acres of land to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured. Full greenbelt upto 33 % of plot area to be ensured as and when land additional land is acquired.

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

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

38.9.3 Exploratory Drilling (24 Wells) Additional in Onshore PEL Block L – II of Cauvery Basin, District Nagapattinam, Tamil Nadu by M/s Oil and Natural Gas Corporation- - amendment in EC.

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 as per Draft Terms of References (TORs) awarded during the 22nd Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 28th – 29th August, 2014 for preparation of EIA/EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

MoEF vide letter no J-11011/2/2011 IA II (I) dated 21st August, 2013 has issued environment clearance for exploratory drilling (24 additional Wells) on onshore PEL Block L-II of Cauvery Basin, District Nagapattinam, Tamil Nadu. Now, PP vide letter dated 9th April, 2015 has requested for amendment in the existing EC for additional exploratory drilling. The Block is located in Tiruvaur, Nagapattinam, Pudukottai and Thanjavur Districts of Tamil Nadu. The total area of the block is 1545.02 Sq. Km. Eleven (11) proposed exploratory wells fall in Tiruvarur District, Nine (9) of proposed wells fall in Thanjavur District and 3 of proposed wells fall in Nagapattinam District. Following wells will be drilled:

Sl.No	No. Of Well S	Location Name	Target Depth In M	District
1	11	NL-5,NL-6,NL-7,NL-8,	1750-6000 /	Tiruvarur

		NL-9,NL-10,NL-11, NL-15, NL-16,NL-17,NL-18	Basement	
2	9	NL-1,NL-2,NL-3,NL-4, NL-19, NL-20,NL-21,NL-22, NL-23		Thanjavur
3	3	NL-12,NL-13,NL-14		Nagapattinam

It is reported that no wild life sanctuary, National park or eco sensitive area exists in the proposed exploratory area of the block. No forest land is exisitng in the block. ONGC proposes drilling of 23 exloratory wells with target depths around 1750 - 6000 m. Cost of project is INR 460 Crores for 23 New Additional Wells. About ~25 m^3/day of water will be required for drilling operation of a single well. Water for drilling operation will be sourced through tankers. The water requirement for domestic and wash use is very less 4 kld. Three DG sets of 1250 KVA each (One Stand by) will be used during drilling operation. Consumption of fuel (HSD) during drilling operations will be 3-6 kl/day. Non hazardous waste of Drill cuttings of a around ~225 m^3/ well will be generated. Used Oil – 100 lit/well. Use of water based mud system has been planned. The mud will be re-cycled and reused to maximum extent. Drill Cuttings (DC) will be tested for presence of oil & grease by an approved laboratory under the EP Act. Drill cuttings generated in the drilling process are naturally occurring earth materials comprising of chips of sandstone, shale, sand and lumps of clay. Drill cuttings, thoroughly washed and separated from WBM , and shall be collected in a HDPE lined pit and shall be treated as per GSR 546(E) for disposal. Used oil will be collected and sent to central stores for disposal to TNPCB authorized waste oil recyclers. ONGC has conducted the following Public Hearing for development wells covering following districts:

i. Thanjavur (PH Conducted 10.07.2014)
ii. Nagapattinam (PH conducted 20.06.2014)
iii. Tiruvarur, (PH conducted 27.06.2014)

After detailed deliberation, the Committee recommended the said amendment in the existing EC by drilling additional 24 wells.

Additional Items

38.9.4 Drilling of 9 Exploratory Wells in Kutch Offshore NELP-IX Block GK-OSN-2010/1, GK-OSN- 2010/2 in West Coast of India by M/s ONGC Ltd.–Amendment in Environmental Clearance reg.

MoEF&CC vide letter no J-11011/106/2013 IA II (I) dated 22nd January, 2015 has granted environmental clearance to M/s ONGC for drilling of 9 exploratory drilling in Kutch Offshore NELP IX Block GK-OSN-2010/1.

Now, PP vide letter no ONGC/CHSE/TOR-EC/2014-15 dated 31st March, 2015 has requested for amendment in EC for additional Drilling of Exploratory Well (09 Wells) in Kutch Offshore, GK-OSN-2010/1 & GK-OSN-2010/2 in West Coast of India.

ONGC propose to drill nine exploratory wells in each block. The target depths and other details of the immediate six location details of each block are as follows:

Block: GK-OSN-2010/1

Prospects to be Drilled	Target Depth (m)	Water Depth (m)	Estimated Expenditure(Crores)	Distance From coast (Km).
A	2700	28	52.70	65
B	2700	23	52.70	60
C	3000	21	58.65	52
D	3000	20	58.65	36
E	3500	25	68.45	42
F	3500	24	68.45	56

Block: GK-OSN-2010/2

Prospects to be Drilled	Target Depth (m)	Water Depth (m)	Estimated Expenditure(Crores)	Distance From coast (Km).
A	2700	62	52.70	80
B	2700	60	52.70	70
C	3000	42	58.65	56
D	3000	55	58.65	68
E	3500	50	68.45	75
F	3500	62	68.45	100

Based on the outcome of initial exploration phase, subsequent exploration locations will be firmed up.

After detailed deliberation, the Committee recommended the proposal for amendment of additional 9 wells.

38.9.5 Expansion of grain/molasses based Distillery (from 120 KLPD to 140 KLPD) at Plot No. D 192-195, Five Star Industrial Area (MIDC), Shendra, Tehsil and District Aurangabad, Maharashtra by M/s Radico NV Distilleries Maharashtra Ltd.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 36th meeting held during 16th-17th March, 2015 and the Committee recommended for EC with following conditions:

(i) Operation period of Molasses based distillery shall not exceed 270 days and operation period of grain based shall not be operated for 330 days. Maximum capacity of distillery shall not exceed 140 KLPD.

PP vide letter dated 20.04.2015 has requested for the following corrections:

(i) No. of Operating days for distillery to be considered for 330 days annually considering covered bio-composting.
(ii) Spent wash volume will be reduced after evaporation to less than 2 KL/KL
(iii) Spent wash lagoon capacity for 30 days.

After detailed deliberation, the Committee recommended the said corrections with following additional specific conditions:

i. Operation period of Molasses/grain based shall not exceed 330 days. Maximum capacity of distillery shall not exceed 140 KLPD.
ii. Spent wash volume shall be reduced after evaporation to less than 2 KL/KL
iii. Covered bio-composting shall be implemented.
iv. 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.

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Annexure-I

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

1. Executive Summary

2. Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the project proponent
iii. Importance and benefits of the project

3. Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. List of raw materials required and their source along with mode of transportation.
v. Other chemicals and materials required with quantities and storage capacities
vi. Details of Emission, effluents, hazardous waste generation and their management.
vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
viii. Process description along with major equipments and machineries, process flow sheet (quantities) from raw material to products to be provided
ix. Hazard identification and details of proposed safety systems.
x. Expansion/modernization proposals:
    a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 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 *I*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. <u>Forest and wildlife related issues (if applicable):</u>

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.

ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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