

MINUTES FOR 11th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 20-21st JULY, 2016

VENUE: Bharamputra, First Floor, Vayu Wing- 20th July, 2016
Indus, Ground Floor, Jal Wing- 21st July, 2016
at 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

11.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 15 AM

11.2 Confirmation of the Minutes of the 10th Expert Appraisal Committee (Industry-2) held during 11th July, 2016.

20th July , 2016 (Day 1)

1st Session: Time: 10.15 AM

11.3 Environmental Clearance

11.3.1 Grain based Distillery plant (2 X 60 KLPD) along with Cogeneration Power Plant (2 X 2.5 MW) in phased manner at Village Titerikata, Post Ramvikata, Tehsil Harabhanga, District Boudh, Odisha by M/s Boudh Distillery Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s Pioneer) 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 10th Meeting of the Expert Appraisal Committee (Industry -2) held during 29th– 30th July, 2013 respectively for preparation of EIA-EMP report.

M/s. Boudh Distillery Pvt. Ltd. has proposed for setting up of a Grain based distillery along with Cogeneration power plant at Village Titerikata, Post Ramvikata, Tehsil Harabhanga, District Boudh, Odisha. Total plot area is 33.28 acre, of which, area earmarked for greenbelt is 12 acre. Cost of project is Rs. 164.5 Crores. Donga RF, Jajpur RF, Bankamundi RF, Aragarh RF, Parapata RF are present within 10 Km radius of the project site. Mahanadi River is flowing at distance of 4.0 Km and Hinamanda nallah is at 5.0 Km distance.

Following will be plant configuration and production capacity:

S.N.	Units / Product/By Product Phase	Phase 1	Phase 2
1	Distillery plant (Rectified Spirit / ENA / Pharma Alcohol / Industrial Alcohols)	60 KLPD	60 KLPD
2	Cogeneration Power Plant (Electricity)	2.5 MW	2.5 MW
	By Products		

1	CO ₂	30 TPD	30 TPD
2	Fuse Oil	0.60 TPD	0.60 TPD
3	DWGS (Distiller's Wet Grain Soluble)	150 TPD	150 TPD
4	DDGS (Dried Distillers Grains with Soluble)	50 TPD	50 TPD

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 – December, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (28.9 µg/m³ to 49.6 µg/m³), PM_{2.5} (17.3 µg/m³ to 29.7 µg/m³), SO₂ (6.3 µg/m³ to 16.5 µg/m³) and NO_x (8.6 µg/m³ to 19.9 µg/m³) and CO (330 µg/m³ to 550 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.59 µg/m³, 7.1 µg/m³ and 6.0 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

ESP alongwith stack of adequate height will be provided to coal/biomass fired boiler to control particulate emission within 50 mg/m³. Fresh water requirement from Mahanadi water supply will be 1200 m³/day. Spent wash from mash column bottom is fed to decanter centrifuge after cooling in fermented mash pre-heater. The decanter concentrates the solids present in the spent ash to desired level. The wet cake will be separated in decanter at 30% solids. This wet cake will be mixed with concentrated thick slop for further concentrating in Dryer. The evaporation system consists of 5 evaporators, which are connected in series. The thin slop separated from decanter will be pumped to evaporator by using feed pump. Gas Liquid separator (5 Nos.) will be used to separate the vapor and liquid. Product final thin slop with 30% solids will be transferred to the drying system where it is further concentrated to 88 - 90 % solids. The condensate from evaporation will be recycled. The wet cake from the Decanter and the concentrated syrup with 30% solids from the Evaporator will be dried in a steam tube bundle dryer to produce DDGS with 10% moisture and 90% solids, which will be sold as cattle feed. Ash generated from the project will be given to the nearby brick manufacturers / cement plants.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Orissa State Pollution Control Board on 11th March, 2016. The concerns were raised on local employment, education, development in road etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) ESP alongwith stack of adequate height shall be provided to coal/biomass fired boiler to control particulate emission within 50mg/Nm³.
- ii) Total fresh water requirement of 1200 m³/day will be met from Mahanadi water supply. No groundwater shall be extracted.
- iii) Spent wash generation from grain based distillery 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 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.

- iv) Spent wash shall be stored in SS tank. The storage of spent wash shall not exceed 5 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area 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 Bhubaneswar and SPCB.
- viii) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 12 acre of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 11th March, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

11.3.2 Setting up of Molasses based Distillery plant (90 KLPD) and Cogeneration Power Plant(35 MW) alongwith Expansion of Sugar from 2500 TCD to 8000 TCD at Village Bambawade, TahsilShahuwadi, District Kolhapur, Maharashtra by M/s Athani Sugar Limited – reg EC.

The project proponent and their consultant (M/s Yogiraja Industrial 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 44th Reconstituted Expert Appraisal Committee (Industry-2) meeting held during 20-21st July, 2015 respectively for preparation of EIA-EMP report.

The TOR was granted to M/s Athani Sugar Limited for setting up of Molasses based Distillery plant (90 KLPD) and Cogeneration Power Plant(35 MW) alongwith expansion of Sugar from 2500 TCD to 8000 TCD within the existing sugar unit at Village Bambawade, Tahsil Shahuwadi, District Kolhapur, Maharashtra.

However, during presentation, it was noted that distillery unit will be set up at village Sonavade, which is 1.5 km away from the existing sugar unit. The Committee observed that This is case of change in scope and EIA-EMP report has been prepared for different site. The Committee took serious note on grave negligence on part of consultant and project proponent. The Committee, therefore recommended to reject the project proposal as per para 8 (vi) of EIA Notification, 2006. The Committee underrated the performance of consultant and also observed that consultant is not in the list of Accreditation.

11.3.3 Expansion of Pesticides and Pesticide specific Intermediates (from 137 MTPM to 455 MTPM) Manufacturing Unit at Plot No.A2/236, GIDC, Village Nandesari, District Vadodara, Gujarat by M/s Sabari Chemicals Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s RAAS Envirocare, Vadodara; stay taken from High Court) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 28th Meeting of the Expert Appraisal Committee (Industry -2) held during 1st – 2nd December, 2014 respectively for preparation of EIA-EMP report.

M/s. Sabari Chemicals Pvt. Ltd. has proposed for expansion of Chemical Unit located on plot no. A2/236 in GIDC, Nandesari, a designated Chemical Zone, Dist. Vadodara. Plot area is 3000 m². Mahi river is at a distance of 2 Km from site on its west. List of proposed products to be manufactured as given below:

S.N.	Name of Product	Existing Quantity (MT/Month)	Total Quantity after expansion (MT/Month)
1	Benzyl Acetate	20	50
2	Benzyl Benzoate	20	50
3	Benzyl Alcohol	20	50
4	Benzyl Cyanide	20	50
5	Phenyl Acetic Acid	20	50
6	Benzyl Salicylate	20	50
7	Naphthalene Acetic Acid (Tech) and Sodium Salt	5	30
8	Sodium Acetate	6	0
9	Sodium Benzoate	6	0
10	Para Methoxy Phenyl Aceto nitrile	0	50
11	Para Methoxy Phenyl Acetic Acid	0	10
12	Naphthalene Acetamide	0	10
13	Dibenzyl Ether (High boiler of Benzyl Alcohol)	0	30
14	High boiler of Benzyl Benzoate	0	10
15	High boiler of Benzyl Acetate	0	15
16	Trading (Repacking)	0	150
	Benzyl Acetone		
	1 Acetyl Naphthalene		
	Benzyl Acetate		

The existing manufacturing capacity of the plant is 137 MT/Month. The Total Manufacturing

capacity of the plant after expansion will be 455 MT/Month.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 – May, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (54.5 µg/m³ to 91.3 µg/m³), PM_{2.5} (22.7 µg/m³ to 47.6 µg/m³), SO₂ (10.8 µg/m³ to 33.4 µg/m³) and NO_x (25.1 µg/m³ to 44.3 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.83 µg/m³, 4.95 µg/m³ and 1.78 µg/m³ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Adequate stack height has been provided to gas fired existing thermic fluid heater. Agro waste/briquette fired boiler and thermic fluid heater exists. After the expansion, the existing boiler and thermic heater will be used. Scrubber will be provided to control process emissions viz. SO₂, HCl and NH₃. Total water consumption for the proposed project will be 152 m³/day, of which 142 m³/day will be industrial and 10 m³/day for domestic and gardening activities. The water requirement will be sourced from GIDC Water Supply Scheme. Wastewater generation will be increased from 20 m³/day to 128 m³/day after expansion and treated in the ETP. Treated effluent will be discharged to CETP for further treatment. The Committee suggested them to segregate the Cyanide effluent stream and proper treatment should be given for destruction of Cyanide. ETP sludge will be sent to TSDF. Waste residue will be sent for incineration. Waste oil will be sent to the authorized recyclers.

After deliberations, the Committee sought the following additional information:

- (i) Treatment scheme for Cyanide containing effluent stream shall be incorporated in the EIA report.
- (ii) Efforts shall be made to reduce fresh water requirement by adopting 3 Rs.
- (iii) 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.
- (iv) Besides, the Committee observed that one of major conditions of TOR is to conduct public hearing, which is not being followed. 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

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

11.3.4 Setting up 80 KLD distilleries at Village Belwara, Tehsil & District Moradabad, Uttar Pradesh by M/s Rana Sugar Limited – reg EC.

The project proponent and their consultant (M/s Vardan Environet) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 34th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 17th-19th February, 2015

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

M/s. Rana Sugar Limited (Distillery Division Belwara) has proposed for setting up of molasses based Distillery having 80 KLPD (RS/ENA/AA) capacity at Village Belwara, Tehsil and District Moradabad, Uttar Pradesh. Total plot area is 25 acres, of which, area earmarked for greenbelt is 8.25 acres. The plant will operate 270 days in a year and will not operate in rainy season. It is reported that there is no National Parks/ Wild Life Sanctuaries/ Biosphere Reserves/RF and PF within 10 km radius area of project site. Cost of project is Rs. 70.0 Crore. Out of which, Rs. 7.5 Crores and Rs. 80 Lakh per annum are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan respectively.

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} ($50.2 \mu g/m^3$ to $77.6 \mu g/m^3$), $PM_{2.5}$ ($22.8 \mu g/m^3$ to $40.0 \mu g/m^3$), SO_2 ($10.1 \mu g/m^3$ to $20.0 \mu g/m^3$) and NO_x ($18 \mu g/m^3$ to $30.4 \mu g/m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $1.06 \mu g/m^3$, $5.3 \mu g/m^3$ and $5.4 \mu g/m^3$ with respect to PM_{10} , SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

ESP will be provided to Bagasse/Rice Husk/ /Coal+ Bio gas fired boiler (25 TPH) to control particulate emissions. Two D.G. sets of 1250 & 750 KVA each will be installed for the power backup. Total fresh water requirement from ground water source will be 840 m³/day. Spent Wash will be sent for anaerobic treatment followed by 5 stage multi-effect evaporator. Concentrated treated spent wash will be bio-composted. Process condensate will be treated in condensate polishing unit and will used as make-up water in cooling tower. Spent lees from distillation column and process condensate will be recycled to process as well as to cooling tower as make up water. The proposed Molasses based distillery would be based on "Zero Liquid Discharge". Ash from boiler will be sold to brick manufactures/dispose as per MoEF notification. MEE Spent wash will be used for bio-composting. Bio compost manure production will be 9720 MT/Year.

After deliberations, the Committee sought the following additional information:

- (i) As per TOR, spent wash treatment scheme shall be based on concentration followed by incineration as plant is proposed in the Ganga river basin. Accordingly scheme to be modified.
- (ii) Give complete details of the existing sugar unit.
- (iii) Information on water requirement, wastewater generation, solid waste management including boiler and its pollution control measures shall be furnished.
- (iv) Due to inconsistency in monitoring result, surface water quality and air monitoring to be rechecked and reanalysed.

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

11.3.5 Setting up 100 KLPD Molasses based Distillery (ENA/AA/RS) at Village Harwad, Teshil Shirol, District Kolhapur, Maharashtra by M/s Karan Sugars Private Limited – reg EC.

The project proponent and their consultant (M/s Mantras Green Resources Limited) 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 Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 29th-30th September, 2014 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level. Public hearing was conducted on 9.11.2013.

M/s Karan Sugars Pvt. Ltd. has proposed for setting up of a Molasses based distillery plant (100 KLPD) along with power generation unit (2.25 MW) at village Harawad (Nipani) in Shirol Taluka of Kolhapur District. Molasses will be used as Raw Material which will meet from the surrounding sugar mills. Total plot area is 25.0 Acres. Out of which, area earmarked for greenbelt is 8.0 acres. The plant will operate 330 days in a year. The proposed project will produce ethanol/ ENA/RS. The cost of the project is 37.75 crores, out of which Rs 5.75 crores has been earmarked for implementation of environmental management plan. It is reported that there is no National Parks/ Wild Life Sanctuaries/ Biosphere Reserves/RF and PF within 10 km radius area of project site. Panchganga river (2.7 Km,NW) is flowing within 10 km distance.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (36.7 µg/m³ to 66.4 µg/m³), PM_{2.5} (10.22 µg/m³ to 19.64 µg/m³), SO₂ (9.04 µg/m³ to 14.20 µg/m³) and NOx (9.02 µg/m³ to 20.52 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.38 µg/m³, 5.68 µg/m³ and 1.15 µg/m³ with respect to PM₁₀, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Bagfilter with adequate stack height will be provided to bagasse and Concentrated spent wash fired boiler to control particulate emissions. Total fresh water requirement from river Panchganga will be 805 m³/day. Spent wash will be treated in Multi effect evaporator (MEE). Concentrated spentwash will be burnt in the incineration boiler. Processes Condensate will be treated in condensate polishing unit and will used as make-up water in cooling tower. Spent less will be recycled to process as well as to cooling tower to make up water. Zero liquid discharge norms will be followed. STP will be provided for domestic waste. Ash from boiler will be sold to brick manufactures/dispose as per MoEF&CC notification. MEE Spent wash will be used as a fuel in incineration

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, existing distillery plant shall be dismantled and scrapped. New distillery based on molasses (100 KLPD) shall be installed.

- ii) Bagfilter 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/SPCB guidelines.
- iii) Total fresh water requirement for distillery from Panchganga River shall not exceed 805 m³/day. No ground water shall be drawn for industrial purposes.
- iv) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in MEE followed by incineration boiler. Effluent from spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- v) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- 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) 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 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 along with 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 8 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 9.11.2013 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 nearby villages.

Lunch Break: 1:30 PM – 2.00 PM

2nd Session: Time: 2.00 PM

Reconsideration of EC

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

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 19th Meeting of the Reconstituted Expert Appraisal Committee (Industry) (EAC I) held during 28th-30th May, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Dye Industries) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central Level.

The proposal was considered in 6th Expert Appraisal Committee (Industry-2) meeting Held During 30th March to 2nd April 2016. The Committee deferred the proposal and advised them to give complete details about the SSP manufacturing including raw materials linkage and transportation of rock phosphate, layout Plan , process emissions control, use of spent acid in SSP, waste management etc. PP has also to furnish certified compliance report on the compliance of environmental conditions stipulated in the existing EC. Based on recasting of report, fresh appraisal of the project will be done.

M/s Akshar Chem India Ltd. has proposed for expansion of Dye Intermediates manufacturing unit at plot no. 166, 169 at Village Indrad, Tehsil Kadi, District Mehsana, Gujarat. Total plot area is 40,000 m² of which greenbelt will be developed in 15,000 m². After expansion project cost will be Rs. 100 crore. EC was accorded by the Ministry vide letter no- J-11011/1059/2007- IA II (I) dated 22nd September, 2008. Following products will be manufactured:

S.no.	Product	Capacity MT/month		
		Existing	Additional	total
1.	Vinyl Sulphone	650	00	650
2.	Vinyl sulphones- (PC VS/OA VS/DMS VS/ M- (Beta Sulphate Ethyl Sulphone)Aniline)	00	100	100
3.	Acetanilide	00	500	500
4.	H-Acid	00	450	450
5.	SSP(Single super phosphate)	00	8350	8350
By Products				
1.	Acetic acid	126	15	141
2.	Hydrochloric acid	650	16	666
3.	Spent sulphuric acid	2275	1105	3380
4.	Glauber acid	510	75	585
5.	SBS(Sodium Bi- sulphite)	00	320	320

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2014 to December 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (51.6 µg/m³ to 75.4 µg/m³), PM_{2.5} (24.2 µg/m³ to 38.9 µg/m³), SO₂ (12.5 µg/m³ to 26.5 µg/m³) and NO₂ (13.8 µg/m³ to 28.3 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.9 µg/m³, 0.9 µg/m³ and 0.6 µg/m³ with respect to PM, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing unit has one 15 MT/hr boiler and one Thermic fluid heater of capacity 4 lacs Kcal/hr. under proposed expansion additionally one 15 MT/hr boiler and one Thermic fluid heater of capacity 12lacs Kcal/hr will be used. Fuel for the boiler and thermic fluid heater will be Lignite/ coal and Natural gas (120 SCM/hr) will be used for incinerator connected to 35 m stack height. Stack height will be 35 m and 15 m for the steam boiler and thermic fluid heater respectively and will be attached to cyclone separator. Presently Two stage ventury water scrubber followed by alkali scrubber is connected to Sulphonator reaction vessel.

Fresh water requirement from underground will be increased from 145 m³/day to 511 m³/day after expansion. Wastewater generation will be increased from 171 m³/day to 257 m³/day after expansion. Effluent will be treated in in-house ETP including RO, MEE and spray dryer for concentrated effluent to achieve zero liquid discharge. Domestic wastewater will be disposed through soak pit followed by septic tank.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 8th April, 2015. The issues were raised regarding emissions standard, local employment, industrial pollution and effect on crops etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee also discussed the compliance of existing EC and found satisfactory.

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

- i. Plant validity shall be considered with SSP plant. If SSP is not implemented then unit shall not be granted consent for the proposed expansion.
- ii. Stack of adequate height shall be provided to oil fired boiler and thermic fluid heater to control particulate emissions.
- iii. Scrubber shall be provided to control process emissions viz. HCl and SO₂. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- vi. Total water requirement from underground shall not exceed 511 m³/day and permission from concerned authority to be obtained.
- vii. Effluent generation shall not exceed 257 m³/day. Effluent will be treated in in-house ETP including RO, MEE and spray dryer for concentrated effluent to achieve zero liquid discharge. Domestic sewage should be treated in STP.

- viii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- ix. As proposed, greenbelt should be developed at least in the area 15,000 m² in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- x. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xi. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.
- xii. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

11.3.7 Setting up specialty chemicals at plot no. D-2/CH-12, GIDC, Industrial Estate, village Dahej, Teshil, Vagra, district Bharuch, Gujarat by M/s Indofil Industries – reg EC.

Proposal was considered by EAC (Industry-2) in its meeting held during 27th to 28th April 2016 and the Committee desired following information :

1. Due to availability of natural gas, commitment to be given for use of Natural gas in place of coal fired boiler.
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost to be drawn.

PP vide letter dated 8th June, 2016 has submitted additional information. The committee did not agree with scheme to use coal in place of natural gas. The Committee suggested them to use natural gas as clean fuel. PP informed that Rs. 4.5 Crore has been earmarked towards ESR for 3 years.

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

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Stack of adequate height shall be provided to the gas fired boiler as per CPCB/SPCB guidelines. Bagfilter shall be provided to spray dryer..
- iii) Scrubbers shall be provided to control process emissions viz. HCl, HBr, NH₃, CS₂, H₂S etc. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Solvent management shall be carried out as follows :
 - i. Reactor shall be connected to chilled brine condenser system
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - iv. Solvents shall be stored in a separate space specified with all safety measures.
 - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- v) Total fresh water requirement from Damanganga River shall not exceed 1500 m³/day.
- vi) Effluent generation shall not exceed 1323 m³/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in the effluent treatment plant (ETP) followed by reverse osmosis (RO). No effluent will be discharged outside the plant premises.
- vii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- viii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- ix) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

- x) 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.
- xi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as *per* the Motor Vehicle Act (MVA), 1989.
- xii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.

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

The proposal was considered in 6th EAC meeting held during 30th to 2nd April, 2016. After detailed deliberations, the Committee deferred the project for want of following information;

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

Now the PP has submitted the information. The Committee deliberated the above deferred points.

- i. PP committed to scrap the existing 20 KLPD distillery. PP earmarked RS. 15.51 crore for CSR activities.
- ii. PP informed that the total movement of trucks/ LF/B cart will be 866 numbers per day. The Committee noted that this figure is very high and going to create traffic congestion within the city as plant exists within Municipal limit surrounded by dense population. The Committee noted that traffic management plan has not been drawn adequately and observed that even during routine situation the proposed expansion will add the problem to the town. PP could not justify the traffic management in the routine as well as extreme

situation. Committee also took a note of air port which is reported 2.04 km from the project site.

In view of the above point particularly stated at para ii above, the Committee did not agree with the project for proposed expansion.

The Committee also discussed the complaint made by Shri Sanjay T. Patil against the project and their consultant for providing misleading information. The Complaint was discussed in length in background the NGT (Pune) Judgment dated 9.11.2015 on Application no. 58 (THC) of 2014 in the matter of Shri Bakerao Tukaram Dhemse and Shri Niram K. Kajale vs Municipal Corporation and others. This is referred in complaint. It was noted that this judgment was for Nashik Municipality while the plant is located at Sholapur.

11.3.9 Expansion of Specialty Fine Chemicals (from 420 MTPM to 1300 MTPM) at Plot No. 408, 409, Phase-II, GIDC Estate, Vapi, District Valsad, Gujarat by M/s Ganesh Polychem Ltd. – reg. EC.

Proposal was considered by EAC (Industry-2) in its meeting held during 27th to 28th April 2016 and the Committee desired following information :

- 1 Commitment to use natural gas in place of coal fired boilers
2. Reanalyzing the water samples within 10 km radius of water bodies including groundwater.

PP vide letter dated 10th June, 2016 has submitted additional information. PP made commitment to use gas instead of coal as fuel.

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

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Stack of adequate height shall be provided to the gas fired boiler as per CPCB/SPCB guidelines. Bagfilter shall be provided to spray dryer.
- iii) Scrubbers shall be provided to control process emissions viz. SO₃ and NH₃. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Solvent management shall be carried out as follows :
 - i. Reactor shall be connected to chilled brine condenser system
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

- iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - iv. Solvents shall be stored in a separate space specified with all safety measures.
 - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- v) Total fresh water requirement from GIDC water supply shall not exceed 703.4 m³/day.
 - xiii) Effluent generation shall not exceed 324 m³/day. As proposed, existing effluent shall be treated in the existing ETP and treated effluent will be discharged into CETP after conforming standard prescribed by SPCB. Proposed additional effluent (164 m³/day) will be treated in the ETP and treated effluent will be recycled/reused by using RO and MEE.
 - xiv) Treated effluent should be passed through guard pond. Online (24 x 7 monitoring devices) pH meter, flow meter and TOC analyzer should be installed. The data to be made available to the respective SPCB and in the Company's website.
 - vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
 - vii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
 - viii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
 - ix) 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.
 - x) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be *as per* the Motor Vehicle Act (MVA), 1989.
 - xi) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details

along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.

11.4 Terms of Reference (TOR)

11.4.1 Expansion of Sugar Plant from 3500 TCD to 10000 TCD and cogeneration unit (14 MW to 60 MW) and establishment of 120 KLPD distillery along with incineration boiler (5 MW) at Sy No 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A,247/B, 247/D, 241/C1, 241/C2 of Birrabbi Village, 157/3, 157/1 at Village Kotihal, Taluka Hoovina Hadagali, District Bellary, Karnataka by M/s Mylar Sugars – 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 Mylar Sugars has proposed for expansion of Sugar Plant from 3500 TCD to 10000 TCD and cogeneration unit (14 MW to 60 MW) and establishment of 120 KLPD distillery along with incineration boiler (5 MW) at Sy No 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A,247/B, 247/D, 241/C1, 241/C2 of Birrabbi Village, 157/3, 157/1 at Village Kotihal, Taluka Hoovina Hadagali, District Bellary, Karnataka.

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. However, Tumbinakeri reserved forest is situated at a distance of 10 m from the project site. River Tunga Bhadra is flowing at a distance of 6.5 km and Hirehadagali Lake is situated at a distance of 2.5 km from the project site.

During presentation the Committee noted that a Reserved forest named Tumbinakeri is just adjacent to the boundary of project site merely at 10 m distance. It was also informed that PP has obtained consent for establishment for 3500 TCD capacity and 14 MW cogeneration from the State Pollution Control Board but this project is yet to be commissioned. The committee observed that PP has no information on flora fauna available in reserved forest. The committee also noted that existing capacity of sugar plant does not require Environmental clearance and therefore, PP established the plant without giving due consideration to nearby reserved forest. Now due to the need of expansion alongwith distillery, the PP has applied for environmental clearance . In the situation, when the plant is under construction, the Committee did not agree with the proposal at this stage. It was suggested to first commissioned the plant and get full details of flora and fauna and also analyze the impact of 3500 TCD of existing sugar plant on nearby reserved forest before consideration of expansion.

11.4.2 Expansion of Synthetic Organic chemicals (API's & Intermediates) manufacturing facility (338.3 MTPA to 650.0 MTPA) at existing plot no Plot No. 31 to 35, 48 to 51, 1 to 5, 26 & K (Gat No. 201), Lakhamapur, Taluka Dindori, District Nashik, Maharashtra by M/s Megafine Pharma (P) Ltd. – reg TOR.

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

M/s Megafine Pharma(P) Ltd. has proposed for expansion of Synthetic Organic chemicals (API's & Intermediates) manufacturing facility (338.3 MTPA to 650.0 MTPA) at existing plot no Plot No. 31 to 35, 48 to 51, 1 to 5, 26 & K (Gat No. 201), Lakhamapur, Taluka Dindori, District Nashik, Maharashtra. In the existing plant the company is manufacturing API's & Intermediates vide consent letter no. BO/RONK/Nashik/0/190-03/CC-244 dated 16.08.2003.

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserved/ Protected forest, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Total plot area after proposed expansion will be increased to 37932 m² of which greenbelt will be developed in 33 % area. Total capital cost of the project after expansion is Rs. 75 Crores. About 100 peoples will be employed under this expansion project. Following products will be manufactured after proposed expansion;

S.no	Therapeutic category (type)	Existing Capacity (MTPA)	Addl. Proposed Capacity(MTPA)	Total(MTPA)
1.	Coagulant	0.45	9.15	9.60
2.	Antidepressants	46.30	61.80	108.10
3.	Thrombotic	0.25	2.25	2.50
4.	Alzhemiers	4.00	3.50	7.50
5.	Antianginal	0.10	0.45	0.55
6.	Anihypertensive	57.20	3.25	60.45
7.	Scziophrenia	54.50	48.30	102.80
8.	Over Active Bladder	1.55	2.40	3.95
9.	Multiple Sclerosis	12.00	-7.00	5.00
10.	Acute Coronary Syndrome	0.35	0.20	0.55
11.	Psoriatic Arthritis	0.00	1.50	1.50
12.	Cystic fibrosis	0.00	1.10	1.10
13.	Insomnia	0.00	0.80	0.80
14.	Antiemetic	0.00	0.60	0.60

15.	Antidiabetic	0.50	3.50	4.00
16.	Anti Occular Hypertensive	0.10	0.40	0.50
17.	Cough Suppressant and not antidepressants	0.00	15.00	15.00
18.	Antifungal	25.00	0.00	25.00
19.	Anthelmentic	136.00	164.00	300.00
20.	Post Operative Distention	0.00	0.50	0.50
	Total	338.3	311.7	650.0

Existing unit has Briquettes/ HSD fired boilers of 2 TPH and proposed additional 5 TPH boiler will be provided with Bag filter to control the particulate (PM) emissions and connected with adequate stack height. Existing unit has 2 Nos DG sets of 750 KVA each and proposed additional 2 Nos 750 KVA each will be installed. The total power requirement (750 Kwh) will be met from MSEDCL.

Total fresh water requirement will be increased from 139 m3/day to 350 m3/day, which will be sourced from irrigation department or groundwater. Against this wastewater generation will be increased from 30.4 m3/day to 132 m3/day. Process wastewater will be sent to ETP followed by MEE. Domestic waste water will be treated in STP.

Boiler Ash will be sold to brick manufacturer. Empty containers, HDPE bags, spent organic solvents and Waste/ residue containing oil will be sold to authorized recycler. Distillation residue, Spent Catalyst/ spent carbon, ETP sludge and filters and filter matter 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 (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR

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

13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. No groundwater to be extracted
- iii. Treatment scheme should be based on source segregation and Zero Liquid discharge system to be followed.

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.

11.4.3 Proposed Expansion of Synthetic Organic Chemicals plant at S.F No. 27/(1,2,3,4), 34/(2,3,4,5,6A,6B), 33/(8,9), 28/8, 29/(1,2), 31/(1A,1B,1C,3), 30/(1,4), 32/2, 37/(8A,8B,8C,8F,8G,8H), 35/(3A,3B,4D,4E,4A,4B,4C), Village Naickenpatti, Taluka Madurai East, District Madurai, Tamilnadu by M/s Abhilash Chemicals & Pharmaceuticals Private Limited. – reg Tor.

PP during the meeting informed that project is withdrawn due their own reasons. Accordingly, the Committee recommended for delisting the project on basis of submission by PP.

11.4.4 Setting up of API manufacturing plant at Sy. F No. 28/8, 29/(1,2), 30/(1,4), 31/(1A,1B,1C,3), 32/2, 33/(7,8,9), 34/(3,4,5) 35/(3A,3B, 4A,4B,4C,4D,4E,), 37/(8A, 8C, 8E, 8F, 8G, 8H) at Village Naickenpatti, Taluka Madurai East, District Madurai, Tamilnadu by M/s Abhilash Chemicals & Pharmaceuticals 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 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 Abhilash Chemicals & Pharmaceuticals Private Limited have proposed for Expansion of Synthetic Organic Chemicals plant at S.F No. 27/(1,2,3,4), 34/(2,3,4,5,6A,6B), 33/(8,9), 28/8, 29/(1,2), 31/(1A,1B,1C,3), 30/(1,4), 32/2, 37/(8A,8B,8C,8F,8G,8H), 35/(3A,3B,4D,4E,4A,4B,4C), Village Naickenpatti, Taluka Madurai East, District Madurai, Tamilnadu. As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant, Wildlife Sanctuary etc. falls within 10 km radius from the plant site. However, reserved forest namely Alagar Hills situated at a distance of 150 m in North side, Kiluvamalai R.F. at 3.7 km in NW, Usilampatti R.F. at 4.71 km in NW, Sanamalai R.F. at a distance of 6.61 km in N and Perumalmalai R.F. is situated at a distance of 7.70 km in SE from the project site.

The committee examined the topo sheet and noted that the proposed site is in vicinity of reserved forest. On query, PP could not explain details of flora-fauna and dominant species etc. The Committee was of the view that PP has selected the site without giving due consideration on option analysis of sites. The Committee, therefore, deferred the proposal for want of option analysis to be done first alongwith details of flora-fauna. Species etc. available in nearby forest.

11.4.5 Setting up of Bulk drugs manufacturing plant at Survey No. 102/p, 105/p, 106, 119, 120/p, 121, 73, 74, Ahmedabad–Mehsana Highway, Village Bileshwarpura, Taluka Kalol, District Gandhinagar, Gujarat by M/s Torrent Pharmaceuticals Limited (Oncology) – 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 Torrent Pharmaceuticals Limited (Oncology) have proposed for setting up of Bulk drugs manufacturing plant at Survey No. 102/p, 105/p, 106, 119, 120/p, 121, 73, 74, Ahmedabad–Mehsana Highway, Village Bileshwarpura, Taluka Kalol, District Gandhinagar, 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.

Total plot area is 57,737 m² area, of which an area earmarked for greenbelt is 35,215 m². Cost of proposed project is Rs. 300 Crores. The proposed project has an employment potential of 400. Following products will be manufactured;

Sr. No.	Name of Product	Production Capacity	
		Kg/Annum	MT/Annum
1	Lenalidomide (Amorphous)	50	0.050
2	Everolimus API	50	0.050
3	Sunitinib Maleate	50	0.050

Sr. No.	Name of Product	Production Capacity	
		Kg/Annum	MT/Annum
4	Paclitaxel	50	0.050
5	Carboplatin	60	0.060
6	Pemetrexed disodium	60	0.060
7	Pazopanib	100	0.100
8	Cyclophosphamide monohydrate	180	0.180
9	Dasatinib	200	0.200
10	Erlotinib	200	0.200
11	Exemestene	250	0.250
12	Gefitinib	250	0.250
13	Methotraxate	250	0.250
14	Sorafenib tosylate	450	0.450
15	Enzalutamide	500	0.500
16	Nilotinib	550	0.550
17	Imatinib Mesylate	1,000	1.000
18	Bicultamide	1,000	1.000
19	Cytarabine	1,000	1.000
20	Tamoxifen Citrate	1,000	1.000
21	Ibrutinib	1,500	1.500
22	Abiraterone Acetate	2,000	2.000
23	Gemcitabine	2,000	2.000
24	Hydroxyurea	4,000	4.000
25	Capecitabine	4,500	4.500
26	Ulipristal Acetate	5	0.005
27	Travoprost	5	0.005
28	Bimatoprost	5	0.005
29	Bromophenac	5	0.005

Sr. No.	Name of Product	Production Capacity	
		Kg/Annum	MT/Annum
30	Latanoprost	5	0.005
31	Briminodine Tartrate	10	0.010
32	Olopatadine Hydrochloride	10	0.010
33	Misoprostol	20	0.020
34	Brinzolamide	100	0.100
TOTAL		21,415	21.415

The proposed unit will install 02 nos. of Natural gas/ Furnace oil fired boilers each having capacities 5 TPH which will be connected with bag filter to control particulate emission and attached with 30 m stack height. . DG sets 4 in nos. of 2000, 2000, 500 and 500 KVA capacity will be used as standby in case of failure of power supply. Total power requirement will be 2500 KVA and will be met from Uttar Gujarat Vij Company limited (UGVCL). Process emission will be scrubbed by using water scrubber followed by Caustic scrubber

Total fresh water consumption for the proposed unit will be 153 m³/day and sourced from Sardar Sarovar Narmada Nigam Limited. Process wastewater will be segregated into two streams i.e. High TDS/COD and low TDS/COD stream. High TDS effluent will be evaporated in Multiple Effect Evaporator (MEE) and condensate will be treated in ETP alongwith other trade effluent. The blow down from boiler, cooling purge water, washing as well as other water will be kept segregated and will be treated into ETP. Domestic wastewater generated will be treated in effluent treatment plant.

Hazardous waste such as used oil will be sold to registered recyclers. Process Waste will be sent to approve CHWIF site. ETP sludge will be disposed at secured landfill site. Spent Organic Solvent/ Mother Liquor will be sold to an authorized solvent recovery units. Resins from DM Plant will be sold to registered re-processors. Solid waste from MEE will be disposed at secured landfill site/ CHWIF site. Oil Contaminant Waste, Spent catalyst, Spent Carbon (from boiler) and Distillation residue will be sent to approve CHWIF site. Discarded Barrels/ Containers/ Bags/ Liners will be sold to MoEF authorized recyclers.

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

A. Specific TOR

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

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

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. No groundwater to be extracted and permission to be obtained for drawing 153m³/day of fresh water from the Sardar Sarovar Narmada Ltd for this plant separately. .
- iii. Domestic wastewater will be treated into STP.
- iv. Plant should be based on ZLD.

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.

11.4.6 Expansion of Multiple Grades of NPK Fertilizers at Plot K1-K5, MIDC Industrial Area, Talaja, District Raigad, Maharashtra by M/s Deepak Fertilisers and Petrochemicals Corp. 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 Deepak Fertilisers and Petrochemicals Corp. Ltd. has proposed for expansion of Multiple Grades of NPK Fertilizers at Plot K1-K5, MIDC Industrial Area, Talaja, District Raigad, Maharashtra. MoEF&CC has issued EC vide letter no. J-11011/320/2012-IA II (I) dated

12.10.2015 for the Expansion of NPK fertilizer manufacturing unit from 3,24,000 MTPA to 6,00,000 MTPA of single grade of Ammonium Nitrate phosphate (ANP) at Taloja facilities. Public hearing was exempted as per section 7 (i), (iii) Stage (3), para (i) (b) of EIA, Notification 2006.

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 Two reserved forest situated at distance of 6.8 km in E direction and one protected forest is situated at a distance of 4.7 km in NE direction. A Creek is situated at distance of 4.2 km. Growth of Mangroves are at a distance of 4.5 km from the project site.

Existing plot area is 32.8 ha, no additional land required for the proposed expansion project. PP did not provide the existing green belt condition. Total cost of the project is Rs. 190 Crore. About 50-70 peoples will be employed under this expansion project. Following are the existing and proposed products:

S. No.	Name of Product	Production Capacity (MTPA) unless mentioned		
		Existing	Proposed	Total
	Proposed Expansion			
1.	NPK fertilizers	6 Lakh*	2 Lakh + 3.25 lakh**	11.25 Lakh
	Existing Products			
1	Liquid CO ₂	72,000	-	72,000
2	Ammonia	1,40,400	-	1,40,400
3	Methanol	99,996	-	99,996
4	Weak Nitric Acid	4,45,500	-	4,45,500
5	Concentrated Nitric Acid	1,29,600	-	1,29,600
6	** Ammonium Nitrate Phosphate	3,24,900	-	3,24,900
7	Low Density Ammonium Nitrate Plus Ammonium Nitrate Melt	1,44,000	-	1,44,000
8	Iso Propyl Alcohol (IPA)	70,200	-	70,200
9	Electric Power	9.4 MW	-	9.4 MW
10	Steam	1,056	-	1,056
11	Bentonite Sulphur Pastilles	25,000	-	25,000
12	Ammonium Nitrate Prills (Low Density)	2,00,000	-	2,00,000
13	Ammonium Nitrate Prills (High Density)	1,00,000	-	1,00,000
14	Iso Propyl Alcohol (For drum filling operation) – Packaging operation only	15,000	-	15,000

S. No.	Name of Product	Production Capacity (MTPA) unless mentioned		
		Existing	Proposed	Total
15	Di Iso Propyl Ether (DIPE) (For drum filling operation Packaging operation only)	15,000	-	15,000
16	Gas Based Power Generation (Excluding DG Sets)	17.9 MW	-	17.9 MW
	BY – PRODUCT			
1	Propane	33,000	-	33,000
2	Calcium Phosphate	210	-	210
3	Crude DIPE	1,440	-	1,440
4	Hydrogen Gas	960	-	960
5	Crude IPA/NPA Mixture	1,080	-	1,080

*EC for 6 Lakh multiple grade NPK fertilizer (granulation) received on 12.10.2015

**Existing 3.25 Lakh MTPA ANP (Pilling) operating plant to be considered for continuous operation,

Existing Power requirement is 314.65 MW additional 1.15 MW will be sourced from MSEDCL. Existing DG sets will be used as standby under proposed expansion. Natural gas of 5000 Sm³/day will be used as a fuel for dryers.

Total fresh water requirement will be increased to 21343 m³/day from 21093 m³/day and will be taken from MIDC water supply. Against this, wastewater generation will be increased from 3560 m³/day to 3800 m³/day. Industrial wastewater will be recycle through RO. PP confirms that Plant will work on ZLD. Committee noted that wastewater treatment facility is not significant.

The Committee deliberated on conducting the public hearing on fertilizer plant, being located in Industrial area. It was emerged that in separate report has been filed in NGT by the Committee, the fertilizer plant are also required to conduct public hearing regardless of its location in industrial zone.

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 silicic acid (H_2SiF_6) and its uses.
8. Management plan for solid/hazardous waste including storage, utilization and disposal of by 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^* , NO_x^* , 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. Adequate wastewater treatment scheme to be provided.

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.

11.4.7 Setting up of 60 KLPD Grain based Distillery at Sr. No. 126,127,110, Kadwa Mhalungi, Post Valkhed, Taluka Dindori, District Nashik, Maharashtra by M/s Pernod Ricard 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Pernod Ricard India Pvt. Ltd. has proposed for setting up of 60 KLPD Grain based Distillery at Sy. No. 126,127,110, Kadwa Mhalungi, Post Valkhed, Taluka Dindori, District Nashik, Maharashtra. 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. Waghad dam is situated at a distance of 8.45 km, Karanjwan Dam is situated at a distance of 6.15 km. Kolwan River and Kadwa river is flowing at a distance of 2.25 Km and 2.35 km respectively from the project site.

Total project area is 25425 m², out of which 6845 m² area will be developed as green belt. About 150 personal will be employed under this project. Total cost of the project is Rs. 100 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 2.59 Crores. The following product will be manufactured under proposed project:

S. No.	Unit	Capacity (KLPD)
1	Rectified Spirit/ Impure Spirit /ENA/ Technical alcohol	60

Rice husk or coal fired Boiler having 16 TPH capacity will be provided and connected with ESP as pollution control device with adequate stack height. The power requirement is 1600 kW, which will be sourced from captive T. G. set of 2.0 MW.

Total fresh water requirement will be 597 m³/day which is proposed to be drawn from Karanjwan dam. Spent wash 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 converted into solid cake (DDGS). The plant is based on ZLD.

Yeast sludge will be mixed with DDGS. CPU sludge will be used as manure. Ash will be sold to brick manufacturer. DDGS/Wetcake will be 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. Commitment to dismantle of existing plant (20 KLPD) to be given.

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.

11.4.8 Setting up of synthetic organic Chemicals Manufacturing Plant at RS No. 28, Melavanjore, T.R. Pattinam, Karaikal, Puducherry by M/s Chemplast Sanmar (Unit II)- regTOR

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 inside the notified industrial area/estate are listed at S.N. 5(f) under category ‘B’ and appraised by State Expert Appraisal Committee (I). However, due to General; Condition w.r.t. inter-state boundary (Tamilnadu and Puduchery) less than 5 km , the project is treated as A category.

M/s Chemplast Sanmar (Unit II) has proposed for setting up of synthetic organic compounds Manufacturing Plant at RS No. 28, Melavanjore, T.R. Pattinam, Karaikal, Puducherry. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Bay of Bengal is situated at a distance of 1.89 km in East direction, Puravadayinar River is flowing at a distance of 0.4 km in North direction, Arasalar River is flowing at a distance of 7.28 km in North distance and T R Pattinam River is flowing at a distance of 4 km in North direction from the project site.

Total plot area is 31,485 m², out of which greenbelt will be developed on 9853 m² of land. Total Cost of project is Rs. 220 Crores. About 120 people will be employed under this project Following products will be manufactured:

No.	Name of Product	Quantity (MTPA)
1	Methyl Chloride	3,000
2	Chloroform, Methylene Chloride, Carbon Tetra Chloride	50,000

The Power requirement is 3000 kVA sourced from Puducherry Electricity Department (PED). Coal fired boiler of 360 TPD will be installed and connected with ESP to control the particulate matter with 54 m stack height and Incinerator using HSD of capacity 10 TPD will be installed and connected with Water scrubber to control the gaseous emissions with 30 m stack

height D.G. set of 500 KVA will be used as standby. Process emission i.e. HCL and Chlorine will be absorbed by water and HCl and HC will be absorbed by caustic absorption media.

Total fresh water requirement will be 910 m³/day and proposed to be met from ground water through bore well. Against this 300 m³/day of wastewater will be generated. Domestic wastewater will be treated in own STP. PP informed that Process wastewater will be treated in desalination plant after pH neutralization. The Committee suggested to use surface water in place of ground water alongwith adequate treatment scheme.

ETP sludge will be disposal at approved TSDF Site. Distillation residue will be incinerated. Used / Spent Oil will be sold to registered recycler and STP sludge will be used as a manure for gardening.

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 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. No groundwater to be extracted. Only Surface water to be used.
- iii. Adequate treatment scheme shall be drawn.
- i. Detailed plan for water conservation including reuse and recycling including Plan for Zero Liquid discharge

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.

11.4.9 Setting up of petrochemical based processing plant at Survey No. 27, Melavanjore, T.R. Pattinam, Karaikal, Puducherry UT by M/s Kem One Chemplast Private Limited. – reg TOR.

The project authorities and their Consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petrochemical based processing (processes other than cracking &) located inside the notified industrial area/estate are listed at S.N. 5(e) under category 'B' but due to applicability of general conditions as project location is near interstate boundary, hence project is treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Kem One Chemplast Private Limited has proposed setting up of petrochemical based processing plant at Survey No. 27, Melavanjore, T.R. Pattinam, Karaikal, Puducherry. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Bay of Bengal is situated at a distance of 1.89 km in East direction, Puravadaianar River is flowing at a distance of 0.4 km in North direction, Arasalar River is flowing at a distance of 7.28 km in North distance and T R Pattinam River is flowing at a distance of 4 km in North direction from the project site.

Total plot area is 24159.0 m², out of which greenbelt will be developed on 7900.0 m² of land. Total Cost of project is Rs. 325 Crores. About 100 people will be employed under this project during operation phase. Following products will be manufactured:

No.	Name of Product	Quantity (MTPA)
1	CPVC Resins	22,000
2	CPVC Compounds	27,000

The Power requirement is 2000 KVA sourced from Puducherry Electricity Department (PED). PP informed that no boiler to be installed. D.G. set of 500 KVA will be used as standby. Process emission i.e. HCL and Chlorine will be absorbed by water and Chlorine will be scrubbed out by Alkaline scrubber. To control particulate matter, bag filter will be installed at various process operation of PVC and CPVC.

Total fresh water requirement will be 503 m³/day and proposed to be met from ground water through bore well. Against this requirement, about 216.5 m³/day of wastewater will be generated. Domestic wastewater will be treated in own STP. PP informed that Process wastewater will be treated in desalination plant after pH neutralization. The Committee suggested to use the surface water and to draw adequate treatment scheme.

ETP sludge, CPVC Crusts and Fused UV lamps will be disposal at approved TSDF Site operated by Ramky at Gummidipondi, TN. Used /waste Oil will be sold to registered recycler.

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

A. Specific TOR:

1. Details on requirement of raw material (naphtha/gas feedstock), its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Brief description of equipments for various process (cracker, separation, polymerization etc)
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, *etc.*
6. Details on proposed LDAR protocol.
7. Ambient air quality should include hydrocarbon (methane and non methane), VOC and VCM (if applicable).
8. Action plan to meet the standard prescribed under EPA for petrochemical complex.
9. Risk Assessment & Disaster Management Plan
 - Identification of hazards
 - Consequence Analysis
 - Measures for mitigation of risk.

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. No groundwater to be extracted. Only Surface water to be used.
- iii. Adequate treatment scheme shall be drawn.

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.

11.5 Any Other

11.5.1 Molasses based Distillery (60 KLPD), Expansion of Sugar (from 2500 TCD to 5000 TCD), CPP (30MW+2MW) at Villages Kuppattgiri, Doddhasur, Baloga and Mansapur, Tehsil Khanpur, District Belgaum, Karnataka by M/s Laila sugars (P) Ltd.- reg. Extension of TOR.

Ministry has issued TOR vide F. No. J-11011/129/2012-IA II (I) dated 7th November, 2012 for setting up of Molasses based Distillery (60 KLPD), Expansion of Sugar (from 2500 TCD to 5000 TCD) and CPP (30MW+2MW) at Villages Kuppattgiri,

Doddhasur, Baloga and Mansapur, Tehsil Khanpur, District Belgaum, Karnataka by M/s Laila sugars (P) Ltd.

PP informed that M/s Laila sugars (P) Ltd. had applied for extension of TOR validity on 27.12.2014. It was noted that TOR dated 7th November, 2012 was valid upto 07.11.2015 and PP had applied for extension of validity before expiry. PP also clarified the reason of delay i.e. delay due to identification project consultant and treatment technology.

As per MoEF&CC Office memorandum No.J-11013/41/2006-IA-II(I) (Part) dated 8th October 2014, the all existing TOR validity has been extended from 2 to 3 years and extendable to another 1 year. Now, the PP has requested for another one year extension of validity of TOR issued on 7th November, 2012.

Therefore, the Committee recommended for extension of TOR validity for 4 year w.e.f 07.11.2012.

11.5.2 Expansion of molasses based distillery unit from 30KLPD to 45 KLPD at Gautamnagar P.O. Kolpewadi, Tehsil Kopargaon, District Ahmednagar, Maharashtra by M/s The Kopargaon Sahakari Sakhar Karkhana Ltd. (Distillery division)- reg. Extension & Amendment of EC.

MoEF&CC vide letter J-11011/690/2009-IA II(I) dated 30.01.2009 has granted environmental clearance to M/s Kopargaon Sahakari Sakhar Karkhana Ltd. (Distillery division) for Expansion of molasses based distillery unit from 30 KLPD to 45 KLPD at Gautamnagar P.O. Kolpewadi, Tehsil Kopargaon, District Ahmednagar, Maharashtra. PP informed that M/s The Kopargaon Sahakari Sakhar Karkhana Ltd. PP has applied online for extension of EC validity on 21.04.2016 after expiry of EC.

Therefore the Committee did not agree on extension of validity of EC and requested PP to apply afresh application through online.

11.5.3 Capacity Expansion from 7.5 MTPA to 8 MTPA along with Proposed Distillate Yield Improvement and Proposal for installation of feed preparation unit catalytic dewaxing unit at District Medinipur, West Bengal by M/s IOCL, Haldia Refinery- reg. correction in EC.

MoEF&CC vide letter J-11011/299/2013-IA II(I) dated 04.03.2016 has granted Environmental Clearance to M/s IOCL, Haldia Refinery for expansion from 7.5 MTPA to 8 MTPA along with Distillate Yield Improvement Project (DYIP) and Installation of Feed Preparation Unit (FPU) at District Medinipur, West Bengal. Now PP has applied for the following amendment/correction in EC which are as follows:

1. At page No. 2, Point No. 3 and Page Nos. 3 and 4 , point No. 7A xi of Environmental Clearance, where it is written that “ treated effluent (112 m³/hr) shall be discharged into surface water body in place of 262.5 m³/hr.
2. At Page No. 3, point No. 7A viii of Environmental Clearance, it is mentioned as Maharashtra Pollution Control Board in place of West Bengal Pollution Control Board.

The committee examined the EIA report submitted by the PP and verified that as per fig. 2.8 A and 2.8 B, existing wastewater discharge to surface waterbody is 150 m³/hr and proposed additional wastewater discharge will be 112.5 m³/hr under proposed expansion. The total wastewater discharge will be 262.5 m³/hr into surface water body. The committee noted that due to typographical mistake Maharashtra Pollution Control Board will be replaced by West Bengal Pollution Control Board.

After detailed deliberation the committee recommended the above said corrections.

11.5.4 Laying of 340 kms (10.75”) pipeline from Jaipur to Panipat with carrying capacity of 800 TMTA by M/s IOCL- reg. Amendment in TOR

Ministry has issued TOR vide letter no. J-11011/291/2015-IA II (I) dated 5th March, 2016 for Laying of 340 kms (10.75”) pipeline from Jaipur to Panipat with carrying capacity of 800 TMTA by M/s Indian Oil Corporation Ltd.

Now PP has requested for the amendment in existing TOR w.r.t. size of pipe line only. During presentation PP informed that the size of the pipeline will be 12.75” OD*0.25 WT, API 5LX46 in place of 10.75” OD*0.25 WT, API 5LX46 .

After deliberation, the Committee recommended the aforesaid amendment in existing TOR issued on 5th March 2016. All stipulation given in existing TOR will remain unchanged.

11.6 Environmental Clearance

11.6.1 Recovery of Styrene at Indian Oil Panipat Refinery & Petrochemical Complex at Panipat, Haryana by M/s Indian Oil Corporation Limited. reg EC.

The project proponent and their consultant (EIL) 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 40th Meeting of the Expert Appraisal Committee (Industry) held during 18th May, 2015 for preparation of EIA-EMP report. All the Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics) are listed at S.N. 5(c) under Category ‘A’ and appraised at the Central level.

M/s IOCL has proposed for production of standalone Styrene (20 KTA), Ethylene (18.8 KTA), Ethane (73.6 KTA), Propylene (12 KTA) within Panipat Naphtha Cracker premises having plot area of 14,000 sq. m (9000 sq. m for SRU & 5000 sq. m for ERU). 4 spheres shall be in butadiene service and one mounded bullet shall be constructed for storing C4 mix/ C4 H and C4 raffinate. The new sphere and new mounded bullet shall have a nominal capacity of 2800 m³ each. The sphere shall be located in Tank Farm 7 and mounded bullet shall be put in spent caustic area. The cost of Ethylene and Styrene Recovery Units is Rs. 347 Crore and Rs.246 Crore respectively. River Yamuna is passing approx. 25 km. distance in the eastern side w.r.t. the project site. There is no National Park, Wildlife Sanctuary, Eco sensitive area & Reserve Forest within 10 km. radius of the Project Site.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2012 - December, 2012 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (45 µg/m³ to 80 µg/m³), PM_{2.5} (17 µg/m³ to 39 µg/m³), SO₂ (8 µg/m³ to 26 µg/m³) and NO₂ (9 µg/m³ to 42 µg/m³) respectively. There will be no additional emissions of SO₂ due to proposed project. There is no additional fuel combustion. The total SO₂ emissions from the complex shall be less than 138 kg/hr. The Committee suggested them to measure the present SO₂ emissions from the proposed project. The fresh water requirement from the existing unit is 1700 m³/hr. There will be no additional requirement. Reused water (30 m³/hr) shall be utilised for proposed project. Presently about 140 m³/hr of treated waste water is sent to RO plant (Design Capacity 150 m³/hr). The marginal waste water from SRU & ERU plants shall be sent to ETP/RO plant. The existing flare system shall be used for safe disposal of combustible gases which are relieved from the new proposed units during start-up, shut-down, normal operation or in case of an emergency. Spent Catalyst from PA Selective Hydrogenation Reactors after every 5 years will be spent. The precious metal needs to be recovered after sending to manufacturer. Solvent regeneration dump out will be blended with fuel oil or waste and sent for incineration.

After detailed deliberation, Committee sought following additional information:

- 1) Reasons for high CO in ambient air.
- 2) Measure the SO₂ emissions from the existing unit. Any additional SO₂ emission from the proposed unit.
- 3) Ministry has made certain observations while site visit was conducted for butadiene plant. Action taken report to be submitted.

The proposal was deferred till the desired information is submitted and site visit is conducted by the sub-committee of EAC. The above information shall be provided with the uploading of minutes on the website.

11.6.2 Enhancement of grain based distillery from 60 KLPD to 75 KLPD at Village Peddavaram, Mandal Nandigama, District Krishna, Andhra Pradesh by M/s Sudheer Bio-products Private Limited. – reg EC.

MoEF&CC vide letter no. F.No.J-11011/171/2011-IA-II(I), dated 15th January, 2013 has granted environmental clearance for setting up of 60 KLPD grain based distillery .

Now PP intends to enhance the production capacity from 60 KLPD to 75 KLPD. PP informed that work pertaining to 60 KLPD has not been initiated and under this proposal, it has been proposed to enhance the capacity upto 75 KLPD directly.

Committee noted that no progress has so far been achieved in existing EC given by Ministry. After deliberation, the Committee, therefore, did not agree with existing proposal at this stage. The Committee suggested PP to apply after reaching 50 %implementation of the existing environmental clearance.

11.6.3 Grain based Distillery Plant (100 KLPD) alongwith Cogeneration Power Plant (4.0 MW) at Village Narikampadu, Mandal Gampalagudem, District Krishna, Andhra Pradesh by M/s Taksheel Green Field Extracts Pvt. Ltd. –reg EC.

The project proponent and their consultant (M/s Pioneer Enviro) 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 Expert Appraisal Committee (Industry) held during 20th – 21st July, 2015 for preparation of EIA-EMP report. All Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Taksheel Green Field Extracts Pvt. Ltd. has proposed for setting up of a Grain based Distillery Plant of 100 KLPD and Cogeneration Power Plant of 4.0 MW at Survey No.1/1B1A/6, of Narikampadu Village, Gampalagudem Mandal, Krishna District, Andhra Pradesh. Total plot area is 30.0 acres, of which area earmarked for greenbelt is 10 acres. Water bodies namely Jamalapuram Major Canal (2.3 Kms.), Nagarjuna Sagar Left Bank Canal (5.0 Kms.), Kattaleru River (9.0 Kms), Ippala Vagu (7.6 Kms.), Konda Vagu (9.4 Kms), are present within 10 Km of the project site. It is reported that no eco-sensitive area such as National park/Wildlife Sanctuary / Biosphere Reserves/Tiger reserves / Elephant Corridors within 10 Km radius of Project site. No Historical places and Places of Tourist importance within 10 Km. radius of the site. Atlapragada Konduru RF, Bhimavaram RF, Chemalapadu North RF, Chemalapadu South RF, Ayyawarigudem RF, Krishnaraopalem RF, Reserve Forests area present within 10 Km. radius of the project site. The following will be the plant configuration & production capacity:

S.N.	PRODUCT	CAPACITY
1	Rectified Spirit / ENA / Ethanol / Industrial Alcohols / Potable Alcohol / Grain Impure Spirit with Denatured Spirit (through grain based Distillery plant)	100 KLPD
2	Power generation (through Cogen. Power Plant)	4 MW

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 to December, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (14.3 µg/m³ to 41.3 µg/m³), PM_{2.5} (10.2 µg/m³

to $21.4 \mu\text{g}/\text{m}^3$), SO_2 ($6.0 \mu\text{g}/\text{m}^3$ to $9.0 \mu\text{g}/\text{m}^3$) and NO_x ($6.2 \mu\text{g}/\text{m}^3$ to $10.5 \mu\text{g}/\text{m}^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.1 \mu\text{g}/\text{m}^3$, $3.2 \mu\text{g}/\text{m}^3$ and $1.4 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). ESP alongwith adequate stack height will be provided to rice husk/ imported coal/coal fired boiler will be provided to control particulate matter emissions. The Committee suggested them to use biomass only for boiler. Fresh water requirement from ground water source and Kattaleru River will be $1000 \text{ m}^3/\text{day}$. However, ground water permission has been obtained for drawl of 150 KLD from the existing Bore wells No.2 and Bore well No.3. The Committee suggested them to take complete water from river instead of ground water. Generation of spent wash (Thin Slop) will be $400 \text{ m}^3/\text{day}$. Spent wash generated from the proposed project will be concentrated in MEE & Dryer up to 90% solids. Hence zero discharge will be implemented in the proposed project as per CPCB norms. Ash generated from the project will be given to the nearby brick manufacturers / cement plants. DDGS will be used as cattle feed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 13th April, 2016. The concerns were raised on anticipation of ground water depletion; adverse impact due to CO emission from boiler etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) ESP alongwith stack of adequate height shall be provided to rice husk fired boiler to control particulate emission within $50\text{mg}/\text{Nm}^3$. No coal to be used.
- ii) Total fresh water requirement of $1000 \text{ m}^3/\text{day}$ will be met from Kattaleru River. No groundwater shall be extracted. Existing permission of groundwater extraction to be cancelled by PP and informed to SPCB.
- iii) 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 DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- iv) Spent wash shall be stored in SS tank. The storage of spent wash shall not exceed 5 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. 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 Bhubaneswar and SPCB.
- viii) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 10 acre of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 13th April, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.

11.6.4 Greenfield Multi-Purpose Plant for Manufacturing of Various Technical Grade Pesticides (12 TPD) at Dahej – II Industrial Estate, Bharuch, Gujarat by M/s Hetban Spechem Limited.- reg EC.

The project proponent and their consultant (M/s 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 during the 34th Meeting of the Expert Appraisal Committee (Industry) held during 17- 19th February 2015 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Hetban Spechem Limited has proposed for setting up of manufacturing unit for various technical grade pesticides at Plot No. D- 2/CH/357, Dahej-II Industrial Estate, Taluka Vagra, District Bharuch, Gujarat. PP informed that plot is taken on lease from M/s. Shaurya Enterprise, agreement documents of the same and land possession documents from GIDC for plot. Cost of project is Rs. 31.10 Crore. Total plot area is 5,000 m². Following products will be manufactured:

S. No.	Name of Product	Production (MTPA)	S. No. (Contd.)	Name of Product	Production (MTPA)
Herbicides			25	Buprofezin	500
1	Glyphosate	2,000	26	Bifenthrin	200
2	2,4 Dichlorophenoxy acetic acid	1,000	27	Diafenthiuron	600
3	MCPA	500	28	Deltamethrin	100
4	Atrazine	500	29	Cypermethrin	600
5	Metribuzin	400	30	Permethrin	600
6	Propanil	500	31	Lambda-Cyhalothrin	300
7	Pretilachlor	300	Fungicides		
8	Pendimethalin	600	32	Cymoxanil	300
9	Butachlor	300	33	Cyproconazole	200
10	Clodinafop Propargyl	300	34	Azoxystrobin	500
11	Fenoxaprop-P-Ethyl	200	35	Metalaxyl	500
12	Quizalofop-p-Ethyl	200	36	Trifloxystrobin	450
13	Clodinofof-P-Ethyl	300	37	Carbendazime	800
14	Paraquat dichloride	500	38	Kresoxim-Methyl	200
15	Imazathapyr	300	39	Thiophenate Methyl	400
16	Oxyfluorfen	100	40	Tricyclazole	1,000
Insecticides			41	Isoprothiolane	200
17	Thiamethoxam	400	42	Propiconazole	300
18	Profenofos	400	43	Hexaconazole	600
19	Acephate	800	44	Tebuconazole	600
20	Chlorpyrifos	350	45	Difenconazole	500

S. No.	Name of Product	Production (MTPA)	S. No. (Contd.)	Name of Product	Production (MTPA)
21	Imidacloprid	600	46	Epoxyconazole	200
22	Acetamiprid	500	47	Chlorothalonil	500
23	Fipronil	200	Plant Growth Regulator		
24	Cartap – Hydrochloride	300	48	Chlormequatchloride	2,000

The design capacity of the Multi-purpose plant will be 3,500 MTA (~ 12 TPD) on the basis of running the plant for 24 hrs, a day, seven days a week and 300 days / annum. The balance 65 days will be utilized for product change-over preparation and annual maintenance shutdown. It is proposed to manufacture four to five products simultaneously based on the market requirement from the above list.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2015 to May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (38 µg/m³ to 116 µg/m³), PM_{2.5} (18 µg/m³ to 62 µg/m³), SO₂ (8.0 µg/m³ to 17.5 µg/m³) and NOx (10 µg/m³ to 35.7 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.27 µg/m³, 22.24 µg/m³, 0.08 µg/m³, 0.08 µg/m³ 0.51 µg/m³ with respect to PM₁₀, SO₂, NOx, Cl₂ HCl respectively in the order. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Adequate stack height will be provided to NG/FO fired boiler and NG/LDO fired thermic fluid heater to disperse waste gases. The Committee suggested them to use LDO instead of FO. Alkali scrubber will be provided to process vents to control process emissions viz. HCl, SO₂, Cl₂, NOx, HBr. Acidic scrubber will be provided to process vents to control process emissions viz. NH₃ & HC. Total water requirement will be 175 m³/day of which fresh water requirement will be 98 m³/day and remaining water requirement (77 m³/day) will be met from recycled water. Wastewater generation will be 183.5 m³/day. A total of 96 m³/day will be treated in the ETP followed by RO and 87 m³/day will be treated in MEE. The committee suggested them to install stripper before MEE. One of process stream containing cyanide waste shall be treated separately for Cyanide.

Used/spent oil will be sent to the Authorized Recyclers/Processors. Wastes/residues containing oil, Distillation residue, Process waste/residues, Chemical sludge containing residue pesticide, Date-expired and off specification pesticides and spent carbon will be sent for incineration. Spent solvent will be sent to Solvent Recovery Units /to authorized re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 29th April, 2016. The concerns were raised on local employment; greenbelt to be created; health of local people 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) Approval from GIDC for establishment of pesticide shall be obtained as plot allotted to the other firm.
- ii) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.
- iii) Adequate stack height shall be provided to gas/LDO fired boiler and thermic fluid heater to control particulate emissions.
- iv) Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO₂, Cl₂, NO_x, HBr. Acidic scrubber shall be provided to process vent to control process emissions viz. NH₃ & HC. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- v) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained.
- vi) For further control of fugitive emissions, following steps shall be followed :
 - (a) Closed handling system shall be provided for chemicals.
 - (b) Reflux condenser shall be provided over reactor.
 - (c) System of leak detection and repair of pump/pipeline based on preventive maintenance.
 - (d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
 - (e) Cathodic protection shall be provided to the underground solvent storage tanks.
- vii) A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- viii) Company shall take all the measures in order to protect the machineries and equipments for pesticide producing unit from ageing.
- ix) Continuous monitoring system for chlorine, HCl as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.

- x) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- xi) Solvent management shall be carried out as follows :
 - i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - iv. Solvents shall be stored in a separate space specified with all safety measures.
 - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- xii) Total water requirement from GIDC water supply shall not exceed 98 m³/day and prior permission should be obtained from the Competent authority.
- xiii) Industrial effluent generation shall not exceed 183.5 m³/day. As proposed, effluent shall be segregated into cyanide stream and High TDS/COD effluent streams. Cyanide effluent stream will be treated with sodium hypochlorite in alkaline medium. High TDS/COD effluent stream will be passed through steam stripper followed by concentrated in MEE. MEE condensate will be treated in the ETP. Treated effluent from ETP will be passed through RO. RO permeate will be recycled/reused within plant premises. Domestic sewage should be treated in STP. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- xiv) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- xv) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xvi) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xvii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.
- xviii) As proposed, ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.

- xix) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- xxi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xxii) Green belt should be developed at least in 900 m² area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xxiii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner
- xxiv) All the recommendations made in the risk assessment report should be satisfactorily implemented.

11.6.5 Expansion of Existing Distillery (from 60 KLPD to 150 KLPD) at Village Alaganchi, Taluka Nanjangud, District Mysore, Karnataka by M/s Bannari Amman Sugars Limited – reg EC.

The project proponent and their consultant (M/s Ultra-Tech Environmental Consultancy & Laboratory) 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 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 4th-5th April, 2013 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Bannari Amman Sugars Limited has proposed for expansion of molasses based Distillery (from 60 KLPD to 150 KLPD) (RS/ENA/AA grades) at Village Alaganchi, Taluka Nanjangud, District Mysore, Karnataka. Total plot area is 20.66 ha. Out of which, greenbelt will be developed in 6.82 ha. Cost of project is Rs. 85 Crore.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during December 2013 to March 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (35 µg/m³ to 49 µg/m³), PM_{2.5} (11 µg/m³ to 19 µg/m³), SO₂ (10.0 µg/m³ to 16 µg/m³) and NO_x (6 µg/m³ to 13 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed

project would be $0.84 \mu\text{g}/\text{m}^3$, $12.49 \mu\text{g}/\text{m}^3$ and $4.08 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 , and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). However, the Committee suggested them to recheck CO level in ambient air. Bagfilter will be provided to additional coal/bagasse/ concentrated spent wash fired boiler to control particulate emission. Fresh water requirement from River Kaveri will be increased from $599 \text{ m}^3/\text{day}$ to $1350 \text{ m}^3/\text{day}$ after expansion. Spent wash generation will be increased from $480 \text{ m}^3/\text{day}$ to $997 \text{ m}^3/\text{day}$ after expansion. Spent wash is concentrated in the multiple effect evaporator. Concentrated Spent Wash (CSW) and vapor condensate water will be generated from the evaporator. CSW is utilized as fuel in the boiler. Vapor condensate water is further treated in ETP consisting of bioprocess and RO. RO rejects will be bio-composted with press mud. Yeast sludge separated from the clarifier will be used in Bio composing using sugar industry press mud. Boiler ash will be used in Bio composing and also supplied to farmers for use as soil conditioner and soil nutrient.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 26th February, 2015. The concerns were raised regarding ammonia contamination in ground water; pollution due to existing unit; ground water contamination; dust Pollution; smell problem; local employment; etc. The Committee suggested them to furnish details of issues raised during public hearing and commitments made by the them in the form of tabular chart with financial budget for complying with the commitments made.

After deliberation, the Committee sought following additional information:

- i. CO level in the ambient air to be rechecked as baseline data.
- ii. Water balance chart of the existing sugar unit to be furnished.
- iii. Commitment to be provided for installing RCC tank for spent wash storage.
- iv. Ground water quality analysis to be conducted from the all existing piezometer wells.
- v. 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.
- vi. Detailed Plan to be redrawn upto 5% of project cost out of the issues emerged from public consultation.

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

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

The project proponent and their consultant (M/s JM Environet) 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 38th Meeting of the Expert Appraisal Committee (Industry) held during 20th- 21st April 2015 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the

notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s SRF Limited has proposed for expansion of Multi-Purpose Plant / Fluorospeciality Plant (3000 TPA to 6000 TPA); Installation of New Generation Refrigerants & Refrigerant Blends Plant (90,000 TPA) & change in Product Mix of Chloromethanes and HFC 134a at Village & P.O. Jhiwana, Tehsil - Tijara, District – Alwar, Rajasthan. Total plant area is 34 ha and project will be implemented within existing premises. Out of total, area earmarked for greenbelt is 12.24 ha. Cost of expansion project is Rs. 20 Crore, of which Rs. 2 Crore and Rs. 0.5 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP respectively.

It is reported that no National Park, Sanctuaries, Biosphere Reserves, Migratory Corridors of wild animals exists within 10 km radius. Reserved Forests namely Rangala (7.5 km in NE direction) and Indaur (8.5 km in SE direction) as well as Protected Forests namely Chaupanki (5.5 km in ESE direction); Banvan (2.5 km in East direction); Khori Kalan (4.5 km in SE direction); Sarekalan (7.0 km in SE direction); Chaupanki (5.5 km in ESE direction) Khidarpur (4.0 km in NE direction) and Gondhan (1.2 km in NNE direction) respectively are located within 10 km distance. Surface water bodies such as Sahibi River, Indoori Lake and Indoori Nala are located within 10 km distance. The existing, proposed expansion and the total plant production capacities after the proposed expansion are as given below:

S. No.	Name of Products	Existing Capacity	Proposed Additional Capacity	Total capacity after Expansion
1.	AHF Plant	12000	Nil	12000
2.	RG Plant	13,200	Nil	13,200
3.	Thermal Oxidation plant (DHF)	878	Nil	878
4.	Chloromethane Plant	50,000 (Product range Methylene Chloride, Chloroform, Carbon tetra chloride)	Nil (Extraction of intermediate Methyl chloride as a product)	50,000 (Product range Methyl chloride, Methylene chloride, Chloroform, Carbon tetra chloride)
5.	HFC134a Plant	12000 (Product range HFC134a)	Nil (Swing over plant for HFC32)	12000 (Product range HFC134a & HFC32)
6.	Multi-Purpose Plant/ Fluoro-speciality Plant	3000	3000	6000(95 number of products)
7.	New Generation Refrigerants & Refrigerant Blends	Nil	90,000	90,000 (36 no. of products)
8.	CPP	12.0 MW	Nil	12 MW

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2015 to May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (59.6 µg/m³ to 90.2 µg/m³), PM_{2.5} (28.2 µg/m³ to 43.5 µg/m³),

SO₂ (7.0 µg/m³ to 12.5 µg/m³) and NO₂ (17 µg/m³ to 30.7 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 7x10⁻⁵ µg/m³, 1 x 10⁻⁴ µg/m³ and 5 x 10⁻⁵ µg/m³ with respect to Cl₂, F and HCl respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Electrostatic precipitators (ESP) & Bagfilter have been provided to CPPs to control particulate matter. HCl Scrubber has been provided in the Chloromethane plant to control HCl emission. Hypo Scrubber has been provided to absorb chlorine fugitive emissions. Central Absorption System (CAS) has been installed to Multi-Purpose Plant/Fluorospeciality Plant to absorb chlorine and HF emission. Central Absorption System (CAS) has been installed in HFC 134a Plant to absorb HF fumes of the process/ fugitive emissions. Central Absorption System (CAS) and Hypo system with scrubbers will be installed in new Generation Refrigerants & Refrigerant Blends Plant and MPP/FSP Plant. The Committee suggested them to use LDO instead of furnace oil as fuel.

The existing water requirement for plant is 2681 m³/day and no additional water would be required for proposed expansion project; thus, the total water requirement after proposed expansion will remain same i.e. 2681 m³/day. During presentation, PP informed that water is being / will be sourced from ground water and recycled water. Total wastewater generation will be 1100 m³/day and treated in the ETP. Out of which, treated effluent 700 m³/day will be recycled/reused in the process and treated effluent (400 m³/day) will be used for greenbelt. Sewage generation will be 80 m³/day and treated sewage will be used for horticulture purpose. No effluent will be discharge outside the plant premises and 'zero' effluent discharge concept will be followed.

Chemical sludge from waste water treatment will be sent to rotary reactor to recover the fluoride value in sludge. Used/Spent 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 Rajasthan State Pollution Control Board on 5th February, 2016. The issues were raised regarding CSR, sanitation, poverty, health of locals etc. The Committee suggested them to carry out CSR activity in Jhiwana and Banban Villages. Activities should include orchard creation, cattle, woman welfare, road, creation of health center, training center for unemployed people, facility for seed distribution 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, Central Absorption System (CAS) and Hypo system with scrubbers shall be installed in new Generation Refrigerants & Refrigerant Blends Plant and MPP/FSP Plant. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.

- ii) LDO shall be used as fuel instead of furnace oil.
- iii) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the SPCB.
- iv) A proper Leak Detection and Repair (LDAR) Program for industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- v) Company shall take all the measures in order to protect the machineries and equipment from ageing.
- vi) Continuous monitoring system for chlorine, HCl, HF as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- vii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- viii) Total water requirement from ground water source shall not exceed 2681 m³/day and prior permission should be obtained from the CGWA/SGWA.
- ix) Industrial effluent generation shall not exceed 1100 m³/day. As proposed, effluent shall be treated in the ETP. Treated effluent (700 m³/day) will be recycled/reused in the process and treated effluent (400 m³/day) will be used for greenbelt. No effluent should be discharged outside the premises and Zero Liquid Discharge should be maintained. Domestic sewage should be treated in STP. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- x) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xi) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from 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. Membership of TSDF for hazardous waste disposal shall be obtained.
- xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as amended in

- October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xiv) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
 - xv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
 - xvi) All the recommendations made in the risk assessment report should be satisfactorily implemented.
 - xvii) As proposed, green belt over 12.2 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.
 - xviii) All the commitments made during the Public Hearing/Public Consultation meeting held on 5th February, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly. Company shall carry out CSR activity in Jhiwana and Banban Villages. Activities should include orchard creation, cattle, woman welfare, road, creation of health centre, training centre for unemployed people, facility for seed distribution etc.
 - xix) 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 Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner.

2nd Session: Time: 2.00 PM

Reconsideration of EC

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

Proposal was considered by EAC (Industry-2) in its meeting held during 30th March to 2nd April 2016 and the Committee desired following information :

- i. Repeat ambient air quality data for one month.
- ii. Reanalyse surface water quality monitoring.
- iii. Revised water balance chart and reduce the fresh water requirement by using treated effluent.

- iv. Revised effluent treatment scheme considering segregating effluent into high TDS/COD and low TDS/COD effluent streams.
- v. Copy of environmental clearance of industrial area.

PP vide letter dated 5.5.2016 has submitted the additional information. PP informed that MoEF&CC vide letter no. 21-65/2012 IA III dated 20th July, 2015 has granted environmental clearance to KIADC for development of Industrial Area Phase- I & II.

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

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Multi-cyclone followed by bag filter shall be provided to the Briquette fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.
- iii) Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) Solvent management shall be carried out as follows :
 - i. Reactor shall be connected to chilled brine condenser system
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - iv. Solvents shall be stored in a separate space specified with all safety measures.
 - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- v) Total fresh water requirement from ground water source shall not exceed 75 m³/day and prior permission shall be obtained from the CGWA/SGWA.

- vi) Effluent generation shall not exceed 73 m³/day. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises.
- vii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- x) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- xi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from KSPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as *per* the Motor Vehicle Act (MVA), 1989.
- xiii) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xiv) The company shall undertake following waste minimization measures :-
 - a. Metering and control of quantities of active ingredients to minimize waste.
 - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c. Use of automated filling to minimize spillage.
 - d. Use of Close Feed system into batch reactors.
 - e. Venting equipment through vapour recovery system.
 - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- xv) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- xvi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xvii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xviii) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

11.7 Terms of Reference (TOR)

11.7.1 BS-VI Fuel Quality Upgradation & New Catalytic Dewaxing Unit at Village Haldia, Purba Medinipur, Tehsil Tamluk, District East Mednipur, West Bengal by M/s IOCL Haldia 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 Haldia Refinery has proposed for BS-VI Fuel Quality Upgradation & New Catalytic Dewaxing Unit at Village Haldia, Purba Medinipur, Tehsil Tamluk, District East Mednipur, West Bengal. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Hoogly river is flowing adjacent to the project site.

Cost of the proposed unit will be Rs. 4500 crore. Project will be executed within the haldia refinery boundary (90000 m²).

Following additional tankages are considered under BS-VI projects:

1. 1 X 20000 m³ DHDT feed tank
2. 3 x 6500 m³ sulphuric acid tanks (subject to finalization of WSA plant in place of SRU)
3. For new CDW Unit, no new tank is considered.

Following are the upcoming facilities:

S. No	UNIT/FACILITY NAME	CAPACITY
1.	Diesel Hydrotreating Unit	1200 TMTPA
2.	Naptha Hydrotreating Unit	750 TMTPA
3.	Isomerisation Unit	250 TMTPA
4.	Continuous Catalytic Reforming Unit	500 TMTPA
5.	Sulfur Recovery Unit	90 MTPD
6.	Wet Sulphuric Acid Plant	520 MTPD
7.	Catalytic Dewaxing Unit	270 TMTPA
8.	Amine regeneration unit	315 TPH
9.	Sour water stripping unit	135 TPH
10.	Boiler	150 TPH
11.	RO based DM Plant	150 TPH
12.	Cooling Tower	3X 4000 m ³ /hr
13.	Instrument air+ plant air	3800 Nm ³ /h
14.	Nitrogen Plant	1100 Nm ³ /h
15.	Flare(hydrocarbon & Acid)	60"/12" headers
16.	Power	Import from external sources
17.	Prime-G	200(SHU)/290(HDS0 TMTPA

Power requirement will be 31.5 MW, which will be met from State Electricity Supply . Fuel gas and Fuel oil requirement will be 4.1 MT/hr, 11.2 MT/hr and will be available from own source. Water requirement will be 9600 m³/day, which will be drawn from PHE department. Existing ETP capacity is 650 m³/hr and proposed to install new ETP of 600 m³/hr capacity. PP confirms that unit will discharge 322 m³/hr treated effluent having 9500 TDS to the surface water body. Committee suggested for reduction/elimination of TDS level by mean of adequate treatment, while following zero liquid discharge system.

PP confirms that for the domestic, commercial and hazardous waste management, existing facilities will be used. Spent catalyst will be sent to TSDF. Sewage sludge will be used for green belt development.

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 SO₂ and NO_x emissions load.
14. Details on flaring system.
15. Details of VOC recovery devices in the storage tanks.
16. Arrangement for spill management.
17. Oily sludge management plan.
18. Risk Assessment & Disaster Management Plan
 - i. Identification of hazards
 - ii. Consequence Analysis
 - iii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
 - iv. Arrangement for fire protection and control.

B. Additional TOR

- I. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- II. Comprehensive report to be prepared on water auditing in EIA-EMP report.
- III. Accordingly detailed plan to be drawn for reduction of fresh water by recycle and reuse. Accordingly plan to be drawn for zero liquid discharge.

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

11.7.2 Drilling of five appraisal wells in NELP-VII Block MB-OSN-2005/3 at Mumbai Offshore, Maharashtra by M/s ONGC 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 the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC Ltd. has proposed for drilling of five appraisal wells in NELP-VII Block MB-OSN-2005/3 at Mumbai Offshore, Maharashtra. The NELP VII Block MB-OSN-2005/3 is located in the southwest of the Mumbai High-DCS platform of Mumbai Offshore Basin, having an area of 1685 sq. km. During the year 2015-16, a Well MBS053NAA-1 was drilled in this block for which EC was issued vide letter no. J11011/171/2015-1A II (I) dated 04.01.2016.

It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. The site is located beyond 20 nautical miles from Mumbai sea shore.

Following are the drilling locations:

S. No.	Location Name	Water depth (m)	Target Depth (m)	Latitude(N)	Longitude(E)
1	MBS053NAC-A	102	1900	18°51'11.98"N	70°19'36.21"E
2	MBS053NAB-A	102	1750	18°54'27.09"N	70°16'33.79"E
3	MBS053NAD-A	106	1750	18°46'54.4"N	70°22'15.81"E
4	MBS053NAE-A	105	1650	18°45'26.08"N	70°23'28.73"E
5	MBS053NAF-A	107	2300	18°50'27.92"N	70°24'00.38"E

Estimated cost of each well will be Rs. 140 crores. Total area of the blocks will be 1685 km². Drilling depth will be 1650-2300 m. Water based / SOBM will be used as a drilling fluid. The power requirement for each exploratory well will be met through the captive gen set. Fuel requirement will be 15 KL of diesel during drilling Phase. Fuel will be supplied onsite by local supplier through mobile tankers.

The daily water consumption will be 20 m³/day. Water will be sourced from supply through vessels.

It was informed that detailed geological and geophysical studies, mostly 2D-seismic mapping have been carried out to finalize these locations, keeping in mind the results of previously drilled wells. The temporarily storage of drilling waste will be in an HDPE lined pit and will be subsequently treated to ensure conformance with CPCB designated Best Use Standards and Oil Drilling & Gas Extraction Industry Standards and guidelines provided by the MoEFCC under the Hazardous Wastes (Management, Handling & Trans boundary Movement) Rules, 2008

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

A. Standard TOR

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.
6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NO_x and background levels of hydrocarbons and VOCs.
12. Details on estimation and computation of air emissions (such as nitrogen oxides*, sulphur oxides*, carbon monoxide*, hydrocarbons*, VOCs*, etc.) resulting from flaring, DG sets, combustion, etc. during all project phases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.
19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followed.
26. Handling of spent oils and oil from well test operations.
27. H₂S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.

32. Total capital and recurring cost for environmental pollution control measures.

B. Additional TOR

- i. Public hearing is exempted being off shore activity beyond 20 nautical miles
- 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**' 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.

11.7.3 Setting up of grain based distillery (200 KLPD) at village Tiyar, Tehsil Bihiya, District Bhojpur, Bihar by M/s A.B. Grain Spirits 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 A.B. Grain Spirits Pvt. Ltd. has proposed for Setting up of grain based distillery (200 KLPD) at village Tiyar, Tehsil Bihiya, District Bhojpur, Bihar. As per Form I, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Chher River is flowing at 1.7 km distance and Ghanghat River is flowing at a distance of 9 km away from the project site.

Total project area is 44.22 acres, out of which 14.6 acres area will be developed as green belt. About 150 personals will be employed under this project. Total cost of the project is Rs. 175 Crores, of which Rs. 26.5 crore and Rs. 8.75 crores have been earmarked towards capital cost for environmental protection measures and CSR activities respectively. . Following product will be manufactured:

S. No.	Product	Capacity
1	ENA	200 KLPD

Rice husk fired boiler having 250 TPD capacity will be provided and connected with ESP as pollution control device connected with 45 m stack height. Additionally DG set having 12-15 lit/jr capacity will be provided as standby arrangement.

Total fresh water requirement will be 1216 m³/day, which will be sourced from own bore well. Spent wash having quantity of 1200 m³/day generated. The Spent wash will be treated through decantation followed by MEE, Dryer and DDGS respectively and plant is based on Zero liquid discharge system.

Boiler ash will be sent to brick manufacturing unit. DDGS will be 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 piezometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

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

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.

11.7.4 Setting up of technical grade pesticide (4800 MTPA) at Plot No. C-6, 7 & 8 UPSIDC Industrial Area, Phase-2, Gajraula, J P Nagar, Uttar Pradesh by M/s Best Crop Science 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 Pesticides industry and pesticide specific intermediates (excluding formulations) are listed at S.N. 5(b) treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Best Crop Science LLP has proposed for setting up of technical grade pesticide (4800 MTPA) at Plot No. C-6, 7 & 8 UPSIDC Industrial Area, Phase-2, Gajraula, J P Nagar, Uttar Pradesh. It is reported that no national parks, Protected Forests (PF), wild life Sanctuary and Biosphere Reserves etc. lies within 10 km distance. Two Reserve Forest are situated at a distance of 8.30 Km(NW) and 8.45 Km (NW) respectively. Ganga River is flowing at a distance of 8 km in west direction from the project site.

Total plot area is 54,891 m², of which 34 % area of land will be developed as greenbelt. Cost of proposed project is Rs. 30 Crores. Out of which cost earmarked for Environment Management Protection will be Rs. 30 lacs. The proposed project has an employment potential of 110 person. Following products will be manufactured:

LIST OF PRODUCTS		
S.NO.	NAME OF PRODUCT	PRODUCTION CAPACITY (Metric Ton Per Annum)
A . HERBICIDE		
1.	METRIBUZIN	1100
2.	ATRAZINE	
3.	SULFOSULFURON	
4.	GLYPHOSATE	
5.	CLODINAFOP PROPARGYL	
6.	PRETILACHLOR	
7.	IMAZETHAPYR	
8.	METSULFURON METHYL	
9.	PYRAZOSULFURON ETHYL	
10.	FENOXAPROP-P-ETHYL	
11.	GLUFOSINATE AMMONIUM	
12.	CHLORIMURON ETHYL	
13.	BISPYRIBAC SODIUM	
14.	OXADIARGYL	
15.	OXYFLUROFEN	
16.	BUTACHLOR	
B. INSECTICIDE		
1.	ACEPHATE	2500
2.	THIAMETHOXAM	
3.	INDOXACARB	
4.	FIPRONIL	
5.	DIAFENTHIURON	
6.	BUPROFEZIN	
7.	DICHLORVOS	
8.	LAMBDA CYHALOTHRIN	
9.	IMIDACHLOPRID	
10.	NOVALURON	
11.	BIFENTHRIN	
12.	PERMETHRIN	
13.	PROPARGITE	
14.	CHLORPYRIPHOS	
15.	PROFENOFOS	
16.	DIFLUBENZURON	

17.	ACETAMIPRID	
18.	DINOTEFURAN	
19.	EMAMECTIN BENZOATE	
20.	THIOCYCLAM OXALTE	
21.	ETOXAZOLE	
22.	PYMETROZINE	
23.	FENPYROXIMATE	
24.	TRIAZOPHOS	
C. FUNGICIDE		
1.	TRICYCLAZOLE	900
2.	CYMOXANIL	
3.	PROPICONAZOLE	
4.	HEXACONAZOLE	
5.	TEBUCONAZOLE	
6.	DIFENCONAZOLE	
7.	METALAXYL	
8.	CARBOXIN	
9.	PROPINEB	
10.	AZOXYSTROBIN	
11.	MYCLOBUTANIL	
12.	CARBENDIZIM	
13.	PYRACHLOSTROBIN	
14.	TRIFLOXYSTROBIN	
15.	FLUOXASTROBIN	
16.	ISOPROTHIOLANE	
D. PLANT GROWTH REGULATOR		
1.	ETHAPHON	100
E. R&D PRODUCTS		
1.	Trial Production	200
	TOTAL	4800

Power requirement of 1000 KVA will be sourced from Uttar Pradesh Power Corporation Ltd. Additionally two D. G. set of 380 KVA and 500 KVA capacity will be installed. PP did not provide any details regarding boilers and other utilities.

Fresh water requirement of 97 m³/day, which will be sourced through borewell. Against which wastewater of 94 m³/day will be generated. Wastewater will be segregated in two streams as High TDS/ High COD and Low TDS/ Low COD. High TDS/ High COD effluent stream will be sent to MEE after neutralization and filtration and concentrate will be sent to ATFD. Low TDS/ Low COD will be sent to ETP followed by RO. RO reject will be sent to MEE. No effluent will be discharged outside the plant premises.

ETP waste, MEE salt and all solid hazardous wastes will be sent to TSDF site.

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

A. Specific TOR

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

B. Additional TOR

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

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.

11.7.5 Expansion of fertilizer plant (Boronated SSP 25 000- 75000 TPA and adding Zincated SSP 75,000 TPA) at Plot no. 4807/11, Jhamakotra Road, Village Umra, Tehsil Girwa, District Udaipur, Rajasthan by M/s Rama 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 Rama Phosphate Ltd. has proposed for expansion of fertilizer manufacturing plant Boronated SSP (25 000- 75000 TPA) and Zincated SSP (75,000 TPA) at Plot no. 4807/11, Jhamakotra Road, Village Umra, Tehsil Girwa, District Udaipur, Rajasthan.

The unit was established in the year 1995. The ministry has issued EC vide letter no F. No J-11011/116/2009-IA-II(I) dated 05/05/2009 for the Expansion project of Single Super Phosphate/Granulated Single Super Phosphate Fertilizers manufacturing plant from 132000 MT/Annum to 181,000 TPA and setting up of NPK mixed fertilizer plant. Further, MoEF&CC has issued EC for the expansion of Single Super Phosphate (1,81,000 to 3,15,000 TPA) and 300,000 TPA converted in Granular SSP), NPK (60,000 TPA), and additional Boronated SSP (25,000 TPA) and LABSA (20,000TPA vide letter no J-11011/292/2011-IA-II (I) dated 18/09/2014. Public hearing/consultation meeting was held on 25th April 2013.

It is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Udai Sagar lake is situated at a distance of 2.8 kms from site towards NE and Ahar River is flowing at a distance of 3.4 km from site towards NNW.

List of Reserved forest situated within 10 km radius of the project site:

1. Kantia R.F. is situated at a distance of 8.9 km towards N,
2. Bara Magra R.F is situated at a distance of 8.4 km towards N,
3. Panwari R.F. is situated at a distance of 5.4 km towards NNE,
4. Hora R.F. is situated at a distance of 4.6 km towards WNW,
5. Bagdara R.F. is situated at a distance of 0.54 km towards ESE,
6. Amarbir R.F. is situated at a distance of 2.9 km towards ESE,
7. Santu R.F. is situated at a distance of 4.4 km towards E,
8. Segria R.F. is situated at a distance of 1.4 km towards NNE,
9. Umra R.F. is situated at a distance of 1.4 km towards NW,
10. Odi R.F. is situated at a distance of 3.7 km towards NE

Total plot area is 73,200 m². No additional land will be required, of which 40,000 m² is already been developed as greenbelt. The existing project cost is Rs.3019.94 Lacs and proposed cost for modernization will be Rs. 11.50 lacs. About 16 peoples will be employed under this expansion project. Following are the existing and proposed products:

Particulars	Capacity (TPA)		
	Existing TPA	Proposed TPA	Total TPA
SSP	3,15,000	-	3,15,000
GSSP	3,00,000	-	3,00,000

NPK	60,000	-	60,000
Boronated SSP	25,000	50,000	75,000
LABSA	20,000	-	20,000
Zincated SSP	-	75,000	75,000

Existing Power requirement is 2550 KVA, sourced from AVVNL. No additional power requirement for this expansion project. Existing unit have two DG set of 500 and 1000 kVA. No new DG set will be installed. Silicon Fluoride gases will be passed through three stage-wet scrubbers before discharging into atmosphere through adequate stack height to control fluorine content within 15 mg/m³. Cyclone followed by bag filter will be provided to SSP plant and grinding section for controlling fugitive emissions- Cyclone dust collector will be provided to dryer in GSSP manufacturing and NPK manufacturing.

The existing water requirement is 314 m3/day and no additional water will be required. Existing waste water generation is 108 m3/day. No additional wastewater will be generated. Industrial wastewater will be sent to ETP and treated wastewater will be reused. Domestic wastewater will be treated in STP.

Wet scrubber sludge will reused in process. Used oil will be reused as lubricant. Spent acid will be reused in SSP plant and Dust from Dust collector (bag filter) will be reused in process.

The Committee noted that expansion of plant is by mean of modernization and no additional fresh water will be required for the proposed project and also no additional fuel will be needed. The Committee noted that last public hearing was held in April 2013. Therefore, the Committee exempted the project from the public hearing as per the para 7(ii).

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

11. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
12. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
13. Details of ammonia storage and risk assessment thereof.
14. Measures for control of urea dust emissions from prilling tower.
15. Measures for reduction of fresh water requirement.
16. Details of proposed source-specific pollution control schemes and

equipments to meet the national standards for fertilizer.

17. Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluoro silicic acid (H_2SiF_6) and its uses.
18. Management plan for solid/hazardous waste including storage, utilization and disposal of by products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck, etc.
19. Details on existing ambient air quality for PM₁₀, PM_{2.5}, Urea dust*, NH₃*, SO₂*, NO_x*, 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)
20. 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) One month air quality data to be analysed

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.

11.7.6 Proposed Quality Improvement Project from BS-IV to BS-VI grade at Mathura Refinery by M/s Indian Oil Corporation – 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 Indian Oil Corporation has proposed for Quality Improvement Project from BS-IV to BS-VI grade at Mathura Refinery. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Baad Reserve Forest is situated at a distance of 2 Kms towards Northern direction. River Yamuna is flowing at a distance of 6 Km towards Eastern direction from the project site. Mathura Refinery fall within Taj Trapezium Zone (TTZ). Ministry vide letter no. J-11011/208/2013-IA II(I) has issued environmental clearance to M/S IOCL for Dimerisation Unit (55 TMTPA). Public Hearing was exempted under 7 (ii) of the EIA Notification, 2006.

Cost of the proposed plant will be Rs. 1713 crore. Project will be executed within the Mathura refinery boundary. Additional 1200 m² area will be required for the proposed project.

Mathura Refinery has considered revamp of its existing DHDS, Prime-Gand HGU-1units apart from the addition of new CCR and ISOMERIZATION units as part of Quality Improvement Project(QIP) which area as follows:

S. No.	Existing Facility	Proposed Facility	Existing capacity	Proposed capacity
1	Prime-G	Revamp	525 TMTA	No Change
2	DHDS	Revamp	100 TMTA	No Change
3	HGU-1 NEW/ Revamp	NEW/ Revamp	34 TMTA	53 TMTA
4	-	New Continuous Catalytic Reforming (CCR) Unit	-	400 TMTA
5	-	New Isomerization (ISOM) Unit	-	200 TMTA

Product Specification (Sulphur content- mg/kg):

S. No.	Product type	Bharat Stage IV	Bharat Stage VI
1	Gasoline	50	10
2	Diesel	50	10

Power requirement will increase from 67.3 MWH to 74.6 MWH and met from existing CPP. Existing fresh water requirement is 669 m³/hr. No additional fresh water will be required. Wastewater discharge will be decrease from 176 m³/hr to 169 m³/hr. Total SO₂ emission will be increased from 339.8 Kg/hr to 341.4 Kg/hr.

During presentation PP informed that there is judgment given by Hon'ble Supreme Court on 30th Dec 1996 in response to PIL filed by the petitioner M C Mehta .As per this judgment there were only three directives pertaining to Mathura refinery which have been compiled-

- 1 Use of natural gas as an alternate fuel.
- 2 The setting up of hydrocracker unit.
- 3 The setting up of 50 bed hospital and two mobile dispensaries to provide medical aid to the people living in the surrounding areas (court order dated August 7,1996).

On query on the issue of TTZ, It was informed that proposed project is not for the capacity enhancement of Mathura refinery but is only for the quality up gradation of MS & HSD from BS-IV to BS-VI in its existing capacity. PP finally confirmed that the proposal is not covered under the said judgment given on 30th December 1996 by Hon'ble Supreme Court. In this background, the Committee recommended for consideration of project on following TOR. However, final view shall be taken by Ministry.

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 SO₂ and NO_x 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
 - v. Identification of hazards
 - vi. Consequence Analysis

- vii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
- viii. Arrangement for fire protection and control.

B. Additional TOR

- I. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- II. As committed, 50% of fresh water requirement should meet from treated wastewater of STP and EIA should be prepared accordingly with reduced water requirement.

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

11.7.7 Setting up of 90 KLPD (RA/ AA/ ENA) molasses based distillery at Sy. No. 164 to 170 & 85, Village Bedkihal, Tehsil Chikkodi, District Belgaum, Karnataka by M/s Venkateshwara Power Project Limited-reg TOR

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

M/s Venkateshwara Power Project Limited is proposing for setting up of 90 KLPD (RA/ AA/ ENA) Molasses based distillery unit at Village Bedkihal, Tehsil Chikkodi, District Belgaum, Karnataka. 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. Doodhganga River is flowing at a distance of 4.45 km in North and Vedganga River 3.87 km in West direction from the project site.

Total plot area is 16129 m², of which 5323 m² (33 %) will be developed as green belt. Total Cost for the project is Rs. 93.35 crores, out of which cost earmarked for EMP will be Rs. 2.59 crores. About 70 peoples will be employed under this expansion project.

Power requirement will be 1695 KWH sourced from its own Co-gen unit. Coal fired boiler of 32 TPH will be installed and connected to ESP as air pollution control equipment. Two DG set of 250 kVA will be installed.

Fresh water requirement will be upto 649 m³/day and sourced from Sadalga barrage on Doodhganga river. Spent wash generated from molasses process would be concentrated in Multi-effect evaporator followed by incineration boiler. Process condensate from MEE will be reused as a cooling tower make-up. Plant is based on ZLD. Domestic wastewater will be sent to septic tank followed by soak pit.

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

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

A. Specific TOR

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

B. Additional TOR

- I. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- II. Cumulative impact to be assessed that include the existing sugar plant.
- III. To draw proper green belt plan and EIA should includes photographs of plant grown with numbers.
- IV. Effort will be made to reduce water.

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

The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

11.7.8 Expansion of Bulk Drug Intermediate manufacturing unit at Plot No: 165 to 182 APIIC, IDA Village Thumukunta, Mandal Hindupur , District Anantapur, Andhra Pradesh by M/s RL Fine Chem Private Limited- reg. TOR

The project authorities and their Consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk drug and intermediate) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general condition i.e. Inter-state boundary (Karnataka border -1.2 Km) treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s RL Fine Chem Private Limited has proposed for Expansion of Bulk Drug Intermediate manufacturing unit at Plot No: 165 to 182 APIIC, IDA Village Thumukunta, Mandal Hindupur , District Anantapur, Andhra Pradesh. The Existing bulk drugs intermediates manufacturing unit was established prior to 2006 and obtained CFO vide order no. ATP-41/PCB/ZO/C/ESTT/2002-169 dated 30.03.2002. As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Total plot area is 4.32 acre, out of which greenbelt will be developed on 1.24acre of land. Total Cost for the expansion is Rs. 2.1 crore of which Rs. 1.1 Crore will be invested on Environmental Protection Measures. Following are the details of existing and proposed products:

List of Existing Products

S.No	Name of the Products	Quantities in kgs/day
1	Dibenzo suberone	40
2	Benzhydrol	100
3	Iminodibenzyl	100
Total		240

List of Proposed Products

S.No	Product Name	Production Capacity TPM	Product Description Drug/Intermediate/Multipurpose chemicals
1	Orphenadrine base	8.0	Drug intermediate
2	Carbamezapine crude	2.0	Drug intermediate
3	Hydroxy Dimethyl ,dibenzyl intermediate	0.6	Drug intermediate

4	Piperidino propiophenone	1.0	Drug intermediate
5	Cinnerazine crude	2.0	Drug intermediate
6	Doxipinone	0.6	Drug intermediate
7	Dotheipinone	1.0	Drug intermediate
8	Methoxy dichloro pyrimidine	2.0	
9	P-t butyl benzyl chloride	1.0	Drug intermediate
10	Chloro acetyl chloride benzo phenone	1.5	Drug intermediate
11	Piperidino ethyl chloride	1.0	Drug intermediate
12	Dibenzo suberone	8.0	Drug intermediate
13	Hydroxy Dimethylamino Thiophene	0.5	Drug intermediate
14	Imino dibenzyl	3.0	Drug intermediate
15	Methyl ester benzo phenone	1.0	Drug intermediate
16	2-amino nitro benzo phenone	0.8	Drug intermediate
17	Dimethylamino cyclo hexanone	2.5	Drug intermediate
18	Bromo anisole	2.5	Drug intermediate
19	Chloro phenothiazine	2.0	Drug intermediate
20	Ester	1.0	Drug intermediate
21	Dimethylamino Propyl chloride	3.0	Drug intermediate
	Total	45.0	
By Products			
1	Sodium chloride	0.29	
2	Ammonium chloride	0.7	
3	Spent Acid	8.1	
4	Ammonium Phosphate	2.0	
5	Sodium Acetate	1.1	

Fresh water requirement will increase from 4.8 m³/day to 65.4 m³/day and to be sourced from private suppliers through tankers. Against this, wastewater generation will be increasing from 3.15 m³/day to 28.9 m³/day. Wastewater will be segregated into two streams as High TDS (HTDS) and Low TDS (LTDS). HTDS Effluent after neutralization, filtration sent to MEE. LTDS effluents along with MEE condensate will be sent to Biological treatment and finally to RO system. RO Rejects to MEE system and RO permeate to reuse; MEE residue to ATFD for drying.

Process emission such as HCl, SO₂, NH₃, Cl₂ will be scrubbed with water or with caustic soda sent to MEE. Existing briquette fired boiler of 2TPH capacity and oil fired boiler of capacity 0.6 TPH will be provided with Dust collector and connected with stack of 30 mt height. Additional briquette fired boiler will be installed and connected to Dust collector. Thermic fluid heater having 1 lakh K Cal/Hr will be installed and connected to stack of adequate height. To meet the additional power requirement and standby arrangement, capacities of existing DG sets (1x 200 KVA and 1 X 40 KVA) will be enhanced (490 KVA).

MEE salts, ATFD Salts, ETP sludge, Organic residue, Distillation residue, Spent carbon and In organic residue will be sent to TSDF site. Ash from boiler will be Sold to brick manufacturers. Waste oil, Used lead acid batteries and spent solvents will be sent to Authorized reprocessors/ recyclers. Container and container liners of hazardous waste & chemicals will be disposed by outside agencies after detoxification

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 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.

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.

11.7.9 Expansion of fertilizer and Energy Improvement Project of Ammonia and Urea plants at Panambur, Mangalore, District Dakshina Kannada, Karnataka by M/s Manglore Chemicals and Fertilizers –reg TOR

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

M/s Manglore Chemicals and Fertilizers has proposed for Expansion of fertilizer and Energy Improvement Project of Ammonia and Urea plants at Panambur, Mangalore, District Dakshina Kannada, Karnataka.

The Ministry has issued EC vide letter no F. No J-11011/105/2007-IA-II(I) dated 18/07/2007 for Revamping of Di-ammonium phosphate (DAP) fertilizer plant (2,55,500 TPA to 4,01,500 TPA) at Panambur, Mangalore, District Dakshina Kannada, Karnataka by M/s Manglore Chemicals and Fertilizers.

It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. During presentation it was informed that Gurupur River is flowing at 1.0 km distance from the project site and Arabian sea is at 2 km distance from the project site.

Total existing plot area is 192 acres, of which 64 acres area has already been developed as greenbelt. No additional land is required. Total cost of the project is Rs. 1547 Crore. About 100 peoples will be employed under this expansion project. Following are the existing and proposed products:

The project include following main features

- Energy improvement project of Ammonia and Urea Plants
- One million t/y DAP/NPK Plant
- Poly Carboxyl Ether (PCE) Project

Details of the Existing capacity and proposed capacity

	Product	Existing capacity (TPA)	Additional capacity (TPA)	Total capacity (TPA)
1	Ammonia	2,47,5002,	81,000	3,28,500
2	Urea	4,29,000	1,40,400	5,69,400
3	DAP & NP (Multigrade) / NPK	4,01,500	10,00,000	14,01,500
4	Ammonium Bicarbonate (ABC)	24, 750		24750
5	Sulphuric Acid	1,46,000		1,46,000
6	Sulphonated Naphthalene Formaldehyde (SNF)	85,000		85,000

7	Imported Fertilizer Handling	4,00,000		4,00,000
8	Speciality Mixtures of Plant Nutrients	2,21,000	-	2, 21,000
9	Poly carboxyl Ether (PCE)	-	18,000	18,000

Naphtha/ Furnace Oil will be used as fuel till LNG is made available under Energy improvement Project of Ammonia & Urea plants.

No additional water will be required under proposed expansion and water will be sourced from Mangalore City Corporation. No liquid effluent will be discharged from the plant. All the liquid effluent streams will be collected and recycled back to the process. No additional Hazardous Waste will be generated from the proposed project. The Committee noted about poor presentation as no details of fresh water and wastewater has been provided by PP. On query, it was informed that about 8928 m³/day of fresh water being used for existing plant.

The Committee deliberated on conducting the public hearing on fertilizer plant, being located in Industrial area. It was emerged that in separate report filed in NGT by the Committee, the fertilizer plant are also need to conduct public hearing regardless of its location in industrial zone.

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 equipment 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 (H₂SiF₆) and its uses.
8. Management plan for solid/hazardous waste including storage, utilization

and disposal of by 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. Detailed plan for zero liquid discharge to be drawn by water recycling and reuse. Prior detailed water audit to be completed and furnished in EIA-EMP report.

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

11.8.5 BS-IV Project of Gujarat Refinery from BS-III to BS-IV compliant HSD production at District Vadodara , Gujarat by M/s IOCL Ltd. - reg amendment in TOR w.r.t. 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).

Ministry has issued TOR to M/s IOCL (Gujarat Refinery) 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, Gujarat.

PP had earlier applied for TOR in 9th EAC meeting which was held during 27-28th June, 2016 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, Gujarat. The committee noted that both activities re proposed to be undertaken in

same premises and suggested to club the both activities together for assessment of cumulative Environmental impact.

Now PP has applied for amendment in their existing TOR by 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.

The following features will be added

Sr. No.	Process Units	Capacity
1.	New DHDT	2.0 MMTPA
2.	New HGU	72.5 KTPA
3.	New FCC-GDS	700 KTPA
4.	ARU	190 TPH

Units	Pre-Project	Post BS-VI Project
CCRU	600 KTPA	780 KTPA
ISOM	230 KTPA	276 KTPA

Under the proposed project Natural Gas (NG) requirement will increase by 134 KTPA. Water requirement shall be Approx. 140 m³/hr (0.7 MGD) and sourced from Mahi River. Power requirement shall be 23.9 MW. Existing refinery captive power generation facilities will be sufficient for supplying the same.)

After deliberation, the Committee recommended for aforesaid amendment in existing TOR issued vide letter no. J-11011/96/2015 IA II (I) dated 13th July, 2015. All condition stipulated in existing TOR will remain unchanged.

11.8 Any Other

11.8.1 Proposed expansion of distillery unit (80 KLPD to 150 KLPD) Molasses/ Tapioca based and 7.5 MW Co- generation at Sakarwadi, Taluka Kopargaon, District Ahmednagar by M/s Godavari Biorefineries Limited earlier known as M/s Somalya Organo Chemicals limited, Maharashtra- reg. Extension of validity of EC.

MoEF&CC vide letter J-11011/844/2008-IA II(I) dated 30.01.2009 has granted environmental clearance to M/s Somalya Organo Chemicals limited for expansion of distillery unit (80 KLPD to 150 KLPD) Molasses/ Tapioca based and 7.5 MW Co-generation at Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra.

PP has applied online for extension of EC validity on 13.01.2016 before expiry . As per the amended Notification, the validity of EC has now been extended from 5 to 7 years. Therefore, the Committee recommended for extension of EC upto 29.01.2019 subject to following conditions

- (i) Spent wash shall be stored in impervious pucca lagoons (RCC) with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- (ii) No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- (iii) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- (iv) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (v) 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.

11.8.2 Proposed LPG Pipeline from Kochi Refinery to Coimbatore at District Ernakulam, Kerala by M/s BPCL –reg. Amendment in EC.

MoEF&CC vide letter J-11011//396/2012-IA II(I) dated 03.07.2015 has granted Environmental Clearance to M/s BPCL for Proposed LPG Pipeline from Kochi Refinery to Coimbatore at District Ernakulam, Kerala.

Now PP has applied online application for amendment in their existing EC. During presentation, PP informed that they want to re-route a portion of the pipeline for a length of 28.87 kms from Pattikkad in Thrissur District to Alathur district. During

presentation the Committee noted that the new route of pipeline will go through Wild life sanctuary. After detailed deliberation the committee was of the view that this change of route due to addition of new area, this will be treat as new project and suggested the PP to apply afresh TOR application through online. .

11.8.3 Proposed expansion of Dye intermediates manufacturing unit at plot no. 3105 & 3106, GIDC Panoli, District Bharuch, Gujarat by M/s Dhanveen Pigments Pvt. Ltd.- reg. Validity extension of EC.

MoEF&CC vide letter J-11011/861/2008-IA II(I) dated 30.01.2009 has granted Environmental Clearance to M/s Dhanveen Pigments Pvt. Ltd. for expansion of Dye intermediates manufacturing unit at plot no. 3105 & 3106, GIDC Panoli, District Bharuch, Gujarat.

PP has applied online application for extension of validity of EC on 25.05.2016, which is submitted after expiry time of 7 years. Therefore, the Committee did not agree with the proposal and recommended PP to apply afresh application for seeking EC.

11.8.4 Bulk drug unit at sy. No. 332, 335, 336 & 341, Veleminedu, Chityal, Nalgonda, A.P. By M/s Nucleus Drugs Pvt. Ltd. reg. Extension of EC.

MoEF&CC vide letter J-11011/511/2007-IA II(I) dated 10.09.2007 has granted Environmental Clearance to M/s Nucleus Drugs Pvt. Ltd. for Bulk drug unit at sy. No. 332, 335, 336 & 341, Veleminedu, Chityal, Nalgonda, A.P.

PP has applied online for extension of EC validity on 15. 02. 2016 enclosing the date of submission of earlier application, which were applied on 28.02.2013, 16.11.2013 and 13.10.2014. These applications were prior to online system. The Committee noted that these applications were applied after the 5 years of valid period at that time.

PP informed that due to financial constraints mainly because of delay in issue of CFE, Funds diverted & Construction activity is delayed as the complete project scheduling was disturbed for more than 4 years.

In light of amended Notification under which validity of EC has been extended from 5 to 7 years, the project fall in transition zone of 5 to 7 years. Therefore, Committee recommended the project for its extension of validity of EC upto 09.09.2017.

11.8.5 Expansion of pesticide manufacturing unit (3525 MTPA to 9325 MT/Y) at Gat no. 367, Village Rasegaon, Tehsil Dindori, District Nashik, Maharashtra by M/s Spectrum Ether Ltd. – reg. Amendment/ Correction in EC

MoEF&CC vide letter J-11011/84/2012-IA II(I) dated 28th March, 2016 has granted Environmental Clearance to M/s Spectrum Ether Ltd. for Expansion of pesticide manufacturing unit (3525 MTPA to 9325 MT/Y) at Gat no. 367, Village Rasegaon, Tehsil Dindori, District Nashik, Maharashtra.

Now PP has requested through online for following Amendment/ Correction in EC:

- 1.0 The flexibility clause is not mentioned in the EC, want to manufacture multiple products simultaneously without crossing the accord limit of 10000 MT/Yr.

This verified with EIA report as given at page no. 28. The correction is accordingly recommended.

2.0

I.	Existing	May be read as
Para 2.0	that " total cost of expansion project is Rs. 40 Crores of which Rs. 7.0 Crore and Rs. 0.58 crore ate earmarked towards capital cost and recurring cost per annum	"total cost of expansion project is Rs.40 Crores of which Rs.7.0 Crore and Rs.0.58 crore are earmarked towards capital cost and recurring cost per annum respectively for environmental management".

This correction is also verified and correction is recommended.

- 3.0 The list of By-products may be read as under;

List of By-products (Quantity in MTPY)

S. No.	Particulars	Existing	For 5800 MTPY	For 8000 MTPY	For 10000 MTPY	Use
1.	NaHS soln.(100%)	303	303	325	410	Reducing agent used in tannery industry
2.	NaBr/KBr Soln. (100%)	133	38.01	355.5	430.5	Send for Bromine recovery
3.	HBr soln. (100% basis)		337.5	737	898.5	Send for Bromine recovery
4.	30% HCl soln.	11	11	20.75	23.75	Sale or Captive consumption
5.	25% NH ₃ soln.	-	112.5	125.5	152.5	Send for Ammonia recovery
6.	20% Na ₂ SO ₃ soln.	-	1622.5	1295.5	1622.5	Used in Pulp & Paper, Photographic Chemical Industry
7.	NH ₄ Cl soln.	-	665	775	965	Used in fertilizer, Textile & Printing
8.	NaOCl soln.	-	1412.5	1195	1457.5	Sale or Captive consumption
9.	TMABr Soln. (50%)	495	545	775.75	910.85	Send for Bromine recovery

The above is also verified with EIA report at page 35-36 and correction is recommended.

4.0 Required fuel as given below:

S. No.	Parameters	Existing 3525 MTPY	For 1000 MTPY
	LDO (kg/hr)	61	
	HSD (lit/day)	-	3500
	Coal	60	105
	Or Bagasse (TPD)	117	235

The committee considered it not as part of correction but feel it is not necessary for amendment.

5.0

	Existing EC	May be read as
Para 7, A, (xii)	Effluent quantity mentioned is 29.5 m3/day	Effluent generation quantity is 220 m3/day

The above is verified with EIA report at page 42 and correction is recommended.

6.0

	Existing EC	May be read as
Para 7, A, (xv)	"As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP process inorganic & evaporation salt shall be disposed off to the TSDF".	ETP sludge generated shall be sent to CHWTSDf, Ranjangaon Facility, for further treatment & Incineration.

The Committee accepts the amendment as requested.

11.8.6 Bulk Drug Unit at Chippada Village, Annavaram Taluka, Beemunipatnam Mandal, Visakhapatnam District, A. P. by M/s Divi's Laboratories Ltd., A. P. (Change in product mix in the existing unit)- reg amendment in EC.

MoEF&CC vide letter no. J-11011/418/2006-IA II(I) dated 10th October, 2007 has granted Environmental Clearance to M/s Divi's Laboratories Ltd. for Bulk Drug Unit at Chippada Village, Annavaram Taluka, Beemunipatnam Mandal, Visakhapatnam District, A. P.

Now PP has applied for amendment in their existing EC for addition of new land to relocate 7 blocks. During presentation the committee noted that the shifting of 7 blocks

at additional new land (73 acres) will be considered as change in configuration of project with different layout plan and hence it is change in scope of existing EC. Therefore, the Committee did not agree with proposal of amendment and suggested the PP to apply afresh TOR application through online.

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 health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- 10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
- 11. Enterprise Social Commitment (ESC)
 - i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
- 12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- 13. 'A tabular chart with index for point wise compliance of above TORs.
- 14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports.

The following general points shall be noted:

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

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

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

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 11th MEETING OF EAC (INDUSTRY-2)
HELD ON 20-21st JULY , 2016

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