

**MINUTES FOR 6th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD
DURING 30th March to 2nd April 2016**

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

Time : Meeting held at 10: 00 AM

5.1 Opening remarks by the Chairman

Time : 10: 00 - 10: 15 AM

5.2 Confirmation of the Minutes of the 5th Expert Appraisal Committee (Industry-2) held during 25th-26th February, 2016.

30th March, 2016 (Day 1)

1st Session: Time: 10.15 AM

6.3 Environmental Clearance

6.3.1 Exploratory/Appraisal Drilling in KG-OSN-2009/3 Block in Offshore KG Basin, Prakasam & Guntur Districts, Andhra Pradesh by M/s Cairn India Limited- reg. EC

PP submitted the above proposal through online. During presentation, the Committee noted that proposal also involved CRZ clearance and recommendations SCZMA have not yet been submitted. As per CRZ Notification, 2011, projects which are listed under CRZ notification and also attract EIA Notification, 2006, recommendation of the concerned State or UT, Coastal Zone management Authority is required at the time of appraisal.

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

6.3.2 Molasses based distillery (60 KLPD) alongwith Co-generation power plant (3 MW) at Tehsil Shahbad, District Kurukshetra, Haryana by M/s Shahabad Cooperative Sugar Mill Ltd.- reg. EC

The project proponent and their consultant (Vardan 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 32nd Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 20th -21st January, 2015 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 Shahabad Cooperative Sugar Mill Ltd. has proposed for setting up of molasses based distillery unit (60 KLD) alongwith captive power plant (3.0 MW) at Village -Jandheri, Tehsil-Shahabad, Dist. Kurukshetra, Haryana. Total land required for the proposed project is 84326.4 m². Out of which 33% will be used for green belt development. Cost of project is Rs. 61.7 Crore. Out of which, Rs. 8.15 Crore has been earmarked as capital cost for

implementation of EMP. The distillery will be operated for 330 days. It is reported that there is no eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 Km radius of project area.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during 1stOctober 2014 to 31stJanuary, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (41.4 µg/m³ and 69.2 µg/m³), PM_{2.5} (25.0 µg/m³ to 40.1 µg/m³), SO₂ (14.7 µg/m³ to 25.0 µg/m³) and NO_x (15.0 µg/m³ to 28.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 22.539µg/m³, 6.488 µg/m³ and 4.123 µg/m³ with respect to SO₂, NO_x and PM₁₀ respectively. The resultant concentrations are within the NAAQS. ESP will be provided to bagasse fired boiler (20 TPH) to control particulate emissions.

Fresh water requirement from ground water source will be 600 m³/day. Spent wash generation will be 480 m³/day. Spent wash will be concentrated in MEE (Multiple Effect Evaporator) then the semisolid waste from MEE will be sent in specially designed boiler for incineration. Condensate will be treated in condensate polishing unit and treated effluent will be used as make-up water in cooling tower. No effluent will be discharge outside the plant premises. The Bagasse will be used as fuel in the boiler to produce steam for operation of plant and 3 MW power plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Haryana State Pollution Control Board on 19th May 2015. The issues were raised regarding Air pollution control measures, Ash handling, wastewater generation, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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 fired boiler to control particulate emissions within 50 mg/Nm³.
- 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 ground water will be 600 m³/day for distillery (Molasses) as well as CPP. 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 KI/KI of alcohol. The spent wash from molasses based distillery will be evaporated in MEE and concentrated spent wash will be incinerated in the incineration boiler to achieve 'Zero' discharge. Effluent from 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. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- vii. 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.
- viii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- ix. 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.
- x. 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.
- xi. 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.
- xii. All the issues raised during the public hearing/consultation meeting held on 19th May, 2015 should be satisfactorily implemented.
- xiii. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv. 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 Chandigarh. Implementation of such program should be ensured accordingly in a time bound manner.

6.3.3 Expansion of Chemicals & Bulk Drugs Manufacturing Unit at Village Vapi, District Valsad, Gujarat by M/s Paras Intermediates Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s Eco Chem Sales & Service, Surat) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 4th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 8th – 9th January, 2013 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within interstate boundary and involvement of CPA, the proposal is treated as category 'A' and appraised at Central Level.

M/s Paras Intermediates Pvt. Limited has proposed for expansion of Fine Chemicals & API Bulk Drugs manufacturing unit at Plot No. A2/4 & 5, Industrial Estate, GIDC Vapi, Taluka Pardi District Valsad, Gujarat. Plot area of the project site is 4,686 m² out of which area earmarked for greenbelt is 800 m². The cost of proposed expansion will be Rs. 4.5 Crore. Daman Ganga River is flowing at a distance of 3 km. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S.N.	Product (Product Group)	Existing Consent (MTPM)	Proposed Addition (MTPM)	Total after Expansion (MTPM)
A	Glycine (Amino Acetic Acid)	60.0	200.0	260.0
	Total	60.0	200.0	260.0
B	Inorganic Thiocyanate Salts			
1	Ammonium Thiocyanate	35.0	0	46.0
2	Sodium Thiocyanate	5.0	0	
3	Potassium Thiocyanate	6.0	0	
	Total –Thiocyanate Salt	46.0	0	
C	Amino Acid Salts & Chelates			
1	Sodium Hydroxy Methyl Glycinate	30.0	30.0	60.0
2	Ferrous Glycine Sulphate	0		
3	Zinc/Calcium /Copper /Magnesium Glycinate	0		
4	Sodium Glycinate	0		
5	Glycine Mono Sodium/ Disodium Carbonate	0		
	Total	30.0	30.0	60.0
D	Amino Acid Derivatives			
1	Hippuric Acid (N Benzoyl glycine)19.8	1.2	19.8	30.0
2	N Acetyl Glycine	6.0		
3	Glycine Hydrochloride	3.0		
4	Valine (Methyl/Ethyl)Ester Hydrochloride	0		
5	Valine Hydrochloride	0		
6	Glycine Methyl/Ethyl Ester Hydrochloride	0		
	Total	10.2	19.8	30.0
	Rubber chemicals & Accelerators		10.0	20.0
1	Ethylene Thiourea	2.0	10.0	20.0
2	2 Mercapto Benzimidazole	5.0		
3	Di Penta Methylene Thiurum Tetrasulphide	3.0		
4	Mercapto Methoxy Benzimidazole	0		
5	Di Phenyl Thio Urea	0		

	Total Rubber Chemicals & Accelerators	10.0	10.0	20.0
F	Cyclohexyl Urea	12.0	0	12.0
	Total	12.0	0	12.0
G	Mono chloro Acetic Acid	70.0	-70.0	0
	Total	70.0	-70.0	0
	Total (Over all)	238.2	189.8	428.0
H	By Products			
1	Ammonium Chloride	42.0	185.8	227.8
2	Sodium hydro Sulphide or Ammonium Hydrogen sulphide	87.0	46.46	133.46
3	Hydrochloride Acid	95.0	-95.0	0
4	Spent Acetic acid or Acetic acid salts	12.0	0	12.0
5	Liquor Ammonia	19.0	42.3	61.3
	Total	255.0	179.56	434.56

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2014 –February, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (86.2 µg/m³ to 98.6 µg/m³), PM_{2.5} (39.9 µg/m³ to 58.1 µg/m³), SO₂ (27.8 µg/m³ to 36.2 µg/m³) and NO_x (36.6 µg/m³ to 47.7 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.02863 µg/m³, 0.01145 µg/m³, 0.00328 µg/m³ and 0.00655 µg/m³ with respect to SO₂, NO_x, NH₃ and H₂S. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

At present, the unit is having two number of steam boiler 1000 kgs/hr each and after proposed expansion steam boiler number will be 2x 3000 kgs/hr each. Stack of adequate height (11 m) has been provided to the existing gas fired steam boiler (I & II) and thermic fluid heater. Adequate scrubbing system will be provided to process vents to control process emissions viz. NH₃ & H₂S. . Total power requirement will be 650 KVA from DGVCL and 300 KVA from DG set based on HSD. Total water requirement from GIDC water supply will be increased from 75.1 m³/day to 137.5 m³/day after expansion. Effluent generation will be increased from 31.9 m³/day to 58 m³/day after expansion. Effluent will be treated in ETP. Total 23.5 m³ /day of industrial effluent will be treated in existing primary, secondary followed by tertiary effluent treatment plant and after treatment treated effluent shall be sent to CETP, Vapi. Distillation residue from the process will be increased from 36 MT/Year to 385.32 MT/Year after expansion and same will be sold to Cement Industries for co processing or CHWIF of M/S SEPPL Kutch for incineration

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

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

- i) Adequate stack height shall be provided to additional gas fired boiler.
- ii) Scrubber should 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.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by GPCB.

- iv) The water consumption from GIDC water supply shall not exceed 138 m³/day.
- v) Total effluent generation shall not exceed 58 m³/day. Out of which, high TDS effluent stream will be treated through Reverse Osmosis. RO permeate will be recycled/reused in the process. Remaining effluent will be treated in ETP and treated effluent will be sent to CETP inlet through GIDC underground drainage. No process effluent shall be discharged in and around the project site. Suitable treatment to be given for ammonical nitrogen in the effluent.
- vi) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
- vii) 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) 10m width thick Green belt should be developed in and around the plant premises.
- ix) The project proponent shall ensure replacement of incandescent bulbs and CFLs with LEDs for all general lighting on plant/facility premises.

6.3.4 Setting up of pesticides industry and pesticide specific intermediates at Plot no. G-154,155,156,157,164,165,166,167, RIICO Industrial area, Village Sanwad, Tehsil Mavli, District Udaipur, Rajasthan by M/s Rotam Crop Protection Pvt. 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 36th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 16th 17th March, 2015 for preparation of EIA-EMP report. All technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Rotam Crop Protection Pvt. Ltd. has proposed for setting up of pesticides manufacturing unit at Plot No. G-154, 155, 156, 157, 164, 165, 166, 167, RIICO Industrial area, Village Sanwad, Tehsil Mavli, District Udaipur, Rajasthan (India). Total plot area is 8560 m². Out of which, area earmarked for greenbelt is 2825 m². There are no critically/severely polluted area(s) and Eco-sensitive areas within 10km radius of the project site by aerial distance from the project. Following products will be manufactured:

S. No.	Name of Products	Quantity (MT/Month)	Quantity (MT/Annum)
A	Plant-1		
1	Fenpropimorph	28	300
2	Lambda Cyhalothrin	28	300
3	Tebuconazole	28	300

4	Thiamethoxam	28	300
5	Thiodicarb	14	150
6	Imidacloprid	28	300
7	Dicamba	28	300
8	Boscalid	22.4	240
9	Mesotrione	22.4	240
10	Oxamyl	22.4	240
11	Pyraclostrobin	22.4	240
12	Prothioconazole	22.4	240
13	Tefluthrin	22.4	240
14	Chlorantraniliprole	22.4	240
15	Cyantraniliprole	22.4	240
B	Plant-2		
16	Nicosulfuron	14	150
17	Metsulfuron	14	150
18	Rimsulfuron	14	150
19	Sulfometuron	14	150
20	Flazasulfuron	14	150
21	Thifensulfuron	14	150
22	Tribenuron	14	150
23	Idosulfuron	14	150
24	Flufenacet	14	150
25	Mesosulfuron	14	150
C	R & D products	1.0	12.0

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 20th March-2015 to 15th June-2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (52.4 µg/m³ to 72.4µg/m³), PM_{2.5} (21.9 µg/m³ to 40.5µg/m³), SO₂ (6.6 µg/m³ to 15.9 ug/m³) and NO_x (7.2 µg/m³ to 19.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs value for SPM, SO₂, NO_x, HCl and Cl₂ are 0.370 µg/m³ , 0.118 µg/m³ , 0.105 µg/m³ , 0.042 µg/m³ and 0.011 µg/m³ respectively. Alkali scrubber followed by water scrubber will be provided to control process emissions viz. HCl & SO₂. Stack of adequate height will be provided to additional furnace oil fired boiler.

The fresh water requirement will be met through tanker from local bodies. Total water requirement will be 216.5 m³/day, out of which, 143 m³/day will be fresh water requirement from tanker supply and 73.5 m³/day will be met from recycle/treated water (permeate from RO and condensate recovery from MEE). However, during presentation PP informed that water will now be supplied by RIICO. Total industrial wastewater generation will be 76.5 m³/day and treated in ETP. Treated water from ETP will be passed through RO & reject of RO will be sent to MEE for further evaporation. RO permeate & condensate from MEE will be reused for utility & greenbelt development, so there will be no effluent discharge from unit. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Waste carbon, process residue & off specific products will be sent for incineration at common incineration facility.

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

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

- i. 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. Stack of adequate height shall be provided to gas fired boiler and thermic fluid heater to control particulate emissions.
- iii. Scrubber shall be provided to control process emissions viz. HCl and SO₂. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- vi. All necessary steps should be taken for monitoring of chlorine, HCl and VOCs in the proposed plant.
- vii. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- viii. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- ix. Total water requirement from RIICO should not exceed 135 m³/day and prior permission should be obtained from the competent authority.
- x. Effluent generation shall not exceed 76.5 m³/day and segregated into High COD/TDS and Low COD/TDS effluent streams. High COD/TDS will be passed through steam stripper followed by MEE. Concentrated salts will be sent to ATFD. Low COD/TDS effluent stream and condensate will be treated in the ETP followed by Reverse Osmosis. Treated effluent and condensate from MEE shall be recycled /reused in process and cooling tower make up. Domestic sewage should be treated in STP.
- xi. No effluent shall be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed.

- xii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- xiii. As proposed, greenbelt should be developed at least 33% of the plot area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xiv. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility to nearby villages and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner
- xvi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

6.3.5 Expansion of Dye Intermediates manufacturing unit at plot no. 166, 169 at Village Indrad, Tehsil Kadi, District Mehsana, Gujarat by M/s Akshar Chem India Ltd.- reg. EC.

At the outset of presentation on above project, the Committee noted that one of the proposed products is Single Super Phosphate. However, PP has not worked out on the manufacturing process of SSP as well as associated environmental impacts in the EIA – EMP report. The Committee advised them to give complete details about the SSP manufacturing including raw materials linkage and transportation of rock phosphate, layout Plan , process emissions control, use of spent acid in SSP, waste management etc. PP is also required to furnish certified compliance report on the compliance of environmental conditions stipulated in the existing EC. Based on recasting of report, fresh appraisal of the project will be done.

The proposal was deferred till the revised EIA –EMP report alongwith certified compliance report is submitted. The above information shall be provided with the uploading of minutes on the website.

2nd Session: Time: 2.00 PM

6.3.6 Proposed Resin manufacturing (capacity: 2800 MTPM) Located at Survey No. 565, 394/1, Village Nava Sadulka, District Morbi, Gujarat by M/s Reolaxe Laminate Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s T R Associates gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th to

21st January, 2015 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. Reolaxe Laminate Pvt. Ltd. has proposed for setting up of Resins (Phenol Formaldehyde, Melamine Formaldehyde & Urea Formaldehyde) Manufacturing Unit at New Survey No. 565 (Old 394/1), Village Nava Sadulaka, District Morbi, Gujarat. Total plot area is 17604 m² of which greenbelt will be developed in 5870 m² (33.34 %). It is reported that no national park/ wildlife sanctuary/ reserve forest/ is located within 7 Km periphery of the project site. River Macchu is flowing within 9 km periphery. Kerala Lake found within 3.2 km periphery. Cost of project is Rs. 1 Crore, of which Rs. 27.55 Lakh is earmarked towards capital cost for environmental management plan. Following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	1100 MT/M
2	Melamine Formaldehyde Resin (M. F. Resin)	500 MT/M
3	Urea Formaldehyde Resin (U. F. Resin)	1200 MT/M
4	Laminated Sheets	2,00,000 Sheets/Month

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during February 2015 to April 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (53.2 µg/m³ to 82 µg/m³), PM_{2.5} (20.5 µg/m³ to 36.2 µg/m³), SO₂ (4.8 µg/m³ to 12.8 µg/m³) and NO_x (7.1 µg/m³ to 21.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.6 µg/m³, 1.26 µg/m³ and 6.0 µg/m³ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Dust collector followed by Bag filter will be provided to coal/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions. Total fresh water requirement from ground water source will be 45m³/day. Total generated wastewater from resin process, cooling and Boiler blow-down and washing will be 18.5 m³/day, which will be treated in the ETP. Treated effluent will be evaporated & reused for cooling. The Domestic Effluent will be generated 5.5 KL/day and it will be treated in STP and treated sewage will be used for Gardening purpose. No effluent will be discharged outside the plant premises and zero discharge concept will be followed. DG set (250 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 23rd September, 2015. The issues were raised regarding local employment and local development 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/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.

- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 45 m³/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. Process plant should be interlocked with ETP. In case of shut down of ETP, the plant should be stopped automatically.
- 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 5870 m² 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 23rd September, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 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. As committed, implementation of such program should be ensured for Sadulka village in a time bound manner.

6.3.7 Proposed Bulk Drug and Its Intermediate Manufacturing Units (2800 TPA) at Plot no. SPA 503- RIICO Industrial Area, Bhiwadi, Rajasthan by M/s Dalas Biotech Ltd.- reg. EC.

The project proponent and their consultant (M/s Enkay Enviro Services 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 26th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 29th to 30th October, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State

level. Proposal is treated as “A” Category because the project attracts general condition that located within 5 km from the Inter-State boundary i.e. Haryana and Rajasthan.

M/s Dalas Biotech Ltd has proposed for setting up of Bulk Drug manufacturing unit at Plot No. SPA-503, RIICO Industrial Area, Bhiwadi, Rajasthan. The total cost of project is Rs. 19.653 Crores. Total plot area is 42000 m² out of which greenbelt will be developed in 13860 m². It is reported that no national park is located within 10 km distance. Bugga Dam Reservoir is located at a distance of 7.5 km. Reserved Forests (i.e. Rangla Reserve Forest (2.94 km ENE), Tapkan PF (14.60 km ESE), Chaupanki PF (11.21 km SSE), Indaur RF (13.69 km SSE), Khori Kalan P.F. (11.00 km SSE), Godhan PF (3.93 km SSE) and Indauri Nala (5.75 km ENE) are located within 10-15 km distance. The following products will be manufactured:

S. N.	Product List	Capacity Proposed
1	Amoxicillin	2400 TPA
2	Ampicillin	400 TPA

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during December, 2014 – February 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (51.9 µg/m³ to 96.5 µg/m³), PM_{2.5} (30.6 µg/m³ to 58.9 µg/m³), SO₂ (5.1 µg/m³ to 10.2 ug/m³) and NO_x (17.3 µg/m³ to 39.6 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.2 µg/m³, 0.8 µg/m³ and 2.3 µg/m³ with respect to PM₁₀, PM_{2.5} and SO₂. The resultant concentrations are within the NAAQS. Bag filter along with stack height of 30 m will be provided to pet coke fired boiler of 3 TPH. Alkaline scrubber will be installed to control acidic emissions from the process. D.G. set (2 nos) of 1100 kVA each will be installed.

Total water requirement will be 340 m³/day. Out of which, fresh water requirement from RIICO water supply will be 140 m³/day and remaining water requirement of 200 m³/day will be met from treated / recycle. Wastewater generated from domestic purpose will be to the tune of 9 m³/day, which will be treated in common ETP. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through Collection Equalization & neutralization Stripper MEE TSDf. Low TDS effluent stream will be treated as Collection Equalization & neutralization Biological Treatment TSDf. No effluent will be discharged outside the plant premises. ETP sludge to be sent to UCCI at Udaipur for proper treatment and disposal. Bio sludge will be distributed to farmers for use as Bio-Fertilizer after approval from state agricultural University. Spent Oil & Used oil will be disposed through authorized recycler. Spent catalyst/carbon will be sent to UCCI at Udaipur for proper treatment and disposal and Expiry drugs/medicines will be sent to UCCI at Udaipur for proper treatment and disposal.

The project is coming up in the Notified Industrial Area, (RIICO Industrial Area, Bhiwadi, Rajasthan), the same was exempted from public hearing. Therefore, Public hearing was exempted as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006.

Howevr, after deliberations, the Committee sought the following additional information:

- (i) Detailed water balance with plan to recycle and reuse.
- (ii) Reanalysing/monitoring of ambient air for one month including VOC .
- (iii) Measures to control SO₂ emission from PET coke fired boiler.

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

6.3.8 Expansion of pesticides manufacturing unit at Plot No. D-1 MIDC, Kurkumbh, Taluka Daund, District Pune, Maharashtra by M/s Shougun Organics Ltd. – reg EC.

M/s Shougun Organics Ltd. has proposed for expansion of pesticides manufacturing unit at Plot No. D-1 MIDC, Kurkumbh, Taluka Daund, District Pune, Maharashtra. The proposal was considered by the EAC meeting held during 30th November to 1st December , 2015., wherein the Committee noted that unit has violated the provisions of E(P) Act, 1986 and action against the violating is under process.

However, PP has again requested for amendment in TOR at this stage by discontinuing production of existing intermediates namely, Chysanthemic Acid Chloride, llethlone Alcohol and Prallethrolone Alcohol. The Committee was of the view that proposal shall be considered on merit of the case after finalization of procedure registered for violation.

6.3.9 Grain based Extra Neutral Alcohol production unit (60KLPD) alongwith CPP (2 MW) at Tehsil Budge Budge – II, District South Twenty Four Parganas, West Bengal by M/s MKR Distilleries Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s Envirotech East (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 17th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 18th -19th March, 2014 for preparation of EIA-EMP report. All grain based distillery are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s MKR Distilleries Pvt. Ltd. has proposed for setting up of Grain based Extra Neutral Alcohol production unit (60 KLD) at P.S Nodakhali, P.O Bawali, District 24 Parganas (South), West Bengal.Total plant area is 7.0 acre. Cost of project is Rs. 43.33 Crore. River Hooghly is passing approx. 6.0 km distance in west direction w.r.t the project site. It is reported that no national park and Reserved Forest are located within 10 Km distance. Following is plant configuration:

Product	Quantity
Extra Neutral Alcohol - Ethanol (ENA)	60 KLD
Captive Power Plant	2 MW

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (51 µg/m³ to 95 µg/m³), PM_{2.5} (21 µg/m³ to 46 µg/m³), SO₂ (4 µg/m³ to 15 µg/m³) and NO₂ (13 µg/m³ to 36 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs value of SO₂, NO_x & PM would be about 2.28 µg/m³, 1.95 µg/m³ & 0.66 µg/m³ respectively. The resultant concentrations are within the NAAQS. Bag filter will be provided at stock piles and material transfer points of conveyors of the Distillery Unit. Bagfilter will be provided at coal handling point. ESP will be provided to coal fired boiler to control particulate emissions.

Total fresh water requirement from ground water source . Two (2 nos.) of bore wells will be dug to extract 700 m³/day. The Committee noted that fresh water demand is in higher side. Therefore, the committee advised them to recheck the water balance and reduce the fresh water requirement. Spent wash will be passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). Spentlees, MEE condensate and utilities wastewater will be treated in the effluent treatment plant followed by

tertiary treatment facility and treated effluent will be recycled/reused for cooling tower make up. No effluent will be discharged outside the factory premises and 'Zero' effluent discharge concept will be implemented. Storage capacity for spent wash lagoon will be 5 days. DDGS will be sold as cattle feed. Dry Ash would be further disposed either in dry form in truck loads or on high concentration slurry mode to Ash Disposal Area. Used oil will be disposed off through the approved agencies.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the WB State Pollution Control Board on 23rd June, 2015. The issues were raised regarding local employment, possibility of detrimental effect on local agricultural fields and irrigation canal due to discharge of untreated process effluent from their proposed project and probable remedial measures to be taken for the same purpose, air pollution potential of the proposed captive power plant and proposed control measures etc. The Committee suggested them to submit the compliance to the issues raised in details.

After deliberations, the Committee sought the following additional information:

- (i) to recheck/redraw the water balance and reduce the fresh water requirement.
- (ii) Point wise replies to issues raised during public hearing and commitments made by the project proponent in the form of tabular chart with financial budget for complying with the commitments made.
- (iii) to submit plan for the Enterprise Social Commitment (ESC) based on local needs covering financial and physical breakup/details.

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

6.3.10 Proposed Specialty Chemical & Pesticide Intermediates Plant at plot no. D-2/CH-105, GIDC, Dahej-2, Tahsil Vagra, District Bharuch, Gujarat by M/s Janvi Chemicals- 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 30th Meeting of the Expert Appraisal Committee (Industry) held during 22nd-23rd December, 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. 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. Janvi Chemicals has proposed for setting up of Specialty Chemical & Pesticide Intermediates Plant at plot no. D-2/CH-105, GIDC, Dahej-2, TahsilVagra, District Bharuch, Gujarat. Total plot area is 5000 m² of which greenbelt will be developed in 1000 m². Cost of project is Rs. 3.5 Crore. It is reported that no national parks, wildlife sanctuaries and reserve forests is located within 5 km distance. Following products will be manufactured:

S. N.	Name of the Products	Quantity in (MTPM)
		Proposed
1.	Chlorination Derivatives (e.g. MCB, DCB, ODCB, PDCB,MDCB)	200
2.	Chloro Acetyl Chloride	200
3.	Mono Chloro Acetic Acid	150

4.	Calcium Chloride	250
5. Pesticide Intermediates		
a)	2,4,6-Trimethyl Benzaldehyde	100
b)	2,4-Dichloro Phenyl Acetic Acid	
c)	2,4-Dichloro Meta Cresol	
d)	4,4-Dihydroxy Benzophenone	
Total		900

LIST OF BY PRODUCTS

S. N.	Name of the Products	Quantity in (MTPM) Proposed
1.	HCl (32%)	550

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March, 2015 – May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (54 µg/m³ to 83 µg/m³), PM_{2.5} (31 µg/m³ to 48 µg/m³), SO₂ (12 µg/m³ to 28µg/m³) and NO₂ (17 µg/m³ to 37 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs value of SPM, SO₂ and NO_x would be about 0.19 µg/m³, 0.13 µg/m³ & 0.063 µg/m³ respectively. The resultant concentrations are within the NAAQS. Multicyclone followed by bagfilter will be provided to briquette fired (3 TPH) to control particulate emissions. DG set (250 KVA) will be provided. Water followed by alkali scrubber will be provided to process emissions viz. HCl, Cl₂ and SO₂. Total water requirement will be 55 m³/day and met from GIDC water supply. The wastewater generation will be 31m³/day. The industrial effluent (27m³/day) will be sent to the proposed ETP consists of primary, secondary & tertiary treatments and treated effluent shall be discharged into GIDC drainage line or sent to CETP. Domestic Waste water (4m³/day) will be sent in secondary treatment unit of ETP. 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.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 7th October, 2015. The issues were raised regarding pollution, local employment, CSR, pollution control measures, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.
- ii. Multicyclone followed by Bagfilter alongwith adequate stack height shall be provided to briquette fired boiler to control particulate emissions.
- iii. Scrubber shall be provided to control process emissions viz. HCl, Cl₂ and SO₂. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the

prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

- iv. Chilled brine circulation system should be provided to condensate solvent vapours and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- vi. All necessary steps should be taken for monitoring of chlorine, HCl and Cl₂ as well as VOCs in the proposed plant.
- vii. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- viii. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- ix. Total water requirement from GIDC water supply should not exceed 55 m³/day and prior permission should be obtained from the competent authority.
- x. Effluent generation shall not exceed 31 m³/day and segregated into High COD/TDS and Low COD/TDS effluent streams. Segregated effluent shall be treated in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be disposed through GIDC drain after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- xi. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- xii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- xiii. As proposed, greenbelt should be developed in 1000 m² in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.

- xiv. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xv. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

Reconsideration of EC

6.3.11 Molasses based Distillery Unit (50 KLPD) at Gut No. 477, 478/1, 494 & 567 Village Sakharwadi, Taluka Phaltan, District Satara, Maharashtra by M/s New Phaltan sugar Works Distilleries Division Ltd. – reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 3rd meeting held during 18th- 19th January, 2016 for grant of Environmental Clearance. As per the minutes of the meeting, the Committee had sought the following information from the proponent for reconsideration of the proposal:

1. Adequate treatment technology to be proposed as distance of distillery from the sugar plant is 2 km. Treatment scheme for spent wash shall be modified in place of bio-composting.
2. Adequate Green belt to be provided

Accordingly, PP has submitted the following information:

The proposed treatment technology for spent wash treatment will consist of bio-digester followed by MEE and bio-composting. The proponent is making additional investment @ 3.0 Crore for MEE to reduce spent wash volume to 166 cum/day. The less volume can be easily handled for bio-composting. The existing sugar unit is established in 1955 and surrounded by thick habitation. The existing sugar does not have sufficient space to accommodate the distillery unit. The molasses, bagasse and press mud is proposed to be used for own unit. The road between existing sugar factory and proposed distillery has very less traffic. The distillery will be operated for 270 days in a year.

The proponent has purchased additional land of 27870 m² with total land of 85870 m² as compared to earlier land of 58000 m².

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, Bagfilter/Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to bagasse fired boiler to control particulate emissions within 50 mg/Nm³.
- ii. SPCB shall grant the CTO on basis of adequate traffic management regarding press mud transportation, ensuring that this should be utilized by the Company in distillery.
- iii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.

- iv. Total fresh water requirement from ground water will be 500 m³/day for distillery (Molasses) as well as CPP. Effort shall be made to use recycled water from condensate of MEE for the co-generation power unit.
- v. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in bio-digester. Treated effluent will be evaporated in MEE and concentrated spent wash will be bio-composted with filter press to achieve 'Zero' discharge. Effluent from 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. Distillery plant shall be operated for 270 days.
- vi. 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.
- vii. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- viii. 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.
- ix. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- x. 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.
- xi. 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.
- xii. 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.
- xiii. All the issues raised during the public hearing/consultation meeting held on 6th May, 2015 should be satisfactorily implemented.

- xiv. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xv. 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 Nagpur. Implementation of such program should be ensured accordingly in a time bound manner.

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

The project proponent and their consultant (M/s Water and Wastewater Research Centre) 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 32nd Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th– 21st January, 2015 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 Sharayu Agro Industries Ltd.(Formerly known as –Lokmanya Sakhar Udyog Ltd.),Pune has proposed for setting up of Integrated Sugar (5000TCD), Distillery (60 KLPD) and Cogeneration Power Plant (30MW) at Village Kapshi, Tehsil Phaltan, District Satara, Maharashtra. Total plot area is 76 acres. Cost of project is Rs. 323.7 Crore. Nearest water bodies are Mulikwadi tank (4 Km) and Nira Canal (12 Km). It is reported that no wildlife sanctuary or ecological sensitive area is located within 10 km distance. Distillery will be operated for 300 days. CPP will be operated for (season 160 days) and Off season 65 days. Sugar will be operated for 160 days.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during December, 2014 – February, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (40.2 µg/m³ to 62.1 µg/m³), PM_{2.5} (15.2 µg/m³ to 28.6 µg/m³), SO₂ (7.2 µg/m³ to 12.25 µg/m³) and NO₂ (12.4 µg/m³ to 20.53 µg/m³) respectively.

ESP will be provided to bagasse fired boiler (160 TPH)and spent wash fired boiler (28 TPH) to control particulate emissions. Fresh water requirement for distillery unit is 432 m³/day. Fresh water requirement for sugar will be 500 m³/day and co-gen power plant will be 620 m³/day. The Committee noted that fresh water requirement is in higher side and advised them to rework on minimization of fresh water requirement. Source of water supply is Nira water canal. Effluent generation from sugar unit will be 292.8 m³/day, which will be treated inETP. Spent wash from distillery will be treated in the bio-methanation reactor. Treated spent wash will be concentrated in five multiple effect evaporator. Concentrates will be mixed with baggase/coal and burned in boiler. No effluent will be discharged outside the plant premises.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 29th July, 2015. The issues were raised regarding pollution control device, water supply to farmer,

water agreement 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 deferred the proposal for want of following information:

1. At page 94 of EIA report, it is reported that GLC of SPM, SO₂ and NO_x will be 0.025 g/ m³, 2.25 g/m³ and 1.15 g/m³ respectively. Kindly check the value and submit the correct figure.
2. Recheck water balance and reduce fresh water requirement.
3. Reanalysis surface water quality monitoring data in respect of BOD, COD and basic drinking water parameters.

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

6.3.13 Enhancement of storage tank (capacity 1,66,601KI) by constructing Additional Storage Tanks at Port Exim Park area, Visakhapatnam, Andhra Pradesh by M/s East India Petroleum Pvt. Ltd.- reg EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 3rd meeting held during 18th – 19th January, 2016 and the Committee sought following additional information:

- (i) Confirm the implementation of the suggestions made by the MB Lal Committee in the existing storage tanks. A report from reputed Consultants to be submitted.

PP has submitted the above mentioned addl. information. PP has entrusted the assignment to PDIL to make a comprehensive report for the suitability of layout and implementation of MB Lal Committee recommendations. PP has submitted the action plan and PDIL observations with respect to MB Lal Committees recommendations.

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

- i) Adequate buffer zone around the storage tankages, as may be required as per OISD or other statutory requirements.
- ii) Regular online monitoring of VOC and HC in the work zone area in the plant premises should be carried and data be submitted to Ministry's Regional Office at Chennai, CPCB and State Pollution Control Board.
- iii) Total fresh water requirement from Greater Visakhapatnam Municipal Corporation water supply shall not exceed 29 m³/day and prior permission should be obtained from the concerned Authority.
- iv) The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted and ensured that monitoring parameters shall not exceed the prescribed standards.

- v) Wastewater generation shall be treated in the ETP. Treated effluent shall be recycled/reused for gardening and horticulture purpose. No effluent shall be discharged outside the premises.
- vi) Storm water should pass through efficient oil and grease catchers to trap leaked oil and grease
- vii) Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. shall be followed. Company should ensure no oil spillage occur during loading / unloading of petroleum products.
- viii) The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 and its subsequent amendments.
- ix) Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.
- x) The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xi) As submitted by the Project proponent suggestions made by MB Lal Committee on safety shall be implemented to the existing and proposed tanks while implementing the projects.
- xii) All storage tanks shall be provided with design features based on applicable OISD standards.
- xiii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.
- xiv) Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xv) At least 10 meter wide thick green belt shall be developed on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xvi) 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.
- xvii) All the recommendations mentioned in the EMP/DMP shall be implemented.

6.4 Any Other

- 6.4.1 Expansion of Drug Manufacturing Unit (from 655.40 MTPM to 1480 MTPM) at Block No. 21, Village Dabhasa, Taluka Padra, District Vadodara, Gujarat by M/s Lupin Limited - amendment in EC.**

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

6.4.2 Crude oil pipeline project from Mundra Coast in Gujarat to Bhatinda in Punjab by M/s HPCL- reg. Amendment in EC.

The project is in repetition as the same has already been considered in earlier meeting.

6.4.3 Greenfield Soda Ash Plant (1500 TPD) alongwith Captive Power Plant (50 MW) at Village Kuranga, Taluka Dwarka, District Devbhumi Dwarka (earlier Jamnagar District), Gujarat by M/s. RSPL Limited- reg. corrigendum.

MoEF&CC vide letter-11011/247/2012-IA II (I) dated 12.11.2015 has granted consolidated Environment Clearance and CRZ Clearance to M/s RSPL Ltd for the Greenfield Soda Ash Project alongwith Captive Power Plant (50 MW) at Village Kuranga, Taluka Dwarka, District Jamnagar, Gujarat. Now, PP has requested for the following corrections :

S.N.	Page No/Para of EC letter	As per EC	Corrections required as
1	Subject; Page No. 1 2 nd Para	Greenfield Soda Ash Plant (1500 TPD) alongwith Captive Power Plant (50 MW) at Village Kuranga, Taluka Dwarka, District Jamnagar, Gujarat by M/s RSPL Ltd.	Greenfield Soda Ash Plant (Capacity : Light Soda Ash 1500 TPD and Dense Soda Ash : 770 TPD) alongwith Coal/Lignite based Captive Power Plant (50 MW) at Village Kuranga, Taluka Dwarka, District Devbhumi, Dwarka, Gujarat.
2	2 nd Para of Page No. 1	Total Plot Area is 400 ha. of which, area earmarked for greenbelt is 189 ha.	Total Plot Area is 576 ha. of which, area earmarked for greenbelt is 189 ha.
3	2 nd Para of Page No. 2; Page 3, Specific Condition no. A (ix)	Total water requirement will be 60 MLD water, which will be drawn from Arabian sea through submarine pipeline from the point suggested by the National Institute of Oceanography (NIO)	Total water requirement will be 600 MLD water, which will be drawn from Arabian sea through submarine pipeline from the point suggested by the National Institute of Oceanography (NIO)
4	Page 3, Specific Condition No. A (ii)	Electrostatic Precipitator along with adequate stack height shall be provided to coal fired boiler to control particulate emissions.	Electrostatic Precipitator along with adequate stack height shall be provided to coal/lignite fired boiler to control particulate emissions.

The Committee noted that as per Form1, name of district is mentioned as Jamnagar and total plot area is mentioned as 400 ha. The Committee suggested PP to formally request for amendment in Form1.

After detailed deliberation, the Committee sought following additional information:

- (a) Details of Survey nos. of 400 ha. and Survey Nos. of 576 ha. These plot area should be indicated on the map alongwith layout plan.
- (c) Status of land acquisition.

6.5 Terms of Reference (TOR)

6.5.1 Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P₂O₅ and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam district, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s Coromandel Fertilizer Limited)- reg. TOR

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

M/s Coromandel International Limited has proposed for enhancement of phosphoric acid production (from 700 MTPD to 1000 MTPD P₂O₅) and other auxiliary facilities within the Existing Fertilizer Complex, Sriharipuram, Vishakhapatnam district, Andhra Pradesh. The project was issued environmental clearances by the Ministry, vide letter no. J-11011/388/2006-IA-II (I) dated 18th May 2007, J-11011/314/2007-IA-II(I) dated 31st August 2007 and J-11011/548/2008-IA-II (I) dated 10th June 2009. It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Total plot area is 438 ha, of which 127 ha is developed as greenbelt. Total cost of the project is Rs. 225 Crore. About 32000 employees will work under the project. Following are the existing and proposed products:

Details of the Existing and Proposed Capacities of the Facility

Parameter	Units	Existing installed/ permitted capacity	Additional Quantity Envisaged under Upgrade Scheme	Total Capacity –Post Project Scenario
Complex fertilizers				
Total main plant production	TPD	3900	No addition	3900
Sulphuric Acid				
SAP 1	TPD	1400	300	1700
SAP 2	TPD	300	100	400
Imports	TPD	1200	500	1700
Total SA	TPD	2900	900	3800
Phosphoric Acid				
PA (as P ₂ O ₅)	TPD	700	300	1000
PA Import (as P ₂ O ₅) **	TPD	300	-300	0
Total PA (as P₂O₅)	TPD	1000	0	1000
Steam generation capacity of Boilers				
LSHS Fired boilers	TPH	1x31 +1x48	No addition	79
Waste-heat boilers in SAPs	TPH	1x65 +1x15	21	101
Coal Fired boiler	TPH	NA	40	40
Total steam generation	TPH	159	61	220
Power Generation Capacity				
Existing DG Sets (stand by)	MW	1x4+1x4	No addition	8
Steam Turbo	MW	5	5	10

Generator (Condensing + Back pressure)				
Total installed power generation	MW	13	5	18

Additional water requirement for proposed expansion will be 2500 m³/day and met from Greater Vishakhapatnam Municipal Corporation (GVMC) in addition to the existing water allocation of 9000 m³/day, resulting total water requirement will be 11500 m³/day. Against this, wastewater generation will increase from 1000 m³/ day to 1800 m³/day. Treated wastewater will be discharged through existing channel into the Sea.

PP informed that depending on the availability of type of coal, both indigenous and imported coal will be used for steam generation in the proposed coal fired boiler. Additional coal fired boiler of 40 TPH capacity will be installed which will be lead to total coal consumption upto 168MTPD. The total estimated SO₂ emission rate from the plant after up-gradation of SAP 1, SAP2 and proposed coal fired boiler will be in the order of 3204 Kg/day as against the permitted and consented quantity of about 3286 Kg/day. An adequately designed stack will be constructed as per the CPCB minimum stack height guidelines

It is reported that every 1 ton of P₂O₅ production, about 5 Ton of Gypsum produced. Gypsum from the FGD will be disposed along with the phospho gypsum to the cement industries. Fly ash so generated is collected in dry form in fly silos and the same will be disposed to local brick manufactures

The committee observed that the company has expanded its capacity time to time by obtaining Environmental Clearance. Therefore, to assess the existing scenario, it was recommended to undertake a site visit by a sub- committee of EAC after submission of compliance report by the respective RO of MEF&CC.

6.5.2 Setting up of laminated sheets, P.F. Resin, M.F. Resin & U.F. Resin at Survey no. 1068. Lavad Sampa Road, Village Lavad, Taluka Dahegam, District Gandhinagar, Gujarat by M/s Redd Mica Pvt. Ltd.- reg. TOR

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

M/s Redd Mica Pvt. Ltd. has proposed for setting up of laminated sheets, P.F. Resin, M.F. Resin & U.F. Resin at Survey no. 1068. Lavad Sampa Road, Village Lavad, Taluka Dahegam, District Gandhinagar, Gujarat. As per Form-1, it is reported that no national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance. PP did not indicate presence of water body in the form 1. However the Toposheet shows a river passing nearby the project site. The committee noted the casual approach of consultant and advice to fill the form properly.

Total plot area is 21853 m² of which greenbelt will be developed in the area of 8234 m². (37.6%) Cost of project is Rs. 1.0 Crore. Details about number of employee are not provided. Following products will be manufacture;

No.	Name of Product	Quantity	
1.	Phenol Formaldehyde Resin (P. F. Resin)	700	Alternate Production
2.	Melamine Formaldehyde Resin (M. F. Resin)	700	

3.	Urea Formaldehyde Resin (U. F. Resin)	500	1900 MT/ Month
4.	Laminated Sheets	3,00,000 Nos./Month	

Coal / Briquettes fired boiler having 4TPH capacity and Thermic Fluid Heater having 15 lac Kcal/hr will be installed, which will be connected to stack of 30 m height. Cyclone separator followed by Bag filter will be provided as pollution control device. Additional DG set of 250 KVA capacities will be provided.

Fresh water requirement of 67.6 m³/day will be sourced from ground water. Against this wastewater of 14.6 m³/day will be generated. The wastewater will be treated in ETP based on Photo Fenton process with RO system. The plant is based on zero liquid discharge and no effluent to be discharged outside the premises. ETP sludge, used oil/spent oil will be collected, stored, transported as per requirement of hazardous waste management rules and finally disposed to TSDF site. Discarded container and bags will be sold to authorized dealer.

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

A. Specific TOR:

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

B. Additional TOR

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

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.

6.5.3 Setting up of chemical manufacturing unit at Plot No. F-10, Industrial Area, Focal Point, Derabassi, District Mohali, Punjab by M/s M.K. Drugs-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) inside the notified industrial area/estate are listed at S.N. 5(f) under category ‘A’ and appraised at State Level. However, due to interstate boundary (2.0 km – Haryana), the project is appraised at Central Level Expert Appraisal Committee (I).

M/s M.K. Drugs has proposed for setting up of chemical manufacturing unit at Plot No. F-10, Industrial Area, Focal Point, Derabassi, District Mohali, Punjab. As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. However, Chhatbir Zoo is located at a distance of 6 km from the proposed site. As per Form-1, total plot area is 5000 Sq yard and cost of project is Rs. 11.46 crore. Total number of worker is 20. Following products will be manufactured:

Sr. No.	Name of Product	Quantity (TPA)
1.	Betamethasone Sodium Phosphate	1.5
2.	Betamethasone Dipropionate	1.5
3.	Betamethasone Valerate	1.2
4.	Beclomethasone Dipropionate	1.2
5.	Clobetasol Propionate	1.8
6.	Dexamethasone Sodium Phosphate	1.5
7.	Methyl Prednisolone	1.2
8.	Prednisolone Acetate	0.8
9.	Deflazacort	1.2
10.	Methylcobalamin	1.2
11.	Prednisolone Sodium Phosphate	1.2
12.	Budesonide	0.7
Total		15

Electricity requirement will be 50 KW and to be sourced from PSPCL. A DG set of 60KVA will be installed. No specific information has been provided with the respect to process emission.

Fresh water requirement is reported to 6.7 m³/day municipal water supply. Out of this 1 m³/day water will be utilized for the domestic purposes. Waste water will be treated in ETP with tertiary treatment facility and based on Zero Liquid Discharge . No effluent will be discharge out side the premises. Hazardous waste as sulphur sludge, catalyst dust and DG set oil will be managed as per Hazardous Waste(Handling and Management), Rules 1989 and amended thereafter. The Committee noted the lack of information on waste management out of the project and authenticated document showing project is in notified Industrial area, Therefore the Committee recommended for public hearing.

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

A. Specific TOR:

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

B. Additional TOR

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

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

6.5.4 Proposed expansion in existing grain based distillery 50 KLPD to 250 KLPD (Ethanol/RS/ENA) and alternatively operation 125 KLPD Grain & 125 KLPD Molasses along with installation of 5.0 MW Co-Generation Power Plant at Village Boralli, Tehsil Badnawar, District Dhar, Madhya Pradesh by M/s Oasis Distilleries Limited- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery and Grain based distillery (>60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Oasis Distilleries Limited has proposed for expansion in existing grain based distillery 50 KLPD to 250 KLPD (Ethanol/RS/ENA) along with installation of 5.0 MW Co-Generation Power Plant at Village Boralli, Tehsil Badnawar, District Dhar, Madhya Pradesh. PP did not obtain EC of existing project as it was established prior to EIA Notification 1994. As per Form-1 it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Rivers Chamlra (6 km SE) and Bagedi (7 km NW) are flowing at their respective distance.

Total project area is 35 ha, out of which green belt will be developed on 11.6 ha. of land. About 375 people will be employed under the project. Total cost of the project is Rs. 140 Crores. Out of this, cost earmarked for Environment Management Plan is Rs. 15 Crore and Rs. 1.5 crore per annum is as recurring cost. Distillery will be operated for 350 days. Following products will be manufactured:

Unit	Existing Capacity	Total after expansion capacity
ENA/RS/ Ethanol/Industrial Alcohol Plant	50 KLPD	250
Co-Generation Power	Nil.	5MW

The company is proposing to operate the Unit in two ways:-

1st Mode of Operation:-

- 250 KLPD Grain Based ENA/RS/ Ethanol/Industrial Alcohol Plant
- 5 MW Co- Generation power plant

OR

2nd Mode of Operation:-

- 125 KLPD Grain & 125 KLPD Molasses Based ENA/RS/Ethanol/Industrial Alcohol Plant
- 5 MW Co- Generation power plant

Existing water requirement for 50 m³/day grain based distillery is 523 m³/day. After proposed expansion the water requirement will be 2611 m³/day for 250 grain based distillery (1130 m³/day for 125 m³/day molasses based distillery), which will be sourced from Ground water. Plant will be based on zero liquid discharge.

In Grain based Distillery, Grain slops (Spent Wash) will be taken through Centrifuge Decanters for separation of Suspended Solids separated as Wet Cake and which goes as cattle feed as it contains high protein. The number of working days will be 350 days/annum.

Molasses based Distillery involves Molasses handling, Yeast Propagation, Fermentation, Distillation & Dehydration and Multi Effect Evaporation. Spent wash generated during Molasses operation, would be concentrated in Multi-effect evaporator followed by incineration boiler. Process condensate from MEE will be treated and recycled back in the process.

The existing power requirement is 1.0 MW which is sourced from MPSEB and after the proposed expansion it will be 5.0 MW which will be sourced from proposed 5.0 MW Co-generation Power Plant & D.G. Sets for backup purpose only (Existing (1x500 KVA) and proposed (1x750 KVA). Coal/ bio mass/ concentrated spent wash fired boiler will be connected to ESP/ bagfilter with stack of 31 mt. Height. Ash so produced will be sent to brick manufacturer.

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

A. Specific TOR

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

B. Additional TOR

- i Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii Adequate green belt development plan to be drawn and plantation to be initiated at TOR stage and shown with details in EIA-EMP report.
- iii Implementation plan for molasses based distillery to be drawn separately with specific timeline and incorporated in EIA report.
- iv Availability of grain and molasses from the market to be firmed up.

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

6.5.5 Proposed expansion of bulk drug unit (from 8 TPM to 57.12 TPM) at Sy. No. 57, Golkonda kalan, Village Raikunta, Mandal Shamshabad, District Rangareddy, Telangana by M/s Sri Krishna Pharmaceuticals Limited, Unit-III (Formerly Sri Krishna Drugs Limited)- reg. TOR

The project authorities and their Consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) 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 Sri Krishna Pharmaceuticals Limited, Unit-III has proposed for expansion (from 8 TPM to 57.12 TPM) of bulk drug unit at Sy. No. 57, Golkonda kalan, Village Raikunta, Mandal Shamshabad, District Rangareddy, Telangana. Ministry vide letter no. J-11011/147/2005-IA II (I) dated 11th August, 2005 issued the EC in the name of M/s Sri Krishna Drugs Ltd. As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. In presentation it is noted that number of Reserve Forests falls within 10 km radius from the project, however, the names and distance are not mentioned.

Total plot area is 48562.3 m² (12 acre) out of which greenbelt will be developed on 20234.3 m² (5 acre) of land. Total Cost for the expansion is Rs. 40 crore of which Rs. 10 Crore will be invested on Environmental Protection Measures. Following are the details of products of existing and proposed expansion:

List of Existing Products

S.No	Name of the Products	Quantity in TPM
	Regular Products	
1	Folic acid pharma	4.0
2	Metadoxine	0.50
3	Fenoverine	0.30
4	Tiemonium methyl sulphate	1.20
	Campaign Products(Group B) an three products at a time	
5	Doxylamine succinate	0.250
6	Enalapril Maleate	0.750
7	Iso Metheptene Mucate	0.5
8	Phenylephrine Hydrochloride	0.750
9	Meclazine Hydrochloride	0.50
10	Sodium Phenyl Butyrate	0.350
11	Butrorphanol Tartrate	0.02
	Total (Worst combination)	8.0

List of Proposed Products

S.No	Name of the Products	Quantity in TPM
1	Folic acid pharma	44.0
2	Metadoxine	0.50
3	Fenoverine	0.30
4	Tiemonium methyl sulphate	1.20
5	Doxylamine succinate	0.250
6	Enalapril Maleate	0.750
7	Iso Metheptene Mucate	0.5
8	Phenylephrine Hydrochloride	0.75
9	Meclazine Hydrochloride	0.50
10	Sodium Phenyl Butyrate	0.350
11	Butrorphanol Tartrate	0.02

Total	49.12
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Fresh water requirement will increase from 160 m³/day to 802.3 m³/day and to be sourced from underground, against this wastewater generation will be increasing from 77.88 m³/day to 459.4 m³/day. Wastewater will be segregated into two streams as High TDS (HTDS) and Low TDS (LTDS). HTDS Effluent after neutralization, filtration sent to MEE. LTDS effluents along with MEE condensate will be sent to Biological treatment and finally to RO system. RO Rejects to MEE system and RO permeate to reuse; MEE residue to ATFD for drying.

Process emission such as HCl, SO₂, NH₃, Cl₂ will be scrubbed and Fugitive Emissions will pass through vent condensers and chillers. Existing Coal fired boiler of 6TPH capacity will be provided with multi-cyclone and connected with stack of 30 mt height. Additional coal fired boiler will be installed and connected to Bag filter. To meet the additional power requirement and standby arrangement, capacities of DG sets (1x 500 KVA and 1 X 380 KVA) will be enhanced (1x 1000 KVA). Boiler ash will be sent to brick manufacturer.

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

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

A. Specific TOR:

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

B. Additional TOR

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

- ii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
- iii. Company needs to change the name from M/s Sri Krishna Drugs Ltd to M/s Sri Krishna Pharmaceuticals Ltd.

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.

31st March, 2016 (Day 2)

6.6 Environmental Clearance

6.6.1 Organic Chemicals manufacturing Unit at Phase -1, GIDC Estate Vapi in District Valsad Gujarat by M/s Eburon Organics(I) Private Limited.- reg. EC.

The project proponent and their consultant (M/s Unistar Environment & Research Labs 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 26th Meeting of the Expert Appraisal Committee (Industry) held during 17th – 18th August, 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' and appraised at State level. However, applicability of general condition due to project location within Critically Polluted Area, proposal is treated as category 'A' and appraised at Central Level.

M/s Eburon Organic Pvt. Ltd. has proposed for expansion of Synthetic Organic Manufacturing Unit (105 kgs/month to 1200 kg/month) at Plot No 1/4 – A , Phase -1, GIDC Estate, Village Vapi Tehsil pardi, District Valsad, Gujarat. Interstate boundary (i.e UT of Daman) is located within 10 km. total plot area is 1991.63 m² of which greenbelt will be developed in 492 m². Cost of expansion project is Rs. 50.67 Lakhs. EC was accorded by the Ministry vide letter no- J-11011/439/2008 IA II (I) dated 27th June, 2008. Following products will be manufactured:

S.N.	Products	Existing (kgs/month)	Expansion (kgs/month)	Total Production after expansion (Kgs/Month)
1.	L- Methy-Seleno Cystine	10.00	0.00	10.00
2.	L-Seleno Methionine	30.00	800.00	830.00
3.	5-Bromo-Benzo Thiophene	25.00	50.00	75.00
4.	4-cyclohexanone Mono	10.00	50.00	60.00
5.	1,1- Dimethoxy	30.00	40.00	70.00
6.	4-Tert-buty calsx (4) arene-tetra acetic acid ethyl Ester	--	50.00	50.00
7.	Dibenzothiophene-5-Oxide	--	50.00	50.00
8.	2-Iodp Ethanol	--	50.00	50.00

9.	2,6-Dimethyl Anisol	--	25.00	25.00
10.	Dibenzilidine Acetone	--	50.00	50.00
11.	Dimethyl dioctadecyl	--	25.00	25.00
	Total	105	1190	1295
	Name of by-products			
1	Methyl Acetate	4.625	0.00	4.625
2	Methanol	7.5	15.00	22.5
3	Methyl Formate	12.856	17.14	30
4	potassium Bromide	0.00	23.87	23.87

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2011 – December, 2011 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (36 µg/m³ to 113 µg/m³), PM_{2.5} (4 µg/m³ to 33 µg/m³), SO₂ (16 µg/m³ to 44 µg/m³) and NO₂ (13 µg/m³ to 27 µg/m³) respectively. Stack height of adequate height will be provided to existing oil fired boiler and Thermic Fluid Heater and steam boiler. Water and alkali scrubber will be provided to glass line reactor to control process emissions viz. HCl and SO₂. Fresh water requirement from GIDC water supply will be increased from 1.627 m³/day to 7.677 m³/day after expansion. Wastewater generation will be increased from 1.33 m³/day to 5.49 m³/day after expansion. Effluent will be treated in the ETP and discharged to the CETP after achieving the norms prescribed by the GPCB. ETP solid waste (0.1 MTPM) will be sent to TSDF site, Vapi. Process waste / Distillation (90 kg/month) will be incinerated at GEPIL site, surat.

The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006

Regarding violation, GPCB vide letter no GPCB /CCA-VSD-1727/ID 34409 dated 4.8.2015 has confirmed that GPCB has filed criminal case against the unit on 07.08.2015 under section 15 of EPA Act, 1986.

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

- i. Stack of adequate height shall be provided to oil fired boiler and thermic fluid heater to control particulate emissions.
- ii. Scrubber shall be provided to control process emissions viz. HCl and SO₂. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iii. 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%.

- 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 stipulated by GPCB.
- v. Total water requirement from GIDC water supply should not exceed 7 m³/day.
- vi. Effluent generation shall not exceed 5.5 m³/day. Effluent will be treated in the ETP and treated effluent will be disposed through GIDC drain after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- vii. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- viii. 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 SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- ix. As proposed, greenbelt should be developed at least in the area 490 m² in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- x. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

6.6.2 Proposed 30 KLD Molasses Distillery Plant and 2 MW Captive Power plant at 1421 A/ 1421 AA / 1421 E / 1421 EE, Chowtkur Village Pulkal, Mandal Medak, District Telangana by M/s Ganpati Sugars Industries Limited.- reg. EC.

The project proponent and their consultant (Pioneer Enviro Laboratories & Consultants Private Limited) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 16th- 17th March, 2015 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. Ganpati Sugar Industries Ltd proposes of 30 KLD capacity molasses based distillery and 2.0 MW captive power plant at Sy. No. 1421 A / 1421 AA / 1421 E / 1421 EE,

Chowtkur village, Pulkal Mandal, Medak District in Telangana. Total land required for the proposed project is 16.7 acres. Out of which 5.7 acres (33%) will be used for green belt development. Cost of project is 57.45 Crores. Out of which amount earmarked for EMP is Rs. 9.61 Crores. There are no National Parks/Tiger Reserves/Elephant corridors within 10 Km. radius of the project site. However Manjira Wildlife Sanctuary is situated at a distance of 10.3 Kms. from the project site. Chatkuri Reserve Forest is situated at distance of 0.5 Kms. from the project site. Manjira river is flowing at a distance of 3.8 Km from the project site. Jangum Canal is flowing at a distance of 0.5 Km. from project site. Manjira Reservoir is situated at a distance of 6.5 Kms. from the project site. The Committee suggested that distillery shall operate 160 days instead of 270 days as press mud will be available from the unit will be for 160 days.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March 2015-May 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (26.8 µg/m³ and 33.7 µg/m³), PM_{2.5} (17.2 µg/m³ to 22.4 µg/m³), SO₂ (6.5 µg/m³ to 12.8 µg/m³) and NO_x (7.6 µg/m³ to 14.5 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.2 µg/m³, 3.6 µg/m³ and 2.1 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS. Bagfilter will be provided to bagasse fired boiler to control particulate emissions.

Fresh water requirement from ground water source will be 300 m³/day. Spent wash generation will be 240 m³/day, which will be treated in Bio digester followed by Multiple effect Evaporators (MEE) followed by Bio-composting. Condensate & non-process effluent will be treated in ETP and will be recycled back into process and as cooling tower make up. DM Plant & Softener regeneration will be neutralized and utilized for greenbelt development, ash conditioning and dust suppression. No effluent will be discharged outside the plant premises and 'Zero' liquid discharge will be maintained.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 12th November, 2015. The issues were raised regarding emissions standard, local employment, industrial 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 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, Bagfilter alongwith stack of adequate height should be provided to bagasse fired boiler to control particulate emissions within 50 mg/Nm³.
- 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 ground water will be 300 m³/day for distillery (Molasses). Effort shall be made to use recycled water from condensate of MEE for the cooling tower make up.

- iv. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in bio-digester. Treated effluent will be evaporated in MEE and concentrated spent wash will be bio-composted with filter press to achieve 'Zero' discharge. Effluent from 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. Distillery plant shall be operated for 180 days.
- v. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 30 days.
- vi. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- vii. 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.
- viii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- ix. 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.
- x. 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.
- xi. 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.
- xii. All the issues raised during the public hearing/consultation meeting held on 12th November, 2015 should be satisfactorily implemented.
- xiii. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project

area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xiv. 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 Nagpur. Implementation of such program should be ensured accordingly in a time bound manner.

6.6.3 Expansion of Sugar unit capacity from 7500TCD to 12000TCD at Hupari, Tehsil Hatkanangle, District Kolhapur, Maharashtra by M/s Jawahar Shetkari Sahkari Sakhar Karkhana Ltd.- reg. EC.

The project proponent and their consultant (M/s Green Circle , stay order) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded by SEAC, Maharashtra in its 114th meeting held during 19th – 21st November, 2015 2014 for preparation of EIA-EMP report. All Sugar industry are listed at S.N. 5(j) (ii) under category 'B' but due to applicability of general condition i.e. location of inter-state boundary at 2.25 km, proposal is treated as Category 'A' project and appraised at Central level.

M/s Jawahar Shetkari Sahakari Sakhar Karkhana Ltd. has proposed for expansion of Sugar Unit (from 7500 TCD to 12000 TCD) at Kallappaanna Awadenagar, Hupari Yalgud, Tal. Hatkanangale, Dist. Kolhapur. Plot area is 3,94,237.058 m² out of which area earmarked for greenbelt is 3,30,000 m². It is reported that no national park/ wildlife sanctuary/ coral formation reserve is located within 10 km distance. River Doodhganga is flowing at a distance of 6 Km. The total project cost is Rs.74.50 Crores. Out of which 200.95 Lakhs earmarked towards CSR activity. Environment clearance obtained for the existing power plant from SEIAA.

After detailed deliberation, Committee sought following additional information:

- i. Reanalysing of one month base line data in respect of AAQM, Noise and water quality.
- ii. Submission of Certified compliance report to the condition stipulated in the existing environmental clearance.
- iii. Commitment for maintaining ETP effluent upto BOD level 30 mg/l.
- iv. Point wise replies by the project proponent on the issues raised during public hearing.

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

6.6.4 Expansion of Ammonia – Urea Fertilizer Plant at Udyog Nagar Industrial Area Panki Kanpur Uttar Pradesh by M/s Kanpur Fertilizer & Cement Limited.- reg EC.

The project proponent and their consultant (M/s EQMS 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) have been

discussed and finalized during 18th and 24th Reconstituted Expert Appraisal Committee (Industry) held during 28th-30th April 2014 and 29th-31st September 2014 for preparation of EIA-EMP report. All Chemical Fertilizer industry are listed at S.N. 5(a) (i) under category 'A' category and appraised at Central level.

M/s. Kanpur Fertilizers & Cement Limited has proposed for Proposed Expansion of Ammonia-Urea Fertilizer Plant & CPP at Udyog Nagar Industrial Area, Panki, Kanpur, UP. Total Plot area is 243.4387 acres out of which area earmarked for greenbelt is 81 Acres. It is reported that no national park/ wildlife sanctuary/ coral formation reserve is located within 10 km distance. River Ganga and River Pandu is flowing at a distance of 6 Km. Total cost of the project Approx. 500 crores, out of which 50.60 crores and 11.735 crores earmarked for Capital Cost and Recurring Expenditure on Environmental Protection respectively. KFCL is proposed to Modernize and Increase the existing capacity of Ammonia- Urea Plant, Urea plant and captive power plant to produce 1.05 MTPA of Urea details are as follows:

S. No.	Unit	Existing	Additional	Total after Expansion
	Ammonia- Urea Plant	1245 MTPD	555 MTPD	1800 MTPD
	Urea plant	2046 MTPD	987 MTPD	3033 MTPD
	Captive Power Plant (Coal based) (1x60 MW + 1x35 MW)	12 MW	83	95 MW

The requirement of raw material and utilities for the proposed project are summarized below:

S. No.	Raw Material/Utilities	Unit	Requirement
1	Natural Gas (through GAIL existing Pipeline)	MMSCMD	2.05
2	Water (Lower Ganga Canal)	m ³ /day	21600
3	Coal (Indian/Imported)	MTPA	0.4

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (86 to 217 µg/m³), PM_{2.5} (41 to 142 µg/m³), SO₂ (12 µg/m³ to 13.6 ug/m³) and NO_x (19.6 µg/m³ to 27.3 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed Expansion project would be 20.24 µg/m³, 21.82 µg/m³ and 13.60 µg/m³ with respect to SO_x, NO_x and PM₁₀ respectively. The resultant concentrations are within the NAAQS. Electrostatic precipitators (ESP) with 99.9% efficiency are proposed to control the particulate emissions from the proposed expansion project and limit the particulate matter emissions to 50 mg/Nm³. Water requirement for Expanded Plant will be 21,200 m³ /day including 400 m³ /day for domestic purpose. The total water consumption after proposed expansion project will be 21,600 m³ /day. The total fresh water in plant consumption has been reduced due to recycle of 3725 m³ /day treated effluents and recycle of treated domestic wastewater from STP for dust suppression and Green belt development. The water will be drawn from existing source i.e. Lower Ganga canal. The proposed expansion project along with existing plant will generate 4320 m³/day of wastewater, which will be treated in the ETP. Sludge will be disposed off through Common Hazardous Waste Treatment Storage

and Disposal Facility (CHW TSDF) of M/S Uttar Pradesh Waste Management Project. (UPWMP).

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Uttar Pradesh Pollution Control Board on 14th July, 2015. The issues were raised regarding distribution of Urea in surrounding villages; etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberation, Committee sought following additional information:

- i. GLC of SO₂ from proposed expansion is reported to be 20.24 µg/m³, which is due use of coal as fuel and seems to be in higher side. Therefore, the Committee advised them to rework on the use of natural gas instead coal as fuel for CPP.
- ii. To bring down the water requirement of existing and proposed unit upto 6 m³ per MT of urea production.
- iii. Detailed plan to be drawn for water conservation measures including rainwater harvesting.
- iv. Greenbelt layout plan of the existing and proposed plant to drawn.

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

6.6.5 Modernization-cum-Expansion of Sugar Unit (2500 TCD to 7500 TCD), Molasses based Distillery (20 KLPD to 100 KLPD) and installation of Cogeneration Power Unit (38 MW) at Gat No. 21/1 to 21/6, Village Kumathe, Tikekarwadi, North Solapur District Solapur, Maharashtra by M/s Shree Siddheshwar Sahakari Sakhar Karkhana Ltd.. Reg. EC.

The project proponent and their consultant (Equinox Environments (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 14th meeting of the Reconstituted Expert Appraisal Committee (Industry) held on 19th-20th December, 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 Shri Shree Siddheshwar Sahakari Sakhar Karkhana Ltd.. has proposed for Modernization-cum-Expansion of Sugar Unit (2500 TCD to 7500 TCD), Molasses based Distillery (20 KLPD to 100 KLPD) and installation of Cogeneration Power Unit (38 MW) at Gat No. 21/1 to 21/6, Village Kumathe, Tikekarwadi, North Solapur District Solapur, Maharashtra. The total plot area is 1118520 m², of which greenbelt will be developed in 254955 m². Cost of project is Rs. 404.35 Crore. It is reported that there are no any Reserved /Protected forest / National Parks/ Wildlife Sanctuary within 10 kms radius from the site. Hotgi Lake (1.97 KM) and Sambhaji Lake (5.7 KM) are located within 10 km distance. PP confirmed that 20 KLPD old distillery will be scraped and new distillery of 100 KLPD will be installed. Following products will be manufactured:

S. No.	Industrial Unit	Product	Existing	Expansion	Total	
1	Sugar Unit	Sugar	8,200 MT/M	18,000 MT/ M	26,200 MT/ M	
		By Product				
		Molasses	3,300 MT/ M	6,000 MT/ M	9,300 MT/ M	
		Bagasse	24,000 MT/ M	45,000 MT/ M	69,000 MT/ M	
2	Distillery	Pressmud	2,625 MT/ M	6,000 MT/ M	8,625 MT/ M	
		Rectified Spirit	600 KL/M	3000 KL/M	3000 KL/M	
		By Product				
		Ethanol	-	2850 KL/M	2850 KL/M	
		ENA	-	2820 KL/M	2820 KL/M	
		Imp Spirit	-	180 KL/M	180 KL/M	
3	Co- gen	Fused Oil	1.5 KL/M	-	-	
		CO ₂ gas		2310 MT/M	2310 MT/M	
3	Co- gen	Electricity	-	38 MW	38 MW	

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March 2014 to May 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (48.40 µg/m³ to 62.90 µg/m³), PM_{2.5} (9.40 µg/m³ to 16.57 µg/m³), SO₂ (11.80 µg/m³ to 22.50 µg/m³) and NO_x (12.83 µg/m³ to 25.57 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.5 µg/m³ and 1.0 µg/m³ with respect to PM₁₀ and SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). ESP will be provided to addition bagasse/coal fired boiler (200 TPH) and coal/spenwash fired incineration boiler to control particulate emissions. Total water requirement for sugar, co-gen and distillery will be 5175 m³/day after expansion. Out of which, fresh water requirement from Hotgi Lake for sugar, co-gen and distillery will be 702 m³/day and remaining water requirement will be met from treated effluent. The total effluent from expansion of Sugar unit and Co-gen would be 814.7 M³/Day. This effluent from both units would be treated in existing ETP which shall be duly upgraded. The treated effluent is used for gardening in own factory premises. The RO reject from RO which shall be installed under proposed expansion of sugar unit, would be 243 m³/Day, out of that 233 M³/Day of reject shall be forwarded to sugar ETP and remaining 10 m³/Day would be used for ash quenching in co-gen unit. The effluent generated from proposed expansion of distillery comprises of raw spent wash 800 m³/day, Spentlees 253 m³/day, MEE condensate 593 m³/Day, 8 M³/Day from cooling, 40 M³/Day from boiler, 1 M³/Day from lab & washing. The raw spent wash shall be concentrated in MEE and concentrated spentwash will be incinerated with coal in the incineration boiler. The remaining 895 m³/Day effluent shall be treated in Condensate Polishing Unit (CPU). The effluent treated from CPU unit shall be forwarded to RO. The RO permeate 650 M³/Day would be reused for process and out of total 245 m³/Day RO reject, 215 M³/Day shall be forwarded to ETP and remaining 30 M³/Day would be used for ash quenching in distillery unit. Sewage will be treated in the STP. No effluent will be discharged outside the plant premises.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 3rd March, 2015. The issues were raised regarding use of treated effluent, spent wash storage, local employment, use of solar energy, water conservation, 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 deferred the project for want of following information;

1. Commitment to scrap the existing plant (20 KLPD)
2. Detailed Traffic management due to enhanced production and plan to avoid traffic congestion.
3. Submit plan (5% of project cost) for the Enterprise Social Commitment (ESC) based on local needs such as medical, sanitation facility and action plan with financial and physical breakup/details

2nd Session: Time: 2.00 PM

6.6.6 Establishment of Active Pharmaceutical Ingredients (APIs) manufacturing industry with R & D activity at Plot No. 27-29, KIADB Industrial Area, Tehsil and District Gouribidanoor, District Chikkaballapur, Karnataka by M/s R L Finechem Pvt. Ltd. – reg EC.

The project proponent and their consultant (M/s. AQUA TECH ENVIRO ENGINEERS) 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 46th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th-21st August, 2015 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (bulk drug 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. R L Finechem Pvt. Ltd. has proposed for setting up of active Pharmaceutical Ingredients (APIs) manufacturing industry with R & D activity at Plot No. 27-29, KIADB Industrial Area, Tehsil and District Gouribidanoor, District Chikkaballapur, Karnataka. The total project cost for the proposed unit is Rs. 33.2 Crores. Total plot area is 24,290 m² out of which greenbelt will be developed in 10,000 m². It is reported that no national park is located within 10 km distance, Reserved Forests (i.e. Narasimha Devarbetta Reserve Forest (15 km South East), Gollapuram Lake (3.5 km North East), Kudumalkunta Lake (1 km South West), Yerrahalli Lake (2.5 km South), Gaudasandra Lake (4 km South East), Thumakunta Lake (2 km North), Myalya Lake (5 km East) and Penner River (2.5 km West) are located within 10-15 km distance. The following products will be manufactured:

S. N.	APIs	Capacity Proposed	
		(kg/month)	(kg/annum)
1	Amtriptyline hydrochloride	10,000	1,20,000
2	Imipramine HCl/Desipramine HCl	1,150	13,800
3	Cyproheptadine HCl	700	8,400
4	Pitofenone HCl	700	8,400
5	Pyrimethamine	600	7,200
6	Cyclobenzaprine HCl	1,150	13,800
7	Clomipramine HCl	600	7,200
8	Chlorpromazine HCl	1,500	18,000
9	Doxylamine Succinate	1,400	16,800
10	Orphenadrine Citrate/ HCl	4,000	48,000

11	Trimipramine Maleate/ Mesylate	500	6,000
12	Flupentixol HCl	40	480
13	Melitracen HCl	300	3,600
14	Carbinoxamine Maleate	700	8,400
15	Opipramol HCl	400	4,800
16	Sulfadoxine	2,400	28,800
17	Doxepin HCl	280	3,360
18	Nitrazepam	240	2,880
19	Dothiepin HCl	1,200	14,400
20	Bromazepam	60	720
21	Flunarazine HCl	430	5,160
22	Cinnarazine	2,500	30,000
23	Clonazepam	130	1,560
24	Lorazepam	130	1,560
25	Duloxetine HCl	300	3,600
26	Dapoxetine HCl	50	600
27	Desvenlafaxine HCl	400	4,800
28	Trihexyphenadyl HCl	300	3,600
29	Tramadol HCl	2,500	30,000
30	Sulfamethoxy Pyrazine HCl	500	6,000
31	Alimemazine Tartarate	200	2,400
32	Alprazolam	110	1,320
33	Diazepam	120	1,440
34	Buclazine HCl	400	4,800
35	Meclazine HCl	400	4,800
36	Carbamezapine	2,000	24,000
	Total	38,390	340,680

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 5 locations during September to November 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (15 – 40 µg/m³), PM_{2.5} (4.6-43 µg/m³), SO₂ (less than 4.0 µg/m³) and NO_x (6.5 µg/m³ to 10.6 µg/m³) respectively. Process section proposed to be provided with Packed column scrubbers & stack of adequate heights. R&D proposed to be provided with Packed column scrubbers & stack of adequate heights. Committee suggested them to install bagfilter for Briquette fired boiler to control particulate emissions. Total water requirement from ground water source will be 103 m³/day. Total Waste water discharge will be 72.955 m³/day. Industrial effluent will be segregated and treated in MEE followed by RO filtration. Waste oil generation from DG set will be disposed through authorized recyclers. Residue from solvent recovery plant will be disposed through Cement industries for co incinerations. Used MS drums will be disposed through authorized recyclers. Used poly bags will be disposed through authorized recyclers. Inorganic salt from MEE will be disposed to TSDF for scientific landfill. Spent carbon will be disposed through Cement industries for co incinerations and Spent organic solvent fraction from MEE stripper Disposed through authorized solvent recyclers.

After detailed deliberation, Committee sought following additional information:

- i. Repeat ambient air quality data for one month.

- ii. Reanalyse surface water quality monitoring.
- iii. Revised water balance chart and reduce the fresh water requirement by using treated effluent.
- iv. Revised effluent treatment scheme considering segregating effluent into high TDS/COD and low TDS/COD effluent streams.
- v. Copy of environmental clearance of industrial area.

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

6.6.7 Expansion of Bulk Drug Unit by adding Active Pharma Ingredients (60 TPA) at Plot No.125 & 126, SIPCOT Industrial Complex, Village & Tehsil Hosur, District Krishnagiri, Tamil Nadu by M/s Global Calcium.- reg EC.

The project proponent and their consultant (M/s. Vimta Labs Limited., Hyderabad/Coimbatore) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 28th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 1st-2nd December, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within interstate boundary is treated as category 'A' and appraised at Central Level.

M/s Global Calcium Private Limited has proposed expansion of Bulk Drugs unit at S.F.No.125 and 126, SIPCOT Industrial Estate Complex (Phase-I), Hosur Taluk, Krishnagiri District, Tamilnadu. The total plot area is 2.32 Ha, of which, area earmarked for greenbelt is 0.60 Ha. The cost of proposed expansion will be Rs. 5 Crores. Ponnaiyar (South Pennar) River is flowing at a distance of 8.86 km, East. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S. No.	Products	Process	Quantity in TPA
Existing			
1	Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates etc.	Conventional	1641
		Conversion	1400
2	Calcium Glucobionate, Calcium Borogluconate, Calcium lacto Gluconate and other mineral salts	Spray drying process	2615
		Conversion	1215
Proposed Expansion			
	Iron sucrose, Calcium dobesylate, Tiemonium methyl sulphate, Ethamsylate, Perazin dimaleate, Tolperisone HCL, Calcium glycerophosphate, Magnesium		60

	glycerophosphate, Sodium glycerophosphate, Sodium beta glycerophosphate, Carbasalate calcium, Calciumd-saccharate, Alendronate sodium, Benfotiamine, Calcium folinate, Phenrocoumon, Strontium ranelate etc.		
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Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 1stDecember 2014 – 28thFebruary 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (38.1 µg/m³ to 63.9 µg/m³), PM_{2.5} (15.4 µg/m³ to 34.2 µg/m³), SO₂ (11.5 µg/m³ to 23.1 ug/m³) and NO_x (18.2 µg/m³ to 27.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.34 µg/m³, 9.33 µg/m³ and 6.04 µg/m³ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

At present, the unit is having a steam boiler 2 Ton/hr and After proposed expansion wood fired steam boiler 1X4.0 TPH capacity will be installed. The Committee suggested them to use other fuel instead of wood. Scrubber will be provided to control process emission viz. Br₂ from electrolytic cell. Total diesel consumption for back up facility is 473.87 Lit/hr. Additional D.G. Set of capacity 125 KVA-3 in Nos, 180 KVA-2, 380 KVA-01 in Nos and 450 KVA-01 in Nos. has also been proposed which will be sufficient to meet the emergency power requirement for the proposed expansion. Water requirement from SIPCOT water supply will be increased from 82.25 m³/day to 92.33 m³/day after expansion. Effluent generation will be increased from 61.6 m³/day to 72.8 m³/day after expansion and treated in the ETP followed by RO. Permeate will be recycled/reused in process. RO rejects will be evaporated in MEE. Condensed water from Mechanical Evaporator is also reused. No effluent will be discharged outside the plant premises. ETP sludge, evaporated salt and process waste will be sent to landfill facility. Ash from boiler will be sent to brick manufacturers.

Certified compliance report dated 27.07.2015 issued by the Regional Office, Chennai is submitted. Point wise compliance report was discussed and the committee found it satisfactory.

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

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

- i. Bagfilter and the stack of adequate height shall be provided to additional coal fired boiler.
- ii. Scrubber shall be provided to control process emissions viz. Br₂. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment.

Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from SIPCOT water supply shall not exceed 92 m³/day.
- v. Effluent generation shall not exceed 72 m³/day and treated in the ETP followed by RO. Permeate will be recycled/reused in process. RO rejects will evaporated in MEE. Condensed water from Mechanical Evaporator is also reused Condensate and recover water will be recycled/reused within factory premises.
- vi. No effluent will be discharged outside the plant premises and 'ZLD' will be followed.
- vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. As proposed, green belt of 0.60 ha 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.

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

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 40th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 18th to 19th May, 2015 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 Panara Laminate Pvt. Ltd. has proposed for setting up of Resins (Phenol Formaldehyde, Melamine Formaldehyde & Urea Formaldehyde) Manufacturing Unit at Survey No. 341/P Chiyada Village in Bavla Taluka of Ahmedabad Gujarat. Total plot area is 11,890 m². of which, greenbelt will be developed in 4000 m². area. It is reported that no national park/ wildlife sanctuary/ reserve forest/ is located within 10 Km periphery of the project site. Chiyada Lake found within 1.56 km periphery. Cost of project is Rs. 1 Crore, of which Rs. 17.0 Lakh is earmarked towards capital cost for environmental management plan. Following products will be manufactured:

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

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March 2015 to June 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (58.9 µg/m³ to 82.1 µg/m³), PM_{2.5} (24.0 µg/m³ to 32.4 µg/m³), SO₂ (5.1 µg/m³ to 12.9 µg/m³) and NO_x (11.0 µg/m³ to 17.2 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 10.0 µg/m³, 0.35 µg/m³ and 3.0 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Bag filter will be provided to coal/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions. DG set (250 KVA) will be installed.

Total fresh water requirement from the ground water source for the proposed project will be 46.6m³/day. Total generated wastewater from resin process, cooling and Boiler blow-down and washing will be 16 m³/day, which will be treated in the ETP followed by evaporator and condenser. The sewage generation will be 8 m³/day and it will be treated in STP and treated sewage will be send to TSDF. The plant is based on Zero Liquid discharge.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12th January, 2016. The issues were raised regarding greenbelt, air pollution control measures, impact on health 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/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 46.5 m³/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. Process plant should be interlocked with ETP. In case of shut down of ETP, the plant should be stopped automatically.
- 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 4000 m² 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 12th January, 2016 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.

6.6.9 Multifeed distillery (50 JLPD) alongwith cogeneration power plan (1.5 MW)t at Gat no. 147/4, 148/1/2A, 148/1/1B at village Pimpalaon, district Nashik, Maharashtra by M/s KGS Sugar & Infra Corporation Ltd.- reg. EC.

The project proponent and their consultant (Mantras Green Resources 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 6th Meeting of the Expert Appraisal Committee (Industry) held during 30th March, 2015- 02ndApril, 2015 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 KGS Sugar & Infra Corporation Ltd. has proposed for setting up multi-feed distillery (50 KLPD) alongwith cogeneration power plant (1.5 MW) at Gat no. 147/4, 148/1/2A, 148/1/1B at village Pimpalaon, district Nashik, Maharashtra. Plot area is 177000 m². Out of which area earmarked for greenbelt is 58410 m². Cost of project is Rs. 86.96 Crore. Out of which amount earmarked for EMP is Rs. 757.61 Lakhs. There is no eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 Km radius of project area. River Godavari is located at a distance of 7.0 Km.

The Company proposes to setup 50 KLPD mutifeed based ethanol unit and has decided to put up a 1.5 MW captive power plant. Total Working Days for distillery will be 330 day in which 240 days depend on Molasses feed and 90 days on Grain feed. The raw materials required for proposed project

S. No.	Raw material	Requirement (MTD)	Source
1	Grain	129	Nearby farmers
2	Molasses	210	From own sugar mill

Present proposal is to manufacture alcohol as below:

S. No.	Product	Capacity	Unit
	Alcohol (RS/ENA/AA)	50	KLPD
	Electrical power	1.5	MW
By products			
	Biogas	22000	Nm ³ /day
	Bio-compost	83	MTD
	Dried distillers grains and soluble (DDGS)	44	MTD
	Carbon dioxide	35	MTD

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 5 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60 µg/m³ and 88 µg/m³), PM_{2.5} (40 µg/m³ to 56 µg/m³), SO₂ (2 µg/m³ to 27 µg/m³) and NO_x (15.0 µg/m³ to 38 µg/m³) respectively. AAQ modelling study for point source emissions indicate that the maximum incremental GLCs after the

proposed project would be 35.7, 15.5 $\mu\text{g}/\text{m}^3$ and 4.4 $\mu\text{g}/\text{m}^3$ with respect to SO_2 , NO_x and PM_{10} respectively. The resultant concentrations are within the NAAQS. During presentation, PP informed that Ventury scrubber will be provided to control the particulate matter. However, the Committee suggested them to install bagfilter. The stack will be designed with sufficient height (35m) to aid dispersion to the point where emissions will not impact on any receptors. Adequate green belt will be developed.

Fresh water requirement from existing bore well will be 492 m³/day for Molasses based distillery. For grain based distillery, water requirement will be 481 m³/day and for Captive power plant, water requirement will be 376m³. Spent wash will be concentrated in MEE (Multiple Effect Evaporator). The sewage generated from the sanitary blocks will be treated in STP and used for irrigation. The proposed project would be based on "Zero Liquid Discharge (ZLD). The Bagasse (of calorific value – 3500 Kcal/kg) will be used as fuel in the boiler to produce steam for operation of plant and 3 MW power plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 26th June, 2015. The issues were raised regarding plantation, water conservation measures, payment to sugarcane growers, Air pollution control measures, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information:

- i. At page xvi of the EIA report, it is mentioned that source of water supply is ground water. However, during the presentation, it was informed that source of water supply is Godawari River. Discrepancy need to clarify.
- ii. Fresh water requirement shall not exceed 10 KL per KL of alcohol produced. Revise water balance chart to be submitted. Water requirement need to be reworked with existing sugar unit.
- iii. Adequate treatment scheme for spent wash generated from molasses based distillery.
- iv. Adequate Treatment scheme for spent wash generated from grain based distillery.
- v. Submit plan (5% of project cost) earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details
- vi. Submit layout plan for greenbelt.
- vii. Rain water harvesting facility to be provided.
- viii. Status of Environmental Clearance and consent to operate of the existing unit of sugar and CPP.

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

6.6.10 Bulk Drug Manufacturing Unit at Plot No 34, Gollapuram Industrial Park, Village Gollapuram, Mandal Hindupur, District Anantapuramu, Andhra Pradesh by M/s Penn Bio Chemicals India Pvt. Ltd.- reg. EC

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 34th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 17th-19th February, 2015 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Bulk drugs & 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 Penn Bio Chemicals India Pvt. Ltd. has proposed setting up of Bulk Drug Manufacturing Unit at Plot.No:34, Gollapuram Industrial Park, Village Gollapuram, Mandal Hindupur, District Anantapuramu, Andhra Pradesh. The total project cost for the proposed unit is Rs. 28.79 Crores. Total plot area is 9.47 Acres (38338.58 m²), out of which greenbelt will be developed in 13091.70 m². It is reported that no national park is located within 10 km distance Penner River (3.4 km W), Kumudvati River (8.0 km W) and Santebidanur Lake (4.7 km NW) are located within 10 km distance. Inter State Boundary present which is Andhra Pradesh & Karnataka (0.50km S). The following products will be manufactured:

S. No	Product Name	Therapeutic Category	CAS No's	Quantity Kg/Month	Quantity Kg/Day
1	Abacavir Sulphate	Antiretroviral	188062-50-2	2500.00	83.33
2	Aliskiren Hemifumarate	Antihypertensive Agent	173334-58-2	1500.00	50.00
3	Darunavir ethanolate	Antiretroviral	635728-49-3	2000.00	66.67
4	Duloxetine Hydrochloride	Antidepressant	136434-34-9	2000.00	66.67
5	Entecavir Monohydrate	Antiviral agent	209216-23-9	3000.00	100.00
6	Febuxostat	Xanthine oxidase Inhibitor	144060-53-7	2500.00	83.33
7	Fosamprenavir	Antiretroviral Agent	226700-81-8	1000.00	33.33
8	Montelukast Sodium	Antiasthmatic	151767-02-1	2000.00	66.67
9	Pregabalin	Neuropathic Pain Agent	148553-50-8	10000.00	333.33
10	Sevelamer Hydrochloride	Phosphate binder	152751-57-0	3000.00	100.00
11	Tadalafil	Anti-erectile dysfunction agent	171596-29-5	5000.00	166.67

12	Tizanidine hydrochloride	Skeletal muscle Relaxant	64461-82-1	5000.00	166.67
13	Valacyclovir hydrochloride Monohydrate	Antiviral	124832-27-5	1500.00	50.00
	Total			41000.00	1366.67

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March-May 2015 and submitted baseline data indicates that ranges of concentrations of PM10 (48.12 µg/m³ to 62.55 µg/m³), PM2.5 (15.65 µg/m³ to 22.54 µg/m³), SO₂ (8.42 µg/m³ to 13.63 µg/m³) and NO_x (12.54 µg/m³ to 18.50 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.312 µg/m³, 1.04µg/m³ and 1.14 µg/m³ with respect to PM, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal fired boiler (1x2TPH + 1x5TPH) to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl.

Total water requirement will be 260 m³/day. Out of which fresh water requirement from APIIC water supply will be 200 m³/day and remaining 60 m³/day will be met from treated effluent. Industrial effluent generation will be 120 m³/day. Industrial wastewater will be segregated into High TDS and Low TDS effluent streams. HTDS Sent to stripper followed by MEE and ATFD. Condensate will be sent to ETP followed by RO. LTDS Effluents sent to ETP followed by RO system.RO Rejects sent to MEE system and RO Permeate to Reuse. No effluent will be discharged outside the plant premises. ETP sludge to be sent to TSDF for proper treatment and disposal. Organic Residue will be Sent to Cement Industries. Inorganic solid waste will be Sent to TSDF, Coal ash from Boiler will be Sent to Brick Manufacturers & Waste Oils & Grease will be sent to SPCB Authorized Agencies for Reprocessing / Recycling. D.G. set (2 nos) of 250KVA and 500 KVA each will be installed.

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

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

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

- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from APIIC water supply shall not exceed 200 m³/day.
- v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix. Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xii. As proposed, green belt of 13091.70 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.

6.7 Any Other

6.7.1 Drilling of 10 exploratory wells and appraisal wells of Block CB-ONN-2005/5 in Districts Ahmedabad and Gandhinagar, Gujarat By M/s Omkar Natural Resources Pvt. Ltd.- Amendment in EC- reg. Change in coordinates.

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

6.7.2 Castor oil derivatives manufacturing unit at Block no. 364, Aakarni Prakar 0-79-67, Village Luna, Tehsil Padra, District Vadodara, Gujarat By M/s Shipra Agrichem Pvt. Ltd.- reg. Amendment in EC. {J-11011/307/2010 IA II(I)}

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

6.7.3 Setting up of bulk drugs unit at Sy.No. 11/2, Attibele KIADB Industrial Area, Balagranahalli village, Anekal Taluk, Bangalore, Karnataka by M/s Sonia Organics - reg. reconsideration of TOR {J-11011/151/2015-IA-II(I)}.

MoEF&CC vide letter J-11011/61/2012 dated 25.10.2012 has directed the State Government to initiate the legal action against the unit for commencing the production activities without obtaining prior environmental clearance for the existing unit as per EIA Notification, 2006. This is case of violation. Ministry has not received action taken report in this regard. The matter will be treated as violation and shall be considered as per prevailing procedures.

6.7.4 Setting up of grain based Distillery (100 KLPD) at Village Goandpur Jai Chand, Tehsil Haroli, District Una, Himachal Pradesh by M/s Rock and Storm Distilleries Pvt. Ltd.- reg. reconsideration of TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Rock and Storm Distilleries Pvt. Ltd. has proposed to set up 100 KLPD grain based distillery alongwith CPP of 3.0 MW at Village Goandpur Jai Chand, Tehsil Haroli, District Una, Himachal Pradesh.

Earlier, the proposal was considered in 2nd EAC meeting (Industry-2) held during 16-17th December 2015. After detailed deliberations, the Committee observed from the site specific topo sheet (within 1 km area) that the site is located in watershed area of certain river which has not been clearly explained by the project authority. The Committee did not agree with the proposal. It was suggested to specify details about the flood zone of the river with proper topo sheet and seek the permission first from the Irrigation department confirming that the project site does not fall within flood zone of the river. The proposal was accordingly deferred. Now the PP vide letter dated 29.03.2016 has submitted a forwarding letter dated 21.12.2015 from Department of Irrigation cum Public Health confirming the area is not flood prone. Proposal has now been considered with following features.

There is no ecologically sensitive area, National Park, Biosphere Reserve & Bird Sanctuary are found with-in 5 km radius of the project site. Total Area of proposed project is 16 acres. Out of which, area earmarked will be 5.3 acre (33 %) as Green belt. Total cost of the project is Rs. Rs 101 Crores. The total manpower required for the proposed project will be 250 persons. Distillery will work 330 days annually.

According to PFR, PP informed that the Boiler of 30TPH will be installed with Bag filter and stack height will be 30 m. DG SET (750KVA) with 10 m stack height will be installed.

Total water requirement for the proposed project will be 922m³/day from ground water. PP informed that the project will be based on "Zero Effluent Discharge". Wastewater returned back to process for utilization in Fermentation/ cooling tower and for gardening. Condensate from MEE will be recycled back to the process and use for cooling tower as make up. Spent lees will be recycled partly to the columns for dilution and balance will be used for cooling tower make up. Domestic waste water will be treated in Septic Tank followed by ETP. Effluent Treatment Plant will be installed for treatment of waste water. The Committee suggested for establishing STP.

Fly ash (20 TPD) from the Boiler will be used for land filling or will be given to brick manufacturing units for reuse. Spent wash will be incinerated in Multi-effect evaporator.

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

A. Specific TOR

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

8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

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

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.

6.7.5 Expansion of Bulk Drug from 10.5 TPA to 20.1 TPA at Plot No. A1/7 & A1/8, Phase 1, G.I.D.C. Estate, Vapi, District Valsad, Gujarat by M/s. Avik Pharmaceuticals Ltd.

The proposal was considered by the EAC in its meeting held during 16th -17th December , 2015, wherein PP requested for amendment in the following conditions stipulated by MoEF&CC vide letter no J-11011/185/2012 – IA II (I) dated 15th May, 2015:

“The company shall manufacture any one of the above mentioned product at a time or in combination of various products but the quantity shall not increase beyond 50 kgs/day.”

Further, the Committee suggested them to provide calculation sheet confirming that there is no increase in the effluent quantity. Regarding other amendment sought, the Committee suggested that Ministry may examine the matter with respect to CPCB guidelines and a view to be taken.

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

- (ii) Online analyzer as per CPCB guidelines shall be implemented. .

6.8 Terms of Reference (TOR)

6.8.1 Setting up of Sulphonation plant 72 TPD (18,000 TPA) of 96% Linear Alkyl Benzene Sulphonic Acid (LABSA) at PIPDIC Industrial Estate, Sedarapet, Pondicherry by M/s Power Soap Limited.

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

M/s Power Soap Limited has proposed for setting up of sulphonation plant 72 TPD (18,000 TPA) of 96% Linear Alkyl Benzene Sulphonic Acid (LABSA) at PIPDIC Industrial Estate, Sedarapet, Pondicherry. As per Form-1, it is reported that no national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance. Following falls within 10 radius from the proposed site.

- Ousudu Bird Sanctuary- 3.2 km (S)
- Chunnambar River- 14.1 km (SE)
- Sangarabarani River- 9 km (SSW)
- Ousudu Lake – 3.2 km (S)
- Toruvai Lake- 2.2 km (N)
- Pulichapallam Lake- 3.4 km (N)
- Kaliveli Lake- 10.1 km (NE)
- Katterikuppam Lake- 6 km (W)
- Kodur Lake- 6.6 (NE)
- Katrambakkam Lake- 5 km (N)

Total plot area is 2.24 acre. Greenbelt coverage is not mentioned. Capital cost of the project is about Rs. 10.0 Crores of which Rs. 2.5 crores will be invested on pollution control, treatment, green belt development, rainwater harvesting, environmental monitoring systems and others. About 30 people will be employed under the project. Following products will be manufacture:

Sr. No.	Product	Capacity
1.	Linear Alkyl Benzene Sulphonic Acid	72 TPD

Total power requirement is 900 KVA which will be met from State Grid. A Gen set of 1000 KVA will be provided as additional power backup which will use HSD. Process emission such as SO₂ SO₃ and acid mist will be scrubbed.

Fresh water requirement of 48.5 m³/day will be sourced from Pondicherry Industrial Promotion and Development Corporation Ltd. Against this 6 m³/day of wastewater will be generated which will be treated in ETP. The plant is based on ZLD.

Spent catalyst/ sulphur residue/ ETP sludge will be sent to TSDF after following Hazardous Waste Management and Handling, Rule. PP requested for exemption in Public Hearing. The Committee noted that there is no authenticated document except the allotment letter dated 13.03.2014 issued by PIPDIC. Therefore, in absence of authenticated document issued by the State Government/ UT regarding notification of industrial zone, the Committee recommended for Public Hearing

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

A. Specific TOR:

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

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. A copy of application submitted to NBWL seeking wildlife clearance due to Ousudu Bird Sanctuary.

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

6.8.2 Proposed specialty chemicals, pesticide intermediates and perfumery chemical unit at Plot No. CH-11/A, Dahej-I, Dahej Industrial Estate, Taluka Vagra, District Bharuch, Gujarat by M/s. V India Chemical Industries Pvt. Ltd.

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

M/s V India Chemical Industries Pvt. Ltd. has proposed for setting up of specialty chemicals, pesticide intermediates and perfumery chemical unit at Plot No. CH-11/A, Dahej-I, Dahej Industrial Estate, Taluka Vagra, District Bharuch, Gujarat. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. River Narmada is flowing at a distance of 6 km from the proposed project.

Cost of proposed project is Rs. 25 Crore, out of which 6 crore is earmarked for environment protection measures. Plot area is 5101 m², of which 1340 m² of land will be developed as greenbelt. Following products will be manufactured:

Sr. No.	NAME OF PRODUCTS	Proposed Quantity (MT/M)
1.0	SPECIALTY CHEMICALS	275
1.1	2, Diazo 1- Naphthol,5-Sulphonic Acid Sodium Salt (NAS)	
1.2	2,7 Di Chloro 4-(2-Dibuty Amine) Ethane Flurine	
1.3	3-Quinoline Carboxylic Acid 7-Chloro -1-Cyclopropyl -1,4-dihydro 8- Methyl 4-Oxo-Ethyle Ester	
1.4	L-2-Chloropropionic Acid Isobutyl ester	
1.5	2-Phenyl Benzimidazol -5-Sulphonic Acid	
1.6	Neodecanoyl Chloride	
1.7	2-Ethyl Hexanoyl Chloride	
1.8	2,3 Dichloro Benzoyl Chloride	
1.9	3-(4-Amino-3, 5-DI Methyl phenyl)Prop-2-ene Nitrile	
1.10	4-[(4-{[4-(2-Cyano Ethenyl)-2,6-1]Di Methly Phenyl }Amino}Pyrimidin-2-yl)Amino]Benzonitrile	
1.11	1-(6-Amino-9H-Purin-9-Yl)Propan-2-Ol	
1.12	4-[(4-Hydroxy Pyrimidin-2-yl)Amino] Benzonitrile	
1.13	4-[(5-Hydroxy Pyrimidin-2-yl)Amino] Benzonitrile	
1.14	4-[(6-Oxo-4,5-Dihydro Pyrimidin-2-yl)Amino] Benzonitrile	
1.15	4-[(6-Amino-5-Bromo-2-[(4-Cyanophenyl) Amino]Pyrimidin-4-yl)Oxy]-3-5-Dimethyl Benzonitrile	
1.16	EBASA-Ethyl Benzyl Aniline Sulphonic Acid	
1.17	5-Cyano Phthalide	
1.18	2-Chloro 6-Nitro Benzotrifluoride	
1.19	2,4 Di Chloro 3,5 Dinitro Benzotrifluoride	
120	Diphen/Sulfide	
2.0	AGROCHEMICAL INTERMEDIATES	150
2.1	1,2,4 Triazole	
2.2	3-Methyl 4- Nitro Imino Per Hydro1,3,5 Oxidiazine	
2.3	4-HPA / R HPPA-(R(+)-2-]4-(5-Chloro-3-fluoro pyridine-2-yloxy Phenoxy)]Propionic Acid	
2.4	4,4 Thio Diphenol	
2.5	D-Allethrollone	
2.6	N-Nil-N-Nitro Imino Imidazolidine	
2.7	CCMP/2-Chloro 5-Chloromethyl Pyridine	
2.8	CCMT/2-Chloro 5- Chloromethyl Thiazole	
2.9	Na -TCP / 3,5,6 Tri Chloro Pyridinol Sodium Salt	
2.10	TCAC/Tri Chloro Acetyl Chloride	
2.11	Transfluthrin Acid Chloride	
3.0	PERFUMARY CHEMICALS	50
	Group-1	
3.1	Allyl Caproate	
3.2	Allyl Haptanoate	
3.3	Isobutyl Caproate	
3.4	Amyl Caproate /Iso Amyl Caproate	
3.5	Hexyl Caproate	
3.6	Allyl Phenoxy Acetate	
3.7	Octyl Acetate	
3.8	Decycle Acetate	
3.9	Hexyl Iso Butyrate	
3.0	PERFUMARY CHEMICALS	
Group-1		

3.10	Phen Oxy Ethyl Iso butyrate	
3.11	Citronellyl Acetate	
3.12	Geranyl Tiglate	
3.13	Phenyl Ethyl Tiglate	
3.14	Cinnamyl Cinnamate	
3.15	Ethyl Butyrate	
Group-2		
3.16	Sandalite	50
3.17	Purasandal	
3.18	Megasandal	
3.19	DIPAL	
3.20	PRINILE	
3.21	Isogasmine P	
Group-3		
3.22	Citralite	50
3.23	Praistone	
3.24	Applitone	
3.25	Herboxane	
Group-4		
3.26	SAFRANAL	50
3.27	CDEA	
Grand Total MT/Month		625 MT/Month

BY-PRODUCTS

S.NO.	Name of By-Products	Proposed Quantity MT/Month
1.	Sodium Sulphate Salt	95
2.	HCL (32%)(Recycle in plant Premises)	810
3.	Sodium Sulphite (20%)	1237
4.	AlCl ₃ (25%)	776
5.	Potassium Chloride	620
6.	Caustic Lye 40%(Recycle in plant Premises)	74
7.	Formic Acid (Recycle in plant premises)	150
8.	Phosphoric Acid	278

Fresh water of 120 m³/day will be sourced from GIDC supply. Industrial effluent of 68 m³/day will be generated and treated in ETP based on tertiary treatment. Wastewater will be segregated into two streams of high TDS/ COD and low TDS/ COD. Partially treated effluent will be sent to CETP for final treatment before discharge into the sea.

Power requirement of 250 KVA will be sourced from Electricity Board. Additional DG sets of 2x100 KVA will be installed as power backup using HSD. Natural gas/ agro waste fired boiler will be installed however its capacity is not mentioned.

ETP sludge, MEE salt, process waste and inorganic waste will be collected, stored transport and disposed to TSDF site. Used oil, discarded containers will be sold to registered recycler.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions

control.

3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, CS₂ etc., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area.
- ii Plant shall be based on Zero Liquid Discharge.

It was recommended that '**TORs**' with exemption of 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.

6.8.3 Proposed expansion of synthetic organic chemicals(205 TPM to 1125 TPM) at Plot no 63,6A,6B, Rasayani Road, Village Madap, Taluka Khalapur, District Raigad Maharashtra by M/s Lakeland Chemicals (India) Ltd.

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

M/s. Lakeland Chemicals (India) Ltd. has proposed expansion of synthetic organic chemicals at Plot no 63,6A,6B, Rasayani Road, Village Madap, Taluka Khalapur, District Raigad Maharashtra. The project was established prior to EIA notification 1994 and obtained the consent letter dated 30.11.1992. As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Patal-Ganga is flowing at the distance of 2.8 km in South East direction.

Total plot area is 17575 m². Out of which greenbelt will be developed on 8019 m² of land. Total Cost of the project is Rs. 58.57 crores. Following are the details of products of existing and proposed expansion:

S. No.	Product	MT/MONTH		
		Existing	Proposed	Total after proposed expansion
1	Esters	80	0	80
2	Ethoxylates	80	0	80
3	Speciality Chemicals	40	0	40
4	Amphoterics	5	0	5
5	Propoxylates	0	120	120
6	Ester Emulsions	0	300	300
7	Blending Chemicals	0	300	300
8	Block Co polymer (EO /PO)	0	200	200
	Total	205	920	1125

The power requirement will increase from 225 KVA to 425 KVA which will be sourced from MSEDCL. In the existing Plant, DG set having capacity 750 KVA will be used for the proposed plant using HSD fuel. PP informed there is no process emission.

Total fresh water requirement after expansion will increase from 72 m³/day to 80 m³/day against which 25 m³/day of wastewater will be generated. PP requested for discharge in CETP for final treatment but the committee suggested for ZLD as no dedicated transportation system of effluent is available.

Hazardous wastes generated are being disposed off through the authorized TSDF site in accordance with the statutory requirements as per Hazardous Waste Management Rules. The same practice will be continued upon expansion. ETP sludge, waste residue will be send to TSDF site and used oil and discarded containers will be sold to authorized recycler.

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

A. Specific TOR:

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

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

B. Additional TOR

- ii. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- iii. ZLD system to be adopted with adequate treatment and recycle and reuse of wastewater..

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.

6.8.4 Establishment of New Distillery Plant Capacity 40 KLD along with 2.0 MW power Generation within premises of existing sugar Mills Iqbalpur, Tehsil Roorkee, District Haridwar Uttarakhand by M/s Lakshmi Sugar Mills.

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 Lakshmi Sugar Mills Co. Ltd. has proposed for setting up of new Distillery Plant Capacity 40 KLD along with 2.0 MW power Generation within premises of existing sugar Mills Iqbalpur, Tehsil Roorkee, District Haridwar Uttarakhand. Previously, PP applied setting up the distillery project to other site near to existing sugar unit. The proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 28th EAC meeting and 46th meetings held during 1st – 2nd December, 2014 and 20th-21st August, 2015 respectively. The Sub-Committee of EAC (I-2) conducted the site visit on 11.07.2015. In view of the proximity of proposed site to the educational institution, the sub-committee recommended that Project Authority may explore the possibility of setting up of Distillery unit within the existing sugar unit as this site is away from the public. This will also reduce the burden of transportation of raw materials and management of utilities as well as treatment of spent wash. Now the PP has proposed the project within the same premises of existing sugar plant

As per Form-1, 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 15 km distance of project site. Solani River is flowing at a distance of 7.22 km. Interstate boundary of Uttarakhand and UP is at a distance of 6.65 Km. Total project area is

12 acres and green belt will be developed on 33% of plot area. Distillery will be operated for 330 days. Following product will be manufactured:

S.No	Product	Capacity
1	RS/ENA/AA	40 KLPD
2	Co-generation Power	2.0 MW

Total fresh water requirement will be drawn from tube well in order of 410 m³/day, of which 10 m³/day will be for domestic requirement. About 320 m³/day of spentwash will be generated which will be first evaporated in MEE and MEE concentrate will be incinerated in 16TPH slop fired Boiler. The plant is based on ZLD. Septic tank/soak pit will be provided to treat domestic wastewater. Committee suggested for go for STP.

Bagass fired boiler of 16TPH will be provided and connected with Bag filter. Fly ash shall be used as manure to nutrient value. Fermenter sludge will be used as manure.

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

A. Specific TOR

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

B. Additional TOR

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

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.

6.8.5 Expansion by Debottlenecking of existing polyester production capacity at district Dabhel Ind. Co. Op. Soc. Ltd., Dabhel, Daman (U.T.) by M/s Wellknown Polyester Ltd.

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 manmade fibre industry are listed at S.N. 5(d) under category ‘B’ and appraised at State level. However, due to applicability of General condition due to its location within 5 km boundary from Gujarat State, the project is treated as A category.

M/s Wellknown Polyester Ltd. has proposed for expansion by debottlenecking of existing polyester plant and capacity enhancement (900 TPD to 1500 TPD) at Tehsil and district Dabhel Ind., Co. Op. Soc. Ltd., Dabhel, Daman (U.T.). The project has obtained EC for existing Plant vide letter no. J-11011/318/2008-IA-II(I) dated 25/09/2008. As per Form-1, it is reported that no wildlife sanctuary, protected Forest, national part or bio sphere and other related value are located within 10 km distance of project site. Kolak river and Damanganga are flowing at a distance of 2.5 km and 3.0 km respectively.

The total capital cost after proposed project will be Rs.167.75 crores. The total number of man power for existing project is 250 persons, for proposed expansion project additional 111 persons will be required. Hence, the total man-power will be 361. Following product will be manufactured:

S. No.	Product	Production Capacity (TPD)		
		Existing	Proposed	Total
1.	Partially Oriented Yarn (POY)/ Fully drawn Yarn (FDY)/ Draw Texturized Yarn (DTY)	900	100	1000
2.	PSF (Polyester Staple Fiber)	-	500	500
Total		900	600	1500
Note: POY, DTY & FDY manufactured through continuous polymerization process using raw materials such as PTA + MEG.				

Fresh water requirement will increase from 122m³/day to 492 m³/day and sourced from Dabhel Gram Panchyat Pond/Damaganga Canal. Wastewater will increase from 173m³/day to 305 m³/day which will be treated in ETP. The plant is based on ZLD. Domestic wastewater is proposed to be treated in ETP.

In existing plant, 2 nos of Thermic Fluid Heater each having capacity of 10 million kCal/hr has been installed, connected to stack of 52 m height alongwith 12 Nos. of D.G. set of 625 kVA capacity. The D.G. Sets act as standby arrangement. FO is used as fuel in the Thermic Fluid Heaters & LDO is used as fuel in the D.G set. For proposed expansion project, there will be addition of 3 nos. of TFH of capacity 8 Million kCal/hr (2 working + 1 standby) connected to stack of 51 m height & two nos. of dual fired steam boiler of 10 TPH capacity (1 working + 1 standby), connected to stack of 60 m height. . Also, it is proposed to

install 15 Nos. of D.G. sets of 625 kVA capacities each. FO will be used as fuel in TFH. Whereas, FO or coal both can be used in dual fired steam boilers.

In existing operations, hazardous waste is generated in form of ETP Waste, Used Oil, Empty Bags, Empty PP Liners, Empty Drums & Polymer Waste. ETP waste is sent to the GEPIL Site, Silvassa for final disposal. Polymer waste from process is sold to actual users. Used oil from machinery is sold to registered recycler/re-processor. Empty drums are sold to authorized re-conditioner. Empty PP Liners and bags are sold to authorized scrap vendor. Same practice will be followed for additional quantity of waste after proposed expansion project. After proposed expansion project, fly ash will be generated will be sold to brick manufacturers.

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

1. Details on requirement of raw materials (monomers, solvents, catalysts, *etc.*), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, *etc.*
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SO_x, NO_x, VOC, CO, CO₂, *etc.*) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc.*
6. Details on chemical releases – acetonitrile, CS₂, ethylene, ethylene glycol, HCl, methanol, *etc.*, and its management.
7. Details on existing ambient air quality and expected, emissions for PM₁₀, PM 2.5, SO₂^{*}, NO_x^{*}, CO₂^{*}, CO^{*}, CS₂^{*}, VOC^{*}, H₂S, *etc.*, and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable).
8. Risk assessment should also include leakages and location near to CS₂ & proposed measures for risk reduction.
9. Details of sodium sulphate recovery.

B. Additional TOR

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

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.

1st April, 2016 (Day 3)

6.9 Environmental Clearance

6.9.1 Setting up of Molasses based Distillery Unit (60 KLPD) along with Cogeneration Power Plant (3 MW) at Village Yeregal, Taluka Muddebihal, District Bijapur, Karnataka by M/s Shri Balaji Sugars and Chemicals Pvt. Ltd. reg. EC.

The project proponent and their consultant (M/s Ace Engineers and 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 20th Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 23rd -24th June, 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 Balaji Sugar and Chemical Pvt. Ltd. has proposed for setting up of 60 KLD molasses based distillery unit at Village Yeragal Taluka Muddebihal, District-Bijapur, Karnataka. Total land required for the proposed project is 40,500 m². Out of which 13,500 m² area will be used for green belt development. Cost of project is Rs 60 Crores. There is no eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 Km radius of project area. Krishna river is flowing at distance of 3.5 km. Distillery will be operated for 330 days in a year.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during 1st May, 2014 to 31st July, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (32 µg/m³ and 57 µg/m³), PM_{2.5} (20.0 µg/m³ to 35 µg/m³), SO₂ (5 µg/m³ to 7.9 µg/m³) and NO_x (7.9 µg/m³ to 16.5 µg/m³) respectively. The Committee noted that ambient air quality was carried out in the wrong season. Therefore, the Committee suggested them to repeat AAQM. ESP will be provided to coal/concentrated spent wash fired boiler. Water requirement from Krishna River will be 600 m³/day. Spent wash will be concentrated in the MEE followed by incineration in coal fired boiler.

After detailed deliberation, Committee sought following additional information:

- i. Fresh ambient air quality monitoring shall be carried out for one season alongwith fresh wind rose data.
- ii. Availability of molasses from the market
- iii. Detailed plan of water uses linking existing sugar unit to be drawn and finalized with revised water balance chart.
- iv. Submission of Certified compliance report from Regional Office for compliance to environmental conditions mentioned in the EC dated 10.10.2012 for sugar unit.

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

6.9.2 Expansion of drugs intermediates and speciality chemicals unit (30MTPM to 54 MTPM) at Plot nos. 22/C/1&2, GIDC Estate Phase I, GIDC, Vapi, District & Tehsil Valsad, Gujarat by M/s Aarti Industries Ltd. (Custom Synthesis Division) reg. EC.

M/s Aarti Industries Ltd. (Custom Synthesis Division) has proposed Expansion of drugs intermediates and speciality chemicals unit (30MTPM to 54 MTPM) at Plot nos. 22/C/1&2, GIDC Estate Phase I, GIDC, Vapi, District & Tehsil Valsad, Gujarat.

The Committee deliberated upon the certified compliance report dated 30.09.2015 issued by Regional Office, MoEF&CC, Bhopal. It is reported that the construction for the proposed expansion was started without obtaining prior environmental clearance and hence, this case of violation. The Committee, therefore, recommended for taking action under the provisions of Environment (Protection), Act, 1986 violating stipulation of EIA, Notification 2006.

6.9.3 Expansion of Resin Manufacturing Unit at Sy. No. 591 & 592, Kalol-Vamaj Road, Village Piyaj, Taluka Kalol, District Gandhinagar, Gujarat by M/s Formica Laminates (India) Pvt. 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 20th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 23rd to 24th June, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (synthetic organic chemicals) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s. Formica Laminates has proposed for expansion of Resin manufacturing unit at Survey No. 591 & 592, Kalol-Vamaj Road, Village: Piyaj, Taluka: Kalol, District: Gandhinagar, Gujarat. Total plot area is 26602 m². The unit has done plantation in 3110 m² in its existing unit and some more area of about 5670 m² will be added for greenbelt development. After expansion, total area of greenbelt area will be 8780 m² and it will be 33% of total land area. It is reported that no national park/ wildlife sanctuary/ reserve forest/ is located within 10 Km periphery of the project site. The cost of the proposed expansion project will be around Rs. 35.0 crores. Out of which, 1.0 crores will be earmarked for development of EMS as capital investment and around 0.35 crore will be recurring cost per annum. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)		
		Existing	Additional	Total after expansion
1	Decorative Laminates sheets	1,04,166 sheets/month	3,16,834 sheets/month	4,21,000 sheets/month
2	Phenol Formaldehyde Resin	205	1720	1925
3	Melamine Formaldehyde Resin	41	332	373

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October,2014 to December,2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (63.6 µg/m³ to 87.9 µg/m³), PM_{2.5} (34.5

$\mu\text{g}/\text{m}^3$ to $48.5\mu\text{g}/\text{m}^3$), SO_2 ($14.9 \mu\text{g}/\text{m}^3$ to $23.6\mu\text{g}/\text{m}^3$) and NO_x ($15.1\mu\text{g}/\text{m}^3$ to $23.5 \mu\text{g}/\text{m}^3$) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $3.282 \mu\text{g}/\text{m}^3$, $0.783 \mu\text{g}/\text{m}^3$ and $0.978 \mu\text{g}/\text{m}^3$ for SPM, SO_2 and NO_x respectively. The resultant concentrations are within the NAAQS. Cyclone and bag filter will be provided to lignite /coal / agro waste fired boiler to control particulate emissions. After proposed expansion, total water requirement including domestic & industrial activities will be increased from $19.3 \text{ m}^3/\text{day}$ to $158.0 \text{ m}^3/\text{day}$ out of which $87.0 \text{ m}^3/\text{day}$ will be fresh water requirement and sourced from ground water and remaining $71.0 \text{ m}^3/\text{day}$ is recycle water. Industrial wastewater generation will be increased from $2.8 \text{ m}^3/\text{day}$ to $44.0 \text{ m}^3/\text{day}$ after expansion. Effluent will be treated in the ETP and treated effluent will be evaporated. No effluent will be discharged outside the plant premises.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 21st April, 2015. The issues were raised regarding local employment, CSR, Narmada Canal water etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee deliberated the environmental compliance report of the existing plant and found satisfactory compliance.

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/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed $87 \text{ m}^3/\text{day}$ 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. Process plant should be interlocked with ETP. In case of shut down of ETP, the plant should be stopped automatically.
- 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 8780 m² 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 21st April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- 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.

6.9.4 Expansion of sugar plant cane crushing (10,000 TCD to 15,000 TCD)& expansion of cogeneration plant power generation (45 mw to 80 mw) & expansion of molasses based distillery (60 KLPD to 120 KLPD) at Tehsil Gokak District Belgaum, Karnataka by M/s Satish Sugars Ltd.- reg. EC.

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

6.9.5 Setting up of Synthetic Organic Chemicals Manufacturing Unit (1550 MTPM) at Survey No. 455 & 456, Village Neja, Taluka Khambhat, District Anand, Gujarat by M/s Karan Intermediates Pvt. Ltd.-reg. EC.

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd., Ahmedabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 40th Meeting of the Expert Appraisal Committee (Industry -2) held during 18th-19th May, 2015 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 Karan Intermediates Pvt. Ltd. has proposed for setting up synthetic organic chemicals manufacturing Unit (1550 MTPM) at Survey No. 455 & 456, Village Neja, Taluka Khambhat, District Anand, Gujarat. Total plot area of project is 28025 m², out of which 4500 m² will be utilized for current proposal and balance will be for future expansion out of which area earmarked for greenbelt is 1500 m². The cost of the project is Rs. 650 lakhs. Out of this around Rs. 100 lakhs will be invested for pollution control measures. It is reported that no

national park/wildlife sanctuary is located within 7 km distance. Following products will be manufactured:

S. N.	Name of Product	Quantity (MT/Month)
1	Mono Chloro Acetic Acid (MCA)	300
2	Chloro Acetyl Chloride (CAC)	150
3	Tri Chloro Acetyl Chloride (TCAC)	150
4	Sulphur Mono Chloride	100
5	Aluminum Chloroide	350
6	Feric Chloride	500
	Total	1550

By products		
1	Mother Liquor of MCA	55
2	Hydrochloric Acid (30%) sold or captive consumption	1710
3	Sodium bi Sulphite (20-30%)	340
4	Sodium Hypochlorite (20%)	25
Total byproduct		2130

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2015 to May 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (53.1 µg/m³ to 71.4µg/m³), PM_{2.5} (28.5µg/m³ to 40.9µg/m³), SO₂ (10.6 µg/m³ to 16.6 ug/m3) and NOx (12.8 µg/m³ to 18.3 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.266 µg/m³ , 0.105 µg/m³ , 0.074 µg/m³ , 0.050 µg/m³& 0.016 µg/m³ with respect to SPM, SO₂, NOx, HCl & Cl₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Bagfilter will be provided to bio-fuel fired boiler to control particulate emissions. 3 Stage water scrubber followed by alkali scrubber will be provided to control of process emissions viz. HCl, Cl₂ and SO₂. Total water requirement will be 99.0 m³/day.Out of which, 90.5 m3/day will be fresh water requirement from ground water source and 8.5 m³/day will be treated wastewater recycled. Total wastewater generation will be 13 m³/day (including industrial and non-industrial source), out of which 8.5 m3/day will be industrial wastewater. Effluent will be treated in the ETP and treated effluent will be recycle/reuse for scrubbing media. Total power requirement by unit will be tune around 225 kVA and it will be fulfilled by Madhya Gujarat Vij Company Limited (MGVCL). Unit will install 200 kVA of D.G. set to meet emergency power requirement.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 14thOctober, 2015. The issues were raised regarding air pollution control measures, wastewater generation and disposal methods, treatment process emissions etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. Multicyclone followed by Bagfilter alongwith adequate stack height shall be provided to biofuel fired boiler to control particulate emissions.
- ii. Scrubber shall be provided to control process emissions viz. HCl, Cl₂ and SO₂. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iii. 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%.
- 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 stipulated by GPCB.
- v. All necessary steps should be taken for monitoring of chlorine, HCl and Cl₂ as well as VOCs in the proposed plant.
- vi. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- vii. Total water requirement from ground water source should not exceed 99 m³/day and prior permission should be obtained from the CGWA/SGWA.
- viii. Effluent generation shall not exceed 13 m³/day and in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be recycled/reused. Domestic sewage should be treated in STP.
- ix. No effluent will be discharged outside the plant premises.
- x. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.

- xi. As proposed, greenbelt should be developed in 4500 m² in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xii. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xiii. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

6.9.6 Development drilling (3 wells), construction of GGS and laying of transportation pipeline at onshore block AAP-ON-94/1, village Dirok, Tea Estate, Tehsil Margherita, District Tinsukia, Assam by M/s Hindustan Oil Exploration Company Ltd.- reg. EC.

The project proponent and their consultant (M/s SENES Consultant 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 in the 24th Meeting of the Expert Appraisal Committee (Industry -2) held during 29th-30th September, 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 Hindustan Oil Exploration Company Ltd. has proposed for development drilling (3 new wells), construction of GGS and laying of transportation pipeline at onshore block AAP-ON-94/1, village Dirok, Tea Estate, Tehsil Margherita, District Tinsukia, Assam. The Block AAP-ON-94/1 of HOEC is located in Assam-Arakan Basin and falls within geologically complex Schuppen Thrust Belt. It is located in Tinsukia District of the State of Assam, NE India. This block covers approximately 305 sq. km area. The proposed project activity falls within Tinsukia district of Assam. Following activities are proposed:

- (i) To put three existing wells into production, drill and complete three new development wells to produce hydrocarbons from Dirok field, safely without significant impact on the environment;
- (ii) To set up a new Gas Gathering Station (GGS) and a Gas Processing Plant (GPP) with handling capacity of 20 million standard cubic foot per day (mmscfd) of natural gas.
- (iii) To lay underground pipelines to transport natural gas from wells to GPP via GGS
- (iv) To lay underground pipelines to transport natural gas from GPP to an OIL (Oil India Limited) operated existing GGS at Kusijan
- (v) To lay underground pipelines to transport oil condensate from GPP to the existing IOCL refinery at Digboi

Coordinates of the proposed wells, GGS and GPP are as under:

DRK-5	95° 37' 03.74"/E; 27° 16' 12.14"/N
DRK-6	95° 37' 27.57"/E; 27° 16' 13.85"/N
DRK-7	95° 37' 48.18"/E; 27° 16' 13.85"/N
GGS	95° 37' 41.06"/E; 27° 15' 45.42"/N
GPP	95° 37' 42.99"/E; 27° 21' 49.97"/N

Well will be drilled upto depth of 2500 m. Cost of project is Rs. 550 Crore. Area of Forest land involved is 4.5 ha.

Elephant Corridor – In between the Powai tea estate in south and Golai village in north lies the Golai-Powai elephant corridor. Elephant uses this corridor to move between Upper Dehing (West Block) R.F. and Upper Dehing (East Block) R.F. The pipeline crosses the elephant corridor, however, the pipeline will be buried underground. Forest & Wildlife Sanctuary– GPP to Kusijan GGS stretch of 4.5 km pipeline route is planned to pass through Digboi Reserved Forest (West Block). Also, 11.5kms length of the pipeline (connecting GGS to GPP) out of the total pipeline length is passing through ecological sensitive zone of Dehing Patkai Wildlife Sanctuary.

The PP has proposed to meet water requirement from the surface water resources under which 20 m³/day peak water requirement is for drilling of each well. Besides 150 m³/day and 15 m³/day of water will be used for construction and operation of GPP respectively. Average consumption of water during drilling phase will be 45-50 m³/day. Four 670 KW of DG set will be installed for operation of rig. One 450 KVA DG set shall be used for construction and operation of GGS. With regard to GPP, 3670 KW DG set during construction and 2600 KVA captive gas generator will be installed during production.

Drill cutting will be separated from drill fluid and washed temporarily stored in an impervious HDPE lined pit. Drilling waste water will be disposed through treatment in ETP to comply with the CPCB onshore effluent discharge standard for oil and gas industry. Sewage will be treated in a combination of septic tank and soak pit. Scrap metal, waste oil surplus chemical and lead acid batteries shall be disposed to authorized waste oil/used oil recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Assam Pollution Control Board on 3rd July, 2015. The issues raised during Public Hearing were regarding local employment, elephant corridor, compensation of land etc.

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. Forest clearance shall be obtained.
- ii. Ambient air quality should 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 PM10, PM2.5, SO₂, 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 should be provided as per CPCB guidelines.
- vi. Total water requirement shall not exceed 40 m³/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 and land. Separate drainage system shall be created for oil contaminated and non-oil contaminated water. 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 Shillong.
- ix. Produced water shall be treated in ETP. Treated produced water shall be disposed off through injection well as per CPCB/MoEF guidelines.
- 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

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

2nd Session: Time: 2.00 PM

6.9.7 Resin Manufacturing Unit located at Survey No. 565/p (Old 394 Paiki 2), Village Nava Sadulka, District Morbi, Gujarat by M/s Nelson Laminate Pvt. Ltd.-reg. EC.

The project proponent and their consultant (M/s T R Associates) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 38th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th to 21st April, 2015 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. Nelson Laminate Pvt Ltd. has proposed for setting up of Resins (Phenol Formaldehyde, Melamine Formaldehyde & Urea Formaldehyde) and Laminated Sheets manufacturing Unit at New Survey No. 565/p (Old 394/2), Village Nava Sadulka, District: Morbi, Gujarat. Total plot area is 17604 m² of which greenbelt will be developed in 5911 m²(33.58 %). It is reported that no national park/ wildlife sanctuary within 10 Km periphery of the project site. Cost of project is Rs. 1 Crore. Following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	1100 MT/M
2	Melamine Formaldehyde Resin (M. F. Resin)	500 MT/M
3	Urea Formaldehyde Resin (U. F. Resin)	1200 MT/M
4	Laminated Sheets	2,00,000 Sheets/Month

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 20th April 2015 to 8th June 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (53.2 µg/m³ to 82 µg/m³), PM_{2.5} (20.5 µg/m³ to 36.2 µg/m³), SO₂ (4.8 µg/m³ to 12.8 µg/m³) and NOx (7.1 µg/m³ to 21.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.3 µg/m³, 3.0 µg/m³ and 0.5 µg/m³ with respect to PM10, SO₂ and NOx. The resultant concentrations are within the NAAQS. Bag filter will be provided to coal/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions. Total fresh water requirement from ground water source will be 50m³Day. Total generated wastewater from resin process, cooling and Boiler blow-down and washing will be 18.5 KL/day which will be treated in the ETP. Treated effluent will be evaporated & reused for cooling. The Domestic Effluent will be generated 5.5 KL/day and it will be treated in STP and treated sewage will be used for Gardening purpose.No effluent will be discharged outside the plant premises. DG set (250 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 23rd September, 2015. The issues were raised regarding local employment, impact on agriculture, 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/briquettes fired Thermic fluid heater and steam boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 50 m³/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. Process plant should be interlocked with ETP. In case of shut down of ETP, the plant should be stopped automatically.
- 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 5911 m² 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 23rd September, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the 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.

6.9.8 Drilling of 8 additional exploratory/appraisal drilling in the Block CY-DWN-2001/2(CY-III-D5), Off the Coast of Tamil Nadu Bay of Bengal by M/s Reliance Industries Ltd.-reg. EC.

The project proponent and their consultant (M/s Bhagvati Anna Labs Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 16th Meeting of the Expert Appraisal Committee (Industry -2) held during 20th-21stFebruary, 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.

Reliance Industries Limited (RIL) has been awarded exploratory rights for hydrocarbons prospecting in the offshore block CY — DWN — 2001/2 (CY — III — D5) under the New Exploration Licensing Policy III (NELP III). The Block CY — III — D5 is located in the Bay of Bengal off the east coast of India between Pondicherry and Kariakal off Tamil Nadu. It is a deep-water block with the water depth varying between 400 and 3500 m. The block covers an area of approximately 10655 sq.km with its nearest boundary about 22 km from the shore. RIL is accorded with Environmental clearance vide MoEF letter J - 11011/213/2004 - IA - (II) I dated 18th March 2005 to drill 11 exploratory wells in this block. As on date RIL drilled 9 wells and discovered the presence of hydrocarbons in three wells. Seismic data and the drilling campaign in the block area revealed the presence of hydrocarbons in the block area. Hence RIL planning to carry-out the 8 additional exploratory / appraisal well drilling to establish the reservoir capacity and commercial viability of hydrocarbons in this block area

The Block CY-III-D5 falls in the Bay of Bengal off the East coast of India between Pondicherry and Karaikal. It is a deep-water block with the water depth varying between 500 and 3250 m. The block covers an area of approx. 14325 sq.km with its nearest boundary about 22 km from the Porto Novo coast. The morphological features of the coastline off which the block is located, vary widely from sandy to muddy and marshy segments. All the drilling well locations are 22 km away from the shore.

The Block CY-III-D5 is far away from the known Marine Park / Sanctuaries hence, any impact on Park/Sanctuaries due to exploration activities are not envisaged. Likewise in the Flower Garden Banks National Marine Sanctuary, Gulf of Mexico, hydrocarbon exploration and production activities are allowed about 6.5 km away from the sanctuary. This area is monitored by Mineral Management Services and NOAA marine fisheries division since 1992. No adverse environmental effect has been observed.

Most of the drilling by RIL will be carried out with Water Based Mud (WBM) or Synthetic Based Mud (SBM) (will be used in special cases only) or both. The volume of drilling fluids used will be reduced at the design stage by selecting modern drilling engineering technology. The mud will be reused after its separation from the cuttings. The drill cuttings, largely free from mud will be discharged to the sea. Existing mud plant for storage and maintenance of drilling fluids at the end of drilling campaign for use

The rig will have on-board desalination plant to meet the further requirement of the water on the rig. Approx.100 m³ /d will be the water requirement for the proposed drilling campaign with the breakup of water consumption as given under: (i) Drill Water — 50 m³ /d (ii) Domestic Water — 20 m³ /d (iii) Water for utilities (incl. fire services) — 30 m³ /d.

In the proposed drilling campaign, the major waste generated will be drill cuttings and residual drilling mud. These will be disposed as per the guidelines of MoEF (GSR 546(E) dated 30th August 2005). Whereas other sanitary waste water viz. grey water, ballast water, deck drainages, etc. will be discharged as per the MARPOL requirements. During well drilling, a wide variety of liquid, solid and gaseous wastes are produced on rigs some of which are discharged to the sea. These include drilling fluids, rock cuttings, produced water, deck drainage, domestic wastes, ballast and bilge, and other minor releases. Drilling fluids and drill cuttings are the major discharges associated with exploratory drilling operations. For an offshore well drilled to about 4500 m deep, the rock cuttings released to the marine environment are roughly 600 m³. The bilge water however, will be generally contaminated with oil and requires treatment to separate the oil prior to release. The quantity of bilge generated shall be generally small. The bilge will be disposed as per MARPOL after separation of waste oil.

No public hearing is conducted being the offshore project

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. Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur 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 50 m³/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. Synthetic oil based mud (SOBM) shall be used only to combat specific hole problems, if required.
- 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 minimisation plan shall be developed and followed through proper inventory management following best practices in drilling operations, good house keeping practices and optimised 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 project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.
- xx. Full drawings and details of Blow Out Preventor to 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.
- xxi. 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.
- xxii. 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 Bhopal.
- xxiii. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD should be strictly adhered to.
- xxiv. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.
- xxv. 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 alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- xxvi. An independent audit shall be done to ensure that the Environment Management Plan is in place in totality.
- xxvii. In case the commercial viability of the project is established, M/s Reliance shall prepare a detailed plan for development of oil and gas fields in the block and obtain fresh environmental clearance from the Ministry.

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

The project proponent and their consultant (M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. High Court Stay) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 16th-17th March, 2015 for preparation of EIA-EMP report. All technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s. Aarti Industries Ltd. has proposed for expansion of Pesticide Manufacturing Unit (Unit – 2) at plot no.902,923 Phase-III, GIDC Estate,Vapi- 396195,Dist.Valsad, Gujarat. Total plot area is 11,970 m² of which greenbelt area will be developed in 2346 m². Total cost of expansion project is Rs. 1,515 Lacs. No national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, reserve forests etc. are located within 10 km distance. It is reported that river Dama Ganga is flowing near the project site. The following products will be manufactured:

S. No.	Name of Products	Proposed production Capacity (MT/ Month)
1	Hydrogenation	
1.1	DCBH (Di Chloro Benzene Hydro chloride)	7800
1.2	1,3 D.F.B.(Di Flouro Benzene)	
1.3	3,5/2,6 DFA (Di Flouro Aniline)	
1.4	OT Base	
1.5	Di Anisidine	
1.6	Ortho Toluene	87
1.7	Ortho Anisidine	87
1.8	Ortho Chloro Aniline	975
2	Diazotization	
2.1	2,3/2,5 DCP (Di Chloro Phenol)	2400
2.2	3,5 Di Chloro Nitro Benzene	
2.3	1,3,5 TCB	
2.4	Para Flouro Phenol (PFP)	
3	Bromination	
3.1	3,4,5 Tri Flouro Bromo Benzene	1000
3.2	2 Bromo 4 Flouro Acetanilide	
3.3	Di Chloro Bromo Benzene	
3.4	Acetic Acid	29.17
4	Condensation	
4.1	Quinalphose (TECH) (Diethyl 2-Hydroxy Thiophosphoryl Chloride)	600
5	Para Flouro Anisol	200
6	Hydrolysis	
6.1	4 CAP	200
6.2	2 CAP	
6.3	2,3,4 TFA	

7	Chlorination	
7.1	2,6 DCPNA	4000
7.2	2,4,6 TCA	
	Total	17378.17

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2015 to May, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{2.5} (38.6 µg/m³ to 57.7 µg/m³), PM₁₀ (75.8 µg/m³ to 97.8 µg/m³), SO₂ (21.5 µg/m³ to 35 µg/m³) and NO_x (35 µg/m³ to 49 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.944 µg/m³ and 0.352 µg/m³ in respect to PM and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The unit has proposed one additional D.G. set (1x 750 KVA). Water scrubber followed by Alkali scrubber will be provided to control process emissions viz. Br₂, HBr, Cl₂ and HCl. Water scrubber will be provided to SFD dryer to control particulate matter.

Total water requirement will be increased from 404 m³/day to 867 m³/day after expansion. Out of which fresh water requirement from GIDC water supply will be 599 m³/day and remaining water requirement (268 m³/day) will be met from treated effluent/recycled water.

Total waste water generation will be 302 KL/Day after expansion. This waste water includes waste water coming out from process (137 KL/Day), washing (30 KL/Day), DM plant regeneration (5 KL/Day), cooling tower blow down (70 KL/Day), and sewage (60 KL/Day). This unit has proposed for zero liquid discharge for industrial effluent. To achieve zero liquid discharge, R.O. reject of 50 KL/Day from R.O. system-1 and R.O. reject of 22 KL/Day from R.O. system-2 will be subjected to MEE. R.O. permeate of 117 KL/Day from R.O. system-1, R.O. permeate of 53 KL/Day from R.O. system-2 and MEE condensate of 68 KL/Day will be reused. Residue from MEE of 4 KL/Day will be sent to landfill site. Sewage of 60 KL/Day will be treated in Sewage treatment plant and treated water will be used for gardening purpose and in cooling tower.

The committee also discussed the certified compliance report dated 28.09.2015 of conditions stipulated in the existing EC. Four points found to be non-complied. The Committee suggested them to submit the action taken report on non-complied points.

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 deliberation, the Committee observed deficiencies in the monitoring report. Therefore, Committee sought following additional information:

- (i) Submit the action taken report on non-complied points.
- (ii) A note on handling of chlorine and Bromine at work place.
- (iii) Toxic material profile to be submitted.

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

6.9.10 Expansion of bulk drug manufacturing unit (1020 TPA) at Choutuppal, District Nalgonda, Telangana by M/s Brundavan Laboratories Pvt. Ltd.-reg. EC.

The project proponent and their consultant (M/s KKB Envirocare Consultants Pvt. Ltd. Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 17th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 18th – 19th March, 2014 for preparation of EIA-EMP report. All Bulk Drug manufacturing unit located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Brundavan Laboratories Pvt. Limited proposes to expand existing API Intermediates to Active Pharmaceutical Ingredients (APIs) & API Intermediates manufacturing facility at Sy. No. 60, 61 and 62 at Yellagiri (V), Choutuppal(M), Nalgonda district of Telangana State. The production capacity is increasing from 26.5 TPA to 1020 TPA. Total area of the site is 5.11 Ha (51100 m²) out of which area earmarked for greenbelt is 1.71 ha (33.5%). The cost of proposed expansion will be Rs. 25.15 Crores. Nearest river/Water bodies are ; Chinna Musi stream - 6 km in N direction, Malkapur tank - 4.3 km in WNW direction, Pochampally tank - 7.8 km in NNW direction, Nagaram tank - 4.5 km in S direction and Pipalpahad tank - 5.9 km in SSE direction. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Reserved forests (Meharnagar RF, Malakapuram RF, Lakkaram RF and Choutuppal RF) are located with in 10 km distance. Following products will be manufactured:

S. No.	Product	Quantity (TPA)	Therapeutic Category
Proposed APIs – Campaign products			
1	Abacavir Sulfate	60	Antiviral
2	Aripiprazole	60	Antipsychotic
3	Atenolol	60	Antihypertensive
4	Carvedilol Phosphate	24	Antihypertensive
5	Celecoxib	60	Anti-inflammatory
6	Cetirizine Dihydrochloride	72	Antihistaminic
7	Clopidogrel Bisulfate	36	Antithrombotic
8	Duloxetine Hydrochloride	36	Antidepressant
9	Ezetimibe	36	Antilipemic
10	Fexofenadine Hydrochloride	48	Antihistaminic
11	Irbesartan	60	Antihypertensive
12	Lamotrigine	72	Anticonvulsant
13	Lansoprazole	48	Antiulcerative
14	Levetiracetam	60	Anticonvulsant
15	Losartan Potassium	96	Antihypertensive
16	Montelukast Sodium	36	Antiasthmatic
17	Olanzapine	72	Antipsychotic
18	Olmesartan Medoxomil	48	Antihypertensive

19	Pioglitazone Hydrochloride	96	Antidiabetic
20	Pregabalin	72	Anticonvulsant
21	Quetiapine Hemifumarate	72	Antipsychotic
22	Risedronate Sodium Hemipentahydrate	48	Bone resorption inhibitor
23	Sumatriptan Succinate	48	Antimigraine
24	Telmisartan	60	Antihypertensive
25	Valsartan	96	Antihypertensive
26	Venlafaxine Hydrochloride	48	Antidepressant
27	Terbutaline Sulfate	60	Antiasthmatic
Proposed API Intermediates – Campaign products			
28	Amino-2-methyl-10H-thiene[2,3-b][1,5]benzodiazepine Hydrochloride	144	Olanzapine Intermediate
29	(-)-O,O'-Dibenzoyl-L-tartaric acid monohydrate	120	Tapentadol Intermediate
30	3,5-Dibenzoyloxyacetophenone	180	Terbutaline Intermediate
	Total (any 10 products at a time)	1020	

Any 10 products will be manufactured at a time.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2014 –February, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (46-54µg/m³ 36 µg/m³), PM_{2.5} (21-29µg/m³), SO₂ (8.1-9.4ug/m³) and NO_x (11.2-14.1µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.66 µg/m³, 6.25µg/m³ and 3.48 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Multicyclone separator followed by bag filter will be provided to the proposed coal fired boiler 5&10TPH &existing 2 TPH Boiler. Scrubbers will be provided to control process emissions viz. HCl, SO₂, H₂ and NH₃. Total water requirement will be increased from 43.5 m³/day to 295 m³/day after expansion. Out of which, 175 m³/day will be fresh water and balance 120 m³/day will be met from recycled/treated water. Effluent generation will be increased from 8.6 m³/day to 122 m³/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 13th March, 2015. The issues were raised regarding pollution due to other chemical units,

local employment, development of area, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- iii) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO₂. Water scrubber followed by caustic lye media shall be provided to process vents to control NH₃. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM_{2.5}, of PM₁₀, SO₂, NO_x, VOC, NH₃ and HCl shall be monitored in the ambient air and emissions from the stacks and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the Telangana Pollution Control Board.
- v) Solvent management shall be carried out as follows :
 - i. Reactor shall be connected to chilled brine condenser system
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - iv. Solvents shall be stored in a separate space specified with all safety measures.
 - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vi) Total fresh water requirement from ground water source shall not exceed 175 m³/day and prior permission shall be obtained from the CGWA/SGWA.

- vii) Effluent generation shall not exceed 122 m³/day. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises.
- viii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xi) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- xii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xiv) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xv) The company shall undertake following waste minimization measures :-
 - a. Metering and control of quantities of active ingredients to minimize waste.
 - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c. Use of automated filling to minimize spillage.
 - d. Use of Close Feed system into batch reactors.
 - e. Venting equipment through vapour recovery system.
 - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- xvi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- xvii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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) All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 13th March, 2015 shall be satisfactorily implemented.
- xx) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. As committed, implementation of such program shall be undertaken at Yellagira and Anthmmagudam villages accordingly in a time bound manner.

6.9.11 Expansion of Sugar Plant (from 4000 to 7000 TCD) and Installation of New Co-generation plant (28 MW) at Village Sakharale, Tehsil Walwa, District Sangali, Maharashtra by M/s Rajarambapu Patil Sahakari Sakhar Karkhana Ltd.- reg. EC.

The project proponent and their consultant (SD Engineering Services 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 21st Meeting of the Expert Appraisal Committee (Industry) held during 30th July– 1st August, 2014 for preparation of EIA-EMP report. All the Sugar Industries are listed at S.N. 1(d) under Category 'B' and appraised at the state level. However, molasses based distillery is located within the plant premises, which is listed at S.N. 5(g) (i) under category 'A' and appraised at Central level. Therefore, considering project in integrated in nature, the said proposal is treated as category 'A' project and appraised at Central Level.

M/s Rajarambapu Patil Sahakari Sakhar Karkhana Ltd. has proposed for expansion of Sugar Plant (from 4000 to 7000 TCD) and Installation of New Co-generation plant (28 MW) at Village Sakharale, Tehsil Walwa, District Sangali, Maharashtra. Krishna River is flowing at a distance of 3.6 km East direction. There is no national Park, Sanctuary, biosphere reserves, wildlife corridors, tiger/elephant reserves within the study area. Existing sugar unit was established in 1970. Existing Distillery (75 KLPD) unit was established in 1980. Total plot area is 225 acres. Cost of project is Rs. 223.46 crore. Plant will be operated for 160 days. Capacity of boiler is 140 TPH. Fuel will be used as bagasse. Fresh water requirement will be 1080 m³/day. Effluent generation will be 368m³/day and treated in ETP. Waste/residue containing oil will be reused in boiler as fuel. Sludge will be used as manure. Greenbelt will be developed in 70 acres land.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during October 2014 to December 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (30.2 µg/m³ to 52.3 µg/m³), PM_{2.5} (9 µg/m³ to 28.5 µg/m³), SO₂ (7.3µg/m³ to 11.5 µg/m³) and NOx (9.1 µg/m³ to 13.2µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.6 µg/m³ and 0.3 µg/m³ with respect to PM₁₀ and SO₂ respectively. The resultant concentrations are within the NAAQS. During presentation, PP confirmed that ESP will be provided to control particulate emissions. Height of the stack for 140 TPH boiler will be 65 m. Fresh water requirement from Krishna River for sugar unit will be 1080 m³/day after expansion. Against which 368 m³/day waste water will be generated. Effluent from sugar will be treated in the ETP. Sewage from various buildings in the sugar and power plant area will be conveyed through separate drains into septic tank.

Treated effluent from septic tanks will be disposed off on soil and sludge is removed occasionally and used for land filing. No effluent will be discharged.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 29th July, 2015. The issues were raised regarding wastewater treatment, fuel for boiler, noise pollution, ash management, CSR 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 fired boiler to control particulate emissions within 50 mg/Nm³.
- 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 Krishna River shall not exceed 600 m³/day for sugar unit and cogeneration unit after expansion. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- iv. 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.
- v. As proposed, no effluent from sugar and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- vi. Bagasse storage should be done in such a way that it does not get air borne or fly around due to wind.
- vii. 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.
- viii. 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.

- ix. 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.
- x. All the issues raised during the public hearing/consultation meeting held on 29th July, 2015 should be satisfactorily implemented.
- xi. As proposed, green belt over 283281.11 m² of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xii. Adequate transportation system with proper road network to be drawn and implemented to avoid traffic congestion.
- xiii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

6.10 Terms of Reference (TOR)

6.10.1 Setting up of resin manufacturing unit (12000 MTPM) at Survey No. 173/1, Village Padana, Padana-Bhimsar Road, Taluka Gandhidham, District Kutch, Gujarat by M/s Maple Panels Pvt. Ltd.- reg. TOR

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

M/s. Maple Panels Pvt. Ltd. has proposed for setting up of synthetic organic resins (12000 MTPM) namely Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin, Formalin and Wax at Survey No. 173/1, village Padana, Padana - Bhimsar Road, Taluka Gandhidham, District Kutch, Gujarat. It is reported that no national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves etc. lies within 10 km distance. Gulf of Kutch is at a distance of 24.5 km away from proposed site.

Total plot area is 41,205 m² of which 13597 m² area will be developed as green belt. Total project cost including existing facilities is Rs. 13.50 crore of which Rs. 2.05 crore and Rs. 0.1 crore will be invested as capital cost on pollution control measures and recurring cost respectively. About 30 persons will be employed. Following products will be manufactured:

S. NO	Product	Quantity (MTPM)
1	Urea Formaldehyde Resin	4,000
2	Melamine Formaldehyde Resin	2,000
3	Formalin	5,000

4	Phenol Formaldehyde	500
5	Wax	500
TOTAL		12,000

Coal/ Agro waste / Baggase will be used for two steam Boilers (2TPH) with 30 m stack height and connected with bag filter as pollution control device. For thermopack (10 Lac Kcal/hr) stack height will be 30m and connected with bag filter. Coal will be sourced from nearest market. Proposed project will draw 500 KW electricity from UGVCL (Uttar Gujarat Vij Company Limited). Additionally D. G. Set of 400 KVA using HSD/LDO at the rate of 35 Ltr./Hr be provided.

Total 129 m³/day of fresh water will be used and sourced from Gujarat Water Infrastructure Limited (GWIL). Against which 30 m³/day, waste water will be generated. Out of 30 m³/day, 1 m³/day sewage wastewater from domestic uses which would be disposed off through septic tank/soak pit system, remaining 29 M3/DAY industrial effluents shall be treated in proposed ETP after that it will be evaporated through evaporator. Condensate water from evaporator will be reused in utilities and washing.

ETP Sludge so generated will be sent to TSDF site. Used Oil after Collection, storage will be sent to the authorized re-processors. Discarded Containers/Barrels/plastic will be sent to the authorized recycler after decontamination and Fly ash will be sent to brick manufacturers. Solid/ Hazardous waste will be segregated and stored in containers/ HDPE bags and placed on an elevated covered platform with leachate collection system before sending to authorized agencies.

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

A. Specific TOR:

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

B. Additional TOR

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

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

6.10.2 Expansion of sugar factory (1600 TCD to 4800 TCD), Co-generation power plant (3 MW to 30 MW) and Molasses based distillery – 100 KLPD at Gat. No. 155/1, 155/1A, 155/ 1C/1A, 155/ 1C/1B, 155/ 1C/2A, 155/ 1C/ 2B, 161/1B, 161/2B, 163/1B, 163/1D, 164, Village Chandapuri, Taluka Malshiras, District Solapur Maharashtra by M/s Shetkari Sakhar Karkhana Chandapuri Ltd. – reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Molasses based distillery integrated with sugar are listed at S.N. 5(g) (ii) and 5 (j) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Shetkari Sakhar Karkhana Chandapuri Ltd. has proposed Expansion of sugar factory (1600 TCD to 4800 TCD), Co-generation power plant (3 MW to 30 MW) and Molasses based distillery – 100 KLPD at Gat. No. 155/1, 155/1A, 155/ 1C/1A, 155/ 1C/1B, 155/ 1C/2A, 155/ 1C/ 2B, 161/1B, 161/2B, 163/1B, 163/1D, 164, Village Chandapuri, Taluka Malshiras, District Solapur Maharashtra. As per Form-1, there is no ecologically sensitive zone within 10 km radius. There is inconsistency w.r.t. environmental sensitivity between Form-1 and presentation. In presentation Nira right canal is flowing at a distance of 50 m (toward East direction) while in Form-1 distance is shown 10 km from project site.

Total plot area is 18.15 Ha out of which 6 Ha acres of land will be developed as green belt. Total project cost is 355 Crores of which Rs. 21.56 Crore is earmarked for pollution control measures. About 190 persons will be employed in this proposed expansion project. Following products will be manufactured after proposed expansion:

Sr. No.	Products	Existing Quantity	Additional Quantity	Total	Operational Days
1	White Crystal Sugar	1600 TCD	3200 TCD	4800 TCD	160
2	Co-generation Power Plant	3 MW	27 MW	30 MW	160
3	Molasses/ Cane Juice based Distillery	0	100 KLPD	100 KLPD	270

Energy requirement will be met from existing boiler (1 Nos.) having capacity of 35 TPH and proposed boiler (2 Nos.) having capacity of 130 TPH for Sugar and co-generation unit and 36 TPH for Distillery unit. For 35 TPH Boiler 60 m stack with Wet Scrubber is connected as pollution control device, for Co-gen boiler 60 m stack height will be provided with bag filters, for Spent wash incineration boiler 55 m stack height will be provided with bag filters and for D.G. Set (500 KVA) adequate stack height will be provided. Total power requirement will be 30 MW. D.G. Set having 320 KVA, 160KVA, 80KVA capacities will be installed as standby.

Total water required for the project will be 1530.6 m³/day and sourced from Nira Right Canal. Against which 529.2 m³/day (Sugar+Co-gen) and 308 m³/day (distillery) wastewater will be generated and treated in ETP based on tertiary process consisting of polishing tank followed by pressure filtration, activated carbon system and disinfection by chlorination. The RO plant will be installed in the Sugar & co-gen plant. After RO treatment, the DM water will be used in Boiler. RO reject water will be sent to high TDS consuming plants. The spent wash generated from distillery unit will be concentrated in Multiple Effect Evaporators and then will be incinerated in 36 TPH Boiler (Distillery Boiler) to achieve zero discharge.

Distillation Residue will be mixed with Bagasse & burnt in boiler. Bagasse ash will be mixed in press mud cake & distributed to farmers as soil conditioner and Incineration Boiler Ash will be sold to brick manufacturers.

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

A. Specific TOR:

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

- 20 Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
- 21 Collection, storage, handling and transportation of molasses,
- 22 Collection, storage and handling of bagasse and press mud.
- 23 Flyash management plan for coal based and bagasse and action plan
- 24 Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
- 25 Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO₂*, NO_x*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*-As applicable)

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Topo sheet to be submitted as per the defined scale.
3. No ground water to be drawn for the expansion.
4. Cumulative impact with sugar plant to be assessed.

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.

6.10.3 Setting up of 35 KLPD molasses based distillery plant within existing sugar (3000 TCD) at survey No. 71, 72 & 80 Taluka Jalalpore, District Navsari, Gujarat by M/s Shree Maroli Vibhag Khand Udhog Sahakari Mandli Ltd.- reg. TOR

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

M/s Shree Maroli Vibhag Khand Udyog Sahakari Mandli Ltd. has proposed Setting up of 35 KLPD molasses based distillery plant within existing sugar (3000 TCD) at survey No. 71, 72 & 80 Taluka Jalalpore, District Navsari, Gujarat. It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Mindhola is flowing at a distance of 1.8 km (North West North direction) from proposed site.

Project will be executed within the existing area of 1,53,262 m² under which 8,000 m² land area will be utilized for the proposed distillery unit and has 33 % area greenbelt has been reported to be developed which will be further enhanced at plant boundary. Total project cost is Rs. 30 Crore of which Rs. 3 crore is earmarked for pollution control measures. About 24 persons will be employed. Following products will be manufactured:

Sr.	Name of the Products	Existing	Additional	Total
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No.		Quantity	Quantity	
(a)	Products			
1	White Crystal Sugar	11,200 MT/Month	--	11,200 MT/Month
2	Captive Power Plant (In House During Crushing Season)	5.85 Mw/Hr.	--	5.85 Mw/Hr.
3	Rectified Spirit / Anhydrous Ethanol	--	35 KLPD	35 KLPD
(b)	By Products			
4	Molasses	5,200 MT/Month	--	5,200 MT/Month
5	Bagasse	33,500 MT/Month	--	33,500 MT/Month
6	Press Mud	4,200 MT/Month	--	4,200 MT/Month
7	Bio Compost	4,200 MT/Month	--	4,200 MT/Month

Energy requirement will be met from existing boiler (2 Nos.) having capacity of 50 and 30 TPH, for the proposed project Baggase (1.9 MT/Hr) will be used as fuel in existing boiler with 45 m stack height and Ventury type Wet Scrubber will be used as pollution control device for both boiler. Additional, D. G. Set of 500 KVA will be used as standby with 11 m stack height using HSD/LDO at the rate of 35 Lit/Hr. Additional power supply shall be fulfilled by Dakshin Gujarat Vij Company Limited.

For the proposed project additional 506 m³/day fresh water will be required, after proposed project water requirement will be 934.7 m³/day and the same will be sourced irrigation. Waste water generated from the proposed distillery unit in the form of spent wash will be concentrating in multiple effect evaporator and then sent for bio-composting. Condensate from MEE will be recycled back to the process, while spent less and other waste water will be treated in ETP units and treated water will be used for the bio-composting. Thus achieve the 'Zero Liquid Discharge'.

ETP sludge so generated from the ETP will be used as manure after collection and storage. Used Oil shall be Collected, stored and transport to the registered recyclers . 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 (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.

10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and press mud.
23. Flyash management plan for coal based and bagasse and action plan
24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO₂*, NO_x*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*-As applicable)

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. No ground water to be drawn for the proposed project.

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.

6.10.4 Expansion of Bulk Drugs and Intermediates Manufacturing (from 15 TPM to 421 TPM) at Sy. No. 404, 405, 407, 408, 409 & 410 at Village Veliminedu, Chityal Mandal, District Nalgonda, Telangana by M/s Dasami Lab Pvt. Ltd. (formerly known as Medchem Organics Pvt. Ltd.)- reg TOR

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

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

M/s. Dasami Lab Pvt. Ltd has proposed for expansion of bulk drugs and intermediates manufacturing unit (From 15 TPM to 421 TPM) at Survey No. 404, 405, 407, 408, 409 & 410, Veliminedu Village, Chityal Mandal, Nalgonda District, Telangana. Ministry has issued the Environmental Clearance vide letter no. F. No. J-11011/533/2007-IA.II (I), dated 21.02.2008 in the name of M/s SVAKRM Laboratories (Pvt.) Ltd. and obtained consent and authorization (CFO) vide Letter No. TSPCB/256/RCP/NLG/HO/ CFO/2014-196 dated 22.11.2014. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. There are two Reserve Forests in the study area; Chityala RF at a distance of 6 Km in east direction, Shivanenigudem RF at a distance of 9 Km in NE direction of the site.

Total plot area after expansion is 51 acres out of which 18 acres of land will be developed as green belt. Total project cost is Rs. 45 crore. About 560 persons will be employed in this proposed expansion project Following are the existing and proposed:

A. Existing product as per EC:

S.No	Name of the Product	Capacity (TPA)
1.	Tramadol Hydrochloride	60.0
2.	Ramipril	60.0
3.	Omeprazole	60.0
4.	Carvedilol	60.0
5.	Setrelina Hydrochloride	60.0
6.	Duloxetine Hydrochloride	36.0
7.	Sparfloxacin	48.0
8.	Drotaverine Hydrochloride	30.0
9.	Clopidogrel Hydrogen Bisulfate	60.0
b.	By- product	
10.	Spent Sulphuric acid	364.8

B. Proposed products

S.No	Name of the Product	Capacity	
		TPM	TPD
1	Amlodipine Besylate	20	0.67
2	Aprimilast	3	0.10
3	Bocepravir	6	0.20
4	Bupropion HCl	20	0.67
5	Carvedilol	30	1.00
6	Clopidogrel Hydrogen Bisulfate	10	0.33
7	Colisevelam	6	0.20
8	Dalfampridine	17	0.57
9	Dex lansoprazole	5	0.17
10	Divalproex Sodium	15	0.50
11	Drotaverine HCl	3	0.10
12	Duloxetine HCl	15	0.50
13	Esli Carbazapine	2	0.07
14	Fexofenadine HCl	10	0.33
15	Glimepride	3	0.10
16	Lansoprazole	8	0.27
17	Lomitapide	2	0.07

18	Mesalamine	7	0.23
19	Nebumitone	10	0.33
20	Omeprazole	5	0.17
21	Piperquine Phosphate	5	0.17
22	posacanazole	7	0.23
23	Ramipril	7	0.23
24	Ranolazine	10	0.33
25	Sevelamir HCl	29	0.97
26	Sparfloxacin	20	0.67
27	Telapravir	5	0.17
28	Ticagrelor	1	0.03
29	Tramadol HCl	12	0.40
30	Valacyclovir	6	0.20
31	Valagancyclovir HCl	2	0.07
32	Abiraterone Acetate	1	0.03
33	Anastrozole	2	0.07
34	Bendamustine Hydrochloride	2.5	0.08
35	Bexarotene	3	0.10
36	Bicalutamide	5	0.17
37	Bortezomib	0.5	0.02
38	Carboplatin	5	0.17
39	Capecitabine	2	0.07
40	Cisplatin	2	0.07
41	Cyclophosphamide	2	0.07
42	Dasatinib	2	0.07
43	Emtricitabine	30	1.00
44	Erlotinib HCl	4	0.13
45	Gefitinib	2	0.07
46	Gemcitabine HCl	1	0.03
47	Imatinib Mesylate	16	0.53
48	Irinotecan HCl	14	0.47
49	Lapatinib Ditosylate Monohydrate	2	0.07
50	Letrozole	2.5	0.08
51	Nilotinib HCl	2	0.07
52	Oxaliplatin	4	0.13
53	Pazopanib Hydrchloride	2	0.07
54	Pemetrexed Disodium	0.5	0.02
55	Sorafenib Tosylate	6	0.20
56	Temozolomide	1	0.03
57	Sunitinib Malate	6	0.20
	Total (Worst Case-27 Products)	421	11.57

Capacity of the existing Coal fired boiler is 5 TPH and proposed coal fired boilers will be 2 x 10 TPH, provided with bagfilter as APCS. Backup DG sets of 3X1000 KVA has been proposed in addition to existing DG sets of 1x 380 KVA to cater to energy requirement during load shut down. DG sets shall be provided with stack of adequate height.

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

Total water requirement after expansion is in the order of 487.2 m³/day consisting of 292.2 m³/day of freshwater and the remaining is recycled water. Effluent will be segregated

into high TDS/ COD and low TDS/ COD streams. The Process, Washing Scrubber effluent and RO reject (HTDS effluents) will be sent to stripper. Stripper condensate shall dispose to cement industries/ TSDF. Stripper bottom sent to MEE followed by AFTD. Condensate from MEE shall be sent to biological treatment plant by RO. RO reject to be sent to MEE and permeate is reused in cooling towers and boiler makeup and scrubbers while LTDS effluents sent to Biological treatment system followed by RO. RO permeate reused for cooling tower makeup and scrubbers. RO reject sent to MEE.

ETP Sludge and Evaporation residue will be sent to TSDF. Used Oil used within premises as a lubricant / sold to registered recycler. Ash from boiler will be sent brick manufacturers. Organic residue, solvent residue and stripper distillate will be sent to TSDF/Cement industries.

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

A. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including 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.
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. A Copy of certified compliance report to the environmental conditions prescribed in the existing EC. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.
3. Existing EC need to be transferred in the name of M/s Dasami Lab Pvt. Ltd.
4. Proposed expansion including chemical storage should to be undertaken within the existing plot area without affecting nearby agricultural land. Adequate safety measure to be adopted without affecting nearby farmer's land.

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

6.10.5 Setting up of Synthetic Organic Chemicals (Bulk Drugs and Intermediates) at Sy.No. 97(Part), 98 (Part), 61 (Part), 60 (Part) and 99 (Part) , Abdulla Nagar Village, Tadwai Mandal, Nizamabad District, Telangana by M/s Sapala Organics Pvt. Ltd. – reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals (Bulk Drugs and Intermediates) 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. Sapala Organics Pvt. Ltd., proposed to setting up Synthetic Organic chemical Manufacturing Unit at Sy.No. 97(Part), 98 (Part), 61 (Part), 60 (Part) and 99 (Part) , Abdulla Nagar Village, Tadwai Mandal, Nizamabad District, Telangana. There are three reserve forests in the study area; Lingampet RF at a distance of 7 km in south direction, Nandiwada RF at a distance of 7.6 km in southwest direction, Sarampalle RF at a distance of 8 km in west direction. Kamareddy tank is at distance of 4.5 km in northeast direction and Yellareddypet tank is at a distance of 6.5 km in north direction. As per Form-1, it is reported that no ecologically sensitive areas like national parks, sanctuaries within 10 km radius of the site.

Total plot area is 26.46 Acres of which an area earmarked for greenbelt is 8.8 Acres. Total capital cost of the project is Rs. 30 Crores.

Manufacturing product with capacity is presented as follows:

S.No	Name of the Product	Capacity	
		TPM	(Kg/day)
1	Alendronate Sodium	3.0	100
2	Aripiprazole	9.0	300
3	Atorvastatin Calcium	1.2	40
4	Azacitidine	3.0	100
5	Bicalutamide	3.0	100
6	Bortezomib	0.5	15
7	Candesartan	2.3	75
8	Capacitabine	12.0	400
9	Carvedilol	6.0	200
10	Celecoxib	12.0	400
11	Cetirizine HCl	6.0	200
12	Citalopram HBr	4.5	150
13	Clopidogrel Bi Sulphate	3.0	100
14	Disodium Pamidronate	1.5	50
15	Divalprox Sodium	15.0	500
16	Docetaxal Trihydrate	0.3	10
17	Domperidone	3.0	100
18	Donepezil HCl	3.0	100
19	Dronedarone HCl	9.0	300
20	Duloxetine HCl	3.0	100
21	Esomeprazole Mg	15.0	500

22	Ezitimibe	3.0	100
23	Febuxostat	3.0	100
24	Fexofenadine Hydrochloride	3.0	100
25	Finasteride	0.6	20
26	Fluconazole	3.0	100
27	Fluxetine	15.0	500
28	Gemcitabine HCl	3.0	100
29	Glimipiride	3.0	100
30	Glipizide	3.8	125
31	Ibandronate Na	3.0	100
32	Lamotrigine	9.0	300
33	Lansoprazole	3.8	125
34	Levetiracetam	15.0	500
35	Levo Cetirizine HCl	2.3	75
36	Levofloxacin	3.0	100
37	Loratadine	3.0	100
38	Losortan Potassium	15.0	500
39	Montelukast Na	15.0	500
40	Omeprazole	3.0	100
41	Paclitaxel	0.6	20
42	Pantoprazole Sodium	9.0	300
43	Paroxetine HCl	3.0	100
44	Pioglitazone Hydrochloride	1.5	50
45	Pitavastatin Calcium	1.8	60
46	Prasugrel HCl	4.5	150
47	Pregabalin	7.5	250
48	Rabeprazole Sodium	3.8	125
49	Raloxifene	3.0	100
50	Resedronate Sodium	2.4	80
51	Sertraline HCl	7.5	250
52	Simvastatin	3.0	100
53	Tamsulosin HCl	3.0	100
54	Telmisartan	3.0	100
55	Valsartan	7.5	250
56	Venlafaxine HCl	7.5	250
57	Zafirlukast	3.0	100
58	Ziprasidone HCl	3.0	100
59	Zoledronic Acid	3.0	100
60	Zolmitriptan	3.0	100
	Total: Worst Case 14 Products on campaign basis	165.0	5500

A 10TPH Coal fired boiler and standby 6TPH coal fired boiler has been proposed and connected with bag filter. Additional DG sets of 3 x 1000 KVA capacity are also proposed. Gaseous emissions from process are Hydrogen Chloride, Sulfur dioxide, Carbon dioxide, Oxygen, HCl and SO₂ are scrubbed in two stage scrubbers. Water is used as scrubbing media in primary scrubbers and caustic in secondary scrubbers and scrubbed effluents are sent to ETP. Hydrogen gas is let out into atmosphere through water column.

Total water requirement is in order of 428.9 m³/day consisting of 248.9 m³/day as fresh water and the remaining is recycled water. Wastewater will be segregated in to HighTDS/COD and low TDS/COD streams. High TDS stream will be sent to Stripper followed by MEE, AFTD. The condensate from MEE and ATFD is treated along with utility blow downs and domestic wastewater in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers make-up. While Low TDS stream will be treated in biological treatment system followed by RO.

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

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

A. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
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.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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

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

2nd April, 2016 (Day 4)

6.11 Environmental Clearance

6.11.1 Capacity enhancement by modernizing the existing grain based distillery (from 100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village Shyampur, Tehsil Behror, District Alwar, Rajasthan by M/s Globus Sprit 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 46th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th-21st August, 2015 for preparation of EIA-EMP report. All grain based distillery are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

PP has Environmental Clearance for existing capacity (100 KLPD) obtained from MoEF&CC, New Delhi vide letter No. J-11011/50/2010-IA II (I) dated 25th February, 2011.

M/s. Globus Spirits Limited has proposed Capacity enhancement by modernizing the existing grain based distillery (from 100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village Shyampur, Tehsil Behror, District Alwar, Rajasthan. Cost of project is Rs. 10 crores. Total Plant area is 7.276 ha. Out of which, 2.4 ha has already been developed as green belt/plantation. Sota River lies at 1.0 km in SE direction from the plant site. No National Park, Sanctuary, Biosphere Reserve or Migratory Corridor of Wild Animal falls within 10 km radius of the study area. The proposed capacity enhancement of Grain based Distillery will involve improvement in fermentation to achieve higher alcohol concentration and higher efficiency and installation of Vapour Integration Plant with the dryer for recycling and reuse of water. The existing, proposed and total capacities after proposed capacity enhancement by modernization are as follows:

S. No.	Units	Capacity		
		Existing	Proposed	Total after Proposed Capacity Enhancement by Modernization
1	Grain based Distillery (KLPD)	100	125	125
2	Co-generation Power Plant (MW)	3.0	0.8	3.8

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations for the month of October, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (63.4 µg/m³ to 88.7 µg/m³), PM_{2.5} (26.3 µg/m³ to 44.3 µg/m³), SO₂ (5.9 µg/m³ to 10.8 ug/m³) and NO₂ (15.4 µg/m³ to 28.9 µg/m³) respectively.

Existing Steam requirement is 31 TPH from two Boiler (25 & 14 TPH) and no additional steam will be required for the proposed capacity enhancement project. ESP & Multi-Cyclone with the stacks of adequate height of boilers have already been installed. CO₂ generated during the fermentation process will be collected by utilizing CO₂ Scrubbers and sold to the authorized vendors. Existing water requirement for 100 KLPD Grain Based Distillery is 552 m³/day. Vapour Integration Plant with the dryer will be installed for recycling of water. Thus, no additional fresh water will be required for the proposed capacity enhancement project. Spent Wash will be taken through Centrifuge Decanters for separation of Suspended Solids as Wet Cake which will be used as cattle feed as it contains higher protein and fibre content. Thin Slops from the Decanter Centrifuge are partly recycled back to process (30-35%) and partly taken to Thin Slops Evaporation Plant for concentration of remaining solids to form a Syrup. This syrup is also mixed into the Wet Cake coming out of centrifuge and forms part of Cattle Feed. Wet cake / DWGS from decanter will be passed through steam tube bundle drier for drying into cake with 10-12% moisture (max.) to give

higher shelf life. Solid waste from the Grain based operations generally comprises of Fibres and proteins in the form of DDGS, which are being / will be ideally used as Cattle Feed. Ash from the Boiler is being / will be sold to brick and cement manufacturers.

The Committee deliberated upon the certified compliance report dated 15.10.20015 issued by the Regional Office, Lucknow. The compliance report was found to be satisfactory.

Public hearing was exempted as per para 7 (ii) 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. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.
- ii. As proposed, no new boiler shall be installed. steam shall be taken from the existing boiler.
- iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iv. Total fresh water requirement from ground water source shall not exceed 552 m³/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- v. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.
- vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring shall be carried out for parameters required for drinking water purposes.
- ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- x. Rice husk/biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xi. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.

- xii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xiii. Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv. As proposed, Green belt of 2.4 ha 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.

6.11.2 Expansion of resins at block no. 1834/P1 & P2, Chikhli Vansda Road, Opposite Khodiyar Quarry, Taluka Chikhali, District Navasari, Gujarat by M/s Windson Chemical Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s T. R. Associates) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 19th Meeting of the Expert Appraisal Committee (Industry) (EAC I) held during 28th-30th May, 2014 for preparation of EIA-EMP report. All the synthetic Resin Unit located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/S. Windson Chemical Pvt. Ltd., has proposed for Resin Manufacturing Unit at Block No. 1834/P1 & P2, Chikhli Vansda Road, Opp. Khodiyar Quarry, At & Po.: Alipore - 396409, Tal. Chikhali, Dist: Navsari, Gujarat. The total available area for the project is 21553 m² and unit proposes to develop Green Belt area 7112.49 m² of total area of plot. Cost of the proposed expansion project is Rs. 600 Lakh (Rs 6 Crores). It is reported that no national park/wildlife sanctuary/reserve forest is located within 10 km distance. River Kaveri is flowing at 2.41 km from the project site. Following products will be manufactured:

S. No.	Product Detail	Existing Quantity (MT/Month)	Additional (MT/Month)	Total After Expansion (MT/Month)
1	Formaldehyde	2200	9000	11200
2	Formaldehyde Based Resin (Powder)		900	900
3	Formaldehyde Based Resin (liquid)	900	300	1200
4	Para Formaldehyde	-	900	900
5	Hexamine	-	300	300

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during March – 2014 to May - 2014 and submitted baseline data indicates that ranges of concentrations of PM10 (59.2 µg/m³ to 91.9 µg/m³), PM2.5 (18.7 µg/m³ to 35.5 µg/m³), SO₂ (6.6 µg/m³ to 12.8 µg/m³) and NO_x (11.6 µg/m³ to 17.0 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.0 µg/m³, 2.96 µg/m³ and 5.5 µg/m³ with respect to PM10, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Multi-

cyclone dust collector will be provided to coal fired steam boiler (600 kg/hr.) and stack height is 30m to control particulate emissions. Fresh water requirement from ground water source will be increased from 99.44 m³/day to 620 m³/day after expansion. Industrial effluent generation will be 8 m³/day. Industrial wastewater generated from the project will be reused in gardening. Thus industry will maintain Zero Liquid Discharge (ZLD). Domestic Effluent will be disposed off into soak pit system. After Expansion Used Oil (50 Lit/Month) will be used within premises as a lubricant / sold to registered recycler. Fly ash (1.46 MT/Annum) will be generated from the proposed Boiler and will be stored into silo with proper care and sold to nearby bricks manufacturer. DG set (250 KVA) will be used only on power failure.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 17th April, 2015. The issues were raised regarding existing environmental clearance, impact of formaldehyde on human health, wastewater management; etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee deliberated upon the Certified compliance report dated 25.8.2015 issued by the Regional Office, Bhopal. The Committee noted that most of the points are non-complied. After deliberation, the Committee deferred the proposal for want of additional information:

- (i) To submit action taken report on the non complied points.
- (ii) To submit the revised water balance plan and reduce the fresh water consumption

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

6.11.3 Proposed Synthetic Organic Manufacturing unit at Survey No. 1905/1 Village Gangad, Taluka Bavla, District Ahmedabad, Gujarat by M/s Rheomax Gums Ltd.-reg. EC.

The project proponent and their consultant (M/s Anand Consultants, Ahmedabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 30th Meeting of the Expert Appraisal Committee (Industry -2) held during 22nd-23rd December, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s. Rheomax Gums LLP has proposed for expansion of Synthetic Organic Manufacturing Unit at Survey No. 1905/1 Village Gangad, Taluka Bavla District: Ahmedabad, State: Gujarat. Total plot area of the existing unit is 17199m², of which area earmarked for greenbelt is 6074 m². The cost of the proposed expansion project is Rs 7.60 crores. No national park, wildlife habitat, ecological sensitive area, defense installation falls within 10 km radial distance from proposed project site. Following products will be manufactured:

S. No.	Product	Quantity (MT/month)
1	Chloro Compound (2-chloromethyl-3,4-dimethoxy pyridine hydrochloride)	10

2	Pantaprazole sodium	5
3	Phenylephrine HCl	2
4	Pregabalin	2
5	Telmisartan	2
6	Montekulast sodium	2
7	Ondansetron HCl	2
	Total	25

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during January to March, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (48 - 139 µg/m³), PM_{2.5} (14 - 42 µg/m³), SO₂ (11 - 26 ug/m³) and NOx (12 - 28 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.16865 µg/m³, 0.16865 µg/m³, 0.37187 µg/m³ and 0.09958 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total power requirement will be 125 KVA and would be sourced out from Gujarat Electricity Board (GEB). Coal based steam boiler of 2 TPH will be used with Multicyclone/ Bag Filter as air pollution control device and stack height will be 20 m. The Committee suggested them to install scrubber to control process emission viz. SO₂. D.G. Set (100 KVA) with stack height 15 m and for Distillation Unit stack height will be 15 m and water scrubber will be used for air pollution control. Total fresh water requirement from ground water source / tanker supply will be 33 m³/day against, which 29 m³/day waste water will be generated. Domestic wastewater (sewage) will be disposed off through septic a tank/soak pit system. High TDS effluent will be evaporated in MEE and condensate will be treated in ETP alongwith other trade effluent. A part of treated effluent will be reused for washing/other purposes and remnant will be used on land for gardening purposes within premises. No effluent will be discharged outside the plant premises. ETP sludge will be collected, stored and disposed to an authorized TSDF site. MEE residue will be sent to a common hazardous waste management facility. Used oil will be sold to an authorized dealer or reprocessor. Fly ash will be given to nearest brick/cement manufacturing unit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 30th October, 2015. The issues were raised regarding water and air pollution control measures, local employment, greenbelt, CSR, local man power etc.

After deliberation, the Committee noted certain deficiencies and deferred the project for want of additional information;

- (i) Reanalysis of groundwater monitoring
- (ii) Reanalysis of process emission.
- (iii) Submit plan as 5% of project cost earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details
- (iv) Point wise action taken and response to public hearing.

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

6.11.4 Enhancement of complex fertilizer plant capacity from 3200 MTPD to 4500 MTPD in existing facility at Kakinada, East Godavari District, Andhra Pradesh by M/s Coromandel Fertilizers Ltd.- reg. EC.

The project proponent and their consultant (M/s Cholamadlam MS Risk Service,) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 38th Meeting of the Expert Appraisal Committee (Industry -2) held during 20th- 21st April, 2015 for preparation of EIA-EMP report. All Chemical Fertilizer units are listed at S.N. 5(a) under category 'A' and appraised at Central level.

M/s Coromandel Fertilizers Ltd. has proposed the following LPG facilities to be installed at the existing facility:

- (i) Installation of 3x100 MT LPG Mounded tanks with necessary passive and active safety systems as per OISD 144 and 150 standards. Mounded LPG tanks are intrinsically safe when compared with above ground tanks, therefore the risks due to domino affects will be totally eliminated.
- (ii) LPG Truck Unloading Bay – vacuum type LPG unloading facility will be installed to avoid any spills and leakage of the LPG during the unloading operations. Necessary excess flow check valves, Non-return valves and gas detectors will be installed on the LPG tanks to avoid any hazards during loading and transfer operations.
- (iii) LPG at 17 bar pressure will be expanded in the gasification module attached to the LPG tanks. The rarefied gas 6 bar pressure will be supplied to the existing NG line through a 4 inch pipeline. x 3 inch LPG supply line will be connected to the existing NG supply line with an isolation valve

PP informed that there will be no change in production capacities of the fertilizer plant ; No change in the process units and utilities ; No additional fresh water is required for the proposed installation so there will water and waste water remains unchanged. ; Present Status of Zero discharge plant will be continued. ; No additional power demand x Robust management systems in the areas of quality, safety, environment and Occupational Health are in place. ; Site is not located in critically polluted area.

The existing facility was accorded Environmental Clearance (MoEF Ref: J-11011/381/2006-IA-II [I] dated 11.05.2007) for the production of 4.25 lakh MTPA NPK Grade Fertilisers by installation of Train C at existing plant and again the facility was accorded Environmental Clearance on 11th June 2008 (J-11011/1303/2007-IA-II [I] dated 11.05.2008) for the Enhancement of Complex fertilizer plant capacity from 3200 MTPD(10 lakh MTPA) to 4500 MTPD (15 lakh MTPA) by expansion of the Train A & B in the existing facility at Kakinada

During Manufacturing Process of DAP/NPK fertilizers the Main Pollutants that are releasing to the atmosphere are Ammonia, Dust, Fluoride and Sulphur Dioxide. The main nutrients that are escaping during manufacturing process are un-reacted Ammonia & Dust and are required to be recovered for plant economy as well as for protecting the environment. To recover these materials scrubbing systems are provided in the plant that

consists of Cyclones, venturi, cyclonic wet scrubbers, Dust scrubber and final Tail Gas Scrubber. Existing facility consumes about 1365 m³ /day of water that was supplied by Kakinada Municipal Corporation. The domestic sewage generated from the plant is treated in a dedicated sewage treatment plant (STP) and the treated sewage is used for horticulture applications within the plant.

The Committee deliberated upon the certified compliance report dated 2.09.2015 issued by the Regional Office Chennai. The Committee suggested them to comply with the suggestions given by the Regional Office.

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

- i) Adequate buffer zone around the storage tankages, as may be required as per OISD or other statutory requirements.
- ii) Wastewater generation shall be treated in the ETP. Treated effluent shall be recycled/reused for gardening and horticulture purpose. No effluent shall be discharged outside the premises.
- iii) Storm water should pass through efficient oil and grease catchers to trap leaked oil and grease
- iv) Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. shall be followed. Company should ensure no oil spillage occur during loading / unloading of petroleum products.
- v) The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 and its subsequent amendments.
- vi) 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.
- vii) The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- viii) All storage tanks shall be provided with design features based on applicable OISD standards.
- ix) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.
- x) Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xi) At least 10 meter wide thick green belt shall be developed on all sides along the periphery of the project area, in downward direction, and along road sides etc.

Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xii) 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.
- xiii) All the recommendations mentioned in the EMP/DMP shall be implemented.

6.11.5 Expansion of Pesticides (from 47.38 to 589.75 MTPM) at Plot. No. 1504, 1505, 1506 GIDC Vapi, District Valsad, State Gujarat by M/s Heranba Industries Limited (Unit I)- reg. EC.

The project proponent and their consultant (M/s Eco Chem Sales & Services 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 36th Meeting of the Expert Appraisal Committee (Industry) held during 16th-17th March, 2015 for preparation of EIA-EMP report. All technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Heranba Industries Limited (HIL) has proposed for expansion of Pesticide Manufacturing Unit at Plot No. 1504/1505/1506, 3 rdphase, GIDC, Vapi Dist, Valsad, Gujarat. Total plot area is 9,740 m² of which greenbelt area will be developed in 950 m² with existing green belt of 2000 m². Total cost of the proposed expansion project is Rs. 54 Crore. No Protected areas (National parks/ sanctuaries) area within 10 km area. are located within 10 km distance. It is reported that River Kolak (2.5 Km N) and River Damanganga (4.5 Km SW) are flowing project site. The following products will be manufactured:

S. No	Product	MT/MONTH		
		Existing	Proposed	Total
1	Cyper methric Acid Chloride	12	88	100
2	Deltamethrin Technical	0	30	30
3	Diclorovos Technical	0	15	15
4	Glyphosate Technical	0	30	30
5	Lamdacyhalothrin Teahnical	0	20	20
6	Permethrin Teachnical	0	20	20
7	Temephos Technical	0	10	10
8	Tricyclozole Technical	0	20	20
9	Acphate Technical	0	175	175
10	Hexaconazole Technical	0	5	5
11	Imidaclopride Technical	0	10	10
12	Profenophos Technical	0	15	15
13	Cypermethrin Technical	0	100	100
14	Alpha Cypermethrin Technical	0	60	60
	Total	12	598	610

S. No	By-Product	MT/MONTH
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		Existing	Proposed	Total
1	Ammonium Chloride Power (85%)	5.028	54.77	59.8
2	Sodium Sulphite Powder (80%)	5.58	272.0	277.58
3	Hydro Chloric Acid Solution (30%)	9.992	211.828	231.82
4	Hydro Bromic Acid (20%)	0	260.85	260.85
5	Sodium Sulphate Powder (80%)	16.788	155.412	172.2
6	Bromo Benzene	0	132.0	132.0
7	SS-CMAC	0	62.5	62.5
8	Cypermethrin(2 nd crop)	0	24.0	24.0
Total		47.388	1193.36	1240.75

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March 2015 to May 2015 and submitted baseline data indicates that ranges of concentrations of PM_{2.5} (42.5 – 50.7 µg/m³), PM₁₀ (81.3 – 98.2 µg/m³), SO₂ (18.7 to 41.8 ug/m³) and NO_x (23.4- 48.1 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.12811 µg/m³, 0.17679 µg/m³ and 0.06080 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Natural Gas/FO for Steam Boiler (5 Tons/Hr x 3 nos.) will be used. The flue gases are exhausted through the stacks of 30 m height from the ground level. The D.G. Sets shall be provided with adequate stack height (i.e. 11 meter) to minimize air pollution. The D.G. Sets two nos. (380 KVA and 1000 KVA) will be used only as power backup. Existing power requirement of the industry is 550 KVA and total power requirement after proposed expansion will be 2150 KVA. Power requirement is/will be met through Dakshin Gujarat Vij Company Limited (DGVCL) supply.

Total fresh water requirement will be increased from 42.284m³/day to 374.7 m³/day after expansion. Fresh water will be supplied by River Damanganga through GIDC water supply Vapi, District: Valsad. Total industrial Wastewater Generation is 209.38 m³/day, out of which 138.5 m³/day low TDS/COD, 48.74 m³/day high TDS/COD & 22.14 M³/DAY high COD/NH₃ effluent. Low TDS/COD will be treated in primary, secondary & tertiary treatment plant and drain to CETP, Vapi, high TDS will be treated in MEE & high COD/NH₃ effluent will be incinerated in incineration system. Domestic waste water will be disposed off through Septic Tank. ETP sludge after proposed expansion will be dispose off into TSDF, Vapi or SEPPL Kutch. Used oil will be use for incineration. Salt from MEE will be dispose off into TSDF, Vapi or SEPPL Kutch, and Ash from incineration will be dispose off into TSDF, Vapi or SEPPL Kutch.

PP has submitted the recommendations of GPCB issued vide their letter no. GPCB/CCA-VSD-734 (4)/ID:23574 dated 27.08.2015.

After deliberation, the Committee deferred the proposal for want following additional information:

- (i) A copy of CTE or first CTO of existing pesticide plant to be provided alongwith cost of project
- (ii) Plan to reduce the wastewater and Zero Liquid discharge to be drawn .

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6.11.6 Expansion (262 to 345 MTPM) of Organic Pigments” (Azo Pigments) as well as “Quinacridone Pigments “& Pigment Emulsions Plot. No. 23, 1st phase, notified industrial area, GIDC Vapi, District Valsad, Gujarat by M/s Pidilite Industries Limited.- reg. EC

The project proponent and their consultant (Eco Chem Sales & Services 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 36th Meeting of the Expert Appraisal Committee (Industry) held during 16th-17th March, 2015 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 'A' and appraised by Expert Appraisal Committee (I).

M/s Pidilite Industries Limited has proposed expansion of synthetic organic chemicals manufacturing unit at Plot No: 23, 1st phase, G.I.D.C, Vapi, district Valsad, Gujarat. Total plot area is 38443.09 m² out of which 12686 m² area will be developed as Green belt. Cost of expansion project is Rs. 21.0 Crore. It is reported that no National Park/Wild life sanctuary/Reserve forest etc. is located within 10 km radius of the proposed project site River Daman Ganga is flowing at a distance of 2 km. Following products will be manufactured:

S. No.	Product	MT/MONTH		
		Existing	Proposed	Total after proposed expansion
1	Carbazole Dioxane Violet Pigment	25	0	25
2	Organic Pigment (Azo-Orange/Yellow/ Red)	85	30	115
3	Pigment emulsion	137	33	170
4	Quinacridone Pigment	15	20	35
5	Total	262	83	345

Presently the unit has installed two nos of multi cyclone separator followed by bag filter attached to the pulveriser. After proposed expansion, the unit shall install one additional multi cyclone separator followed by bag filter attached to the pulveriser. Adequate height of process vent will be provided. Adequate multi cyclone separator followed by bag filter provided to briquettes fired boiler. Existing D.G. Set of 750 KVA (2 nos.) & 125 KVA shall be used only in case of emergency power failures. Power requirement (1900 KVA) after proposed expansion will be met from Dakshin Gujarat Vij Co. Ltd (DGVCL) power supply.

Total water requirement for the proposed expansion project will be 1564 m³/day. After suggestion of the Committee, PP has re-estimated fresh water requirement in a tune of 1271 m³/day. Sourced of water supply is GIDC. Effluent generation will be 1207 m³/day. The effluent from industrial activity will be treated in full-fledge effluent treatment plant consisting of primary, aerobic & tertiary facility. The treated waste water from GIDC common drainage goes to the CETP from where it is discharged to the river Daman Ganga (downstream) & finally meeting to Arabian Sea. The solid/hazardous waste generated will be

handled, stored, treated or transported for final disposal as per guidelines of MoEF/CPCB/GPCB to TSDF site.

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

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

- i. Multi cyclone separator followed by bag filter shall be provided to briquettes fired boiler and pulveriser to control particulate emissions.
- ii. Total water requirement from GIDC water supply should not exceed 1271 m³/day and prior permission should be obtained from the Competent authority.
- iii. As proposed, industrial effluent should be treated in ETP. Treated effluent from ETP should be discharged into CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- iv. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- v. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Transboundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- vi. As proposed, greenbelt should be developed at least 12686 m² area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- vii. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- viii. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

6.11.7 Establishment of molasses based Distillery (40 KLPD) at Village Jaswantpura, Tehsil Najibabad, District Bijnor, UP by M/s Kisan Sahkari Chini Mills Ltd.- reg. EC.

The project proponent and their consultant (M/s Vardan Environet) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 40th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 18th -19th May, 2015 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 Kisan Sahkari Chini Mills Ltd has proposed for setting up of molasses based Distillery (40 KLPD) and CPP (1 MW) at Village Jaswantpura, Tehsil Najibabad, District Bijnor, UP. Total plot area is 6 Acre. Out of which 2.6 Acre(33%) area will be developed as green belt. Malini River is flowing at a distance of 7 km. The capital cost of the project will be Rs. 48.0 Crore. No Wildlife Sanctuary, National Park, Biosphere Reserves, Wildlife Corridors, migratory routes of birds exists within study area of 10 km radius while Mohanwali RF is 2.0 km away from the project site.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 1st March 2015 to 31st May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (55.4-71.2 µg/m³), PM_{2.5} (26.5 to 44.3 µg/m³), SO₂ (8.6-20.1 µg/m³) and NO_x (15.0-30.8 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.23 µg/m³ and 0.30 µg/m³ and 1.02 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS. During presentation, PP confirmed that ESP will be provided to two nos. of 32 TPH boiler with 30 m stack to control particulate emissions.

Fresh water requirement of the project will be met from ground water. Total 400 m³/day fresh water will be required for the proposed project. PP confirmed that proposed project would be based on "zero effluent discharge" and No waste water will be discharged outside the project premises. Spent Lees from Distillation column and process condensate will be recycled. Spent wash is sent for concentration in 5 stage multi-effect evaporator. Concentrated Spent Wash will be mixed with bagasse generated from Sugar Unit and burned in boiler as a fuel. Waste water like sewage will be treated in ETP. Treated Water will be used for greenbelt development. Ash from the Boiler will be sold to brick manufactures.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the UP State Pollution Control Board on 20th November, 2015. The issues raised during meeting were regarding elephant zone, permission from forest deptt., emission from stacks, fly ash 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 fired boiler to control particulate emissions within 50 mg/Nm³.
- 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 ground water will be 400 m³/day for distillery (Molasses) as well as CPP. Effort shall be made to use recycled water from condensate of MEE for the co-generation power unit.
- iv. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated to achieve 'Zero' discharge. Effluent from 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. Distillery plant shall be operated for 330 days.
- 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. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- vii. 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.
- viii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- ix. 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.
- x. 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.
- xi. 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.
- xii. All the issues raised during the public hearing/consultation meeting held on 20th November, 2015 should be satisfactorily implemented.

- xiii. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv. 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 Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.

6.11.8 Establishment of molasses based Distillery (30 KLPD) at Tehsil Azamgarh, District Azamgarh, UP by M/s Kisan Sahkari Chini Mills Ltd.- reg. EC.

The project proponent and their consultant (M/s Vardan Environet) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 40th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 18th -19th May, 2015 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 Kisan Sahkari Chini Mills Ltd has proposed for Establishment of molasses based Distillery (40 KLPD) alongwith CPP (1 MW) at Village: Sathiaon, Tehsil: Sadar Azamgarh, Distt. Azamgarh, U. P. Total plot area is 6 Acre. Out of which 1.98 Acre area will be developed as green belt. Tons River is flowing at a distance of 8 km (NW). The capital cost of the project will be Rs 55.50 Crore. Out of the total cost of the project Rs. 12 crore have been earmarked towards the pollution control measures. No Wildlife Sanctuary, National Park, Biosphere Reserves, Wildlife Corridors, migratory routes of birds, Protected Forest/ Reserved Forest exists within study area of 10 km radius.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 1st March 2015 to 31st May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (50.2-77.6 µg/m³), PM_{2.5} (15.1 to 39.6 µg/m³), SO₂ (1.9-17.8 µg/m³) and NOx (7.2-30.2 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.63 µg/m³ and 1.14 µg/m³ and 1.9 µg/m³ with respect to PM₁₀, SO₂ and NOx respectively. The resultant concentrations are within the NAAQS. During presentation, PP confirmed that Proper pollution control equipments like ESP will be installed with the process stack. Fresh water requirement of the project will be met by ground water. Fresh water requirement of the project will be met by ground water. Total 300 m³/day fresh water will be required for the proposed project. PP confirmed that proposed project would be based on "zero effluent discharge" and No waste water will be discharged outside the project premises. Spent wash will be concentrated in MEE (Multiple Effect Evaporator), then the semisolid waste from MEE (Multiple Effect Evaporator) will be sent in specially designed boiler for incineration. Condensate will be treated in condensate polishing unit and will used as make-up water in cooling tower. Boiler ash collected and sold to brick manufacturers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the UP Pollution Control Board on 7th December, 2015. The issues were raised regarding local development, air pollution, water pollution, local

employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to bagasse fired boiler to control particulate emissions within 50 mg/Nm³.
- 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 ground water will be 300 m³/day for distillery (Molasses) as well as CPP. Effort shall be made to use recycled water from condensate of MEE for the co-generation power unit.
- iv. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated to achieve 'Zero' discharge. Effluent from 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. Distillery plant shall be operated for 330 days.
- 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. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- vii. 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.
- viii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- ix. 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.

- x. 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.
- xi. 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.
- xii. All the issues raised during the public hearing/consultation meeting held on 7th December, 2015 should be satisfactorily implemented.
- xiii. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv. 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 Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.

6.11.9 Expansion of the Sugar unit (3500 to 5000 TCD) and Co-generation power plant (24 MW) at village & Tehsil Walwa, district Sangli, Maharashtra by M/s Padmabushan Krantiveer Dr. Nagnath Anna Nayakawadi Hutatma Kisan Ahir Sahakari Sakhar Karkhana Ltd.- reg. EC.

The project proponent and their consultant (M/s Water and Waste Water Research Centre) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 11th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 26th and 27th August, 2013 for preparation of EIA-EMP report. All Sugar industry are listed at S.N. 5(j) (ii) under category 'B' but due to presence of already active 30 KLPD Molasses based distillery appraised at Central level.

The industry received the Environmental Clearance vide File J-11011/661/2007 – IA II (I) dated 17th September 2007.

M/s Padmabhushan Krantiveer Dr. Nagnath Anna Nayakawadi Hutatma Kisan Ahir Sahakari Sakhar Karkhana Ltd..has proposed for expansion of Sugar Unit (from 3500 TCD to 5000 TCD) at Walwe, Taluka Walwe District – Sangli – 416313 Maharashtra. The total area available with the factory is 26.0 Hectares. Out of which 8.667 Hectares is used for green belt development. It is reported that no national park/ wildlife sanctuary/ coral formation

reserve is located within 10 km distance. River Krishna is flowing at a distance of 2.2 Km. The total project cost is Rs. 196 Crores. Following is the configuration of the unit:

S.N.	Unit	Existing	Additional	Total after Expansion
1	Sugar	3500 TCD	1500	5000

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during December 2012-February 2013 and submitted baseline data indicates that ranges of concentrations of PM10 (34 µg/m³ to 55 µg/m³), PM2.5 (12 µg/m³ to 20 µg/m³), SO₂ (6 µg/m³ to 12 µg/m³) and NO_x (10 µg/m³ to 16 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 60.77 µg/m³ and 25.01 µg/m³ with respect to PM and NO_x respectively. The resultant concentrations are within the NAAQS. PP confirmed that Wet Scrubber system will be installed in the flue gas in order to reduce suspended particulate matter. However, the Committee suggested them to install ESP having 99.9 % efficiency shall be provided as air pollution control equipment to meet emission standards. It is proposed to have 1 No. of 140 TPH capacity Bagasse fired Boiler. Boiler shall be provided with a stack of 3500 mm dia. and 70 m. Height. The total water requirement for the expansion project of Sugar and Cogeneration is 3670 m³/Day (i.e. Industrial use – 3570 m³/day and Domestic -100 m³/day) and will be drawn from Krishna River. The total quantity of waste water generated per day shall not exceed 1180 m³ /day. The domestic effluent of 30 m³/day is treated in septic tanks followed by filters and used for irrigation/ gardening. Thus the process effluent of 440 Cum/day is only require treatment. The industry has already provided full fledged Effluent Treatment Plant facilities for 440 cum/day which would be adequate for the proposed sugar factory of the expanded capacity of 5000 TCD. Existing stone media of anaerobic filter in ETP shall be replaced with plastic media to improve the efficiency of anaerobic filter. PP confirmed that they will spend 5 % of the project cost for Corporate social responsibility.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 26th August, 2015. The issues were raised regarding impact of wastewater discharge, ash management plan, water pollution control measures etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information:

- (v) Certified compliance report to environmental condition of the existing environmental clearance.
- (vi) Water consumption seems to be higher side. Rework on the water balance chart and submit the revised water balance chart.
- (vii) Letter of confirmation from accredited consultant

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

6.12 Terms of Reference (TOR)

6.12.1 Manufacturing of Synthetic Organic Chemicals (Bulk Drugs and Intermediates) at Sy.No. 59 (Part), 60 (Part) and 99 (Part), Abdulla Nagar Village, Tadwai Mandal, Nizamabad District, Telangana by M/s Sampada Laboratories Pvt. Ltd.-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals (Bulk Drugs and Intermediates) 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. Sampada Laboratories Pvt. has proposed for setting up of Synthetic Organic Chemicals (Bulk Drugs and Intermediates) at Sy.No. 59 (Part), 60 (Part) and 99 (Part), Abdulla Nagar Village, Tadwai Mandal, Nizamabad District, Telangana. There are three reserve forests in the study area; Lingampet RF at a distance of 6.9 km in south direction, Nandiwada RF at a distance of 7.5 km in southwest direction, Sarampalle RF at a distance of 8 km in west direction. Kamareddy tank is at distance of 4.5 km in northeast direction and Yellareddypet tank is at a distance of 6.5 km in north direction. As per Form-1, it is reported that no ecologically sensitive areas like national parks, sanctuaries within 10 km radius of the site.

Total plot area is 26.46 Acres of which an area earmarked for greenbelt is 8.8 Acres. Total capital cost of the project is Rs. 30 Crores.

Manufacturing product with capacity is presented as follows:

S.No	Name of the Product	Capacity	
		TPM	Kg/day
1	Atorvastatin Calcium	1.2	40
2	Azacididine	3	100
3	Bicalutamide	3	100
4	Bortezomib	0.45	15
5	Candesartan	2.25	75
6	Capacitabine	12	400
7	Carvedilol	6	200
8	Cetirizine HCl	6	200
9	Disodium Pamidronate	1.5	50
10	Divalprox Sodium	15	500
11	Docetaxal Trihydrate	0.3	10
12	Dronedarone HCl	9	300
13	Esomeprazole Mg	15	500
14	Fexofenadine Hydrochloride	3	100
15	Finasteride	0.6	20
16	Fluconazole	3	100
17	Fluxetine	15	500
18	Gemcitabine HCl	3	100
19	Glimipiride	3	100
20	Glipizide	3.75	125
21	Ibandronate Na	3	100
22	Lamotrigine	9	300
23	Lansoprazole	3.75	125
24	Levetiracetam	15	500
25	Levo Cetirizine HCl	2.25	75
26	Levofloxacin	3	100

27	Losortan Potassium	15	500
28	Montelukast Na	15	500
29	Omeprazole	3	100
30	Paclitaxel	0.6	20
31	Pioglitazone Hydrochloride	1.5	50
32	Pitavastatin Calcium	1.8	60
33	Rabeprazole Sodium	3.75	125
34	Raloxifene	3	100
35	Resedronate Sodium	2.4	80
36	Sertraline HCl	7.5	250
37	Valsartan	7.5	250
38	Venlafaxine HCl	7.5	250
39	Zafirlukast	3	100
40	Zoledronic Acid	3	100
Total: Worst Case 6 Products on Campaign Basis		90	3000

8TPH Coal fired boiler and standby 5TPH coal fired boiler has been proposed and connected with bag filter. Additional DG sets of 2 x 500 KVA and 1x 1000 KVA capacity are also proposed. Gaseous emissions from process are Hydrogen Chloride, Sulfur dioxide, Carbon dioxide, Oxygen, HCl and SO₂ are scrubbed in two stage scrubbers. Water is used as scrubbing media in primary scrubbers and caustic in secondary scrubbers and scrubbed effluents are sent to ETP. Hydrogen gas is let out into atmosphere through water column.

Total water requirement is in order of 244.8 m³/day consisting of 146.8 m³/day as fresh water and the remaining of recycled water. Against requirement of fresh water wastewater of 103.44 m³/day will be generated. Wastewater will be segregated in to HighTDS/COD and low TDS/COD streams. High TDS stream will be sent to Stripper followed by MEE, AFTD. The condensate from MEE and ATFD is treated along with utility blow downs and domestic wastewater in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers make-up. While Low TDS stream will be treated in biological treatment system followed by RO.

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

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

B. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants*

- like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
 5. Detailed effluent treatment scheme including 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.
 12. Details of incinerator if to be installed.
 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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

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

6.12.2 Expansion of Existing Molasses Based Distillery (45 to 75 KLPD) & Co-generation Power Plant (1.0 to 5.0 MW) along with installation of 125 KLPD Grain Based Distillery in Existing Distillery Plant Premises at Village Rajapatti Kothi, P.O. Rajapatti, Tehsil Baikantpur, District Gopalganj, Bihar by M/s Sona Sati Organics Private Limited- reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery and Grain based distillery (>60 KLPD) are listed at S.N. 5(g) and 5 (g) (ii) under category 'A' and appraised at Central level.

M/s Sona Sati Organics Private Limited has proposed for expansion of existing Molasses Based Distillery (45 to 75 KLPD) & Co-generation Power Plant (1.0 to 5.0 MW) along with installation of 125 KLPD Grain Based Distillery in Existing Distillery Plant Premises at Village Rajapatti Kothi, P.O. Rajapatti, Tehsil Baikantpur, District Gopalganj, Bihar. EC has been obtained for existing plant (45 KLPD) vide letter no.J-11011/25/2007-IA II(l) dated 8th June 2007 and amendment thereafter on 13th April 2009. As per Form-1 it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Rivers Gandak flowing at distance of 6 km towards NE direction.

Total project area is 30.33 acres, out of which green belt will be developed on 10 acres of land. About 160 people will be employed under the project. Total cost of the project is Rs. 125 Crores. Out of this, cost earmarked for Environment Management Plan is Rs. 25 Crore and Rs. 2.0 lakh per annum is as recurring cost. Distillery will be operated for 350 days. Following products will be manufactured:

Unit	Existing Capacity	Additional Capacity	Total after expansion capacity
Molasses based distillery (KLPD)	45 KLPD	30 KLPD	75KLPD
Co-Generation Power (MW)	1	4	5
Grain based distillery (KLPD)	Nil	125	125

Fresh water will be sourced from underground. Water requirement for molasses based distillery will increase upto 660 m³/day and grain based distillery will be 1140 m³/day. In Grain based Distillery, Grain slops (Spent Wash) will be taken through Centrifuge Decanters for separation of Suspended Solids separated as Wet Cake and which goes as cattle feed as it contains high protein. The number of working days will be 350 days/annum.

Molasses based Distillery involves Molasses handling, Yeast Propagation, Fermentation, Distillation & Dehydration and Multi Effect Evaporation. Spent wash generated during Molasses operation, would be concentrated in Multi-effect evaporator followed by incineration boiler. Process condensate from MEE will be treated and recycled back in the process. Plant will be based on zero liquid discharge.

Existing Capacity of boiler using spent wash/rice husk/bagasse is 22 TPH. Additional 36 TPH boiler will be installed. For steam generation 10TPH boiler will be increasing to 2 no. of 16TPH and 32TPH boilers. Wet scrubber with stack of 45 m ht is installed with incineration boiler to control particulate emission. A stack of 60 m ht will be provided and connected to ESP/bag filter for proposed boilers. Ash so produced will be sent to brick manufacturer.. To meet the additional power requirement, capacity of DG set will be increased from 750 KVA to 3 DG sets having capacities – 62KVA, 380 KVA and 1000 KVA.

DDGS so produced will be used in cattle feed. Used oil from the plant will be sold to the authorized recyclers. After deliberation, the committee suggested for installing bag filter to the existing boiler and developing the green belt in existing plant.

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

A. Specific TOR

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

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

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
- iii. Implementation plan for grain based distillery to be included in EIA-EMP report with commitment of completion in time bound manner.
- iv. Green belt to development should start from TOR stage in existing plant and shown in EIA report.
- v. Bag filter to be installed in existing boiler.

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.

6.12.3 Setting up of technical pesticides within existing formulation unit (capacity- 4700 MTPA) at 5 km stone, sampla beri road, Village Sampla, Tehsil Sampla, District Rohtak, Haryana by M/s Pioneer Products Limited.- reg TOR.

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

M/s Pioneer Products Limited. has proposed Setting up of technical pesticides within existing formulation unit (capacity- 4700 MTPA) at 5 km stone, sampla beri road, Village Sampla, Tehsil Sampla, District Rohtak, Haryana. As per the Form-1, it is reported that no

National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc.

Cost of proposed project is Rs. 30 Crore. Plot area is 30000 m², of which 10000 m² (about 33%) of land will be developed as greenbelt. The Committee noted that capacities of individual products have not been given by PP. However, following products are proposed in following broad category:

S.No.	Product	Quantity (MTPA)
1	Herbicide	1100
2	Insecticide	2500
3	Fungicide	900
4	R&D	200
	Total	4700

Fresh water of 98 m³/day will be sourced from underground against which 94 m³/day of wastewater will be generated and treated in ETP based on tertiary treatment using incineration. The Committee suggested that wastewater to be segregated into two stream of high TDS/ COD and low TDS/ COD.

Power requirement of 1000 KVA will be supplied by Electricity Board (UHBVNL). As standby arrangement, DG sets of 2x380 KVA and 160 KVA will be installed using HSD. Agro waste/Briquette fired boiler (2TPH capacity) will be installed. The Committee suggested to provide multicyclone followed by wet scrubbing system in place of simply wet scrubbing system.

ETP sludge, MEE salt, process waste and inorganic waste will be collected, stored transport and disposed to TSDF site. Used oil, discarded containers will be sold to registered recycler.

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

A. Specific TOR

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

toxic materials.

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. Adequate plan for Green belt to be drawn and should start from TOR stage in existing plant and shown in EIA report.
- iii. Itemised product capacities to be firmed up and be given in EIA-report.
- iv. Source segregation of process effluent (high TDS/COD and low TDS/COD) to be exercised and Plant shall be based on Zero Liquid Discharge.
- v. Plan for odour control

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.

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

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

M/s Bharat Rasyan has proposed Expansion of Existing Pesticide (2940 to 4260 TPA) Project at 2KM Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak, Haryana. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc.

Cost of proposed project is Rs. 1.50 Crore. Plot area is 44517 m², of which 16068 m² of land will be developed as greenbelt. In existing plant 230 employee are working. Following products will be manufactured:

List of Product

SI No.	Particulars	Installed capacity (TPA)	Proposed Capacity (TPA)
INSECTICIDES			
1	Alphacypermethrin Technical	0	100
2	Bifenthrin Technical	0	120
3	Cypermethrin Technical	600	350
4	Fenvalerate Technical	900	300
5	Fipronil Technical	0	100
6	Lambda Cyhalothrin tech.	0	300

7	Permethrin Tech.	0	100
8	thiamethoxam Tech.	0	300
9	Difenthiuron tech.	0	150
FUNGICIDES			
10	Clodinafop Tech.	0	100
11	Propanil tech.	0	50
12	Pyrazosulfureon tech.	0	20
13	Imiazethpyre Tech.	0	25
14	Safener	0	30
HERBICIDES			
15	Tebuconazole	0	50
16	Difenconazole	0	50
17	Myclobutanyl	0	15
INTERMEDIATE			
18	Methaphenoxybenzaldehyde	960	1800
19	Parachlorophenyl Isopropyl Acetic Acid	0	200
20	Parachlorobenzylcyanide	480	100
	TOTAL CAPACITY (TPA	2940	4260

S.No.	By product	Quantity	
		Existing	After product mix
1.	Alum	5086.08	9536.4
2.	Pt. Chloride	2001.6	5036.5
3.	Spent acid	1125.9	824.95
4.	HCL (28%)	1946.58	2212.31
5.	Sodium Sulphite	1523.7	1403.8
6.	Potassium bromide (soln)	1850.88	3726.7
7.	Sodium Bromide(soln)	948.6	758.6
8.	Total	14483.34	23499.26

Fresh water requirement will increase from 180 m³/day to 234.7 m³/day, which will be sourced from underground. Against this wastewater generation will increase from 75.43 m³/day to 84.62 m³/day, which will be treated in ETP based on tertiary treatment. Sewage so generated will be treated in existing STP. The Committee suggested for segregation of wastewater into two stream i.e. high TDS/ COD and low TDS/ COD. System should be based on ZLD.

Power requirement will increase from 1450 KVA to 1720 KVA and sourced from Electricity deptt. (UHBVNL). Additional DG sets of 1x1250 KVA and 1X 275 will be installed as power backup using HSD. It is reported that 2 boilers exists in capacity order of 6TPH, 3TPH and 2TPH.

ETP sludge, MEE salt, process waste and inorganic waste will be collected, stored transport and disposed to TSDF site. Used oil, discarded containers will be sold to registered recycler.

After deliberation, the Committee deferred the proposal as a copy of EC for existing project could be produced or a copy of CTO or CTE obtained prior to EIA, Notification 1994 exiting plant is not available. The project is deferred for want of this specific information.

6.12.5 Expansion of Existing Grain based distillery (from 120 KLPD to 620 KLPD) by installation of 500 KLPD Ethanol/RS Industrial/ENA/SDS Plant {(250 KLPD Grain Based in Phase I) & (125 KLPD Grain and 125 KLPD Molasses Based in Phase II)} & 40 MW Co-generation Power Plant {(20 MW in Phase I) & (1 x 15 MW, 1 x 5 MW in Phase II)} in Existing Distillery Plant (120 KLPD) at Village Sangat Kalan, Tehsil Bathinda, District Bathinda, Punjab by M/s Om Sons Marketing Private Limited.- reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery and Grain based distillery (>60 KLPD) are listed at S.N. 5(g) and 5(g) (ii) under category 'A' and appraised at Central level.

M/s Om Sons Marketing Private Limited has proposed for expansion of existing Grain based distillery (from 120 KLPD to 620 KLPD) by installation of Unit II –500 KLPD Ethanol/RS Industrial/ENA/SDS Plant {(250 KLPD Grain Based in Phase I) & (125 KLPD Grain and 125 KLPD Molasses Based in Phase II)} & 40 MW Co-generation Power Plant {(20 MW in Phase I) & (1 x 15 MW, 1 x 5 MW in Phase II)} in Existing Distillery Plant (120 KLPD grain based distillery) at Village Sangat Kalan, Tehsil Bathinda, District Bathinda, Punjab. PP has obtained EC of existing plant vide letter No. J11011/ 274/2011-IA II (I) dated 25.02.2013. As per Form-1 it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Sirhind Canal is flowing at a distance of 5 Km in SE direction.

Total project area is 8.8 ha, out of which green belt will be developed on 2.9 ha. of land. About 800 people will be employed under the project. Total cost of the project is Rs. 566 Crores. Out of this, cost earmarked for Environment Management Plan is Rs. 56 Crore and Rs. 10 crores per annum is as recurring cost. Distillery will be operated for 350 days.

M/s Om Sons Marketing Private Limited has already established grain based distillery (120 KLPD), Malt Sprit (5 KLPD) and Cogen power plant in the year 2014 as Unit I. Now The company is proposing for installation of Unit II with additional capacity of 500 KLPD Ethanol/RS Industrial/ENA/SDS Plant which is spilted in two phases as following

Phase I- 250 KLPD Grain Based in Phase I & 20 MW

Phase II- 125 KLPD Grain and 125 KLPD Molasses Based in Phase II & 20 MW Co-generation Power Plant (1 x 15 MW, 1 x 5 MW)

In case of Phase I, Fresh water requirement will be 2501 m³/day and for Phase II, water requirement will be 2066 m³/day (for 125 m³/day grain based- 1027 m³/day & Molasses based- 1039 m³/day). Canal water will be sourced from Irrigation Canal.

In Grain based Distillery, Grain slops (Spent Wash) will be taken through Centrifuge Decanters for separation of Suspended Solids separated as Wet Cake and which goes as cattle feed as it contains high protein. The number of working days will be 350 days/annum. Plant will be based on zero liquid discharge.

Molasses based Distillery involves Molasses handling, Yeast Propagation, Fermentation, Distillation & Dehydration and Multi Effect Evaporation. Spent wash generated during Molasses operation, would be concentrated in Multi-effect evaporator followed by

incineration boiler. Process condensate from MEE will be treated and recycled back in the process.

In the proposed project 40 MW CPP power plant has been proposed with installation of D.G. set- 3X1000 KVA as a standby arrangement. For Steam generation 3 boilers 100 TPH, 60 TPH and 40 TPH will be provided or within existing source. PP did not mention details of Water consumption and existing power generation facility within the operating plant. ESP will be installed as Pollution control device. Ash so produced will be sent to brick manufacturer.

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

A. Specific TOR

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

B. Additional TOR

- I. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- II. Availability of grain from the market to be firmed up comprehensively with relevant sources/ documents .
- III. Implementation schedule for execution of phase-1 and phase-2 of project to be drawn and to be included in EIA-EMP report with commitment of completion in time bound manner.
- IV. Permission from irrigation department to be obtained for drawing the water after meeting agriculture requirements.
- V. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a

certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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.

6.13 Any Other

6.13.1 Proposed expansion cum backward integration project at village Sarigam, Umbergaon, Valsad, Gujarat by M/s Madura Industrial Textile Ltd.– amendment in existing EC.

Proposal was considered during the 3rd Expert Appraisal Committee (Industry-2) held on 18-19th January, 2016. The following points were discussed.

- 1) To include Nylon-6 Chips in the list of products with a total rated capacity of 1950 MT/M
- 2) To include Dry VP Lumps in product list at rated capacity of 30 MT/ Annum.
- 3) Installation of one Steam Boiler (Capacity: 8 TPH) running on Coal as an option of the existing NG/ HSD fired Boiler.
- 4) Discharge of the effluent to CETP.

The above points were discussed by the committee during presentation and the committee recommended the first two points. Now, PP has again represented their case to consider point no. (3) and (4). Now, PP has submitted the following justifications for the proposed amendments for optional fuel and discharge to CETP:

1. **Justification for optional fuel and installation of one Steam Boiler (Capacity: 8 TPH)**
 - i. No continuous availability of natural gas. They faced quite a few problems last year with the supply of NG and even the cost escalated very high
 - ii. Proposed 8 TPH Steam boiler running on coal will be used as an option of the existing NG/ HSD fired Boiler (5TPH).
 - iii. it may please be noted that the emissions from the proposed optional installation will be well within the permissible limits prescribed by GPCB for the existing Boiler.
 - iv. Bag filter will be provided as APCD to proposed 8 TPH coal fired Boiler to meet the permissible limit for particulate matter and lime dosing will be done in the

bunker to check emissions of SO₂ within the existing permissible limits as prescribed by GPCB.

- v. Hence, change in fuel NG/HSD to Coal as an option, is proposed with an assurance for keeping the check on emissions within the current stipulated norms. The cost comparison for financial feasibility for fuel change.

2. **Discharge of effluent in CETP**

- ❖ While obtaining EC, they submitted two options for discharge viz. one for discharge of treated effluent in the CETP of Sarigam, upon it becoming operational OR ZLD by passing through RO+MEE system.
- ❖ However, since the CETP was not operational then, the committee had granted them the ZLD.
- ❖ Now, the CETP, Sarigam is operational. A copy of the CC&A of Gujarat Industrial Development Corporation (CETP), Sarigam is submitted.
- ❖ The CETP has also agreed to receive our effluent and a provisional letter from CETP is obtained.
- ❖ Hence they proposes for discharge of treated industrial waste water to CETP, Sarigam instead of zero discharge.
- ❖ Currently, ETP treated water @ 28 KLD & cooling tower blowdown @ 78 KLD is sent to Treated water tank. We are treating 68 KLD water from treated water tank in RO and 14 KLD is sent to evaporator. 30 KLD from treated water tank is sent for non-potable domestic uses.
- ❖ Now, they are proposing that total cooling tower blowdown @70 KLD water will be treated in RO & 28 KLD water as RO reject will be discharged in CETP. 28 KLD of treated water from ETP will be sent for non-potable Domestic uses..

After detailed deliberation, the Committee recommended for aforesaid amendment subject to following conditions :

- i. Proposed 8 TPH Steam boiler running on coal will be used as an option of the existing NG/ HSD fired Boiler (5TPH).
- ii. Bag filter will be provided as APCD to proposed 8 TPH coal fired Boiler to meet the permissible limit for particulate matter and lime dosing will be done in the

- bunker to check emissions of SO₂ within the existing permissible limits as prescribed by GPCB.
- iii. Flyash shall be collected and kept in covered area. Fly ash shall be sent to cement plant/brick manufacturers. Flyash shall be conveyed through covered vehicle to avoid fugitive emissions.
 - iv. Effluent (30 m³/day) generated from other sections will be treated in the ETP and treated effluent will be used for non-potable purpose within factory premises. Effluent (70 m³/day) from cooling tower blowdown will be treated through RO. RO permeates (42 m³/day) will be recycled/reused for cooling tower make up. Rejects of RO (28 m³/day) will be discharged into CETP.
 - v. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

6.13.2 Expansion of molasses based distillery (from 45 KLPD to 135 KLPD) at Village Khursapar (Bela), Taluka Umred, District Nagpur, Maharashtra by M/s Purti Power Sugar Ltd. – Amendment in Environmental clearance reg.

MoEF&CC vide letter no J-11011/551/2014-IA II (I) dated 24th February, 2016 has granted environmental clearance. Now, PP has requested for the following amendment in the conditions of EC:

S.N.	Specific conditions	Amendment requested
1	Specific condition ix: Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation process and evaporated in MEE. Concentrated spent wash shall be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained. From the existing unit 30 % spent wash will be treated through composting route and 70 % will be incineration boiler route. However, for the proposed unit 100 % spent wash will be treated through incineration boiler route.	1 st Phase of expansion of 45 KLPD distillery unit will use digester, MEE and composting for spent wash treatment and after installation and commissioning of 2 nd phase of 45 KLPD distillery, spent wash of 135 KLPD distillery will be treated by incineration boiler" From the existing unit 30 & spent wash will be treated through compost route and 70 % will be incineration boiler route (After installation boiler)

The amendment is requested as the feedstock (spent wash) required for operation of incineration boiler to generate 4 MW will be fulfilled by spent wash generated by 135 KLPD distillery whereas PP is proposing the expansion (2 x 45 KLPD) distillery in two phases. In addition to this the time required for installation of incineration boiler and 2nd phase expansion will be 18 months and 1st phase expansion will be completed in next 4-5 months. PP also informed that the required quantity of press mud for existing and 1st phase expansion is 26000 MTPA, which will be met from the captive source and other units. The compost yard for existing plant is constructed at 5.5 Acres (2.23 ha) of land and 20 % concreting work is completed as per CREP Norms.

After detailed deliberation, the Committee recommended for aforesaid amendment.

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

Proposal was considered by the EAC in its meeting held during 20-21st July, 2015 and the Committee decided to make site visit to assess the existing environmental scenario and recommend for the additional environmental protection measures to be undertaken by the above mentioned projects. However, site visit could not be undertaken due to preoccupied schedule of the experts. Therefore, this Committee decided to review the existing project on the basis of certified compliance report dated 23.04.2015 issued by the MoEF&CC's Regional Office at Lucknow. It is reported that most of the environmental conditions have been complied by the PP. But 3 conditions are found to be non-complied and 4 conditions found partially complied. These are related to details on non-furnishing of financial closure; Copy of PLI; copy of EC to be uploaded on Company's website. Therefore, the Committee suggested that Company should first submit the compliance report to the Ministry for further consideration.

The proposal is therefore deferred till the action taken report on non-complied points and partly complied points is submitted. The above information shall be provided with the uploading of minutes on the website.

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

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

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

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

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

6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

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

- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

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

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

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

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

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 6th MEETING OF EAC (INDUSTRY-2)
HELD ON 30th March to 2nd April , 2016

S.N.	Name	Designation	Attendance
1	<u>Dr. J. P. Gupta</u>	Chairman	P
2	<u>Sh. R. K. Singh</u>	Member	P – 2 day A- 2 days
3	<u>Dr. Ahmed Kamal</u>	Member	A
4	<u>Prof. J.R. Mudakavi</u>	Member	P
5	<u>Dr. Ajay Gairola</u>	Member	P
6	<u>Dr. N. Nandini</u>	Member	P
7	<u>Prof. (Dr.) H.R. V Reddy</u>	Member	P
8	<u>Dr. Shashank Shekhar</u>	Member	A
9	<u>Ms. Saloni Goel</u>	Member	P
10.	<u>Shri Suhas RamchandraPharande</u>	Member	A

11.	<u>Shri G. C. Pati</u>	Member	P – 2 day
12	<u>Dr. S. K. Peshin</u>	Member	A
MOEF Representatives			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P