MINUTES FOR 8th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 26-27th MAY, 2016

VENUE: Narmada Hall, Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi - 110003.

Time : Meeting to be held at 10: 00 AM

8.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 15 AM

8.2 Confirmation of the Minutes of the 7th Expert Appraisal Committee (Industry-2) held during 28-29th April, 2016.

26th May, 2016 (Day 1)

1st Session: Time: 10.15 AM

8.3 Environmental Clearance

8.3.1 Expansion of Synthetic Organic Chemicals (from 16 MTPM to 215 MTPM) Unit at Plot No. 1088(8), Village Manjusar, Tahsil Savli, District Vadodara, Gujarat by M/s Universal Ester Ltd. – reg EC.

The project proponent and their consultant (M/s Precitech Laboratories Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 24th Reconstituted Expert Appraisal Committee (Industry-2) held during 29th - 30th September, 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 Universal Ester Ltd. has proposed for expansion of Synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at Plot No. 1088(8), Village Manjusar, Tahsil Savli, District Vadodara, Gujarat. The unit has obtained CTE prior to EIA, Notification 2006. The existing plot area is 3694.48 m2, of which greenbelt will be developed in 600 m2 area. No additional land will be required for proposed project expansion. Total 55 personal will be employed under proposed expansion project. Cost of expansion project is Rs. 1.56 crores. It is reported that no Wildlife Sanctuary /National park/ Reserve forest is located within 10 km distance. River Mahi is flowing at a distance of 9.37 km (NW). Following products will be manufactured:

S. No.	Name of Products	Proposed Quantity of Production MT / Month		
		Existing Quantity	After Phase-I	After Phase-II
Existing Products*				
1.	Methyl Anithranilate*	1.5	NIL	NIL
2.	Ethyl Salicylate*	1.25		
3.	Ethyl Benzoate*	1.6		
4.	Amyl Salicylate*	3.0		

S. No.	Name of Products	Proposed Quantity of Production MT / Month		
5.	Benzyl Salicylate*	8.0		
6	Menthyle Salicylate*	0.5		
7.	Amyl Acetate*	2.0		
8.	Or any other type of chemicals in category of organge esters*	--		
9.	Octyl Methoxycinnamate	8	125	200
10.	Octyl Salicylate	6		
11.	Octyl Hydroxystearate	2		
Proposed products				
1.	Homosalate	-		
2.	Cosmetic emmolients	-		
3.	Ethyl methoxyCinnamate	-	5	5
Proposed products (Repacking & Reselling)				
4.	Octocrylene	-	10	10
5.	Benzophenone-3	-		
6.	Benzophenone -4	-		
7.	Avobenzone	-		
TOTAL		**16**	**140**	**215**
*Note: The company has obtained consolidated consent & Authorization (CC&A) no. AWH-72352 valid up to 05/07/2020 for manufacturing of these products as well, but is not manufacturing them anymore.				

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2014 to February, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (54 µg/m^3 to 94 µg/m^3 µg/m^3), $PM_{2.5}$ (19 µg/m^3 to 40 µg/m^3), SO_2 (9 µg/m^3 to 29 ug/m^3) and NOx (12 µg/m^3 to 35 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.56 µg/m^3, 0.03 µg/m^3 and 0.12 µg/m^3 with respect to PM_{10}, SO_2 and NOx respectively. The Committee suggested them to carry out one month ambient air quality monitoring for all parameters.

It is proposed that the existing boiler (0.6 TPH) will be replaced by two Biomass briquettes fired Thermic fluid heaters of capacity 6 Lakh.Kcal/hr & 10 Lakh.Kcal/hr respectively. Cyclone separator will be provided to thermic fluid heaters as APCD to for control of Particulate matter. Power requirement will increase from 125 KVA to 250 KVA after expansion and sourced from Madhya Gujarat Vij Company Ltd (MGVCL). One DG set of capacity 125 will be installed for standby use. Fresh water requirement will be increased from 4.6 m^3/day to 37 m^3/day after expansion and sourced from ground water. Effluent generation will enhance from 1.8 m^3/day to 12.2 m^3/day. The industrial effluent will be treated in the effluent ETP and finally disposed to CETP of EICL or will be evaporated in evaporation unit. ETP waste will be sent to TSDF site. Distillation residue will be disposed by incineration at NECL/GEPIL. Spent Carbon will be disposed by incineration. Spent catalyst will be sent to TSDF. Used oil and Discarded containers/ bags will be sold to registered refiners. Spent solvent will be sold to actual users. 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 12th January, 2016. The concerns were raised on local employment, pollution control measures, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberations, the Committee sought the following additional information:

(i) Characteristics of process effluent to be worked out and based on this adequate treatment scheme to be drawn. There is need to check whether biological treatment is required or not?

(ii) Values reported from ambient air quality monitoring report seem to be inconsistent e.g. CO is reported to be BDL, which seems to be incorrect. Therefore, One month ambient air quality monitoring shall be carried for all the parameters.

(iii) Commitment for installing bagfilter to biomass fired boiler to control particulate emissions.

(iv) Reanalysed the surface and ground water quality monitoring.

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

8.3.2 Proposed Molasses based Distillery (45 KLPD) at Gat No.74 and 79 Village Mangrul, Tehsil Tuljapur, District Osmanabad, Maharashtra by M/s Kancheshwar Sugar Ltd. (I) – reg EC.

The project proponent and their consultant (Equinox Environments (I) Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded during the 12th Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 26th – 27th August, 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 Kancheshwar Sugar Ltd. (I) has proposed for setting up of Molasses based Distillery (45 KLPD) at Gat No.74 and 79 Village Mangrul, Tehsil Tuljapur, District Osmanabad, Maharashtra. Proposed plant will be installed in the existing unit of Sugar unit (3500 TCD) and Cogeneration power plant (15 MW). Total plot area is 24.28 Ha, of which, greenbelt will be developed in 9.51 Ha. The cost of project is Rs. 26.94 Crore. Out of which, Rs. 30.48 Crore and Rs. 3.95 Crore/annum are earmarked towards capital cost and recurring cost per annum for implementation EMP. Distillery will be operated for 240 days. It is reported that no eco sensitive area is located within 10 km distance. Following is the details of products /by-products:

S. No.	Products		Quantity
1	Distillery	Rectified Spirit (RS)/	1,350 KL/M (45 KLPD)
		Extra Neutral Alcohol (ENA)	1,260 KL/M (40 KLPD)
		Absolute Alcohol	1,200 KL/M (40 KLPD)
2	By Product		
i	Fusel Oil		0.09 KLPD
ii	Compost		24,812 MT/Year
iii	Carbon Di-oxide		35 MT/Day

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations (during October, 2013 to December, 2013) and submitted baseline data indicates that ranges of concentrations of PM10 (40.57 µg/m^3 to 48 µg/m^3), $PM_{2.5}$ (10.07 µg/m^3 to 12.70 µg/m^3), SO_2 (8.43 µg/m^3 to 17.6 ug/m3) and NOx (07.17 µg/m3 to 14.87 µg/m3)

respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.06 µg /m^3 and 0.02 µg /m^3 for PM_{10} and $PM_{2.5}$ respectively. The resultant concentrations are within the NAAQS. Steam for distillery will be taken from existing boiler of 85 TPH in the Co-gen power plant. ESP has been provided to Bagasse & biogas fired boiler of 85 TPH to control particulate emissions. Total water requirement for distillery will be 442 m^3/day. Out of which fresh water requirement from Harni River will be 217 m^3/day; from rain water harvesting will be 8 m^3/day and remaining water requirement (217 m3/day) will be met from treated effluent of condensate polishing unit. Further, PP informed that after recycling condensate, fresh water requirement will be reduced. Spent wash generation will be 335 m3/day and treated in bio-methanation reactor followed by MEE (Five Effect). 200 M^3/Day concentrated & bio-methanated spentwash will be biocomposted with press mud. MEE condensate and spentlees will be treated in Distillery Condensate Polishing Unit (CPU). Cooling blowdown, boiler blow down, lab & washing effluents will be treated in sugar factory of ETP. Yeast Sludge and CPU sludge will be consumed during spent wash composting process. Boiler Ash will be used as filler material for spent wash and sold to farmers for use as manure.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 23rd December, 2014. The issues were raised regarding wastewater management, effect on crop due to pollution, CO_2 generation and its utilization measures and spent wash management; etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) As proposed, no boiler will be installed for distillery unit. Steam will be used from the existing Co-gen power plant.

ii) Total fresh water requirement for distillery from Harni River will be 217 m^3/day and prior permission shall be obtained. Total fresh water requirement from rain water harvesting will be 8 m^3/day. No ground water shall be drawl for industrial purposes.

iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be 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.

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

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

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

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

viii) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC and SPCB.

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

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

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

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

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

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

xv) As proposed, green belt over 9.51 ha of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xvi) All the commitments made during the Public Hearing/Public Consultation meeting held on 23rd December, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

8.3.3 Expansion of Synthetic Organic Unit, Soda Ash Plant, Caustic Soda Plant and CPP at Survey No.478/P, 447-453, 455-457, Village Kalatalav, Tehsil & Tehsil Bhavnagar, Gujarat by M/s Nirma Ltd. – reg EC.

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd & Kadam Environmental Consultant) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 30th Reconstituted Expert Appraisal Committee (Industry) held during 22nd-23rd December, 2014 for preparation of EIA-EMP report. 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). Soda ash plant, Caustic Soda Plant and CPP are listed at S.N. 4 (e), 4 (d) and 1 (d) of the schedule of the EIA notification under category 'A'.

M/s Nirma Ltd. have proposed for expansion of Synthetic Organic Unit, Soda Ash Plant, Caustic Soda Plant and CPP at Survey No.478/P, 447-453, 455-457, Village Kalatalav, Tehsil & Tehsil Bhavnagar, Gujarat. The existing plot area is 555 acres. Out of which, greenbelt already have been developed in 152.93 acres area. The cost of the proposed expansion project will be Rs. 1420 crores. Of which, Rs. 25.0 crores will be earmarked for development of EMS as capital investment and around 20.0 crore will be recurring cost per annum.

Environmental clearance obtained from MoEF's vide letter no J-11011/456/2007-IA II (I) dated 24th June, 2008. Further, EC for the expansion was obtained vide letter no. J-11011/423/2010-IA (I) dated 08.08.2014. CRZ clearance for sea water intake and cooling water return from DoEF, Gandhinagar vide letter no ENV-1098- 1123-P dated 14.10.1998. CRZ clearance for laying of the treated effluent disposal pipeline for soda ash effluent vide letter no. ENV-1099-1740-P1 dated 19/08/2000 and amendment vide letter no. ENV-10-1099-1371 dated 21.07.2010. CRZ clearance for development of solar salts works from MoEF vide letter no. J-16011/25/2003-IA III dated 11.08.2004 and amendment dated 30.07.2007. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Reserve forest of Madhiya is located at a distance of 8.2 km. About 6.5 km in North (Gundala Creek), 6.0 Km East side (Malcom Channel) and 3.0 km in the south direction (Bhavnagar Creek) are located. Details of existing and proposed products with capacity are given below:

Sr. No.	Products/By-Products	Units	Existing Capacity	Proposed Capacity	Total Capacity after Expansion
1	**Soda Ash Plant**				
A	Light Soda Ash	TPD	2000	800	2800
B	Dense Soda Ash	TPD	1200	600	1800
C	Vacuum Salt	TPD	1600	---	1600
2	**Caustic Soda Plant**				
A	**Product**				
	Caustic Soda (100%)	TPD	480	270	750
	Hydrochloric Acid (100%)	TPD	40	240	280
B	**By-Products**				

	Chlorine Gas (100%)	TPD	425.2	240	665.2
	Hydrogen (100%)	TPD	12	6.75	18.75
	Sodium Hypo Chlorite (100%)	TPD	6	6	12
3	**Captive Power Plant**				
	Power	MW	97.18	100	197.18
4	**Chlorine & Hydrogen Derivatives**				
A	Hydrogen Peroxide (100%)	TPD	---	84	84
B	Epichlorohydrine (ECH)	TPD	---	150	150
C	Glycerin	TPD	---	160	160
D	Mono Chloro Acetic Acid (MCAA)	TPD	---	120	120
	By-Products				
	Hydrochloric Acid (100%)	TPD	---	48	48
	Mother Liquor of MCAA	TPD	---	30	30
	Sodium Hypo Chlorite (100%)	TPD	---	10	10
E	Trichloro Acetyl Chloride (TCAC)	TPD	---	10	10
	By-Product				
	Hydrochloric Acid (100%)	TPD	---	9	9
	Sodium Hypo Chlorite (100%)	TPD	---	1	1
	Sodium Bisulfite Solution (100%)	TPD	---	3	3
5	**Toilet Soap Plant**				
	Toilet Soap	TPD	200	---	200
	Detergent Powder	TPD	414.66	---	414.66
	Detergent Cake	TPD	414.66	---	414.66
	Fatty Acid	TPD	150	---	150
	Glycerin	TPD	167	---	167
6	**Bromine Plant**				
	Bromine	TPD	10	---	10

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 PM_{10} (52.2 µg/m^3 to 94.7 µg/m^3), $PM_{2.5}$ (23.2 µg/m^3 to 50.3 µg/m^3), SO_2 (7.7 µg/m^3 to 15.3 ug/m3) and NOx (10 µg/m^3 to 19.2 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.549 µg/m3 , 0.291 µg/m3 , 0.275 µg/m3 , 0.029 µg/m3 , 0.015 µg/m3 and 0.201 µg/m3 with respect to SPM, SO2, NOx, HCl, Cl2 and NH3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

ESP will be provided to the additional coal fired boiler (350 TPH x 2) for CPP. ESP has also been provided to the existing coal fired boiler of caustic soda plant and soda ash. Additional DG set (2x 1500 KVA) will be installed. One scrubbers and one ESP in series will be provided to proposed Lime Kilns (G & H). Brine scrubber will be provided to proposed ammonia recovery unit to control process emission NH_3. Bagfilter will be provided to proposed additional lime grinding system (2 Nos.). Water scrubber will be provided to additional calcination vessel and densification. Water scrubber will be provided to the proposed HCl Synthesis Units. Scrubber will be provided to waste gas dechlorination system. Ceramic and activated carbon filter will be provided to proposed solvent recovery + hydrogenation plant. Water scrubber will be provided to proposed incinerator, HCl synthesis and chlorination. Acidic /water scrubber (3 Nos.) will be provided to proposed chlorination plant.

Fresh water requirement from sea will be increased from 942.292 MLD to 1399.6 MLD after expansion. Source of water supply is existing seawater intake facility i.e. from Sonarai

Creek, near village: Gundala. Effluent generation will be increased from 413.21 MLD to 581.92 MLD after expansion. Effluent of Soda Ash Plant will be treated in existing effluent treatment plant followed by utilization in salt works for recovery of additional salt and gypsum and/or for disposal at designated point as per recommendation of NIO as and when needed. Nirma has permission to discharge 12000 m^3/day soda ash treated effluent in the Malcolm Channel. The effluent from proposed Caustic Soda plant expansion will be pumped into the proposed effluent treatment plant; where it first go to neutralization pit and treated with HCl/NaOH to ensure complete neutralization. Then effluent will go to treated water pit from where it shall be utilized for green belt development &/or dust suppression.

Effluent from ECH plant after giving adequate treatment will be sent to salt works for salt recovery. Settling Pond Sludge will be used in road construction, salt works bund preparation. Lime stone rejects /under size will be used in boilers for desulphurization in boilers. Brine sludge (Nonhazardous) in nature will be used dumped in identified area. Fly ash/ Bottom ash will be used as brick manufacturing and road making.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 7th January, 2016. The issues were raised regarding type of hazardous waste management, facility for fishing, local employment, road construction towards creek (Khadi) and to provide facility for High School education etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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 followings;

(i) Action taken report on non-compliance points reported by the respective RO of MEF&CC.
(ii) Detailed plan on Enterprise Social Commitment (ESC) based on local needs to be drawn to tune of 2.5% of project cost with financial and physical breakup/details.

(iii) Risk assessment and details of proposed chlorine handling system.

8.3.4 Resin Manufacturing Unit at Survey No. 40, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Ever Shine Décor 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 Terms of References (TORs) awarded during the 44th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th to 21st July, 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 by Expert Appraisal Committee (I).

M/s Ever Shine Décor Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 40, Village Indrad, Taluka Kadi, District Mehsana, Gujarat. The plot area is 7588 m^2 of which greenbelt is will be developed in 2480 m^2. The cost of the project is Rs.1.0 Crore . It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere reserve is located within the distance of 15 km from the proposed project site. Following products will be manufactured:

No.	Product	Total Quantity
1.	Phenol Formaldehyde Resin	200 MT/Month
2.	Melamine Formaldehyde Resin	200 MT/Month
3.	Urea Formaldehyde Resin	240 MT/Month
4.	Laminated Sheets	1,60,000 Sheets/Month

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 PM_{10} (59.0 µg/m^3 to 83.0 µg/m^3), $PM_{2.5}$ (22.2 µg/m^3 to 34.0 µg/m^3), SO_2 (5.0 µg/m^3 to 26.7 ug/m^3) and NOx (6.6 µg/m^3 to 15.6 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 12.5 µg/m^3, 0.52 µg/m^3 and 3.0 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the NAAQS.

Cyclone separator followed by bag filter will be provided to coal/briquettes fired boiler (3TPH) and thermic fluid heater (12,00,000 Kcal/hr) to control particulate emissions. DG set (275 HP) will be installed. Total water requirement from ground water source will be 61.3 m^3/day. Effluent generation will be 4.8 m3/day. Industrial effluent will be treated in ETP followed by RO. ETP sludge and evaporator residue will be sent to TSDF. Used oil will be sent to registered recyclers. Discarded Plastic bags will be sold to the authorized vendors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 5th January, 2016. The issues were raised regarding Effluent/ Solid waste management, pollution control measures etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering 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 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 61.35 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

prescribed by CPCB/SPCB. 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 2480 m^2 area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 5th 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.

8.3.5 Resin manufacturing unit at survey number 213, Village Bahutha, Taluka Savli, District Baroda, Gujarat by M/s Sayaji Lamintes 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 44th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 20th to 21st July, 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 by Expert Appraisal Committee (I).

M/s Sayaji Laminates Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 213, Village Bahutha, Taluka Savli, District Baroda, Gujarat. The plot area is 7611.0 m^2, area earmarked for greenbelt development is 2525.33 m^2. Total cost of the project is Rs. 1.0 Crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve within the distance of 15km from the plant site. Mahi River is flowing at a distance of 7.5 km north-west direction. Following products will be manufactured:

No.	Name of Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	400 MT/Month
2	Melamine Formaldehyde Resin (M. F. Resin)	400 MT/Month

3	Urea Formaldehyde Resin (U. F. Resin)	400 MT/Month
4	Laminated Sheets	3,00,000 Nos./Month

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March 2015 to May 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (59.0 µg/m^3 to 85.20 µg/m^3), $PM_{2.5}$ (17.8 µg/m^3 to 34.0 µg/m^3), SO_2 (5.0 µg/m^3 to 16.3 ug/m^3) and NOx (6.75 µg/m^3 to 19.4 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.5 µg/m^3, 0.50 µg/m^3 and 1.5 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the NAAQS.

Cyclone separator followed by bag filter will be provided to coal/briquettes fired boiler (4 TPH) and thermic fluid heater (15 lakh Kcal/hr) to control particulate emissions. DG set (300 KVA) will be installed. Total water requirement from ground water source will be 39 m^3/day. Effluent generation will be 18.93 m^3 /day. Domestic effluent will be treated in the STP. Industrial effluent will be treated in ETP with oxidation. Treated effluent will be evaporated in the MEE to achieve zero discharge.

ETP waste will be disposed off at approved TSDF site, used oil will be reused within premises as a lubricant or sold to registered recycler, Edge cutting waste will be disposed to the Common incineration facility and discarded plastic bags will be sold to authorized vendor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 25th February, 2016. The issues were raised regarding effect of pollution on nearby area and employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated 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 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 39 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

prescribed by CPCB/SPCB. 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 2525.33 m^2 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 25th February, 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.

8.3.6 Proposed expansion of Synthetic Chemical Manufacturing Unit at Plot. No. 148/1, B/H – Khushboo Plywood, Chhatral kadi Road, Village Dhanot, Tahsil Kalol, District Gandhinagar, Gujarat by M/s Bhole Intermediates – reg EC.

The project proponent and their consultant (M/s Bhagwati Enviro Care 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 6th Meetings of the Expert Appraisal Committee (Industry) held during 5-7th March, 2013 respectively 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 Bhole Intermediates has proposed for expansion of Synthetic Chemical Manufacturing Unit at Plot. No. 148/1, B/H – Khushboo Plywood, Chhatral kadi Road, Tahsil Kalol, District Gandhinagar, Gujarat. Total plot area is 3678 m^2 of which greenbelt will be developed in 1103.4 m^2. Total 20 personal will be employed. Cost of expansion project is Rs. 26.54 Lacs. It is reported that no wildlife sanctuary /national park is located within 10 km distance. Following products will be manufactured:

No.	Name of Product	Quantity		
		Existing	Proposed	Total
01	DEMAP	5 MT/Month	30 MT/Month	35 MT/Month

02	Dilute Caustic Lye (By-product)	30 KL/Month	57.5 KL/Month	87.5 KL/ Month

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (78.82 µg/m^3 to 66.03 µg/m^3), $PM_{2.5}$ (27.70 µg/m^3 to 40.84 µg/m^3), SO_2 (8.26 µg/m^3 to 25.79 ug/m3) and NOx (11.77 µg/m^3 to 42.21 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.42 µg/m^3, 5.95 µg/m^3 and 2.12 µg/m^3 with respect to PM, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Stack of 11 m height will be provided to LDO fired boiler (5000 Kcal/Hr). Total power requirement for proposed expansion will be 80 hp sourced from Uttar Gujarat Vij Co. Ltd. The total fresh water requirement from ground water source will be increased from 3.65 m^3/day to 7.250 m^3/day after expansion. The effluent generation will be increased from 0.35 m^3/day to 3.75 m^3/day. Effluent will be treated in the Effluent Treatment Plant and finally discharge to CETP, Kalol. No effluent will be discharged outside the plant premises. Discarded Containers /Bags will be return back to raw material supplier. Used Oil will be sold to registered recycler. ETP Waste will be sent to TSDF site.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12th August, 2014. The issues were raised regarding disposal of waste water, measures required for Air and water pollution etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Stack of adequate height will be provided to LDO fired boiler.

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

iii. Total fresh water requirement from ground water source shall not exceed 7.250 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iv. Total industrial effluent generation shall not exceed 3.75 m^3/day. 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.

v. Treated effluent should be passed through guard pond. Automatic /online monitoring system (24 x 7 monitoring devices) for pH meter, flow meter and TOC analyzer should be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.

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

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. 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. All the issues raised during the Public Hearing/consultation meeting held on 12th August, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

xiii. As proposed, green belt of 1103.4 m^2 shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

8.3.7 Manufacturing of Technical Grade pesticides and Intermediates (32350 MTPA) at Plot No. 5, SEZ operated at Village Vilayat GDIC, Taluka Vagra, District Bharuch, Gujarat by M/s Jubilant Life Sciences – 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.

Lunch Break: 1:30 PM – 2.00 PM

2nd Session: Time: 2.00 PM

Reconsideration of EC

8.3.8 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. – reg EC.

Proposal was considered by the EAC in its meeting held during 30th March to 2nd April 2016 and the Committee asked the PP to submit the action taken report on non complied points and partly complied points. PP vide letter dated 9th May, 2016 has submitted the action taken report. In compliance, PP obtained the PLI insurance policy for the current year. Copy of ECs alongwith compliance report have been uploaded on the website. Copy of environmental statement is uploaded on their website.

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

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

ii. Adequate stack height shall be provided to gas based power plant. Low NOx burners shall be provided to control NOx emissions.

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

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

v. Total fresh water requirement for Viramgam Terminal from ground water source shall not exceed 20 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

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

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

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

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

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

xii. All the recommendations mentioned in the risk assessment report should be implemented.

xiii. All the issues raised during the public hearing/consultation meetings held on 12th December, 2014 should be satisfactorily implemented.

xiv. 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.

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

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

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

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

8.3.9 Multifeed distillery (50 JLPD) alongwith cogeneration power plant 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 aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 30th, 31st March, -2nd April 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. 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.
2. 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.
3. Adequate treatment scheme for spent wash generated from molasses based distillery.
4. Adequate Treatment scheme for spent wash generated from grain based distillery.
5. 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
6. Submit layout plan for greenbelt.
7. Rain water harvesting facility to be provided.
8. Status of Environmental Clearance and consent to operate of the existing unit of sugar and CPP.

Accordingly, PP has submitted the following information:

1. PP confirms that they will not use the ground water at all for the same where as source of water supply will be Godavari River as we have mentioned during presentation and we will take the water through pipeline.

2. Fresh water requirement shall not exceed 10 KL per KL of alcohol produced. Required water balance is tabulated with existing sugar unit. Total Fresh water requirement of molasses based process is 492 m3 /day.

3. Spent wash after bio-methanation is converted in to bio-manure in bio-composting plant. After settling it will be pumped to anaerobic bio-digester for bio-methanation, concentration in MEE and composting with press mud.

4. Spent wash after decantation will be concentrated in multiple effect evaporators. Concentrated spent wash is sprayed on the decanted material which is further dried in a drier to yield DDGS.

5. The total capital cost of the project is INR 86.96 Cr and about INR 4.4 Cr will be earmarked towards Enterprise Social Commitment (ESC). Detailed action plan is given below:

S. No	**Particulars**	**Amount(in lakhs) (INR)**
1	Sanitation facilities in surrounding villages	65
2	Fund allocation under “Swaccha Bharat Abhiyan”	55
3	Social forestry	25
4	Organization of medical camps in surrounding villages	65
5	Training, awareness and skill development programmes	55
6	Women empowerment	40
7	Drinking water facility	75
8	Educational facility	60
	Total	440

6. Green belt planning will be done with ecological perspectives for distillery plant of KGS Sugar and Infra Corporation Ltd. About 5.3 ha (33% of the plant area) will be developed as greenbelt area details are given below:

S. No.	Year	Greenbelt Area (Ha)	Total Plants (@2500/ha)
	1 st Year	1.0	2500
	2 nd Year	1.0	2500
	3 rd Year	1.5	3750
	4 th Year	1.8	4500
		5.3	13250

7. Annually, about 30200.85 m3 water will be conserved by rain water harvesting system. Out of this about 4314.60 m3 will be used in molasses based process and remaining 25886.25 m3 will be discharged in ground water through open well and structure details are given in Figure. Detailed calculation is given blow:

S. No	Particulars	Catchment Area in m2 (A)	Runoff Coefficient (C)	Rainfall Intensity in mm/Annum (I)	Discharge (m3)
	Rooftop area	6768	0.85	0.75	4314.60*
	Green area	53100	0.65	0.75	25886.25
				Total	**30200.85**

8. Existing sugar industry is having capacity of 4000 TCD and due to its capacity it is not covered under the EIA Notification 2006 preview. The copy of the latest consent to operate is provided.

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

i) Bagfilter alongwith stack of adequate height shall be provided to bagasse fired boiler (20 TPH) to control particulate emission within 50mg/Nm^3.

ii) Total fresh water requirement of 492 m3/day will be met from Godavari River. No groundwater shall be extracted.

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

iv) Spent wash generation from grain based distillery shall not exceed 6 KI/KI 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 DOGS. 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.

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

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

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

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

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

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

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

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

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

xiv) As proposed, green belt over 58410 m^2 of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 26th June, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

8.3.10 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 aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 30th, 31st March, -2nd April 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. Reanalysis of groundwater monitoring
2. Reanalysis of process emission.
3. 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
4. Point wise action taken and response to public hearing.

Accordingly, PP has submitted the following information:

1. PP has submitted the reanalysis of ground and surface water quality report.

2. PP has replied for reanalysis of process emission that project is yet to be set up and the expected emission from the proposed unit has been mention at page No. 2.59 of EIA report.

3. PP has submitted detailed plan for Socio-economic development/ welfare activities with budget allocated toward CSR activities. Total allocated budet is Rs 38 Lacs for 7 years.

4. PP has submitted the point wise action taken and response to the issues raised during public hearing.

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

I. Bagfilter and the stack of adequate height shall be provided to coal fired boiler.

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

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

IV. Total fresh water requirement from ground water source shall not exceed 33 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

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

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

VII. 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 :

a. Reactor shall be connected to chilled brine condenser system

b. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

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

d. Solvents shall be stored in a separate space specified with all safety measures.

e. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

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

XII. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) 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.

XIII. As proposed, green belt of 6074 m^2 shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in

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

8.4 Terms of Reference (TOR)

8.4.1 Expansion of grain based distillery (80 to 160 KLPD) & Co-generation Power Plant (2 MW to 5 MW) within existing plant premises at Village & Tehsil Hathin, District Palwal, Haryana by M/s Ashoka Distillers & Chemicals Private Limited- reg TOR.

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

M/s Ashoka Distillers & Chemicals Private Limited has proposed for expansion of grain based distillery (80 to 160 KLPD) & Co-generation Power Plant (2 MW to 5 MW) within existing plant premises at Village & Tehsil Hathin, District Palwal, Haryana.

The industry has obtained license (installed capacity 25550 kl/annum) from Department of Industrial Development on 11.07.1994 and has been operating on the basis of CTO issued by the SPCB. Haryana Pollution Control Board vide certificate no. WPCB/2433 dated 29.12.1992 has certified for installation of pollution treatment system. Haryana Board issued the last CTO without mentioning the production capacity for discharge of effluent vide letter no. HSPCB/consent/2777415PALCTO1453754 dated 01.01.2015 which is valid upto 31.03.2017.

As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. There is no water body except gaunchhi drain adjacent to the plant site in East direction.

The Existing plot area is 11.82 ha (29.20 acres) and no additional land is required for the proposed expansion. About 3.90 ha (9.63 acres) area has already been developed as green belt. About 150 people will be employed under this expansion project. Total cost of the proposed project is Rs. 30.0 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 10.0 Crores. The following product will be manufactured under proposed project:

S. No.	Unit	Existing (KLPD)	Proposed Expansion (KLPD)	Total
1	Rectified Spirit/Extra Neutral Alcohol	80	80	160
2	Co-Generation Power Plant	2	3	5 MW

PP informed that Existing unit has 25 TPH, 12 TPH & 6 TPH of Pet Coke/Coal/ Agro fuel and Biogas fired boiler. Out of these only 25 TPH boiler is running for existing unit and after proposed expansion remaining will be used. Committee noted that PP is operating with excess capacity of boiler. Multi cyclone followed by Bag Filter is already provided and connected to 35 m stack height. The required power will be met from cogeneration power plant. Three DG sets of 750, 725 & 500 KVA connected to stack as per CPCB guideline.

Existing fresh water requirement is 674 m3/day which will increase upto 1350 m3/day and drawn from underground. The committee suggested proper plan to be drawn for recycle and reuse with rain water harvesting so as to reduce the burden on ground water and alternate

option to be explore for the use of surface water. Spent wash of of 845 m3/day will be generated and treated through Decantation, Biodigester, Secondary treatment and MEE units and plant is based on Zero liquid discharge system.

Solid waste from the grain based operations will be used as cattle feed. Ash from the boiler is being/will be sold to brick manufacturers. Used oil & grease will be sold out to the CPCB authorized recyclers.

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 Alternate fuel to be used in place of Coal.

iii Availability of grain from the market to be firmed up.

iv Adopt effective treatment technology for water recycle.

v Use Air Cooled condensation system

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.

8.4.2 Setting up of technical grade pesticides (450 MTPA) at Site No. 31 & 32, Industrial Growth Center Bathinda, District Bathinda, Punjab by M/s Hindustan Rasayan Pvt. Ltd. – reg ToR.

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

M/s Hindustan Rasayan Pvt. Ltd. has proposed for setting up of technical grade pesticides (450 MTPA) at Site No. 31 & 32, Industrial Growth Center Bathinda, District Bathinda, Punjab. As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site.

Cost of proposed project is Rs. 6 Crores of which Rs. 35.5 lakh and Rs. 7.5 Lakh are earmarked for capital investment and recurring cost on environmental protection measures respectively. Plot area is 10,000 sq yards, of which 3300 sq yards of land will be developed as greenbelt. About 40 people will be employed under this expansion project. It is noted that there is a discrepancy in the products and their capacity between online feasibility report and presentation. As per feasibility report submitted by PP following products will be manufactured:

S. No.	Product Name	Quantity (MT/Year)
1	Clodinafop	50
2	Glyphosate	50
3	Lembdacyhelothrin	50
4	Fifronil	50
5	Imidacloprid	50
6	Cypermithrin	50
7	Alphamithrin	50
8	Thiram	50
9	Ziram	50
Total		450

Power requirement of 500 KVA will be sourced from State electricity board. Additional DG sets of 1x250 KVA will be installed as power backup. A boiler using coal having capacity of 3 TPH will be installed and connected to stack of adequate height. Process emissions will be scrubbed and routed to ETP.

Total fresh water requirement will be 5 m3/day, which will be sourced from underground. Wastewater will be treated in ETP based on MEE and RO and reused to meet water requirements, for horticulture and greenery in the plant premises. The plant is based on Zero Liquid Discharge.

Hazardous waste so generated will be managed as per the Hazardous waste (Management and Handling) Rules, 1989 and amended thereafter.

The Committee noted there is inconsistency in presentation and feasibility report therefore, Committee underrated the consultant.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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

ii. ZLD system to be adopted.

iii. Multi Cyclone with scrubber to be provided in place of dust collector.

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.

8.4.3 Setting up of molasses/grain based distillery (100 KLPD) along with 7 MW captive power plant at Gat no. 1389,1390,1391,1392,1395 & 1407, Village Gotkhindi, Tehsil Walwa, District Sangli, Maharashtra by M/s Wallams India Agro Products And Power Limited- reg. TOR

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

M/s Wallams India Agro Products And Power Limited has proposed Setting up of molasses/grain based distillery (100 KLPD) along with 7 MW captive power plant at Gat no. 1389,1390,1391,1392 & 1407, Village Gotkhindi, Tehsil Walwa, District Sangli, Maharashtra. As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Krishna River is flowing at 5.3 km distance away from the project site.

Total project area is 22.5 acres, out of which 6.2 acres area will be developed as green belt. About 70 personals will be employed under this project. Total cost of the project is Rs. 150 Crores. The Committee noted that the distillery will use variety of raw material such as sugarcane juice, molasses and grain. Following product will be manufactured:

S. No.	Product	Capacity
1	Rectified Spirit /ENA / Ethanol / Pharma grade Alcohol from Technical Alcohol / Ethyl acetate	100 KLPD
2	Co-Generation Power Plant	7.0 MW

Coal fired/ biomass/ spent wash fired boiler having 45 TPH capacity will be provided and connected with ESP as pollution control device connected with adequate stack height. No additional information is provided w.r.t. DG set.

Total fresh water requirement will be 1200 m^3/day which shall be drawn from Krishna River through pipeline. Spent wash having quantity of 400 m^3/day generated when sugar cane juice is used and 1000 m3/day when Molasses is used as a raw material. The Spent wash will be treated through decantation followed by MEE, Dryer and DDGS respectively and plant is based on Zero liquid discharge system. In case of molasses spent wash will be concentrated in MEE to 40% solid and then concentrated spent wash will be incinerated with bagasse in 45 TPH incineration boilers. Boiler ash will be sent to brick making when coal is used as fuel while ash utilized as manure, when biomass is used as fuel. DDGS will be sold as cattle feed. The Committee underrated the performance of consultant in documentation and presentation.

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. No ground water to be used for proposed expansion.
iii. Adequate process for different raw material route to be drawn with proper treatment scheme.

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.

8.4.4 Setting up of agro chemicals & organic intermediates (8202 TPM) at Plot No. Z/111/B, SEZ II, Dahej Industrial estate, Tahsil Vagra, District Bharuch, Gujarat by M/s Yashashvi Rasayan Pvt. Ltd. (Unit D-2)- 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 Yashashvi Rasayan Pvt. Ltd. (Unit D-2) has proposed to Setting up of agro chemicals & organic intermediates (8202 TPM) at Plot No. Z/111/B, SEZ II, Dahej Industrial estate, Tahsil Vagra, District Bharuch, Gujarat. As per Form I, No National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site.

Cost of proposed project is Rs. Rs. 64.25 Crores. Total Plot area is 53449 m^2, of which 18614 m2 (33%) of land will be developed as greenbelt. Following products will be manufactured:

Sr. No.	Group No.	Main process step	Name of the product	Capacity, TPM
1	1	**CHLORINATION**	Ortho DICHLOROBENZENE	2000
			Para DICHLOROBENZENE	
2			1:2:4 TRICHLOROBENZENE	
			1:2:3 TRICHLOROBENZENE	
3			MONOCHLOROBENZENE	
4			o- CHLORO PHENOL	
			p-CHLORO PHENOL	
5			2,4 DICHLORO PHENOL	
			2,6 DICHLORO PHENOL	
6	2	-	Hydro chloric acid (30%)/Calcium Chloride	4712/2275
7	3	**Chlorination**	3 CHLORO NITROBENZENE	100
8			2,4,6 TRICHLORO ANILINE	
9			2,6 DICHLORO 4 NITRO ANILINE	
10	4	**Chlorination**	N- Valeroyl Chloride	75
11			Butyryl Chloride	
12	5	**DEAMINATION & ISOMERISATION**	3:5 DICHLORO NITRO BENZENE	150
13			1:3:5 TRICHLOROBENZENE	
14			meta-DICHLOROBENZENE	
15	6	**NITRO COMPUUNDS**	ORTHO & PARA NITRO CUMENE	1250
16			NITRO NAPHTHALENE	
17			1:5 & 1:8 DINITRO NAPHTHALENE	
18			2,4 DIMETHYL NITRO BENZENE (2,4 DMNB)	
19			2,6 DIMETHYL NITRO BENZENE (2,6 DMNB)	
20			2,3 DIMETHYL NITRO BENZENE (2,3 DMNB)	
21			3,4 DIMETHYL NITRO BENZENE (3,4 DMNB)	
22			2,5 DIMETHYL NITRO BENZENE (2,5 DMNB)	
23			2,5 DICHLORO NITRO BENZENE (25 DCNB)	
24			3,4 & 2,3 DICHLORO NITRO BENZENE (3,4 & 2,3 DCNB)	
25			2,4 & 2,6 DICHLORO NITRO BENZENE	
26			2,4,5 TRICHLORO NITRO BENZENE	
27			2,3,4 TRICHLORO NITRO BENZENE	
28			2,6 DICHLORO 4 NITRO PHENOL	
29			2,3 DICHLORO 4 NITRO PHENOL	
30			2,5 DICHLORO 4 NITRO PHENOL	
31	7	**HYDROGENATION**	ORTHO CHLORO ANILINE	750
32			PARA CHLORO ANILINE	
33			ORTHO CUMIDINE	
34			PARA CUMIDINE	
35			ALPHA NAPHTHYL AMINE	
36			2,4 XYLIDINE	

37			2,6 XYLIDINE	
38			2,3 XYLIDINE	
39			3,4 XYLIDINE	
40			2,5 XYLIDINE	
41			ORTHO ANISIDINE	
42			PARA ANISIDINE	
43			OTBCHA	
44			PTBCHA	
45			PHENYL ETHYL ACETATE	
46			CITRONELLOL	
47			DIMETHYL OCTANOL	
48			CISPINANE	
49			IPPCA	
50			ORTHO TOLUDINE	
51			PARA TOLUDINE	
52			META TOLUDINE	
53			3,5 DIAMINO BENZOIC ACID	
54			3,5 DIMETHYL N ISO PENTYL AMINE	
55			4:4 DISEC BUTYL PARA PHENYLINE DIAMINE	
56			3 AMINO 9 (N ETHYL) CARBAZOLE	
57			3,4 DIMETHYL N-ISO PENTYL AMINE	
58			4 AMINO 2,5 DICHLORO PHENOL	
59			4 AMINO 2,3 DICHLORO PHENOL	
60			4 AMINO 2,6 DICHLORO PHENOL	
61			PHENYL EHYL ALCOHOL (2-PEA)	
62			2,5 DICHLORO ANILINE	
63			2,3 DICHLORO ANILINE	
64			3,4 DICHLORO ANILINE	
65			2,4 DICHLORO ANILINE	
66			2 CHLORO 1,4 DIAMINO BENZENE	
67			2,4,5 TRICHLORO ANILINE	
68			2,5 DICHLORO 1,4 DIAMINOBENZENE	
69			3,5 DICHLORO ANILINE	
70			3 CHLORO ANILINE	
71			p-TERTIARY BUTYL CYLCOHEXANONE	
72			p-TERTIARY BUTYL CYLCOHEXANOLE	
73			O-TERTIARY BUTYL CYLCOHEXANONE	
74			O-TERTIARY BUTYL CYLCOHEXANOLE	
75			MPBALCOHOL	
76			2,4 DIMETHOXY 5 CHLORO ANILINE	
77	8	**PHENOLS**	2,5 DICHLORO PHENOL	150
78			2,3 DICHLORO PHENOL	
79			3,4 DICHLORO PHENOL	
80			3,5 DICHLORO PHENOL	
81			3 CHLORO PHENOL	

82			2,5 DICHLORO 4 BROMO PHENOL	
83			2,3 DICHLORO ANISOL	
84			2,5 DICHLORO ANISOL	
85	9	**ACETYLATED COMPOUND**	2':5' DICHLORO ACETOPHENONE	200
86			2':4' DICHLORO ACETOPHENONE	
87			2':4' DICHLORO VELEROPHENONE	
88			2':4' DICHLORO 5 FLUORO ACETOPHENONE	
89			2':4' DICHLORO PHENACYLCHLORIDE	
90			2':4' DICHLORO BUTEROPHENONE	
91	10	**CONAZOLE FUNGICIDES**	AZACONAZOLE	200
92			BROMUCONAZOLE	
93			DIFENOCONAZOLE	
94			ETACONAZOLE	
95			HEXACONAZOLE	
96			PROPICONAZOLE	
97			PENCONAZOLE	
98			PROTHIOCONAZOLE	
99			IMAZALIL	
100			TEBUCONAZOLE	
101			DITHIANON	
102	11	**ETHERS (IRON)**	AMINORESORCINE DIORTHO CRESYL ETHER	100
103			2 AMINO 2',4,4' TRICHLORO DIPHENYL ETHER (TADE)	
104			2 AMINO 4 CHLORO DIPHENYL ETHER	
105			4 AMINO 2,4' DICHLORO DIPHENYL ETHER	
106			2 AMINO 2'-4 DICHLORO DIPHENYL ETHER	
107			2 AMINO 4-4' DICHLORO DIPHENYL ETHER	
108			1,3 BIS (3-AMINO PHENOXY) BENZENE	
109			5 AMINO 2,2'-3 TRICHLORO 4-NITRO DIPHENYL ETHER	
110	12	**AMINATION**	ORTHOCHLORO PARANITRO ANILINE	75
111			PARACHLORO ORTHONITRO ANILINE	
112			ORTHO NITRO ANILINE	
113			PARA NITRO ANILINE	
114			2,3 DICHLORO 6 NITRO ANILINE	
115			3,4, DICHLORO 6 NITRO ANILNE	
116			5 CHLORO 2 NITRO ANILINNE	
117	13	**Speciality compound**	CUMAC	50
118			NITRO RF	
119			DIETHYL DIPROPYL MALONATE	
120			MALONIC ACID	
121			PARACHLORO ANILINE HYDROCHLORIDE	

122			4 NITRO PHTHALO NITRILE	
123			FHIA	
124			MSTT	
125			THISA	
126			TBSA	
127			4 CHLORO 2' AMINO DIPENYLAMINE (NDPA)	
128			BINOL	
129			OXYQUINOLINE COPPER	
130			2H-HEXAFLUORO PROPOXY PROPYLENE-2,5-DICHLORO 4 AMINO BENZENE	
131			2,4 DIMETHOXY 5 CHLORO NITROBENZENE	
132			2,5 DICHLORO 4 NITRO ANILINE	
133			4 CHLORO 2 AMINO DIPHENYLAMINE (ADPA)	
134			AMINO RF	
135			4 AMINO BENZONITRILE	
136			1,5 DIAMINO NAPHTHALENE	
137			1,8 DIAMINO NAPHTHALENE	
138			4 CHLORO 2 AMINO PHENOL	
139			2 CHLORO 4 AMINO PHENOL	
140			2,4 DIHYDROXYBENZOPHENONE	
141			3 HYDROXY ACETOPHENONE	
142	14	**HERBECIDES**	2,4 D ACID	75
143			ACLONIFEN	
144			FLURIDONE	
145			DITHIANONE	
146			FLUFENACET	
147			QUINOCLAMINE (CAN)	
148	15	**PESTICIDE**	Fenvalerate	75
149			ALPHA METHRIN	
150			DELTA METHRIN	
151			PER METHRIN	
152			LAMDACY HELOTHRIN	
153			CYPERMETHRIN	
154			DEET	
155	16	**Sulphonated compound**	SODIUM NAPHTHIONATE	70
156	17	**Oxidation Compound**	META TOLUIC ACID	100
157	18	**Advance Interermediate**	MPBAD	70
	Grand Total			**8202**

List of by-products with monthly generation:

Sr. No.	By-Products	Quantity, TPM
1	Spent Sulphuric acid (55-60%)	3896.4
2	Sodium sulphite (20% Solution)	679.1
3	Aluminum chloride (18-20% Solution)	2254.8

4	Hydro Bromic acid (28% solution)	544.8
5	Sodium sulphate powder	393.4
6	Potassium bromide powder	84
7	Potassium chloride powder	159
8	Potassium bi carbonate powder	56
9	Acetic acid (80% solution)	65.2
10	Sodium Bromide (20-25% solution)	336.8
11	Bromine (99%) liquid	39
	Total	8508.5

Power requirement of 2500 KVA will be sourced from Torrent Energy Ltd (TEL)/ Dakshin Gujarat Vij Co. Ltd. (DGVCL). Additional D.G. Set of 1500 KVA will be installed as power backup. Coal fired boiler (20 TPH x 2 Nos) and Thermic Fluid Heater of 20 Lacs Kcal will be used and connected with ESP connected with adequate stack height. Process emission such as HCl, and Cl2 will be scrubbed in two stages by Alkali Scrubber with in process. Scrubbed water will be sent to RO plant for treatment.

Total water requirement will be 1282 m3/day which will be met through SEZ water supply. The wastewater generation will be 272 m3/day. Effluent from cooling tower, boiler blow down, Scrubber & floor/container washing will be treated in Reverse Osmosis plant. RO reject will be taken to MEE and Condensate from MEE will be treated in primary, Secondary & tertiary treatment plant & discharge into underground effluent drainage line of GIDC for ultimate disposal into Arabian Sea.

ETP sludge, ETP waste & salt from MEE, Process waste (Inorganic), Spent Catalyst and Iron sludge will be collected, stored transport and disposed to TSDF site. Used oil will be sold to registered recycler, Discarded containers will be Sell to authorized recycler after De-contamination and Spent carbon will be Sent for co-processing or sent to SEPPL, Dahej & Kutch for incineration.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.

11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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

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

8.4.5 Setting up of 200 KLPD grain based distillery along with 5.0 MW of Co-Generation Power Plant at Village Ghusra, Tehsil Mejhia, District Bankura, West Bengal by M/s Ankoor Distilleries Private Limited- reg. TOR

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

M/s Ankoor Distilleries Private Limited has proposed Setting up of 200 KLPD grain based distillery along with 5.0 MW of Co-Generation Power Plant at Village Ghusra, Tehsil Mejhia, District Bankura, West Bengal. As per Form I, No National Parks, Wild Life Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Gangajalghati Protected Forests situated at 6.0 km (East direction) distance from the project site. Damodar River is flowing at 3.0 km (NNE) and Chouphari Nadi is flowing at 7.5 km (SE) distance from the project site.

Total project area is 18.0 acres (7.28 ha), out of which 6.0 Acres area will be developed as green belt. About 100 personal will be employed under this project. Total cost of the project is Rs. 192 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 25 Crores. The following product will be manufactured under proposed project:

S. No.	Unit	Capacity
1	ENA/RS/Ethanol/IMFL/Blended Alcohol	100 KLPD
2	Co-Generation Power Plant	5.0 MW

Rice husk or Indian coal fired Boiler having 60 TPH capacity will be provided and connected with ESP as pollution control device with adequate stack height. The power requirement is 4.0 MW, which will be sourced from proposed 5 MW Co-Generation Power Plant

Total fresh water requirement will be 1857 m3/day which is proposed to be met from underground. The Committee suggested to use the surface water from Damodar river. Spent wash having quantity of 1527 m3/day will be treated through centrifuge decantation followed by

Integrated evaporator to form a syrup. The syrup is also mixed with wet cake coming out of centrifuge and forms part of Cattle feed known as DWGS, which will be after the steam converveted into solid cake (DDGS). The plant is based on ZLD.

Boiler ash will be sold to brick manufacturers, used oil & grease will be sold to the CPCB authorized recycler, DDGS (Distillers Dried Grain Soluble) will be stored in warehouse and sold as cattle feed.

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

A. Specific TOR

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

B. Additional TOR

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

II. No ground water to be use. Water to be drawn from Damodar river and necessary permission to be obtained accordingly.

III. Availability of grain from the market to be firmed up.

It was recommended that **'TORs' along with Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as

per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

8.4.6 Proposed pesticide manufacturing unit (200 Kg/month) at Village Taloja, Taluka Panvel, District Raigad, Maharashtra by M/s Pest Control (India) Pvt. Ltd.- reg. TOR

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

As per record submitted by PP it is noted that the Company was established in the year 1996 and permission was granted by Maharashtra Industrial Development Corporation vide letter no. Taloja38/39-1887/96 dated 03.12.1996 in favour of M/s Pest Control (India) Ltd. The Committee noted that the company has been manufacturing total 18 products since 1996, out of which 17 products are covered under formulation type. However, one of the products namely methyl Bromide is also manufactured with the capacity of 4 MTPM and which is not formulation type. Therefore, Committee concluded that though the formulation does not attract EIA notification 1994 but manufacturing of Methyl Bromide covers the provisions of EIA Notification, 1994 and 2006 and requires prior Environmental Clearance. As Industry is manufacturing this product since its establishment therefore it is a case of violation and action shall be taken under the provisions of Environment (Protection) Act, 1986.

8.4.7 Setting up of Bulk Drugs and Intermediates manufacturing (395.62 MTPM) Unit at Plot No. E-12, Chincholi MIDC, Taluka Mohol, District Solapur, Maharashtra by M/s Shree Kartikeya Kameshwari Industries- reg. TOR

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

All Synthetic Organic Chemicals Industry (Bulk drug and intermediate) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general conditions as project location 1.84 km from boundary of GIB Sanctuary, hence project is treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Shree Kartikeya Kameshwari Industries has proposed for Setting up of Bulk Drugs and Intermediates manufacturing (395.62 MTPM) Unit at Plot No. E-12, Chincholi MIDC, Taluka Mohol, District Solapur, Maharashtra. It is reported that no national parks, Protected Forests (PF) and Biosphere Reserves etc. lies within 10 km distance. The Great Indian Bustard (GIB) Sanctuary is situated1.2 km away from the project site.

Cost of proposed project is Rs. 5.28 Crores. Plot area is 2.4 Ha, of which 0.63 Ha of land will be developed as greenbelt. About 75 personnel will be deployed under the proposed project. Following products will be manufactured:

S. No.	Name of the Product	Quantity (MTPM)	Quantity (MTPD)

1	Methyl 2 - (4 -(4 – chlorobutanoyl) phenyl) – 2 - methylpropanoate	15.01	0.5
2	Nicotinic Acid Methyl Ester	14.85	0.5
3	Pyridine-3-Carboxyamide	105	3.33
4	3-Pyridine carboxylic Acid	230.4	7.50
5	4-Pyridine carboxylic Acid	15.36	1.0
6	2,3 Lutidine & 3, 5 Lutidine	15	5.0
	Total	395.62	13.19

Coal fired boiler having 5 TPH capacity and Thermic Fluid Heater of capacity 8 Lakh Kcal/Hr will be used with multiple dust collector followed by Bag filter as air pollution control equipment, with adequate stack height. D. G. set of 2X250 KVA capacities will be installed as standby. Process emissions shall be scrubbed.

Fresh water requirement of 112 m^3/day will be met from MIDC water supply. Against which wastewater of 51 m3/day will be generated. Wastewater will be segregated into two streams namely stream- I (High COD/TDS) and stream II (Low COD/TDS). Stream I effluent will be treated through MEE, RO system and Agitated Thin film dryer and stream II effluent will be treated in ETP. Domestic wastewater will be treated in STP

Boiler ash will be sold to brick manufacturers, Salt from MEE, Chemical sludge from wastewater treatment and Residue and waste will be sent to CHWTSDF.

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

A. Specific TOR

1 Details on solvents to be used, measures for solvent recovery and for emissions control.
2 Details of process emissions from the proposed unit and its arrangement to control.
3 Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)
4 Work zone monitoring arrangements for hazardous chemicals.
5 Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
6 Action plan for odour control to be submitted.
7 A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8 Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9 Material Safety Data Sheet for all the Chemicals are being used/will be used.
10 Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
11 Details of incinerator if to be installed.
12 Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13 Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14 Details on solvents to be used, measures for solvent recovery and for emissions control.

B. Additional TOR

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

II. A copy of application seeking clearance from NBWL w.r.t. GIB Sanctuary.

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

8.4.8 Setting up of Synthetic Organic Chemicals API (capacity - 16 MTPM) at Survey no. 281/1, Village Amarnagar, Taluka Morbi, District Morbi, Gujarat by M/s Rolence Pharma & Chemicals LLP.- 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 Rolence Pharma & Chemicals LLP. has proposed Setting up of Synthetic Organic Chemicals API (capacity - 16 MTPM) at Survey no. 281/1, Village Amarnagar, Taluka Morbi, District Morbi, Gujarat. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Machhu River is flowing at 3.96 Km (WSW) from the project site.

Total plot area is 7958.0 m2, out of which greenbelt will be developed on 2630.0 m² of land. Total Cost of project is Rs. 5 Crores of which Rs. 50 Lacs will be invested on Environmental Protection Measures. About 30 people will be employed under this project Following products will be manufactured:

No.	Name of Product	Quantity (MTPM)
1	Pentoxyfylline	10
2	Pregabaline	2
3	Topiramate	2
4	Carvidilol	2
	Total	**16**

The Power requirement is 60 KVA sourced from Paschim Gujarat Vij Company Ltd. (PGVCL). One (01) TPH Coal /Briquettes fired boilers will be installed and connected with Dust collector followed by Bag Filter to control the particulate matter with 30 m stack height. D.G. set of 60 KVA will be used as standby.

Total fresh water requirement will be 30.2 m3/day and met from ground water through bore well. Against this 6.22 m3/day of wastewater will be generated. Wastewater will be

segregated into two streams depending upon concentration of effluent. Process and washing wastewater will be incinerated and cooling and boiler blow down alongwith RO reject will be treated in ETP followed by evaporator. The Committee suggested to draw adequate treatment scheme. Domestic wastewater will be collected in soak pit.

ETP sludge will be disposal at approved TSDF Site, Process Residue and waste will be disposal at approved CHWIF Site, Spent Catalyst will be disposal at approved TSDF Site, Spent Carbon send to CHWIF Site, Used / Spent Oil will be sold to registered recycler and Discarded bags/ drums/ containers will be sell to authorized vendor.

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. Adequate treatment scheme should drawn

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

8.4.9 Installation of Gasoline Hydrotreatment Unit (GTU) and associated facilities to produce 100% BS-VI MS in existing Mumbai Refinery at village Anik, Mahul, Tehsil Kurla, Mumbai, Maharashtra by BPCL Mumbai Refinery – reg. TOR

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

M/s BPCL Mumbai Refinery has proposed for Installation of Gasoline Hydrotreatment Unit (GTU) and associated facilities to produce 100% BS-VI MS in existing Mumbai Refinery at village Anik, Mahul, Tehsil Kurla, Mumbai, Maharashtra. Environment Clearance granted to M/s BPCL for installation of Diesel Hydro Treatment (DHT) Unit and Associated Facility to produce 100% BS-IV HSD (Capacity 2.6 MMTPA of DHT) vide letter no J-11011/21/2013-IA II(I) dated 13.08.2015. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site.

Cost of installation of propylene recovery unit is Rs. 554 Crore. Project will be executed within the Mumbai refinery boundary.

Process Units and Utilities under GTU

S. No.	Unit	Existing capacity	Proposed Capacity/Anum	Proposed Capacity/Day
1	GTU	0	0.9 MMTPA	2700MTPD

Other associated facilities minor revamp based on adequacy report of

- Sour water system unit (RMP SWS-2/DHDS SWS)
- Amine Regeneration Unit (DHT ARU)

UTILITY SYSTEM	
Cooling Water	70 m3/hr with makeup sea water requirement of approx 5 m3/hr. This will be met from existing system
Fuel requirement	About 12 MT/D of RLNG/FG will be required in GTU will be met from RLNG / Refinery Fuel Gas.
Hydrogen requirement	Hydrogen requirement of GTU is approx 10 MT/D, will be sourced from existing HGU-2 / CCR.
Steam requirement	720 MT/D will be sourced from existing Gas Turbines
Power requirement	Total Power requirement is 4 MW, which will be sourced from existing Gas Turbines.
Raw Water requirement	Total raw water requirement is 6 m3/h shall be met using existing systems.

PP informed that Proposed GTU is absolute business necessity at BPCL Mumbai Refinery to produce 100% BS VI MS for the country w.e.f 1st April 2020 and meet Auto Fuel Policy of Govt. Under the project PP added that no additional land requirement is involved and there is no increase in on SO2/Nox emission and no increase in fresh water requirement.

However, 106 MT of spent catalyst will be generated which will be sent to the authorized recycler once in four year. Clean fuel as gas/RLNG will be used alongwith low Nox burner.

The Committee was of the view that the project is aimed to produce cleaner fuel and there is no significant Environmental Pollution load is being added. Therefore, the Committee exempted Public Hearing under section 7 (ii) of EIA Notification, 2006.

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

B. Additional TOR

i. Public hearing is exempted under section 7 (ii) of EIA Notification, 2006.

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

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

8.4.10 Setting up of synthetic organic resins namely Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin and Laminated Sheets at Survey no. 125 Paiki 1, Village Sokhada, Bahadurgadh Road, Taluka & District Morbi, Gujarat by M/s Abhay Laminate LLP – 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 Abahy Laminate LLP has proposed for setting up of synthetic organic resins namely Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin and Laminated Sheets at Survey no. 125 Paiki 1, Village Sokhada, Bahadurgadh Road, Taluka & District Morbi, Gujarat. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Machchhu River and Godadhari river are flowing at a distance of 4.62 km and 4.88 km respectively from project site.

Total plot area is 11837.0 m^2 of which 3900.0 m^2 area will be developed as green belt. Total project cost including existing facilities is Rs. 1 crore. About 60 persons will be employed. Following products will be manufactured:

No.	Name of Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	400 MT/Month
2	Melamine Formaldehyde Resin (M. F. Resin)	150 MT/Month
3	Urea Formaldehyde Resin (U. F. Resin)	300 MT/Month
4	Laminated Sheets	1,50,000 Nos./Month

Proposed project will draw 250 KVA electricity from Paschim Gujarat Vij Company Ltd. (PGVCL). Additionally D. G. Set of 300 KVA using HSD at the rate of 50 Ltr./Hr will be provided. Coal/ Briquettes fired boilers (4TPH) and a Thermic Fluid Heater (15 lac kcal/hr) with 30 m stack height and connected with Cyclone separator followed by Bag Filter as pollution control device. Condenser will be used for Laminated Sheets Dryer with 11 m stack height.

Total 42.4 m^3/day of fresh water will be used and sourced from own borewell. Against which 11.6 m^3/day wastewater will be generated. Domestic wastewater will be collected in soak pit while industrial waste water will be sent to ETP consisting RO followed by evaporator, thus plant will based on Zero Effluent Discharge system.

ETP Sludge so generated will be sent to TSDF site. Used Oil after Collection, storage will be sold to the authorized recycler and discarded plastic bags/ Barrels will be sold to the authorized vendors.

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

A. Specific TOR:

1. 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. Briquettes to be used only in place of coal.

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.

8.4.11 Setting up of Caustic Soda, Chlorine, Hydrogen Peroxide, Synthetic Organic, Inorganic, Specialty Chemicals along with Coal based Captive Power Plant (100MW) at Survey no. 169, 170, 175, 190, 191 of Varsana Village, Anjar Taluka, of Kachchh district, Gujarat by M/s Kutch Chemical Industries Limited- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at 5(f) and chlor alkali plant having capacity more than 300 TPD or unit located outside the industrial area are listed at S.N. 4(d) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Kutch Chemical Industries Limited has proposed for setting up of Caustic Soda, Chlorine, Hydrogen Peroxide, Synthetic Organic, Inorganic, Specialty Chemicals along with Coal based Captive Power Plant (100MW) at Survey no. 169, 170, 175, 190, 191 of Varsana Village, Anjar Taluka, of Kachchh district, Gujarat. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Coastal or marine waters area is located at an aerial distance of 7.0 Km.

Total plot area is 74 Acres of which 33% will be developed as green belt. Total project cost including existing facilities is Rs. 1,000 Crore. About 1000 persons will be employed. Following products will be manufactured:

S. No.	Name of Product/Byproduct	Production Capacity (MTPA)
1	**Caustic Chlorine Plant**	
1(a)	Caustic Soda (100%) Lye / Prills / Flakes	2,16,000
1(b)	Caustic Potash (100%) Lye / Flakes	36,000
1.1	Chlorine Gas / Liquid	2,12,900
1.2	Hydrogen	6,050
1.3	Hydrochloric acid (32%)	1,80,000
1.4	Dilute Sulphuric acid (78-80%)	12,000
1.5	Sodium Hypochlorite	12,000
1.6	Gypsum	3,600
2	Hydrogen Peroxide (100% H_2O_2 Basis)	36,000
3	Anhydrous Aluminum Chloride	36,000
4.1	Poly Aluminum Chloride (18%)	18,000
4.2	Poly Aluminum Chloride (30%)	18,000
5	Calcium Chloride (100%)	60,000
6	Para Amino Phenol	36,000
7	Hydrogenation of Hydrocarbon, Nitro Hydrocarbon & Chloro Hydrocarbon like: Aniline, Chloro Aniline, OA/PA, DCA / PCA / MCA, OPDA / PPDA, Toludiene, Cumidiene, Xyldine.	1,20,000*
8	Chlorination of hydrocarbon such as MCB, DCB, ODCB, PDCB, TCB.	90,000*
9	Chlorination of toluene such as Benzyl Chloride, Benzal Chloride, Benzo Trichloride.	
10	Chlorination of Acetic Acid - MCA.	
11	Chlorination of Paraffins – CPW	
12	Hydrochloric Acid (30%)	1,32,000

S. No.	Name of Product/Byproduct	Production Capacity (MTPA)
13	Coal based Captive Power Plant	100 MW (Capacity)

Proposed project will requires 100 MW electricity from proposed CPP and power backup will be sourced from Paschim Gujarat Vij Company Ltd. (PGVCL). Additionally Two DG Sets of 1,000 KVA each will be provided. Two Coal fired boilers of 215 TPH capacity with adequate stack height and connected with ESP as pollution control device will be provided. 3 Stage Caustic Scrubbing System will be used for De-Chlorination Units, Single Stage DM Water Scrubbing System will be installed for HCl synthesis Unit, Alkali Ventury Scrubber will be used in Calcium Chloride Plant, Water Absorber, Glass Water Scrubber and Caustic Scrubber will be used in Chlorinator of Chloro Benzene Plant.

Total 7000 m3/day of fresh water will be used and sourced from GWIL (Narmada Canal). Process effluent along with utilities blowdowns and domestic sewage will be treated in ETP followed by RO. RO permeate will be reused and reject will be treated into MEE. ATFD / Spray dryers shall be equipped. The plant will based on Zero Effluent Discharge system.

Hazardous waste like Used/spent oil, Distillation residue, Process waste from CaCl2 Plant, Chemical containing residue arising from decontamination, Discarded containers/barrels/liners contaminated with hazardous waste, Chemical sludge from waste water treatment, ATFD / Spray Dryer Solid Waste, Inorganic acids (HCl) shall be generated and their management will be done as per Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (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.
15. Details on demand of the product- chlorine and its associated products.
16. Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, etc.), its storage and handling.
17. Details of proposed source - specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, etc.) and equipments to meet the national standards.
18. Details on products to rage and handling-chlorine, caustic soda, etc.
19. Details on tail gas treatment.
20. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
21. In case of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new units in the existing industry premises, remediation measures adopted to restore then environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
22. Details on ground water quality and surface water quality of nearby water sources and other surfaced rains. The parameters of water quality may include Residual chlorine*, TDS*, alkalinity*, pH* & Mercury* (in water & sediment), etc. (*- As applicable)
23. Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO2*, NOx*, CO2*, CO*, Chlorine*, acid mist* etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*-As applicable)
24. Specific programme to monitor safety and health protection of workers.
25. Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
26. Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management plan.

CPP:

1) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
2) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
3) Plan for recirculation of ash pond water and its implementation shall be submitted.
4) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
5) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc. should also be furnished.
6) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
7) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and

submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.

8) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.

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. Air cooled condenser to be used system.
iii. Cumulative impact to be assessed in combination to nearby existing unit.

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.

8.4.12 Expansion of existing unit by adding synthetic filament yarn at Survey No. 394/P, Industrial Zone, Village Saily, Silvassa, U.T. of Dadra & Nagar Haveli by M/s AYM Syntex 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 manmade fiber and other fibres unit located inside the notified industrial area/estate are listed at S.N. 5(d) under category 'B' and however, due to General Condition of Interstate boundary in the project will be treated as A category and appraised at Expert Appraisal Committee.

M/s AYM Syntex Limited has proposed for Expansion of existing unit by adding synthetic filament yarn at Survey No. 394/P, Industrial Zone, Village Saily, Silvassa, U.T. of Dadra & Nagar Haveli. PP has obtained the EC vide letter F. No. J-11011/148/2009-IA II (I) dated 24th June, 2009 in the name of M/s Welspun Syntex Ltd.

Damanganga River is flowing at a distance of 6.5 Km. As per Form 1, Dadra and Nagar Haveli Wildlife Sanctuary is situate at 3 km, Satmalia Deer park is situate 6.2 km, Vasona Lian safari is situate at 7.0 Km distance and patches of Reserved forest situated at 1.5 -2.5 Km respectively from the project site.

Total Land area after proposed expansion is 31400 m^2. PP did not mention the development of green within the premises. The Committee suggested to develop the 33% of land or adequate green belt within th existing premise. Total cost of proposed project is 138.00 Crore. About 150 persons will be employed under this expansion. The Following products will be manufactured:

Sr.	Name of Products	Capacity (MT/Year)

No.		Existing	Proposed	Total
1	Polyester Filament Yarn and Partially Oriented Yarn (Consent to operate is obtained and plant is in operation)	20000.00	0.00	20000.00
2	Synthetics filaments yarn (i.e. Partially Oriented Yarn, Fully Drawn Yarn, Nylon Filaments yarn, Bulk Continuous Filament, Text and Air text Yarn, Twisted Yarn, Monofilament Yarn, Splitting Yarn, Intermingled Yarn) -Proposed	0.00	150000.00	150000.00
3	POY Master Batch(color)	0.00	600.00	600.00
	Total	**20000.00**	**150600.00**	**170600.00**

Existing power requirement is 10.9 MW and after expansion additional power of 3 MW will be sourced from the DNH Power distribution corporation Ltd. Capacity of existing Two DG sets of 2875 KVA will also be enhanced by installing another Two DG set of 2200 KVA each capacity. As reported there are no existing boiler but under proposed expansion 2 nos of Steam boilers having capacity of 300 kg/hr and 1 steam boiler of capacity 600 kg/h will be installed.

Quantity of fresh water will increase from 151 m3/day to 383 m3/day which will be sourced from Irrigation canal. Quantity of wastewater will increase from 23 m3/day to 125 m3/day which will be treated in the existing ETP. Domestic wastewater is proposed to be treated in soak pit. The Committee suggested to have full fledge STP and adopt zero liquid discharge method.

ETP waste will be sent to GEPIL Site, Used oil will be sold to registered recycler/ re-processor, Empty drums/ bags/Liners will be sold to authorized scrap vendor or reused. Yarn waste will be recycled /sold

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

A. Specific TOR

1. Details on requirement of raw materials (monomers, solvents, catalysts, *etc*.), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, *etc*.
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SOx, NOx, VOC, CO, CO_2, *etc*.) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc*.
6. Details on chemical releases – acetonitrile, CS_2, ethylene, ethylene glycol, HCl, methanol, *etc*., and its management.
7. Details on existing ambient air quality and expected, emissions for PM10, PM 2.5, SO_2*, NOx*, CO_2*, CO*, CS_2*, VOC*, H_2S, *etc*., and evaluation of the adequacy of

the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable).

8. Risk assessment should also include leakages & proposed measures for risk reduction.
9. Details of sodium sulphate recovery.

B. Additional TOR

1. 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.

2. Detailed plan for green belt development

3. Plan for zero liquid discharge to be adopted

4. Existing EC needs to be transferred from M/s Welspun Syntex Ltd. to M/s AYM Syntex Ltd.

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

8.4.13 Setting up of grain/molasses based distillery of 120 KLD (RS/ENA/AA) and 3.0 MW co gen plant at 10th KM Nagina Road, Behra, Tehsil and district Bijnor, U.P. by M/s Dev Distillery A Unit OF M/s Devgreen Infratech (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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Dev Distillery A Unit OF M/s Devgreen Infratech (Pvt. Ltd.) has proposed for setting up of grain/molasses based distillery of 120 KLD (RS/ENA/AA) and 3.0 MW Co gen plant at 10th KM Nagina Road, Behra, Tehsil and district Bijnor, U.P. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. River Ganga is flowing at a distance of 15 km from the project. During presentation Committee noted that the project location is just on the bank of the River. PP could not explain the name of River passing nearby location. Committee found the existing site is not suitable and recommended to have option analysis of alternate sites and rejected for proposed site.

The Committee underrated the performance of consultant.

8.4.14 Setting up of Melamine Formaldehyde Moulding Powder at Sy No: 183, Navagam, Kathawada Village, Kheda Taluka & District, Gujarat by M/s Pristine Melamine LLP- 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 Pristine Melamine LLP has proposed for setting up of Melamine Formaldehyde Moulding Powder at Sy No: 183, Navagam, Kathawada Village, Kheda Taluka & District, Gujarat. It is reported that no national parks and Wildlife Sanctuaries lies within 10 km distance while a Reseve forest is situated near project site and Sabarmati River is flowing at 4.0 km (W) distance from project site.

Total plot area is 9510 m^2 of which 3140 m^2 will be developed as green belt. Total project cost including existing facilities is Rs. 6.73 crore. About 20 persons will be employed. Following products will be manufactured:

S. No	Product Name	Quantity MT/Month	Quantity MT/Day
1.	Melamine Formaldehyde Moulding Powder	500.00	16.67
	Total	**500.00**	**16.67**

Proposed project will draw 350 KVA electricity from State Electricity Board. Additionally D. G. Set of 125 KVA will be provided. Coal fired boilers (2TPH) will be installed. PP did not provide any information regarding pollution control equipments for gaseous and particulate matter.

Total 22.50 m3/day of fresh water will be used and sourced from ground water. Against which 3.40 m3/day wastewater will be generated. Domestic wastewater will be collected in septic tank followed by soak pit while industrial waste water will be sent to evaporator thus plant will based on Zero Effluent Discharge system.

MEE Salts so generated will be sent to TSDF site. Used Oil after Collection, storage will be sold to the authorized agencies and PP Bags will be sent to authorized parties for Reprocessing/Recycling and Coal 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. 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. Briquettes to be used only in place of coal.
III. Adequate pollution control scheme to control air emission to be provided. .

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.

8.4.15 Expansion & Debottlenecking of Petrochemical Plant of Dahej Manufacturing Division (DMD) at Tehsil vagra district Bahuruch, Gujarat by M/s Reliance Industries Limited –reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petrochemical complexes(Industries based on processing of petroleum fractions and natural gas and/ or reforming to aromatics) are listed at S.N. 5(c) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Reliance Industries Limited has proposed for Expansion & Debottlenecking of Petrochemical Plant of Dahej Manufacturing Division (DMD) at Tehsil vagra district Bahuruch, Gujarat. It is reported that no national parks and Wildlife Sanctuaries lies within 10 km distance. A Reserve forest is situated near project site and Sabarmati River is flowing at 4.0 km (W) distance from project site.

MoEF&CC vide letter no J-11011/402/2007- IA II (I) dated 20.03.2008 has issued EC to for expansion project of M/s Reliance Industries Limited, Dahej Manufacturing Division, Dahej, Tal: Vagra, District: Bharuch, Gujarat. Public hearing was exempted.

SEIAA vide letter No. SEIAA/GUJ/EC/1(d) & 7(e)/ 96/2015 dated 2, March 2015 has issued EC to M/s Reliance Industries Limited for Setting up of a coal based captive cogeneration power plant (CCPP) of 3X90 MW (270 MW) within the premises of Dahej manufacturing division (RIL-DMD) and proposed to modification in existing Reliance Dahej marine Terminal (RDMT) Jetty for receiving the coal by creating coal handling facility with 2.5 MMTPA capacity in the Narmada Estuary at Dahej, District: Bharuch, Gujarat. Public hearing was conducted on 20.11.2013.

The committee noted that despite the integrated project of CPP, the company obtained EC from the state level authority in place of center. The following products will be manufactured

Product	**Production (MTPA)**		
	Existing	**Proposed**	**Total**
Ethane/Propane	650000	0	6,50,000
Ethylene	5,00,000	2,00,000	7,00,000
Propylene	1,60,000	0	1,60,000
Ethylene dichloride	4,98,960	89,040	5,88,000
Vinyl chloride monomer	3,15,000	45,000	3,60,000
Polyvinyl Chloride	3,15,000	45,000	3,60,000
Chlorine	1,41,200	45,800	1,87,000
Caustic Soda	1,68,150	52,850	2,21,000
EO	20000	30000	50,000
EG	3,08,350	0	3,08,350
HDPE-1	160000	20,000	1,80,000
HDPE-II	60,000	0	60,000
UHMW-PE	2,500	0	2,500
Ethylene Vinyl Acetate (EVA)	13000	2000	15,000
PTA	30,00,000	0	30,00,000
PET	10,00,000	0	10,00,000
Polyester Complex a. Polyester Staple Fiber b. Polyester Fiber Yarn	8,00,000	0	8,00,000
Pure Ethylene Oxide	200000	0	200000
Ethanol Amines	60000	0	60000
Glycol Ethers	60000	0	60000
Glycol Ethers Acetates	30,000	0	30,000
Ethoxylates – Ethylene Oxides Condensates	200000	0	200000
Crude Acrylic Acid	160000	0	160000
Glacial Acrylic Acid/High Purity Acrylic Acid	40000	0	40000
Butyl Acrylate	120000	0	120000
Ethyl Acrylate	20000	0	20000
Methyl Acrylate	20000	0	20000
2 Ethyle Hexyle Acrylate (2EHA)	40000	0	40000
Phenol	250000	0	250000
Acetone	155000	0	155000
Captive Cogeneration Power Plant			
a. Gas Based	195 MW	0	195 MW
b. Coal Based	270 MW	0	270 MW
Chlorinated Poly Vinyl Chloride	New Project	70,000	70,000
VCM	New Project	12,00,000	12,00,000
PVC	New Project	12,00,000	12,00,000
Ethane Storage Tank	New Project	90,000 Tons (1 Tank)	90,000 Tons

Byproducts

Product	Production (MTPA)		
	Existing	**Proposed**	**Total**
Mixed C4 +	40000	7450	47450
RARFS (Pyrolysis Gasoline)	40000	14750	54750
Fuel Oil	40000	**0**	40000
Tar Residue	5472	**0**	5472
HCL (from existing VCM + New VCM Plant)	36000	1,20,000	1,56,000
Sodium Hypochlorite	8,400	2,600	11,000
Dilute H2SO4	3530	1,070	4600
HCL (CA)	9600	5,400	15,000
Di Ethylene Glycol	30550	**0**	30550
Tri Ethylene Glycol	**1270**	**0**	**1270**
PEG	19850	**0**	19850
TEG Bottom	2880	**0**	2880
Crude Benzoic Acid Mix	60000	**0**	60000
Light Ends	**0**	15,600	15,600

Emissions i.e. SO2, NOx and HCs will be reduced by the use of Natural gas with stack. Bag filter will be provided for Particulate Matter at Polymer plants. Scrubbers will be used to control Chlorine and HCs. Water sprinkling system will be installed for Fugitive dust during construction.

The existing water requirements 1, 15,420 m3 /day . In the proposed project, an incremental water quantity of 61,484 m3 /d envisaged taking the total water requirement upto 1,76,903 m3 /d. This total water requirement is met by Vadodara Irrigation Division, & GIDC, Govt. of Gujarat, which has sanctioned 1,00,012 m3 /d & 36, 368 m3/d of water to DMD, respectively. In total, the water quantity sanctioned to DMD is 1, 36,380 m3/d. The total effluent that will be generated from this proposed project is 16,110 m3/d and will be treated at the existing ETP comprising RO and RO reject will be discharged into existing marine outfall. The existing ETP of 32400 m3/d is adequate to treat additional stream of wastewater. The committee advised that Company should reduce the water requirement by suitable measures of water recycling and reuse.

Hazardous waste so generated will be sent to the authorized vendors/re-cyclers & TSDF. Non-Hazardous waste will be sold through auction. No major details in this regard given by PP.

At the request of the PP, the Committee agreed to carry out monitoring of base line data including monitoring of VCM during the summer season. After deliberation, the committee was of the view to undertake site visit by the subcommittee of EAC.

8.5 <u>Any Other</u>

8.5.1 Communication of Maharashtra State Pollution Control Board w.r.t. Hon'ble NGT West Zone, Pune on Application No. 68/2014 in the matter of Ashok Kajale & Ors. Vs. M/s Godavari Bio Refinery & Ors.- reg. Clarification.

SEIAA, Maharashtra vide letter No SEIAA-2015/SEIAA-9/TC.3 dated 17.08.2015 has sought the clarification on subject matter titled *Hon'ble NGT West Zone, Pune on Application No. 68/2014 in the matter of Ashok Kajale & Ors. Vs. M/s Godavari Bio Refinery & Ors. Clarification is sought on applicability of EIA Notification, 2006 for consents granted to the industry by MPCB on the activity of product mix change.*

The committee apprised that Ministry is in the process of issuing the notification related to the subject matter wherein it is stipulated that modernization or change in product mix of existing project (having environmental clearance) within existing plot may be exempted from separate environmental clearance if there is no additional pollution load beyond the earlier approved limit envisaged. Therefore the committee suggested to MPCB that industry may be advised to seek Environmental Clearance for those activity involving and operating without EC.

8.5.2 Expansion of synthetic organics at Plot no. 1/CH-2, GIDC Estate, Dahej, Taluka Vagra, District Bharuch, Gujarat by M/s Meghmani Finechem Ltd.- reg. Amendment in TOR (Change in product mix).

MoEF&CC vide letter dated 11.08.2014 has granted TOR to M/s Meghmani Finechem Ltd. for expansion of synthetic organics at Plot no. 1/CH-2, GIDC Estate, Dahej, Taluka Vagra, District Bharuch, Gujarat with the following product mix:

S.N.	Product	Existing	Additional	Total after expansion
1	Di chloro Benzene (Ortho/Meta/Para)	Nil	6000	6000
2	Tri-chloro benzene (1,2,4/1,2,3)	Nil	1200	1200
3	3,4-Xylidine /2,6-Xylidine	Nil	120	120
4	Meta Phenoxy Benzaldehyde Alcohol	200	Nil	200
5	Captive Power Plant	65 MW	Nil	65 MW
6	Chloro Benzene and /OR Mono Chloro Acetic Acid and OR Tri chloro Acetyl Chloride	Nil	6000	6000
7	Epichlorohydrin	Nil	2500	2500
8	Epoxy Resins	Nil	2500	2500
9	Poly Aluminium chloride	Nil	2500	2500
10	Chlorinated PVC	Nil	2100	2100
11	Caustic soda	16800	16800	33600
12	Chlorine Gas	14885	14885	29770
13	Hydrogen Gas	420	420	840
14	Diluted Sulphuric Acid	653	653	1306
15	Diluted Sulphuric Acid	386	386	772
16	Hydrochloric Acid	7583	7583	15166
17	Sodium Hypochlorite	1458	1458	2916
By-products				
18	HCl (30 %)	Nil	18876	18876
19	Hypo Sodium Hypo Chlorite	Nil	4301	4301
20	Di-Chloro Acetic Acid /Mother Liquor (ML)	Nil	743	743
21	Low grade CPVC and PVC resin powder	Nil	25	25

Now, PP vide letter dated 23.02.2016 has requested for the amendment in the existing TOR for addition of new Chloromethane plant of 6000 MTM and expansion of coal based CPP from 65 MW to 130 MW. Details of following products and CPP to be added:

S.N.	Product Name	Capacity (MTPM)
1	Chloromethane	6000
i	C2	4080
ii	C3	1680
iii	C4	240
2	Captive Power Plant	65 MW

TOR is valid upto 10.08.2016. As per OM dated 8th October, 2014, validity of TOR has been increased from 2 years to 3 years.

After detailed deliberation, the Committee has recommended the proposal for amendment in TOR. Besides, the Committee also recommended to extend the validity of TOR upto 10.08.2017.

8.5.3 Manufacturing of Synthetic Organic Chemicals (773.6 MTPA) at Sy. No. Parts of 46,50,51,52,53,54,55 & 56, Ananthsagar Village, Chegunta Mandal, Medak District, Telanagana by M/s Astrica Laboratories Private Limited- reg. Extension of EC.

MoEF&CC had granted environmental clearance to M/s Astrica Laboratories Private Limited on 17.03.2009 for the above mentioned project. PP applied for extension of validity of EC after expiry of EC. The Committee also noted that Ministry vide letter no J-11011/17/2015-IA II (I) dated 29th April, 2015 has already granted TOR for the preparation of EIA report of the said project.

After detailed deliberation, the Committee suggested them to submit EIA-EMP report on TOR letter dated 29th April, 2015.

8.5.4 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.

MoEF&CC has granted environmental clearance to M/s Shipra Agrichem Pvt. Ltd.on 24.12.2012 for the above mentioned project. Now, PP has requested for change in fuel and effluent disposal mode as per following submission:

i. Fuel change from LDO to coal :

Fuel consumption in	As per existing EC LDO requirement in Lt/Hr.	Amendment proposed Coal requirement in Kg/Hr.
Boiler	60	750
Thermic Fluid Heater 1	7	220
Thermic Fluid Heater 2	7	160

Effluent disposal mode from Zero Liquid Discharge RO CETP operated by Envir Infrastrucure Company Ltd. (EICL Umraya).

The proposal was considered by EAC in its meeting held on 20th -21st February, 2014 and the Committee decided that GPCB's permission for change from Zero discharge to discharging effluents into the channel should be submitted to Ministry for record for granting the aforesaid amendment.

In response, PP has submitted the copy of Consent to Establish issued by GPCB vide no. GPCB/CC-VRD-1379(3)/ID-24471 dated 3.06.2015 wherein GPCB has allowed them to send the treated effluent to CETP operated by Enviro Infrastructure Co. Ltd.

After detailed deliberation, the Committee recommended the aforesaid amendment with following conditions:

(i) Bagfilter shall be provided to coal fired boiler and Thermic Fluid Heater to control particulate emissions within 50 mg/m3. Effective stack height for coal fired boiler and thermic fluid heater shall be provided as per CPCB norms.

8.5.5 Molasses Based Distillery Unit (30KLPD) at Village Sonari, Taluka Paranda, District Osmanabad, Maharashtra by M/s Bhairavnath Sugar Works Limited- reg. Extension 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.

27th May, 2016 (Day 2)

1st Session: Time: 10:00 AM

8.6 Environmental Clearance

8.6.1 Proposed Integrated Fertilizer Plant [Ammonia Plant (2x2200MTPD),Urea Plant (2x3850MTPD), Nitric Acid Plant (2x400MTPD), Ammonia Nitrate Plant (2x500 MTPD), Power Plant (2 x 67.5MW)] at Sy. No. 93, Jayanthipuram Village , Jaggayyapet Mandal, Krishna District, Andhra Pradesh by M/s VBC Fertilizers & Chemicals Ltd. – EC reg.

The project proponent and their consultant (M/s Bhagwathi Ana 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 10th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 29th- 31st July, 2013 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 VBC Fertilizers & Chemicals Ltd. (I) has proposed for setting up of Integrated Fertilizer Plant [Ammonia Plant (2x2200MTPD),Urea Plant (2x3850MTPD), Nitric Acid Plant (2x400MTPD), Ammonia Nitrate Plant (2x500 MTPD), Power Plant (2x67.5MW)] at Jayanthipuram Village , Jaggayyapet Mandal Krishna District, Andhra Pradesh. Total plot area is 498.93 Acres of which greenbelt will be developed in 122.53 Acres. The cost of project is Rs.10,000 Crore. Out of which, Rs. 70 crores has been earmarked for pollution control equipment. Jaggayyapeta Extension R.F (50 m E), Kuntimadi R.F. (4.5 km (S)), Ginjupalle R.F.

(7.5 km), Venkatayapalem R.F. (8.0 km (S)) and Budavada R.F. 3.5 km (W). Krishna River is flowing at distance of 2.7 km in South direction, Paleru River is flowing at distance of 1.8 km in west direction and Nagarjuna Sagar Left Bank Canal is flowing at distance of 1.12 k m in East direction. Following products will be manufactured:

S. No.	Product	Capacity (MTPD)
1	Ammonia	2x2200
2	Urea	2x3850
3	Nitric Acid	2x400
4	Explosive Grade Ammonium Nitrate	2x500
5	Coal based captive power plant	2X67.5 MW

Fertilizer plant will be based on natural gas, which will be sourced from FSRU Terminal coming up at Kakinada through APGDCA. Two ammonia storage tanks of 10000 MT capacity each will be installed.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2014 to February, 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (43 – 71 µg/m^3 µg/m^3), $PM_{2.5}$ (17 - 41.2 µg/m^3), SO_2 (9.4 - 15.5 ug/m^3) and NOx (15.2 - 21.6 µg/m^3), NH_3 (12.3 - 21.2 µg/m3), CO (490 – 1102 ug/m^3) and Benzene (0.8 - 2.5 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.68 µg/m^3, 24.2µg/m^3 and 5.18 µg/m^3 with respect to PM_{10}, SO_2 and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

PP informed that ESP will be provided to Coal fired boilers to control particulate emissions. The total water requirement for the proposed project will be 2300 m^3/hr and sourced from Krishna & paleru river. Against this 780 m3/hr wastewater will be generated. The process effluents and blow down effluent will be sent to ETP. Treated Effluent shall be sent for disposal outside. Treated Effluent from the ETP shall be utilized for green belt Development. The spent catalysts will be sent back to the original supplier for reprocessing.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the A. P. Pollution Control Board on 15th October, 2015. The issues were raised regarding local employment, education, CSR benefits, supply drinking water to village, waste management and pollution control measures, etc.

After deliberations, the Committee sought the following additional information:

(i) to clarify whether granular urea plant or urea pilling system will be installed. Provide details of the plant alongwith environmental management system.

(ii) plan to use Natural Gas in place of coal in the boiler

(iii) Unit wise air pollution control device to be submitted.

(iv) to rework on revised water balance chart indicating water intake, loss and effluent generation.

(v) Details of effluent generation from various sections and its treatment. Give calculation details for treated effluent will be utilized for greenbelt development.

(vi) Enterprise Social Commitment (ESC) (2.5% of project cost) based on local needs to be drawn alongwith action plan with financial and physical breakup/details .

(vii) 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.

(viii) to draw Onsite-offsite emergency plan

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

8.6.2 Manufacturing of synthetic organic chemicals (480 TPA) at Sy.No.168/3, Village Anthampally, Mandal Bhiknoor, District Nizamabad, Telangana State by M/s Octane Chemicals Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 36th Meetings of the Reconstituted Expert Appraisal Committee (Industry) held during 16-17th March, 2015 respectively for preparation of EIA-EMP report.

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. Octane Chemicals Pvt. Ltd. has proposed for setting up of manufacturing unit for synthetic organic chemicals (480 TPA) at Sy.No.168/3, Anthampally Village, Bhiknoor Mandal, NizamabadDist, Telangana. Total plot area is 5.00 Acres. Cost of project is Rs. 101.0 Lakhs. Water bodies namely, Guntacheruvu - 2.3 Kms(NNW), Jangampallicheruvu - 3.23 Kms(NNW), Talamadlacheruvu- 4.19Kms(W), Matayam pet Cheruvu - 6.32 Kms(NNE), Kasapuramcheruvu - 6.41 Kms(ESE), Mulavagu- 6.9 Kms(NNE), PeddaChervuvu near Yerragutta - 7.13 Kms(SSW), Yedlakatavagu - 7.87 Kms(ENE), Katrialcheruvu -8.19 Kms(SSW), Maisammacheruvu - 9.55 Kms(SSW), Pushpalvagu - 9.6 Kms(SSW) are located within 10 km distance. Biknoor RF- 4.7 Kms(SSW), Baswapuram RF - 7.2 Kms(S) are located within 10 km distance. Following products will be manufactured:

S. No	Name of The Product	CAS No's	Applications	Quantity MT/Month	Quantity MT/Day
1	Cetyl Chloride	4860-03-1	Used as ❖ solvent ❖ Surfactants ❖ Pharmaceuticals ❖ Antibacterial spray	40.00	1.33
	Total			**40.00**	**1.33**

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March 15, 2015 – June 15, 2015and submitted baseline data indicates that ranges of concentrations of PM_{10} (55.85 µg/m^3 to 63.47 µg/m^3), $PM_{2.5}$ (20.20 µg/m^3 to 23.07 µg/m^3), SO_2 (10.87 µg/m^3 to 13.91 ug/m3), NOx (15.59 µg/m^3 to 18.27 µg/m^3) and CO (0.29 mg/m^3 to 0.46 mg/m^3) respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Power Requirement will be 600 KVA sourced from State Electricity Board. SO2 will be scrubbed by using C.S Lye solution. Hydrogen chloride will be Scrubbed by using water media. Total water requirement from ground water source will be 13.5 m3/day. Total effluent generation will be 7.52 m3/day. Effluent generation will be 7.52 m3/day. Effluent will be segregated into High TDS/Low TDS effluent streams and treated through RO. RO permeate will be recycled/reused within the process. However, the Committee insisted to install adequate ETP to treat the industrial effluent. No effluent will be discharged outside the plant premises. Inorganic salt and RO salt will be sent to TSDF. Waste oil will be sent to the authorized recycler/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 10th February, 2016. The issues were raised regarding local employment, pollution control measures and village development programmes etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

I. As proposed no boiler to be installed for the process.

II. Scrubber shall be provided to control process emissions viz. SO_2 and HCl. At no time, the emission levels shall go beyond the prescribed standards.

III. Authorization under Hazardous Waste Rules shall be obtained for recovered sodium sulphate solution and 15% HCl solution from scrubbing.

IV. 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.

V. Total fresh water requirement from ground water source shall not exceed 13.5 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

VI. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD 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.

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. Solvent management shall be as follows :

a. Reactor shall be connected to chilled brine condenser system

b. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

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

d. Solvents shall be stored in a separate space specified with all safety measures.

e. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

f. 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. All the issues raised during the Public Hearing/consultation meeting held on 10th February, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

XIII. Green belt of 1.65 acres 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.

8.6.3 Molasses based distillery (30 KLPD) at village Raosahebnagar, Post Sipora Bazar, Taluka Bhokardan, District Jalna, Maharashtra by M/s Shree Rameshwar Sahakari Sakhar Karkhana Ltd. – reg EC.

The project proponent and their consultant (M/s Vasantdada Sugar Institute) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 35th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 11th-12th May, 2012 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 Shree Rameshwar Sahakari Sakhar Karkhana have proposed for setting up of Molasses based distillery (30 KLPD) at village Raosahebnagar, Post Sipora Bazar, Taluka Bhokardan, District Jalana, Maharashtra. The proposed distillery will be located within the existing sugar factory premises. Total plot area is 18.6 acres of which, area earmarked for greenbelt is 4.6 acres. River Jui and Kalena are flowing at distance of 2.5 km and 5 km respectively. It is reported that no wild life sanctuary and reserve forest are located within 10 km radius of proposed site. Total cost of the project is Rs. 38.52 Crores out of which Rs. 9.63 crore is earmarked towards capital cost for implementation of pollution control measures. Distillery plant will be operated for 270 days in a year.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 12 locations during December 2011 – February 2012 and submitted baseline data indicates that ranges of concentrations of PM_{10} (52.6 µg/m^3 to 78.8 µg/m^3), $PM_{2.5}$ (25 µg/m^3 to 39.7 µg/m^3), SO_2 (9.5 µg/m^3 to 16.67 ug/m^3) and NOx (9.67 µg/m^3 to 17.83 µg/m^3) respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.06 µg/m^3 and 0.35 µg/m^3 with respect to SPM and SO_2 respectively. PP informed that ESP will be installed in the existing bagasse fired boiler (2 x 32 TPH). It is proposed to install ESP to bagasse fired boiler (1 x 10 TPH) to control particulate emissions. Fresh water requirement from Jalna small scale irrigation Division will be 460 m^3/day. However, the Committee suggested them to restrict the fresh water requirement upto 300 m^3/day. Spent wash will be treated in anaerobic bio-digester plant and mixed with press mud for bio-composting. No effluent will be discharged outside the plant premises. Boiler ash will be mixed with compost and sold to farmer to use as manure. The sludge from fermenter contains organic nutrient and micro elements.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 1st July, 2013. The issues were raised regarding local employment, wastewater management, usage of biogas etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) ESP shall be provided to the bagasse 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.

ii) Total fresh water requirement for distillery from Jalna small scale irrigation Division Jalna will be 300 m^3/day. No ground water shall be drawl for industrial purposes.

iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-digester. Treated effluent will be treated in bio-digester and treated 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.

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

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

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

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

viii) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC, CPCB and SPCB.

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

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

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

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

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

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

xv) As proposed, green belt over 4.6 acres of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xvi) All the commitments made during the Public Hearing/Public Consultation meeting held on 1st July, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xvii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional

Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner. Besides, one rain water harvesting pond shall be created in a nearby villages.

8.6.4 Proposed Fine Chemical Intermediates Manufacturing Unit at Plot No. E-18, Taluka Mohol, Chincholi MIDC Area, District Solapur, Maharashtra by M/s OC Specialties Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s Equinox Environments (I) Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 40th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 18th-19th May, 2015 for preparation of EIA-EMP report. All synthetic organic chemical industries located inside the notified industrial estate/area are listed at S.N. 5(f) under category 'B' and appraised at State level. Due to applicability of general condition (i.e. The Great Indian Bustard Sanctuary within 5 Km Distance), project proposal is treated as category 'A' project and appraised at Central Level.

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

Sr. No.	Name of the Product	Quantity (MT/Day)	Quantity (MT/Month)
1.	Sodium Bromide Soln. OR	13.0	390
	Sodium Bromide Powder	7.73	232
	Zinc Hydroxy OR	3.53	106
	Zinc Oxide	2.46	74
2.	Di Isopropyl Ethyl Amine (DIPEA)	0.61	18.18
3.	Methyl - 2 - Chloro Phenyl Acetate	0.34	10.3
4.	4 Methoxy Phenyl Acetone	0.33	10
5.	2,3 Dichloro Pyridine	0.33	10
6.	2 – Amino – 2 - Phenyl Butyric Acid	0.21	6.5
7.	Ortho Hydroxy Phenyl Acetic Acid	0.50	15
8.	2 Coumaranone	0.41	12.4
9.	3-Isochromanone	0.40	12
10.	2,6 Dichloro Benzoyl Chloride	0.74	22.1
11.	Methyl – 2 - Dimethylamino-2-Phenyl Butyrate	0.33	10
12.	2-Dimethylamino-2-Phenyl Butanol	0.10	3.01
13.	P-Bromonisole / 4-Bromo Anisole	0.55	16.5
14.	Para Bromo Phenetole /4-Bromophenetole	0.48	14.5
15.	2, 4 – Dichloro Phenyl Acetyl	1.32	39.75
16.	2,5 – Dimethyl Phenyl Acetyl Chloride	1.08	32.5
17.	Indoline	1.21	36.25
18.	Ethyl Phenyl Glyoxalate (EPG)	0.95	28.42
19.	Ethyl - 1 – Hydroxy Cyclohexane Carboxylate	1.10	33.00
20.	Ethyl – 1 – Hydroxy Cyclopentane Carboxylate	1.21	35.25
21.	3 – Chloro – 2 – Hydrazinyl Pyridine	1.20	36.00
	Total	**40.12**	**1203.66**
	By-products		

Sr. No.	Name of the Product	Quantity (MT/Day)	Quantity (MT/Month)
1.	Sodium Sulphate Solution 25%	6.01	182.07
2.	HCl 30%	2.52	75.59
3.	Sodium Nitrite Soln.30%	1.01	30.42
4.	Distillation residue of P-xylene	0.12	3.6
5.	Ammonium Chloride	1.20	36.0

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October 2015 up to December 2015 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (36.9 µg/m^3 to 84.5 µg/m^3), $PM_{2.5}$ (7.1 µg/m^3 to 54.7 µg/m^3), SO_2 (9.0 µg/m^3 to 27.9 µg/m^3) and NOx (6.7 µg/m^3 to 24.9 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.50 µg/m^3, 0.10µg/m^3, 1.0 µg/m^3 and 0.61 µg/m^3, with respect to PM_{10}, $PM_{2.5}$ and SO_2. The resultant concentrations are within the NAAQS.

Multi-cyclone followed by bag-filter will be provided to coal/ biomass fired boiler (3 TPH) and Thermic fluid heater. Scrubbers will be provided to control process emission viz. SO_2, HNO_2, NH_3 and HCl. Total water requirement will be 45 m^3/day. Out of which, water requirement (18 m^3/day) will be met from MIDC water supply and 27 m^3/day will be met from rain water harvesting and treated effluent. Industrial effluent generation will be 24.5 m3 /day and segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. ETP sludge, MEE salt and Distillation residue will be sent to CHWTSDF. Process residue will be sent to the persons/CHWTSDF.

Public hearing was 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 deliberation, Committee sought following additional information:

- Ambient air quality for all parameters including CO and VOC to be reanalyzed for one month.
- Copy of application submitted for clearance from NBWL.
- Quantify the impact on Great India bustard sanctuary by the proposed unit.
- Commitment to replace coal in place of briquette.
- Analyze cleaner/green manufacturing process vis-à-vis conventional process

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

8.6.5 Proposal of Drilling of 2 wells and Setting up of EPS (5 nos) in Sanand Miroli Block CB-ONN-2002/03, in Ahmedabad, Mehsana & Gandhinagar Districts of Gujarat by M/s Gujarat Petroleum Corporation – reg EC.

The project proponent and their consultant (M/s Kadam Environmental Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 21st Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 30th-31st July and 1st August, 2014 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Gujarat State Petroleum Corporation Ltd. (GSPC) has proposed to undertake drilling of two wells and setting up of EPS (5 nos) in CB-ONN-2002/03 sanand Miroli Block, Dist. Mehsana, Gujarat. In order to increase the commercial production of the block, GSPC is planning for carrying out below activities in the Sanand Miroli block (Part A i.e. CB-ONN-2002/3):

i) Drilling of two wells: Proposed 1 and Proposed 2 Subsequent on the basis of technical and commercial feasibility, (a) Setting up of EPS either at proposed drilling site or b) hook up them to SE # 3/SE#4 EPS.

ii) Setting up of Early Production System at Well Site SE # 3/SE #4 with a Connection of well SE # 2 to SE # 3 /SE#4 EPS through underground 4 inch pipeline (270 m). Total plot area will be 20599.30 m2 .
iii) Setting up of Early Production System at well site SE # 8 with a. Connection of well SE # 8 A1 to SE # 8 EPS through underground 4- inch pipeline (1062 m). Total plot area will be 20939.10 m2 .

iv) Setting up of early production System at Well site SE # 10. Total plot area will be 20939.10 m2.

Proposed well drilling locations are as given below:

S.N.	Details	Latitude	Longitude	Village	Taluka	District
1	Proposed – 1	23^{O}02'27.52"" N	72^{O}25'27.55" E	Manipur	Sanand	Ahmedabad
2	Proposed – 2	23^{O}02'57.1903" N	72^{O}26'19.9002" E	Palodia	Kalol	Gandhinagar

It is reported that Thol Bird Sanctuary is located at a distance of 4.41 km. Cost of project is Rs. 33.8 Crore. During drilling, water requirement from surface water body will be 40 m^3/day. Effluent generation from the drilling activity will be 10 m^3/day and effluent will be collected in HDPE lined evaporation pit. Total water requirement from tanker supply will be 45 m3/day. Produced water generation from EPS will be 140 m^3/day. It is proposed that produced water will be sent to CETP for treatment. If the generation of effluent water will be high , then after treatment effluent will be injected into ground through injection well.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat State Pollution Control Board on 5th December, 2015 at Mehsana, on 7th December, 2015 at Gandhinagar and on 30th December, 2015 at Ahmedabad. The issues were raised regarding Oily water management, employment, green belt development, CSR activity and restoration work after drilling 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 31.3.2014 of MoEF&CC Regional Office at Bhopal. It is reported that oil was being collected from two wells and necessary facilities were maintained. Therefore, the Committee noted that this is a violation case and project shall be considered as per prevailing procedures to treat such violation case.

8.6.6 20 Developmental Wells at Baghewala ML Block, Tehsil Pokhran, District Jaisalmer, Rajasthan by M/s Oil India Ltd – reg EC.

The project proponent and their consultant (M/s Asian Consulting Engineers 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 14th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 19th-20th December, 2013 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Oil India Limited have proposed for drilling of 20 Development Wells at Baghewala Mining Lease area 210 sq. km in Jaisalmer Rajasthan. Block falls on the eastern part of Jaisalmer district with its headquarter which is 200 km from the block. It is reported that there are no National Parks, Wildlife sanctuaries, Biosphere, within the impact area of 10 km. No perennial river in the block. Cost of project is Rs. 220 Crore. A branch of IGN Canal is passing through the block. Coordinates of Twenty wells to be drilled Baghewala PML Area in Jaisalmer District are as given below:

S. No	Location	Latitude (N)	Longitude (E)
	A-V1	27'49'03.24"	71'55' 25.19"
	A-V2	27'49 '28.37"	71'56' 17.40"
	A-V3	27'49' 49.45"	71'57' 19.69"
	A-V4	27'49' 55.94"	71'58' 03.66"
	A-V5	27'49' 31.62"	71'58' 08.24"
	A-V6	27'48' 12.97"	71'54' 24.31"
	D-V1	27'48' 12.97"	71' 56' 31.14"
	D-V2	27'48' 33.24"	71'55' 23.35"
	D-V3	27'48'59.18"	71'55' 53.58"
	D-V4	27'49' 27.59"	71'56' 52.21"
	D-H1	27'48' 47.83"	71'56' 08.24"
	D-H2	27'49' 07.29"	71'56' 37.55"
	D-H3	27'49' 17.83"	71'57' 27.93"
	LOC-1	27'52' 04.27"	72'04'35.07"
	LOC-2	27'50' 46.21"	72'05' 23.35"
	LOC-3	27'51' 28.31"	72'06' 22.90"
	LOC-4	27'50' 55.49"	72'02' 34.80"
	LOC-5	27'49' 19.45"	72'00' 50.38"
	LOC-6	27'49' 29.18"	71'58' 07.32"
	LOC-7	27'48' 17.83"	71'55' 16.94"

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March to May 2014 and submitted baseline data which indicates that

ranges of concentrations of PM_{10} (68.5 µg/m3 and 94.8µg/m^3), SO_2 (5.4 µg/m3 and 11.2 µg/m^3) and NOx (7.3 µg/m3 and 16.7 µg/m^3) respectively.

Fuel requirement will be 2.5 KLD of HSD per well. Six DG sets will be used (2 X 1000 HP, 2 X 500 HP, 1 X 63 kVA, 1 X 125 kVA). Drilling will be carried out with Water Based Mud system (WBM). Fresh water requirement from IGN canal will be 35 m3/day. Wastewater generation will be 15 m3/day and stored in HDPE lined pit and solar evaporated. Drill cutting for each Well will be 150-200 m3 and depth of each well will be 1200-1500 m. Approx. 35 m3 /d water will be required for each well.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Rajasthan State Pollution Control Board on 15th July, 2015 at Jaisalmer, Rajasthan. The issues were raised regarding land acquisition and low compensations, medical and education facilities, measures for effluent disposal, sources of labor and vehicles during the proposed operations 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) Gas produced during testing shall be flared with appropriate flaring booms. 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.

ii) Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.

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

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

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

vi) Total water requirement from IGL Canal shall not exceed 35 m^3/day/well and prior permission should be obtained from the Competent Authority.

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

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

ix) No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies.

x) Produced water shall be treated in ETP. Treated produced water shall be disposed off as per CPCB/MoEF guidelines.

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

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

xiii) 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.

xiv) 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.

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

xvi) The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and its Regional Office at Bhopal.

xvii) Blow Out Preventor (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.

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

xix) 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 the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be

implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xx) All the commitments made to the public during public hearing/public consultation meeting held on 15th July, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xxi) At least 1 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

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

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

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

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

xxvi) 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. Remote monitoring of site should be done.

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

Lunch Break: 1:30 to 2.00 PM

2nd Session: Time: 2.00 PM

Reconsideration of EC

8.3.11 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 aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 30th, 31st March, -2nd April 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. To recheck/redraw the water balance and reduce the fresh water requirement.
2. 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.
3. To submit plan for the Enterprise Social Commitment (ESC) based on local needs covering financial and physical breakup/details.

Accordingly, PP has submitted the following information:

1. Fresh water requirement has been reduced from 700 KLD to 478 KLD @ less than 8 KL/KL of Extra Neutral Alcohol.
2. 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 has been submitted.
3. Revised plan for the Enterprise Social Commitment (ESC) based on local needs covering financial and physical breakup/details has been submitted.

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

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

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

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

iv. Total fresh water requirement from ground water source shall not exceed 478 m^3/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

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

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

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

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

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

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

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

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

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

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

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

xvi. At least 5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. An amount of Rs. 217 Lakhs has been earmarked for Enterprise Social Commitment.

8.6.7 Molasses based Distillery (30 KLPD) at Village Pimpalgaon, Tehsil Shrigonda, District Ahmednagar, Maharashtra by M/s Kukadi Sahakari Sakhar Karkhana Ltd. – reg. EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 2nd meeting held during 16th – 17th December 2015 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:

a) Certified compliance report of the Regional Office.

b) Recheck ambient air quality monitoring (PM2.5 and PM10) at least for 2 weeks

c) Reanalyze surface water quality monitoring report.

d) Treatment scheme for MEE condensate.

e) Video CD of public hearing proceedings to be submitted.

The Committee noted that PP has not submitted the copy of certified compliance report on the environmental condition prescribed in EC letter no SEAC-2009/CR.465/TC.2 dated 31st January, 2011 issued by SEIAA, Maharashtra. PP has submitted the ambient air quality monitoring report for the period from 22.12.2015 to 30.12.2015 and surface water quality monitoring report. MEE condensate will be treated in the condensate polishing report. These points were discussed and responded satisfactory. As the proceedings of public hearing was earlier submitted unsigned copy, therefore PP was requested to submit video CD as a proof of Public hearing. During presentation PP could not run the video of public hearing proceedings before the EAC.

After detailed deliberation, the Committee requested the Ministry to take necessary action to obtain information from the concerned Govt. Authorities.

8.6.8 Resin Manufacturing Unit at Sy. No. 312/1, Village Nani Chiri, Tehsil Bhachau, District Kutch, Gujarat by M/s Kachchh Veneeres Pvt, Ltd.-reg EC

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

M/s Kachchh Veneeres Pvt, Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No. 312/1, Village Nani Chiri, Tehsil Bhachau, District Kutch, Gujarat. The plot area is 14506 m2 of which greenbelt is will be developed in 4700 m^2 (33 %). The cost of the project is Rs 55.44 Lakhs. It is reported that there is No national park/wildlife sanctuary is located within 10 Km distance. Following products will be manufactured:

No.	**Product**	**Total Quantity** (MTPM)
1.	Phenol Formaldehyde Resin	500
2.	Melamine Urea Formaldehyde	
3.	Urea Formaldehyde Resin	
4.	Melamine Formaldehyde Resin	

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March to May 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (83.95 µg/m3 to 98.43 µg/m^3), $PM_{2.5}$ (38.12 µg/m3 to 48.97 µg/m^3), SO_2 (10.96 µg/m3 to 13.96 ug/m^3) and NOx (11.12 µg/m3 to 15.79 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.862 µg/m^3, 1.207 µg/m^3 and 0.862 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the NAAQS.

Multi cyclone dust collector with Ventury water scrubber will be provided to LDO/FO fired thermic fluid heater with 11 m stack height to control particulate emissions. DG set (500 KVA) will be installed with 9 m stack height. Power requirement of 200 KVA will be sourced from Paschim Gujarat Vij Co. Ltd. Total water requirement from ground water source will be 11.25 m^3/day, against which 6.7 m3/day wastewater will be generated. Domestic wastewater will be disposed off through a septic tank followed by soak pit system. Process wastewater will be sent to ETP followed by evaporation. ETP waste and evaporation residue will be sent to secured land fill site. Used oil will be sent to authorized recycler. Spent Carbon will be disposed of to secured land fill site.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 2nd December, 2014. The issues were raised regarding Effluent management employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

xiii) Multi cyclone with wet scrubber with stack of adequate height should be installed to Thermic fluid heater/ boiler to control particulate emissions.

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

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

xvi) Total fresh water requirement from ground water source should not exceed 11.25 m^3/day and prior permission should be obtained from the CGWA/SGWA.

xvii) Industrial effluent will be treated in ETP based on 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.

xviii) 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.

xix) Green belt over 4700 m^2 (33 %) 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.

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

xxi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 5th 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.

xxii) 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.

27th May 2016

8.7 Terms of Reference

1st Session

8.7.1 Expansion of Existing Grain/ Molasses based Distillery (45 to 205 KLPD) and Co Generation Power Plant (0.8 to 8.3 MW) at Village Khasa, Block Verka, Tehsil Amritsar 2, District Amritsar, Punjab by M/s Khasa Distillery Company – reg TOR.

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

M/s. Khasa Distillery Company is proposing for expansion of Existing Grain/ Molasses based Distillery (45 to 205 KLPD) and Co Generation Power Plant (0.8 to 8.3 MW) at Village Khasa, Block Verka, Tehsil Amritsar 2, District Amritsar, Punjab. PP informed that the existing

unit has been operating since 1945. PP submitted the documents related to license certified by Excise and Taxation Commissioner of Punjab dated 27.05.1968. Punjab Pollution Control Board has issued a consent to operate for discharge of effluent vide letter N. AMR/91-92/V-62 dated 12.06.1991 in the name of M/s Bhagat Industrial Corporation Ltd., Khasa, District Amritsar. PP confirms that the existing establishment is very old and technology is also obsolete.

As per Form-1, it is reported there is no Biosphere Reserve, National Park and Wild Life sanctuary falls within 10 km radius from the project site. Rakh Sarai Amanat Khan RF situated at 7.5 km in SSW Direction and an Archeological important Place named Jallianwala Bagh situated at 14 km in East direction.

Existing plant area is 12.02 ha (29.7 acres) and no additional land is required for the proposed expansion of which 4.21 ha area has already been developed as green belt. Total Cost for the expansion is Rs. 150 Crores. About 120 peoples will be employed under this expansion project. Following products will be manufactured:

Unit	Existing Capacity	Proposed Enhancement Capacity	Total Capacity after enhancement & modernization
Grain/ Molasses based Distillery (KLPD)	45	160	205
Co-Generation Power Plant 9MW)	0.8	7.5	8.3

The existing distillery has 15 TPH Rice Husk/Biomass fired boiler. In the proposed expansion an additional 35 TPH Rice Husk/Biomass/Pet Coke fired boiler will be installed. ESP or Bag house filter will be installed as an air pollution control device with adequate height. Total power requirement after proposed expansion will be 3.5 MW and will be met from Co-generation Power Plant and State Electricity Board. D.G. Sets of 4 X 1000 KVA will be used only for the power back-up.

Total fresh water requirement is about 1440 m^3/day, which includes distillery, bottling/blending and domestic consumption requirements and will be met from underground water. In the molasses based operation, spent wash will be treated through MEE followed by incineration boiler, while in grain based operation spent wash will be sent for decantation followed by evaporation and will be taken through Centrifuge Decanters. DDGS will be generated and will be used as Cattle/Poultry Feed. Used oil & grease will be sold out to the CPCB authorized recycler. Ash from the Boiler is being/will be sold to Brick manufacturers/land filling. Wastewater generated from the domestic area will be disposed off via septic tank followed by soak Pit. Committee suggested to develop dedicated sewage treatment 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. Availability of grain from the market to be firmed up.
III. Adopt effective treatment technology for water recycle.
IV. Use Air Cooled condensation system

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.

8.7.2 Expansion of existing unit by installing new units of SSP/TSP in the existing premises at Birkoni Industrial Area, Village Birkoni, District Mahasamund, Chhattisgarh by M/s Tulsi Phosphate 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 Chemical Fertilizer units are listed at S.N. 5(a) under category 'A' and appraised at Central level.

M/s Tulsi Phosphate Ltd. has proposed for Expansion of existing unit by installing new units of SSP/TSP in the existing premises at Birkoni Industrial Area, Village Birkoni, District Mahasamund, Chhattisgarh. Existing products does not attracts the provisions of EIA, Notifiction 2006.

It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. During presentation it was informed that Mahanadi River is flowing at 3.0 km distance from the project site.

Total plot area is 4.26 ha, of which 55670 sq. ft. is developed as greenbelt. Total cost of the project is Rs. 17.5 Crore. About 100 peoples will be employed under this expansion project. Following are the existing and proposed products:

Details of the Existing capacity

S. No.	Product	Existing Capacity (MT/Year)
1	Zinc EDTA as Micronutrients	5000.0
2	Zinc Sulphate as Micronutrients	5000.0
3	Mixture of Micronutrients	5000.0
4	Formulation of Pesticide	5000.0
5	Barbed wire	3000.0

Details of the Proposed capacity

S. No.	Product	Capacity (TPA)
1	Single Super Phosphate and Triple Super Phosphate	1,00,000

Power requirement of 4000 kW will be sourced from CSEB and captive power plant. Furnace oil of 2.0 KLD will be used for boiler and will be sourced from IOC.

Total fresh water requirement for proposed expansion will be 20m^3/day and met from CSIDC water supply. Against this, wastewater generation will be 13 m^3/ day. Industrial wastewater will be send to ETP and treated wastewater will be used for green belt. Domestic wastewater will be sent to septic tank followed by soak pit. Waste oil and used batteries shall be sent to authorize recyclers

The Committee noted that the industry is taking EC first time and suggested for public hearing, being a fertilizer industry.

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. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.
4. Measures for control of urea dust emissions from prilling tower.
5. Measures for reduction of fresh water requirement.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.
7. Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluoro silicicacid (H_2SiF_6) and its uses.

8. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck,*etc*.

9. Details on existing ambient air quality for PM10, PM2.5, Urea dust*, NH3*, SO2*, NOx*,HF*,F*,Hydrocarbon (Methane and Non-Methane) *etc*., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*as applicable)

10. Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, *Cr as Cr^{+6}, *Total Chromium, Fluoride, *etc*.

B. Additional TOR

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

ii. Plan for management of gypsum

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.

8.7.3 Construction of 3 nos. new product storage tanks & associated facilities for storage & handling of ethanol & bio-diesel at Mumbai Refinery in Mumbai, Maharashtra by M/s BPCL – reg TOR.

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

8.7.4 Modification / Revamping of Ammonia / Urea Plant including installation of GT-HRSG at Village- Ghiyanagar, Tehsil Phulpur, district Allahabad, Uttar Pradesh by M/s Indian Farmers Fertilizer Cooperative Limited (IFFCO) – 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 Indian Farmers Fertilizer Cooperative Limited has proposed for Modification / Revamping of Ammonia / Urea Plant including installation of GT-HRSG at Village- Ghiyanagar, Tehsil Phulpur, district Allahabad, Uttar Pradesh. MoEF&CC vide letter no J-11011/150/2008- IA II (I) dated 14.07.2006 has issued EC to M/s IFFCO for Capacity enhancement/de-bottlenecking and LNG conversion of IFFCO at P.O. Ghianagar, Allahabad, U.P. 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 432.2 ha, of which 304.37 acre is developed as greenbelt. Total cost of the project is Rs. 976.35 Crore. Following are the existing products:

Details of the Existing capacity

S. No.	Product	Capacity (MTPD)
1	Urea	5145
2	Ammonia	2955

Following features are proposed:

- Modification/ Revamping of Ammonia I and II Plant
- Modification/ Revamping of Urea I and II Plant
- Installation of new GT-HRSG;
- Installation of new ammonia storage tank (10,000 MT)

The existing fresh water requirement is 35,500 m^3/day and met from ground water through borewells, after Revamp requirement will reduce to 30,120 m3/day. Wastewater generation will reduce to 3312 m^3/day from 4200 m^3/day after revamping.

The unit has Two Power plants. Power plant 1 has 3 Coal fired boiler of capacity 125 MTPH connected to ESP with 100m stack height. While Power Plant-II has one LSHS/ gas fired boiler of capacity 200 MTPH connected with 120 m satck height. Total power requirement of 23 MW is being met by two Nos. of Turbo Generator (TG) of 12.5 MW and 18.0 MW Capacity. Now it is proposed to install GTG-HRSG which will operate on Co-Generation Cycle where almost 90% of Fuel RLNG is fired in GTG and its Exhaust Hot Flue Gas Generates Steam in the Heat Recovery Steam Generator (HRSG).

The spent catalyst and waste oil so generated will be stored and sold to the authorized vendor.

The Committee noted that though the project is of modernization but installation of additional ammonia tank will require assessment of environmental impact. PP requested for exemption of public hearing on which Committee did not agree.

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. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.

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

B. Additional TOR

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. Detailed plan for water conservation including reuse and recycling.

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.

8.7.5 Modification / Revamping of Ammonia / Urea Plant within existing IFFCO plant at Aonla, district Bareilly, Uttar Pradesh by M/s IFFCO- 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 Indian Farmers Fertilizer Cooperative Limited has proposed for Modification / Revamping of Ammonia/ Urea Plant within existing IFFCO plant at Aonla, District Bareilly, Uttar Pradesh. Environmental Clearance to existing plant was issued vide letter no. J-1101/430/2005-IA II (I) dated 13.03.2006 regarding capacity enhancement/de-bottlenecking of existing Ammonia – Urea plant.

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 1273 Acre, of which 336 acre is developed as greenbelt. Total cost of the project is Rs. 758 Crore. Following are the existing products:

Details of the Existing capacity

S. No.	Product	Capacity (MTPD)
1	Urea	6000
2	Ammonia	3450

Aim of the project is to revamping/modification, which implement various scheme to reduce the specific energy consumption of Ammonia/Urea in Aonla Fertilizer plant and to achieve more reliability and flexibility in operation that include;

- Modification/revamping of ammonia-I & II plants
- Modification/revamping of Urea-I& II plants

PP informed that revamping project has been aimed to reduce specific energy consumption by 0.358Gcal per MT of Urea production in Aonla-I plant and 0.396 Gcal per MT of Urea in Aonia-II plant. The existing fresh water requirement is 34,200 m3/day and met from ground water through borewells, after Revamp will reduce to 33,720 m3/day. Wastewater generation will reduce to 5304 m3/day from 5712 m3/day after revamping.

The unit has 3 Coal fired boiler of capacity 785 MTPD. Natural gas consumption will reduce by 1,08,800 SM3 per day after Revamp, whereas there will be reduction of 521 MT per day Coal at this production level. Hence, CO2emission will reduce by 43.30 MT/Hrafter Revamp.

PP requested to exemption of public hearing under para (ii) of EIA, Notification, 2006. The Committee was of the view that the existing project is aim to reduce the energy consumption by modernization without increasing the production capacity and Committee, therefore, recommended for public hearing exemption under para 7 (ii) of EIA, Notification, 2006.

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. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.
4. Measures for control of urea dust emissions from prilling tower.
5. Measures for reduction of fresh water requirement.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.
7. Details of fluorine recovery system in case of phosphoric acid plants and SSP to

recover fluorine as hydrofluoro silicicacid (H_2SiF_6) and its uses.

8. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck,*etc*.
9. Details on existing ambient air quality for PM10, PM2.5, Urea dust*, NH_3*, SO_2*, NOx*,HF*,F*,Hydrocarbon (Methane and Non-Methane) *etc*., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*as applicable)
10. Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, *Cr as Cr^{+6}, *Total Chromium, Fluoride, *etc*.

B. Additional TOR

i. Public hearing is exempted as per para 7(ii) of EIA Notification, 2006.
ii. Detailed plan for water conservation including reuse and recycling.

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

8.7.6 Conversion from BS-IV to BS-VI compliant HSD production and revamps: new Diesel Hydrotreating unit (DHDT), new Gasoline Desulphurization unit (FCC-GDS), new Hydrogen generation unit (HGU) and Revamp of ISOM and MSQ at P.O. Jawaharnagar, District Vadodara, Gujarat by M/s IOCL (Gujarat Refinery)- reg TOR.

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

M/s IOCL (Gujarat Refinery) has proposed for Conversion from BS-IV to BS-VI compliant HSD production and revamps: new Diesel Hydrotreating unit (DHDT), new Gasoline Desulphurization unit (FCC-GDS), new Hydrogen generation unit (HGU) and Revamp of ISOM and MSQ at P.O. Jawaharnagar, District Vadodara.

During presentation PP informed that MoEF&CC has also issued TOR vide letter no J-11011/96/2015 IA II (I) dated 13th July, 2015 for BS-IV project of Gujarat refinery from BS-III to BS-IV compliant HSD production at District Vadodara, Gujrat by M/s IOCL Ltd. PP informed that this project is extension of activity on which TOR was issued by referred letter. The Committee noted that both activities will be undertaken in same premises and suggested to club the both activities together for assessment of cumulative Environmental impact. PP in response agreed to apply fresh application as amendment of TOR issued on 13th July 2015. In this background the Committee recommended to reject this proposal

8.7.7 Expansion of Agrochemical & Agrochemical Intermediate Products at plot no. 43/1, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat By M/s Tagros Chemical India Ltd. – reg EC.

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

M/s Tagros Chemical India Ltd. has proposed for Expansion of Agrochemical & Agrochemical Intermediate Products Plot No. 43/1, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat. Environmental Clearance to existing unit was issued vide letter no. J-11011/20/2012-IA II(I) dated 6th March 2014. As per Form I, No National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site.

Cost of proposed project is Rs. 172.39 Crore, of which Rs. 6.68 Crore is earmarked for Environment Protection measures. Plot area is 71,359 m2, of which green belt should be developed in 21,359 m2 area. About 155 peoples will be employed under this expansion project Following products will be manufactured:

SR. NO.	PRODUCT NAME	EXISTING CAPACITY (MT/MONTH)	TOTAL PROPOSED CAPACITY (MT/MONTH)
PESTICIDES INTERMEDIATES & TECHNICAL			
1	DV ACID CHLORIDE	200	250
2	Carfentrazone	100	150
3	Ethofumesate	50	100
4	Metamitron	100	150
5	Cypermethrin	150	200
6	Permethrin	75	100
7	Alphamethrin	50	75
8	Meta phenoxy Benzaldehyde	200	250
9	Metaphenoxybenzyl Alcohol	100	100
10	RRCMA	30	30
11	Dicamba	50	500
12	Deltamethrin tech.	10	30
13	Sulfentrazone	100	100
14	Thiamethoxam	50	100
	TOTAL	**1265**	**2135**
BY PRODUCTS:			
1	Sodium Sulfite Powder	560.7	747.6
2	NH_4CL Powder	162.7	216.6
3	HCL Solution	606.51	606.51
4	$AlCl_3$	572.50	656.75
5	KCL Powder	124.4	137.5
6	$Cu(OH)_2$ Powder	2.10	2.63
7	Spent Acid	3333.7	7618
	TOTAL	**5362.61**	**9985.6**

The existing Power requirement is 4.5 MW after expansion additional 1 MW will be taken from DGVCL. Three DG sets of 1000 KVA, 1500 KVA and 2500 KVA will be installed as power backup in addition to existing DGs sets with same capacities. The existing fuel (Coal) requirement is 50 MT/day, after expansion the total fuel requirement will be 90 MT/day for the 3 boilers. PP did not mention the capacities of boilers. To control process emission such as HCl,

SO2, HBr alkaline scrubber will be installed in two stages by attaching vent with in process. Scrubbed water will be sent to ETP for treatment.

Fresh water requirement will increase from 1029 m3/day to 1413 m3/da, which will be met from GIDC water supply. Against this, wastewater generation will increase from 920 m3/day to 1474 m3/day. Process wastewater will be segregated in high TDS and Low TDS. The Low TDS effluent will be sent to existing ETP consists of primary & secondary treatment facility, while High TDS will be treated through MEE and Vertical thin film dryer. The final treated wastewater will be sent to GIDC drain for final disposal.

Used Lube Oil will be sale to GPCB authorized Recyclers. Discarded Drums & containers sold to GPCB authorized vendor. Cotton wastes/ raw dust / bag filters containing pesticides will be sent to cement industry or common incineration facility. Date expired pesticides will be disposed by common incineration facility. Spent catalyst (Reney Nickel Catalyst) will be send back for regeneration or return to suppliers. Process/ Distillation Residue will be disposed by co-processing or sent to common incineration facility. ETP sludge, MEE salt, Spent carbon, Sludge from wet scrubber, Incineration ash and Spent Solvent will be collected, stored transport and disposed to TSDF site. Spent Ion Exchange Resins will be disposed by giving for regeneration or return to supplier.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

i 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.

ii 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.

iii ZLD system to be adopted by adequate treatment scheme.

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

8.7.8 Expansion of Distillery plant (125 KLPD to 150 KLPD) at Village Gandepally, Mandal Kanchikacherla, District Krishna, Andhra Pradesh by M/s Sentini Bio Products Private Limited- reg. TOR

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

M/s Sentini Bioproducts Private Limited has proposed Expansion of Distillery plant (125 KLPD to 150 KLPD) Village Gandepally, Mandal Kanchikacherla, District Krishna, Andhra Pradesh. The industry obtained Environmental clearance for existing unit vide Ministry's letter no. 11011/308/2006-IA II (I) dated 5thJanuary, 2007.

As per Form I, No National Park/Wildlife sanctuary/Tiger Reserve/Elephant Corridor, Reserve Forest/Protected area within 10 km radius of plant site. Muniyeru River is flowing at 9.0 km (S) distance, Nagarjuna sagar left bank canal is flowing at 0.9 Km distance and Wira river is flowing at 1.5 Kms from the project site.

Total project area is 102.94 Acres, out of which 45 acres area has already been developed as green belt. The following product will be manufactured under proposed expansion project:

S. No.	Unit	Product	Existing capacity	Proposed Capacity	Total Capacity
1	Grain based distillery	Rectified Spirit/ENA/Ethanol	125 KLPD	25 KLPD	150 KLPD
2	CPP	Electricity	4	0	4
3	CO2 recovery Plant		93 TPD	19	112 TPD

Existing 40 TPH coal fired boiler is adequate for proposed expansion project. The required power will be met from cogeneration power plant. One DG set of 1250 KVA connected with 12 m stack height will be installed as standby arrangement. No additional land required for this expansion. PP confirms that no additional cost for the project is required.

The existing water requirement is 2562 m^3/day which will reduce to 2505 m^3/day, The water requirement has been reduced by modification in the plant resulting to expansion. Accordingly wastewater generation will reduce to 1422 m3/day from 1584 m^3/day. The industry will follow the existing treatment process i.e. spent wash will be passed through decanter and then the thin slop from Decanter will be dried in Multiple Effect Evaporators (MEE) followed by

Dryer. The Committee noted that the industry is expanding capacity upto 20% only and there is no additional water and power requirement on expansion leading impact on environment, therefore proposal is recommended on para 7(ii) of EIA Notification, 2006 on which Public Hearing is exempted.

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 is exempted as per para 7(ii) of EIA Notification, 2006 on for preparation of EIA/EMP Report, being site is located in the Notified industrial area.

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

8.7.9 Expansion of Manufacturing of Bulk Drug & Intermediate (from 12.85 MTM to 34.868 MTPM) at Gut No. 204, Nashik – Mumbai highway, A/p – Vadivarhe, Taluka Igatpuri, District Nashik , Maharashtra by M/s Vadivarhe Speciality Chemicals Ltd.- reg. TOR

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

The Committee noted that industry for its existing operation obtained CTE vide letter no. BO/RO-Nsk/PCI-I/946-07/E/CC-329 dated 05.04.2007 which was obtained after EIA Notification, 2006. Hence, the industry for its existing operation did not obtain Environmental Clearance, therefore, it is a violation of provisions contained under Environment (Protection) Act, 1986 by not following EIA Notification, 2006.

8.7.10 Expansion of Synthetic Coal Tar Dyes, Lake Pigments (150 MTPM to 850 MTPM) at Plot no. 17, unit no. II, MIDC-Dhatav-Roha, Taluka-Roha, District-Raigad, Maharashtra by M/s Neelikon Food Dyes & Chemicals Ltd.- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry 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 Neelikon Food Dyes & Chemicals Ltd. has proposed for expansion of synthetic coal Tar Dyes, Lake Pigments (150 MTPM to 850 MTPM) at Plot no. 17, unit no. II, MIDC-Dhatav-Roha, Taluka-Roha, District-Raigad, Maharashtra. It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. It is reported that Kundalika River is flowing at a distance of 1.2 Km.

Further, it was informed that as per draft Notification of MoEF&CC vide ref. no. S.O. 2435 dated 4th September 2015, Village Dhatav, where proposed project located, is declared as an Eco Sensitive Area. However, the final notification has not been issued. Therefore, the Committee was of the view that till the finalization of Notification, the project cannot be considered as 'A' category and advised to approach SEIAA/SEAC, Maharashtra for award of TOR. The project is, therefore, returned with the remarks that proposal at this stage should be considered as B category by SEIAA/SEAC, Maharashtra till the final decision on eco-sensitive is taken.

8.7.11 Setting up of 45 KLPD Molasses Based Distillery At Post: Dhawarwadi, Tahsil Karad, District Satara, Maharashtra by M/s Jaywant Sugars Ltd.- reg. TOR

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

M/s Jaywant Sugars Ltd. has proposed for setting up of 45 KLPD molasses Based Distillery at Post: Dhawarwadi, Tahsil Karad, District Satara, Maharashtra. As per Form I, no National Parks, Reserved Forests/ Protected Forests, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Tarali River is flowing at a distance of 3.88 km from the project.

Total plot area is 23.32 ha (58.3 Acres), of which 4.8 ha (12 Acres) of the area will be earmarked for greenbelt. The plant is located adjacent to existing sugar mill. Cost of proposed

project is Rs. 64.81 Crores. Distillery will be operated for 300 days. The proposed project has an employment potential of 98 person. Followings products will be manufactured:

S. No.	Unit	Capacity (KLPD)
1.	Rectified spirit	45
2.	Extra Neutral Alcohol	43
3.	Absolute Alcohol	41
4.	Impure Spirit	2.5
	By-Products	
1.	Carban -dioxide	32 MT/Day

Exiting power generation is 10 MW and through co-gen unit in sugar plant. The industry is going to install 1.5 MW capacity turbine separately for distillery unit. Boiler having 18 TPH capacity using spent wash and Coal/Rice Husk/Bagasse will be installed and connected to ESP to control particulate emissions and attached to stack of adequate height.

Fresh water requirement will be 223 m^3/day and sourced from Tarali River. Spent wash will be concentrated in Integrated evaporator system (5 effect MEE) followed by Stand alone Evaporator and then used as fuel in incineration boiler to achieve zero liquid discharge. Domestic effluent will be treated in STP.

Fly ash from the Boiler will be sold to brick manufacturers. Yeast sludge and CPU sludge will be incinerated in boiler.

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

A. Specific TOR:

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

13 Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

14 Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).

15 Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.

16 Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters.

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. Five year plan of CSR activities to be discussed in the Public hearing and drawn accordingly for inclusion in EIA-EMP report.

iii. Greenbelt to be developed at the stage of TOR.

iv. Plan to be drawn for water recycling and reuse.

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.

8.7.12 Setting up of Pesticide and agro chemicals (Capacity 6000 MTPA) Plot No. C-291 at Saykha Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat by M/s Mega Innovative Crops Pvt. Ltd.- reg. TOR

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

M/s Mega lnnovative Crops Pvt. Ltd. has proposed for setting up of pesticide and agro chemicals (Capacity 6000 MTPA) Plot No. C-291 at Saykha Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat. As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. River Bhukhi is flowing at a distance of 2.04 km (S) from the proposed project.

Cost of proposed project is Rs. 30.62 Crore. Plot area is 13786.67 m^2, of which 4,903.56 m^2 (35.57 %) of land will be developed as greenbelt. The proposed project has an employment potential of 300. Following products will be manufactured:

Group No	Sr. No	Name of Product	EC required for total production of - MT/Annum	Category
1	1	Acetamiprid	1700 MTA (Either individual or total of all 13 products)	Insecticide
	2	Hexaconazole		Fungicide
	3	Imidacloprid		Insecticide
	4	Lambda cyhalothrin		Pesticide
	5	Metalaxyl		Fungicide
	6	Permethrin		Insecticide
	7	Tricyclazole		Fungicide
	8	Acephate		Insecticide
	9	Cyfluthrin		Insecticide
	10	Azoxystrobin		Fungicide
	11	Buprofezin		Insecticide
	12	3- phenoxy benzaldehyde		Intermediate
	13	Temephos		Insecticide
2	14	Propiconazole	1000 MTA (Either individual or total of all 7 products)	Fungicide
	15	Cartap hydrochloride		Insecticide
	16	Tebuconazole		Fungicide
	17	Thiamethoxam		Insecticide
	18	3-phenoxybenzyl alcohol		Intermediate
	19	Difenoconazole		Fungicide
	20	Bifenthrin		Insecticide
3	21	Cypermethrin	1400 MTA (Either individual or total of all 13 products)	Insecticide
	22	Myclobutanil		Fungicide
	23	Diafenthiuron		Fungicide
	24	Thiophanate methyl		Fungicide
	25	Quinalphos		Pesticide
	26	Profenofos		Insecticide
	27	Chlorpyrifos		Insecticide
	28	Fipronil		Insecticide
	29	Ipconazole		Fungicide
	30	Thiacloprid		Insecticide
	31	Metalaxyl m		Fungicide
	32	Transfluthrin		Insecticide
	33	Thifluzamide		Fungicide
4	34	Pretilachlor	1200 MTA (Either individual or total of all 5 products)	Herbicide
	35	Metribuzin		Herbicide
	36	2,4 d ethyl ester		Herbicide
	37	Atrazine		Herbicide
	38	Glyphosate		Herbicide
5	39	Metamitron	700 MTA (Either individual or total of all 8 products)	Herbicide
	40	2,4-d, dimethylamine salt		Herbicide
	41	Butachlor		Herbicide
	42	Imazethapyr		Herbicide
	43	Clodinafop-propargyl		Herbicide
	44	Ethofumesate		Herbicide
	45	Sulfosulfuron		Herbicide
	46	Metsulfuron methyl		Herbicide
		Total	**6000**	

List of Byproduct:

Sr No.	Name of By product	MT/Annum	By product from-
1.	20-30% NH3 sol.	315.00	Diafenthiuron
2.	30-35% HCl sol.	4981.70	Hexaconazole , Lambda cyhalothrin, Metalaxyl, Permethrin, Buprofezin, 3- phenoxy benzaldehyde, Propiconazole, Thiamethoxam, Bifenthrin, Myclobutanil, Thiacloprid, Metalaxyl m, Transfluthrin, Thifluzamide, Pretilachlor, Butachlor, Imazethapyr, Sulfosulfuron
3.	Aluminium chloride hexahydrate	5538.70	Hexaconazole , Propiconazole
4.	Ammonium Chloride	231.00	Metamitron
5.	Formaldehyde	217.26	Glyphosate
6.	KBr salt	841.50	3- phenoxy benzaldehyde
7.	Methane sulfonic acid	830.20	Metalaxyl m
8.	Sodium salt (NaCl+Na2SO3)	848.80	Cartap hydrochloride
9.	Nitrobenzene	722.50	Buprofezin
10.	Potassium Bromide	1767.00	Propiconazole, Difenoconazole, Diafenthiuron, Profenofos
11.	Potassium chloride	911.19	Quinalphos, Clodinafop-propargyl
12.	Potassium fluoride	306.48	Clodinafop-propargyl
13.	Potassium hypophosphite (KH_2PO_2 salt)	502.27	Hexaconazole
14.	Potassium sulfate	3101.78	Hexaconazole ,Propiconazole, Tebuconazole
15.	Sodium Bromide	652.27	Profenofos
16.	Sodium chloride	2434.10	Acetamiprid, Imidacloprid, Lambda cyhalothrin, Metalaxyl, Temephos, Thiophanate methyl, Profenofos, Chlorpyrifos, Atrazine, Metamitron
17.	Sodium sulfide (Na2S)	1218.64	Profenofos
18.	Sodium Sulfite	830.20	Lambda cyhalothrin, Thifluzamide
19.	Sodium Sulphate	371.00	Metalaxyl m, Metribuzin
	Total	**26621.59**	

Power requirement of 2500 kWH will be sourced from DGVCL. Additional 2 DG sets of 500 kVA will be used as standby. Natural Gas fired boiler of 2 TPH capacity and Thermic Fluid Heater of capacity 6,00,000 kcal/hr (6 Nos.) will be used with adequate stack height.

Total water requirement will be 154 m^3/day which will be supplied from GIDC reservoir, against which 60 m^3/day wastewater will be generated. Industrial effluent shall be treated in ETP and treated effluent shall be disposed through underground pipe line of GIDC into deep Sea. PP confirm that the unit will also install MEE plant of 50 m^3/day and if required total effluent will be passed through MEE. The committee suggested to install MEE and unit should work on ZLD system. Domestic wastewater shall be treated in STP and effluent will be used for plantation.

ETP waste, inorganic will be sent to TSDF site. Used oil, spent solvent and spent catalyst salt will be sold to authorized recycler, Discarded containers/bags/liners will be reuse or sold to actual user. Process waste/ Distillation residue will be send to common incineration plant or send

to co-processing to cement industry. Date-expired and off specification material will be sent to common incineration 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. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

I. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
II. ZLD system to be adopted.
III. Process wastewater should be segregate as High/Low TDS and treated appropriately.

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.

8.7.13 Expansion and installation of incinerator to their EXISTING refrigerant gas & fluorospecialty chemicals (from 22,320 MTPA to 46,800 MTPA) at Survey No. 16/3, 26, 27, Village Ranjitnagar, Taluka Ghoghamba, District Panchmahal, Gujarat by M/s Gujarat Fluorochemicals Limited- reg. TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals (Synthetic organic chemicals and chemical 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 Gujarat Fluorochemicals Limited have proposed for expansion and installation of incinerator to their existing refrigerant gas & fluorospecialty chemicals (from 22,320 MTPA to 46,800 MTPA) at Survey No. 16/3, 26, 27, Village Ranjitnagar, Taluka Ghoghamba, District Panchmahal, Gujarat. MoEF&CC has issued EC vide letter no. J-11011/356/2007- IA II (I) dated 14.08.2009 for the Expansion of refrigerant gas plant (16,000 MTPA to 25,000 MTPA). As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. While a Pavagadh Archeological Park World Heritage is situated at 8.5 km distance for the project site.

Proposed expansion will be carried out within the existing premises of 2,05,803 m^2 area, of which an area earmarked for greenbelt is 87,545 m^2. Cost of proposed expansion is Rs. 100 Crores. The proposed expansion project has an employment potential of 170. The proposal is submitted due to the commitment of India to Monitreal Protocol for phasing out HCFC-22 gases. Existing and proposed products is presented as follows:

Sr. No.	Name of Product	Production Capacity (MT/Annum)		
		Existing	Additional	Total
1	Monochloro Difluoro Methane (HCFC-22)	18,000	0	18,000
2	Difluoromethane (HFC-32)	500	8,500	9,000
3	Ethyl difluoroacetate (EDFA)	600	600	1,200
4	Bromo Trifluoromethane (BTFM)	400	0	400
5	4-(Heptafluoroisopropyl)-2-methyl aniline/ 2- Bromo Heptafluoro Propane*	400	200	600
6	2,5-Dichloro-4-Hexafluoropropoxy aniline	300	0	300
7	Ethyl difluoroaceto acetate (EDFAA)	600	0	600
8	Chloro difluoro ethane (R-142)	50	450	500
9	Ethyl tetrafluoroethyl ether (ETFEE)	150	4,850	5,000
10	Penta Fluoro Phenol	120	380	500
11	4-Chloro-2-Trifluoro Acetyl Aniline	1,200	300	1,500
12	Difluoro acetic acid	0	400	400
13	Difluoro acetone	0	500	500
14	Difluoro ethyl amine	0	500	500

15	Penta fluoro benzoic acid	0	500	500
16	Tetra fluoro benzyl alcohol	0	500	500
17	Trifluoroacetic acid (TFA) & its derivatives	0	5,000	5,000
18	2,6-Dichloro-4-trifluoromethyl Aniline (DCTFMA)	0	500	500
19	2-Bromo-5-Fluorobenzotrifluoride	0	500	500
20	2,3-Dichloro-5-Trifluoromethyl Pyridine	0	500	500
21	Difluoromethane sulfonyl chloride (DFMSC)	0	300	300
	TOTAL	**22,320**	**24,480**	**46,800**

The existing unit has a 24 TPD coal fired boiler and a stand by boiler attached to Multicyclone Dust Collector followed by Bag filter to control air emission and connected to 33 m stack height. Existing unit is also using Re-liquefied Natural Gas (RLNG) of capacity 27,116.80 Sm3/day and proposed additional 3,000 Sm3/day. DG sets 4 in nos. having capacities 1500 KVA, 1500 KVA, 125KVA and 62.5 KVA will be used as standby in case of failure of power supply. The total power requirement is 6500 KW and will be met from Madhya Gujarat Vij Company Limited (MGVCL) and Captive Power Plant.

The existing fresh water requirement is 555 m3/day. Additional water requirement of 220 m3/day sourced from Narmada Nigam water supply. Against this total wastewater of 36 m3/day will be generated. Industrial effluent will be treated in the effluent treatment plant followed by multiple evaporator system and Spray Dryer. The condensate will be recycled for making scrubbing solution. Domestic wastewater generated will be treated in an existing sewage treatment plant.

Oily cotton waste will be disposal by incineration at common hazardous waste incineration facility. Spent Catalyst, Dessicants (Alumina/ Molecular sieve), Discarded Asbestos roof sheet, Resin and ETP Sludge will be sent to TSDF site. Used oil will be sold to registered re-refiners. Discarded Containers will be sold to authorized recyclers. Organic Residue will be incinerated at common hazardous waste incineration facility. Ash from Boiler will be sold to Cement/ RMC/ paver blocks/ building blocks/building bricks manufacturer units.

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

A. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.

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

B. Additional TOR

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

ii. A 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 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.

8.7.14 Setting up of Bulk Drugs at Survey No. 28/1, Village Indrad, Taluka kadi, District Mehsana, Gujarat by M/s Aventon Pharmalabs – reg EC.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All 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 Aventon Pharmalabs has proposed for Setting up of Bulk Drugs at Survey No. 28/1, Village Indrad, Taluka kadi, District Mehsana, Gujarat. 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.

Cost of proposed project is Rs. 5.5 Crore out of which Rs. 0.8 crores will be invested environment protection measures. Plot area is 7638.00 m^2. PP did not mention the development of green belt within the premises. The Committee suggested to develop the 33% of land as green belt . About 25 personnel will be deployed under the proposed project. Following products will be manufactured:

Sr. No.	Name of product	Quantity MT/Month
1	Pregabalin	2
2	Telmisartan	
3	Ondansetron HCl	
4	Bupropioon hydrochloride	
5	Celecoxib	
6	Febuxostat	
7	Lidocaine base/HCl	25
8	Diclofenac sodium/potassium/diethylamine	
9	Aceclofenac	
	Total	**27**
Byproduct		
1	Spent Aluminum Chloride solution (±20%)	**70**

Total Power requirement for the unit is 100 KVA and drawn from UGVCLL. D. G. set of 100 KVA capacities will be installed as standby. Agro waste fired boiler with a capacity of 6 TPD and a Thermic fluid heater of 1.5 TPD capacities will be provided and attached to cyclone & Bag filter with stack of adequate height. Gaseous emission such as HCl, Cl2 and NH3 will be passes through Water scrubber and alkali scrubber respectively.

Fresh water requirement will be 20.3 m^3/day. PP did not mention the source of water. Against this wastewater of 18.3 m3/day will be generated. waste water will be sent into ETP & then pass through RO. Reject of RO will be sent to MEE. RO permeate & condensate of MEE will be recycle/reuse.

ETP Waste and MEE Salt will be sent to TSDF site. Process/distillation residue will be disposed at CHWIF after collection and storage. Used Lubricating Oil will be sold to the registered recycler. Discarded containers/barrels/ liners will be sold to approved recycler or traders.

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

A. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Material Safety Data Sheet for all the Chemicals are being used/will be used.
10. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
11. Details of incinerator if to be installed.

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

B. Additional TOR

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

II. ZLD to be followed.

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.

8.7.15 Setting up of distillery Unit: 120 KLD (Molasses /Grain Based) and 3.0 MW co gen Power plant at Village Dhandheda, Tehsil & District Muzaffarnagar, Uttar Pradesh M/s Swarup Beverages Pvt. Ltd. – reg TOR.

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

M/s Swarup Beverages Pvt. Ltd. have proposed for setting up of distillery Unit: 120 KLD (Molasses /Grain Based) and 3.0 MW co gen Power plant at Village Dhandheda, Tehsil & District Muzaffarnagar, Uttar Pradesh. As per Form I, No National Parks, Reserved Forests/ Protected Forests, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Kaali river is flowing at a distance of 9.55 km west direction.

Total plot area is 10.9576 Acre, of which 33% of the area will be developed as greenbelt. Cost of project is Rs. 125 Crores. The proposed project has an employment potential of 155.Total no. Of working day for distillery will be 330 day Followings products will be manufactured:

S. No.	Unit	Capacity
1	Distillery (RS/ENA/AA)	120 KLPD
2	Co-Generation Power Plant	3.0 MW

Total power requirement will be 2200 KWH and will be generated in house. Bagasses/biomass fired boiler of 35 TPH capacities will be installed. PP did not provide any information regarding air pollution control device. Committee suggested to install bag filter.

Fresh water requirement will be 1152 m3/day and 1080 m3/day for molasses based and grain based operation respectively, which will be sourced from ground water. Against which Spent wash 912.0 m3/day and 1080 m3/day will be generated during molasses based and grain based operation respectively. During molasses mode, spent wash will be concentrated in MEE and MEE reject will be incinerated in slop fired boiler. While in Grain based mode Spent wash will be sent to decanter followed by MEE and dry in DWGS. Domestic effluent will transfer to septic tank followed by soak pit

Fly ash from the Boiler will be used as manure and land filling generated during molasses based and grain based operation. Fermenter sludge will be used as manure along with fly ash. Grain residue will be used in manufacturing of cattle feed.

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

A. Specific TOR:

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

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 Five year plan of CSR activities to be discussed in the Public hearing and drawn accordingly for inclusion in EIA-EMP report.

iii Attempt to be made for use of surface water

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

8.8 Any Other

8.8.1 Drilling of 1 Geothermal Parametric Well at Village Dholera, Tehsil Dholera, District Ahemdabad, Gujarat by M/s Centre of Excellence For Geothermal Energy PDPU - reg. TOR.

Proposal was considered by EAC in its meeting held during 11th-12th February, 2016. The Authority has referred the proposal to EAC again. The Committee review the decision taken earlier and recommended the following Specific and Additional TOR in addition to Generic TOR may be provided at Annexure-I (refer to Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.
7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM_{10}, SO_2, NOx, CO, VOCs, Methane and non-methane HC.

13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/maintenance and decommissioning.
19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/formation water, cooling waters, other wastewaters, *etc*. during all project phases.
22. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc*. including its disposal options during all project phases.
23. Disposal of spent oil and lube.
24. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
25. Commitment for the use of water based mud (WBM) only
26. H2S emissions control.
27. Details of control of air, water and noise pollution during production phase.
28. Measures to protect ground water and shallow aquifers from contamination.
29. Whether any burn pits being utilised for well test operations.
30. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
31. Environmental management plan.
32. Total capital and recurring cost for environmental control measures.
33. Emergency preparedness plan.
34. Decommissioning and restoration plans.
35. Documentary proof of membership of common disposal facilities, if any.
36. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
37. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

B. Additional TOR

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

It was recommended that **'TORs' 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.

8.8.2 Resin manufacturing unit at s. no. 60, Ajanta Industrial Area Village Vasna Iyawa Tehsil Sanand District Ahmedabad, Gujarat by M/s Gads Fine Chem- reg. Extension in EC.

MoEF&CC has granted EC to M/s Gads Fine Chem vide letter no. J-11011/190/2009-IA II(I) on 10.06.2009 for above mentioned project. PP has applied for extension of validity of EC on 1.12.2015, which is after the expiry of validity period of EC. Therefore, the Committee recommended to apply afresh for environmental clearance.

8.8.3 Exploratory drilling of 67 wells in 23 Blocks of Western Onshore Basin, Baroda, Gujarat by M/s Oil and Natural Gas Corporation Ltd.-reg. Amendment in EC.

MoEF&CC has granted EC to M/s ONGC on 25.06.2014 for above mentioned project. Now PP has requested to grant permission to drill more wells in Blocks like Umra & Umra Ext.-1 & II, Nada and Nada Ext.-1, Olpad and Olpad Dandi Ext-1, Hural, Padra Ext-1 to X, Jambusar Dabka and Matasr PMLS, which can be swapped with locations falling in relinquished or Low prospective areas keep number of locations same which EC has been granted.

The Committee noted that there is a change in the scope of the project and proposal involve change in location of wells as well as blocks. Therefore, it is recommended to apply afresh for environmental clearance.

8.8.4 Grain/molasses based distillery plant (200KLD) and 5 MW cogeneration power plant at Village Salana Jeon Singh Wala, Tehsil Amloh, District Fatehgarh Sahib, Punjab by M/s Nahar Industrial Enterprises Ltd.-reg. Amendment in EC.

MoEF&CC has granted EC to M/s Nahar Industrial Enterprises Ltd on 19.05.2014 for above mentioned project with following specific conditions:

i. Total fresh water requirement for grain based distillery shall not exceed 2165 m3/day. The total fresh water requirement for molasses based distillery shall not exceed 1800 m3/day. Prior permission for drawl of ground water should be obtained from the CGWA and a copy submitted to the Ministry's Regional Office at Chandigarh.

   Now, PP has requested to allow for use of canal water as additional source of water to be drawn from nearby Canal in additional to drawl of ground water as permitted by CGWA for the operation of distillery unit.

   After detail deliberation, the Committee noted that fresh water requirement is high and need was realized to protect ground water in longer term. The Committee recommended that the entire fresh water for industrial purpose shall be sourced from canal instead of ground water. No ground water shall be drawn for industrial purpose.

8.8.5 Exploratory drilling and seismic survey in Damoh-Javera-Katni under PEL by M/s ONGC Ltd.-reg. Extension of EC.

MoEF&CC vide letter no J-11011/160(Jabera)/2007 IA II (I) has granted EC to M/s ONGC on 03.06.2009 for above mentioned project. PP has requested for extension of validity of EC on 20.11.2015. It was noted that PP has applied for extension of validity of EC after expiry. Therefore, the Committee recommended that PP should apply afresh for EC.

8.8.6 Proposed drilling of 15 Exploratory wells in SAS Block District Golaghat, Assam by M/s ONGC Ltd. -reg. Amendment in TOR.

Ministry has issued TOR vide letter No. F. NO. J-11011/111/2015-IA II (I) dated 6th July, 2015. Now PP has informed that coordinates of location NL-l0 in Golaghat District, Assam will be relocated. The details of the earlier and shifted coordinates along with location name are as follows:

Location name	Location Coordinates	DistricU Tehsil/PML	New Location Name	New Location Coordinates	DistricU Tehsil/PML	Remarks
NL-10	26^{0}06'19.145 93^{0}54'14.574	GolaghaU Sarupathar/ Khoraghat Ext-1	NL-10/ KHBF	26^{0}05' 03.33 93^{0}54'36.70	GolaghaU Sarupathar/ Nambar ML	Amendments of Coordinates & Name in TOR. Location KHBF to be drilled from ONGC land (Common point KH4/NR-10

Therefore, PP has sought amendment in the existing TOR letter dated 6th July, 2015.

After detailed deliberation the committee recommended the proposal for aforesaid amendment.

8.8.7 Exploratory drilling of 6 wells in PBS-1-1 Extension PML of M/s ONGC Ltd., Cauvery Offshore, Cauvery Basin -reg. Amendment in TOR.

Ministry has issued TOR vide letter No. F. NO. J-11011/19/2014-IA II (I) dated 23rd April, 2014 for exploratory drilling of 6 wells in PML of Cauvery Basin.

Now PP vide letter dated 29.03.2016 has requested for change in location of wells in the existing list of proposed wells. The details of locations of well mentioned in ToR are as follows:

Location	Well co-ordinates		Distance from Coast line
	Latitude	Longitude	
LOC 1	9^{0}22'31.50"	78^{0}58'39.37"	2.05 km
LOC 2	9^{0}21'09.41"	78^{0}59'51.99"	3.45 km
LOC 3	9^{0}21'01.38"	78^{0}02'32.41"	1.83 km
LOC 4	9^{0}19'48.71"	78^{0}02'50.22"	0.75 km
LOC 5	9^{0}18'58.67"	78^{0}03'23.02"	1.85 km
LOC 6	9^{0}18'31.74"	78^{0}05'08.43"	1.25 km

Proposed new locations are as under:

Location	Well co-ordinates		Distance from Coast line
	Latitude	Longitude	
LOC 1	9^{0}19'48.71"	79^{0}02'50.22"	2.05 km

LOC 2	$9^0$21'01.38"	$79^0$02'32.41"	3.45 km
LOC 3	$9^0$19'41.41"	$79^0$05'35.89"	2.35 km
LOC 4	$9^0$21'36.97"	$79^0$00'10.94"	1.54 km
LOC 5	$9^0$23'27.58"	$78^0$58'34.19"	1.85 km
LOC 6	$9^0$19'18.41"	$79^0$04'01.92"	3.10 km

After detailed deliberation the committee recommended the proposal for aforesaid amendment.

8.8.8 Expansion of Single Point Mooring (SPM), Crude Oil Terminal (COT), the pipeline connecting SPM to COT at Mundra Port and Crude Oil Pipeline from Mundra Coast in Gujarat to Bathinda in Punjab from 9 MMTPA to 11.25 MMTPA by upgrading 2 nos. intermediate pigging stations into pumping stations by M/s HPCL Mittal Pipelines Ltd.-reg TOR

Proposal was considered by the EAC in its meeting held on 18th -19th January, 2016. Proposal was examined in the Ministry and referred to EAC again for reconsideration. The committee noted that PP has obtained Environmental Clearance vide letter no J-11011/25/98 IA II for Crude Oil Pipeline project from Mundra Coast in Gujarat to Bathinda in Punjab on 24.04.2000 from MoEF. The committee noted that due to expansion of carrying capacity of pipeline, the project to be considered for environmental clearance as condition of change/ modification or expansion has been stipulated in the existing EC dated 24.04.2000.

Committee also noted that as per EC latter dated 24.04.2000, public hearing was conducted Therefore committee recommended the following TOR with exemption of Public hearing Para 7 (II) of EIA notification as there is no land acquisition and change in alignment of pipeline.

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

9. Recommendation of SCZMA /CRZ clearance for the proposed pipeline (if applicable) .
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
12. Process Description along with Process Flow Diagram.
13. Details of associated facilities/utilities to be installed.
14. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
15. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
16. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
17. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
18. Ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM2.5, PM10, SO2 , NOx, CO, HC, VOC for one season(Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
19. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
20. Water monitoring to be conducted including surface & ground water for one season (Non Monsoon).
21. Soil sample analysis within the study area for one season (Non Monsoon).
22. Noise Monitoring will be taken up for one season (Non Monsoon)
23. Demography & socio-economics of the study area.
24. Ecological features (terristrial& Aquatic) of the study area for one season (Non Monsoon)
25. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
26. A detailed note on method to be used for crossing road, nalla, stream, rivers, railway line etc.

27. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.

28. Details of proposed preventive measures for leakages and accident.

29. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.

30. Corrosion Management of Pipeline

31. Details of proper restoration of land after laying the pipelines.

32. Details of proposed Occupational Health Surveillance program for the employees and other labour

33. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.

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Annexure-I

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

1. **Executive Summary**
2. **Introduction**
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the project proponent

iii. Importance and benefits of the project

3. **Project Description**

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

4. **Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth downloaded of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

x. Geological features and Geo-hydrological status of the study area shall be included.

xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xiii. R&R details in respect of land in line with state Government policy

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

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)

ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

6. **Environmental Status**

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

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7. **Impact and Environment Management Plan**

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. **Occupational health**

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of heath status of workers with special reference to Occupational Health and Safety.

9. **Corporate Environment Policy**

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

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

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. 'A tabular chart with index for point wise compliance of above TORs.

14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports.

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.

viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

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

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 8th MEETING OF EAC (INDUSTRY-2) HELD ON 26-27th May, 2016

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