MINUTES FOR 36th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) HELD DURING 16-17th MARCH , 2015

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

Time : Meeting held at 10: 00 AM

36.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 30 AM

36.2 Confirmation of the Minutes of the 34th Reconstituted Expert Appraisal Committee (Industry-2) held during 17- 19th February 2015

16th March, 2015 (Day 1)

36.3 Environmental Clearance

36.3.1 Synthetic Resin manufacturing unit at Plot No. C-1/2807, Chemical Zone, GIDC Notified Area, Sarigam, TalukaUmargam, Dist.-Valsad (Gujarat) by M/S. Cytech Coatings Pvt. Ltd. II – reg. EC.

All the synthetic organic chemicals industry (Resin Manufacturing Unit) located inside the notified industrial area are listed at S.N. 5(f) under Category 'B'. However, as per amendment notification dated 25.06.2014, any project or activity specified in category 'B' will be appraised at the Central level as Category 'A' located in whole or in part within 5 km. from the boundary of critically polluted areas as identified by the CPCB. The proposed project is located at a distance of 9.7 km from Ankleshwar Industrial Estate (Critically Polluted Area). Therefore, entire proposal may be treated as Category 'B' and appraised at the State Level i.e. SEIAA/SEAC, Gujarat.

The Committee recommended for transferring the project to the SEAC/SEIAA, Gujarat for appraisal.

36.3.2 Phenol Formaldehyde Resin (87.5 MTPA) and Melamine Formaldehyde Resin (37.5 MTPM) at Sy. No. 49/P1, Plot no. 3 & 4, National Highway no. 8B, Village Jamwadi, TalukaGondal, District Rajkot, Gujarat by M/s Mahadev Laminate Pvt. Ltd. – reg. EC

The project proponent and their consultant (M/s Nisarg Enviro Consultants, Stay order no. C/SCA/12466/2013 dated 07/08/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 1stMeeting of the Expert Appraisal Committee (Industry) held during 24th to 25thSeptember, 2012 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Mahadev Laminate Pvt. Ltd has proposed for setting up of phenol formaldehyde resin (87.5 MTPA) and melamine formaldehyde resin (37.5 MTPM) manufacturing unit at Sy. NO. 49/P1, Plot No. 3&4 , National Highway No. 8B, Village Jamnadi, TalukaGordal, District Rajkot, Gujarat. No national park/sanctuary/Biosphere/Reserve monument/Hetiage site / reserve forest is located with 10 Km. Total plot area is 1410 m^2. Total project cost is Rs. 2.2 Crores. Recurring cost for environment management plant is Rs. 10.00 lakh /Annum.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during May, 2014 and November, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (43 µg/m3 to 82 µg/m3), SO_2 (3 µg/m3 to 17 ug/m3) and NOx (5 µg/m^3 to 28 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.4 µg/m^3, 2.5 µg/m^3 and 0.9 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Multicyclone separator followed by bagfilter will be provided to coal fired boiler to control particulate emissions. DG set (250 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total water requirement is 46.5 m3/day, of which fresh water requirement from ground water source will be 15.0 m^3/day. Remaining water requirement will be met from treated effluent and condensate. Industrial effluent generation will be 4.0 m^3/day. Industrial effluent will be treated in ETP. Phenol recovery unit will be installed. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 15thNovember, 2014. The issues were raised regarding local employment, environmental concerns, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

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

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

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

v) Total fresh water requirement from ground water source should not exceed 15.0 m^3/day and prior permission should be obtained from the CGWA/SGWA.

vi) Industrial effluent will be treated in ETP. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. No effluent shall be discharged outside the plant premises and zero effluent discharge concept shall be followed.

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

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 15thNovember, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

36.3.3 Expansion of Single Super Phosphate at Village Halavarthi, District Koppal, Karnataka by M/s K.P.R Fertilizers Ltd – reg. EC

The project proponent and their consultant (M/s Pioneer Enviro Laboratories) 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 2ndMeeting of the Expert Appraisal Committee (Industry) held during 29thto 31stOctober, 2012 for preparation of EIA-EMP report. All fertilizer plant except single super phosphate plant is listed at S.N. 5(a) under category 'A' and appraised at Central level under category 'A' and appraised at Central level.

M/s K.P.R Fertilizers Ltd has proposed for expansion of Fertilizer Unit at Sy. No.108 & 109, at Village Halavarthi, Taluka & District Koppal, Karnataka. No forests land is involved. Total land in possession is 35.925 acres, of which greenbelt area earmarked is 12.35 acres. Trungabhadra reservoir is located 5.0 km. The cost of project is Rs. 20.0 crores. Tungabhadra Reservoir is located at 4.8 Km. It is reported that no national parks/sanctuaries are located within 10 Kms distance. Tungbhadra Reservoir is located at the distance of 4.8 Km distance. Environmental clearance was accorded by the Ministry's letter no J-11011/677/2009 –IA II (I) dated 7th July, 2011.

Following are the list of existing and proposed products.

S.No	Product	Production Capacity (TPD)		
		Existing	Proposed Expansion	Total
1.	Single Super Phosphate (Powdered /Granulated)	200	150	350
2.	Di-Calcium Phosphate (DCP)	10	40	50
3.	Mineral Mixtures	40	--	40
4.	N.P.K. Mixtures Plant	500	100	600
5.	Pesticides formulation unit	35	--	35
6.	Sulphuric acid unit	120	--	120
7.	Di methyl Sulphate	--	50	50
8.	Linear alkyl benzene Sulphonic Acid (LABSA)	--	40	40
9.	Oleum (By-product	30	-	30
	Power	1 MW	--	1 MW

The following will be the raw materials and their requirement for proposed expansion

Name of the Raw material	Requirement TPD	Source	Transportation
Single Super Phosphate (Powdered /Granulated)			
Rock phosphate	90	Jordan, Egypt, Israel	Ships & Lorries
H_2SO_4	52.5	Own generation	Pipe Line from H_2SO_4 plant
Di-calcium Phosphate			
Rock phosphate	72	Jordan, Egypt, Israel	Ships & Lorries
H_2SO_4	40	Own generation	Pipe Line from existing H2SO4 plant
Lime	10	Rajasthan, Himachal Pradesh	Lorries
NPK mixtures			
Urea	25.2	China, Iran	Ships & Lorries
DAP	41.3	China, Jordan, Egypt	Ships & Lorries
Potash	31.6	Canada, Russia	Ships & Lorries
Dolomite	1.9	Kurnool, Ongole	Lorries
Sulphuric acid			
Sulphur	40	Singapore	Ships & Lorries
Di Methyl Sulphate (DMS)			
Methanol	30	Deepak Fertilizers Ltd. Mumbai, GSFC, Gujarat	Tankers
Liquid SO_3	38	Internal generation	Pipe Line from H_2SO_4 plant

Name of the Raw material	Requirement TPD	Source	Transportation
Linear Alkyl Benzene Sulphonic Acid (LABSA)			
SO_3/ Sulphuric Acid	12	Internal Generation	Pipe line from H_2SO_4 plant
LAB	30	MRPL, Karnataka Tirumalai Chemicals, Chennai	Tankers
6 TPH Boiler			
Coal (Imported / Indigenous)	24	Andhra pradesh, Indonesia	Covered trucks
Biomass	38	Karnataka	Covered trucks
Coal gasifier			
Coal	20	Andhra pradesh	Covered trucks

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2013-May, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (19.7 µg/m3 to 42 µg/m3), $PM_{2.5}$ (11.8 µg/m3 to 25.2 µg/m3), SO_2 (8.3 µg/m3 to 13.4 ug/m3), NOx (10.5 µg/m^3 to 15.8 µg/m^3) and total fluoride (0.08ug/m^3 to 0.2 ug/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.1 µg/m^3, 18.5 µg/m3, 9.4µg/m3 and 0.8 µg/m3 with respect to SPM, SO_2, NOx and F. The resultant concentrations are within the NAAQS. Three stage PP/FRP scrubber will be provided to bring down the fluoride emission less the 15 mg/Nm^3.Bagfilter will be provided coal fired boiler. Gases from Methanol recovery plant will be passed through packed scrubber before discharging into the atmosphere. Alkali scrubbing system will be provided in LABSA manufacturing process to control SO2 emissions. Scrubber will be used for treatment of Sox emissions from sulphuric acid plant. Water requirement from ground water source will be increased from 50 m^3/day to 610 m3/day after expansion. Wastewater generation after expansion will be 199 m3/day and treated in the ETP. Treated effluent will be used for dust suppression, ash condition, greenbelt development, SSP & NPK and coal gasifier. Silica precipitate will be used as filler material in NPK mixtures unit after sun drying. Gypsum sludge will be utilized as filler material in NPK plant. Ash will be sent to brick manufacturers. Sulphur sludge will be sent to SSP. Coal tar will be mixed with furnace oil to use as fuel or used in road laying.

The Committee also discussed the compliance status report dated 19th August, 2013 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Bangalore. It is reported that three stage wet scrubber system has been provided to control fluoride. Cyclone scrubber followed by bagfilter have been provided to the grinding section and SSP plant to control the fugitive emissions. Water requirement from ground water source will be 35 m^3/day. No effluent generation from SSP, NPK and Dicalcium Phosphate units. However, ETP has been constructed for effluent from Sulphuric acid. Zero effluent discharge condition is being followed. It is reported that pp has taken up plantation (5000 plants) in and around the factory. Though the greenbelt development work is good, lot of vacant area is available and they have agreed to take up in a phased manner. 70% of the total employees are local. The Committee found satisfactory compliance report.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 22nd July, 2014. The issues were raised regarding local employment, adverse impact on

agriculture, salary of the employee, non-redressed of grievance by the Company, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information:

(i) Detailed need based plan of Corporate Social Commitment for 5 years to be prepared and submitted.
(ii) Details of scheme of scrubbing unit at gasification plant.
(iii) Commitment to install bagfilter in coal based boiler.
(iv) As per page 10-4 of EIA-EMP report, it is mentioned that cyclone separator will be provided to rock grinding section and furnace oil fired hot air generator to bring down particulate emissions. Adequate pollution control device to be provided to arrest the emission.

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

36.3.4 Proposed synthetic organic resin manufacturing unit (Phenol-Formaldehyde Resin and Melamine-Formaldehyde Resin) – 425 MTPM at Plot No. 8, Opp. Sahyog Cotton, N.H. No. 8-B,Shapar (Veraval),Tahsil KotdaSangani, District. Rajkot, Gujarat by M/s Vision Laminates Pvt. Ltd – reg. EC

The project proponent and their consultant (M/s Envisafe Environment Consultant) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 5th Meeting of the Expert Appraisal Committee (Industry) held during 31st January, 2013 to 1st February, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Mahadev Laminate Pvt. Ltd has proposed for setting up of synthetic organic resin (Phenol-Formaldehyde Resin and Melamine-Formaldehyde Resin) – 425 MT/month at Plot No. 8, Opp. Sahyog Cotton, N.H. No. 8-B,Shapar (Veraval),Tal. KotdaSangani, Dist. Rajkot, Gujarat. It is reported that no national park/sanctuary is located within 10 Km distance. Reserved forest of Village Naranka of Kotada Sanganitaluka falls within the study area. Total plot area is 2702.70 m^2. Total cost of proposed project is Rs. 2.03 Crores.

Following products will be manufactured:

S.N.	Product	Quantity
1	Electrical Insulation Board/Switch Board Sheet	600 MTPM (1,50,000 Sheets)
2	Decorative Laminate Sheet	
3	PF (Phenol-Formaldehyde) Resin	225 MTPM
4	CPF (Cardinol Phenol Formaldehyde) Resin	
5	UF (Urea Formaldehyde) Resin	200.0 MTPM
6	MF (Melamine – Formaldehyde) Resin	

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2014 and May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (59 µg/m3 to 158 µg/m3), PM2.5(19 µg/m3 to 39 µg/m^3), SO_2 (12 µg/m3 to 61ug/m3) and NOx (16 µg/m^3 to 55 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.172 µg/m^3, 0.55 µg/m^3 and 0.07 µg/m^3 with respect to

SPM, SO2 and NOx. The resultant concentrations are within the NAAQS except PM10. Multicyclone separator will be provided to coal fired boiler and thermic fluid heater. However, the Committee suggested them to install bagfilter to control particulate emissions efficiently. DG set (100 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total fresh water requirement from ground water source will be 15.8 m^3/day. Industrial effluent generation will be 2.5 m^3/day and treated in the ETP followed by force evaporation to achieve zero discharge. Phenol recovery unit will be installed. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 16th January, 2015. The issues were raised regarding industrial effluent, process emissions, hazardous waste management and benefits as well as local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

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

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

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

v) Total fresh water requirement from ground water source should not exceed 15.8 m^3/day and prior permission should be obtained from the CGWA/SGWA.

vi) Industrial effluent will be treated in ETP. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. No effluent shall be discharged outside the plant premises and zero effluent discharge concept shall be followed.

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

viii) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area,

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 16th January, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

xi) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

36.3.5 Proposed Synthetic Drugs API(65 TPA) and Steroid (5 TPA) Plant at Plot No.C-25, RIICO Industrial Area, Village Sotanala, Tehsil Behror, District Alwar, Rajasthan by M/s Shri Jee Laboratory Pvt. Ltd – reg. EC.

The project proponent and their consultant (M/s J M Environet) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 21st Meeting of the Expert Appraisal Committee (Industry) held during 30th-31st July, 2014 to 1st August, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Bulk Drugs Manufacturing Unit) located inside the notified industrial area are listed at S.N. 5(f) under Category 'B'. However, due to applicability of general condition i.e. interstate boundary within 5 km (i.e. 4 Km Rajasthan-Haryana), project is treated as Category 'A' project and appraised at the Central level.

M/s Shri Jee Laboratory Pvt. Ltd has proposed for setting up of Synthetic Drugs API(65 TPA) and Steroid (5 TPA) Plant at Plot No.C-25, RIICO Industrial Area, Village Sotanala, Tehsil Behror, District Alwar, Rajasthan. Plot area is 9478 Sqm. (2.34 Acre) (0.947 ha) of which area earmarked for greenbelt is 0.77 acre. Cost of the project is Rs. 35 Crore. It is reported that no national park/wildlife sanctuary/RF/PF is located within 10 km distance. Following products will be manufactured:

S.N.	Products	Quantity (MTPA)
1	Moxifloxacin Hydrochloride	20.3
2	Cilnidipine	1.0
3	Silodosin	0.5
4	Montelucast Sodium	5.0
5	Fexofinadine hydrochloride	6.0
6	Linezolide	20.0
7	Escitalopram	1.0
8	Etizolam	0.1
9	FlupentixolDihydrochloride	0.5
10	Besifloxacin Hydrochloride	0.5
11	Granisetron Hydrochloride	0.1
12	AzilsartanMedoxomil Potassium	10.0
	TOTAL	65.0

B	**Steroid**	
1	Finasteride	0.6
2	LotepridnolEtabonate	0.35
3	Mefipristone	3.0
4	Deflazacort	0.8
5	Ulipristal Acetate	0.25
	TOTAL	5.0

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during April, 2014 and June 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (57.1 µg/m3 to 86.5 µg/m3), PM2.5 (22.1 µg/m^3 to 39.4 µg/m^3), SO_2 (7.4 µg/m^3 to 12.8 ug/m^3) and NOx (13.2 µg/m^3 to 25.6 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.52 µg/m^3, 1.39 µg/m^3 and 7.64 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Wet scrubber will be provided to pet coke/bio-briquette/husk fired boiler. However, the Committee suggested to install bagfilter for better efficiency. Fresh water requirement from RICCO Industrial Area will be 50 m3/day. Industrial effluent generation will be 44 m3/day and treated in the ETP followed by RO. RO rejects will be evaporated in MEE. Condensate will be recycled. No effluent will be discharged outside the plant premises. Spent solvent will be sent to the authorized recyclers. ETP sludge and MEE salt will be sent to TSDF. Spent oil will be sent to the authorized recycler/re-processors.

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

i) As proposed, bagfilter shall be provided to the pet coke/bio-briquette/husk fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.

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

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

iv) Total fresh water requirement from RICCO Industrial Area water supply shall not exceed 50 m^3/day.

v) As proposed, industrial effluent generation shall not exceed 44 m^3/day. Effluent shall be treated in ETP followed by RO. RO rejects shall be concentrated in the MEE. MEE condensate shall be recycled for cooling tower make up. Water quality of treated effluent shall be monitored regularly.

vi) No effluent shall 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) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.

ix) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, MEE salt and process inorganic should be disposed off to the TSDF.

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

xi) Solvent management should be as follows :

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

xii) Green belt should be developed at least in 0.77 acre 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.

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

36.3.6 Development drilling of 45 wells at Block KG-DWN-98/2,KG offshore, Tehsil Allavaram, District East Godavari, Andhra Pradesh by M/s ONGC Ltd. reg EC

The project proponent and their consultant (M/s ONGC Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 26th Meeting of the Expert Appraisal Committee (Industry) held during 29th-30th October, 2014 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

The NELP-I offshore block KG-DW N-98/2 is located off the coast of Godavari Delta in the east coast of India. Total area of the block is spread over 7294.6 sq. Km and located 25-80 km from the coast. The block is divided into two i.e. Northern Development Area (NDA) is deep waters where water depth ranging upto 1800 m and Southern Development Area (SDA) is Ultra-Deep waters with water depth ranging upto 3100 m. The present proposal is submitted for development in Northern Development Area whereas development

of Southern Development Area is not envisaged as of now. NDA is further divided into Cluster – 1 & Cluster -2

- **Cluster 1 -** Predominantly gas, located in the north of NDA, includes fields D, E and G4. Within Cluster 1 lies the G4 field (Nominated Godavari PML Block)
- **Cluster 2 –** Mixture of oil and gas, located in the south of NDA, includes the following fields:
  - Oil fields (Cluster 2A) – A2, P1, M3, M1 and G-2-2
  - Gas fields (Cluster 2B) – R1, U3, U1, and A1.

The following facilities have been proposed to be set up as a part of development drilling in NDA Offshore NELP-I Block KG-DWN-98/2 of KG Basin, Andhra Pradesh**:**

1. Development drilling of 45 Offshore well
2. Floating Production Storage Offloading (FPSO),
3. Fixed Offshore Platform.
4. Subsea Equipment
5. Sub-sea pipeline.
6. Onland Terminal

From **Cluster- 1** the gas will be evacuated through 18" – 16.1 Km dual subsea pipeline connecting to the fixed platform. From this platform de-hydrated gas will be transferred to already existing onland terminal at Odalarevu by 20''- 35.5 Km sub-sea pipeline. This pipeline will not be exposed at any location as it will be laid 2 m below the surface and will be connected directly to the GAIL custody transfer point located in onland terminal outside the CRZ area. The project proponent in confirmation to this has submitted the CRZ map prepared by the Anna Malai University, Chennai.

From **Cluster-2** the Hydrocarbon fluids will be taken to an FPSO (Floating Production Storage Offloading) facility through 18" – 21.5 Kms dual subsea pipeline. The stabilized crude oil will be transported through sea tankers and compressed and dehydrated Gas will be evacuated on to Fixed platform, through 18" – 21.4 Kms dual subsea pipeline with an option of evacuating from FPSO to Odalarevu Onshore Terminal through 22" – 34.3 Kms subsea pipeline (will be laid 2 m below surface) reaching already existing onland terminal to GAIL for custody transfer.

The project proponent based on CRZ map has stated that the onland terminal which will be used for custody transfer to GAIL after dehydration is located beyond 500m from the High Tide Line (HTL). The Public Hearing was also conducted for onland terminal on 3rd December, 2013 by Andhra Pradesh Pollution Control board Chaired by Joint Collector & Additional District Magistrate of East Godavari District.

Forest Clearance for laying of gas/oil pipeline to Odalarevu onland terminal already exists vide letter no. 4-APB141/2005-BAN dated 16th December, 2005 of MoEFCC, Bangalore. It is reported that there are no eco-sensitive areas or forest or wild life sanctuaries within the 10 km of project area.

Following is the details of the project :

Title of the Project	Development Wells Drilling in the Offshore Block, KG-DWN-98/2 KG Basin, Andhrapradesh
Number of Development Wells to be Drilled	45 (Forty Five)
Total Cost of the Project	Rs.53, 058 crores
Drilling Depth of the Wells	2000 to 3000 m from seabed
Water Depth	320 – 3100 m
Distance from the Coast	Nearest point is approx. 25 Km from Sea East Coast
Water consumption per day per well	30 KL
Duration of drilling one well	90 to 100 days
Quantity of Drilling Fluid per well	700 to 900 Cubic Meters
Quantity of Drill cuttings generated per well	220 to 250 Cubic Meters
Oil Production Envisaged (2019 to 2031)	26.71 Million Cubic Meters
Oil Initial In Place (OIIP)	106.389 Million Cubic Meters
Gas Production Envisaged (2018 to 2034)	51.33 Billion Cubic Meters
Gas Initial In Place (GIIP)	69.57 Billion Cubic Meters

The Block Coordinates are as shown in the table below:

Project Region: Offshore area in KG Basin, AP						
Block Title: NELP-I Block KG-DW N-98/2						
Block Area (Sq. Km.): 7294.6						
Block Coordinates:						
POINT	**LATITUDE (N)**			**LONGITUDE (E)**		
J	15º	30’	00”	82º	07’	00”
I	16º	10’	00”	82º	07’	00”
H	16º	10’	00”	82º	15’	00”
G	16º	19’	50”	82º	15’	13”
F1	16º	26’	03”	82º	20’	20”
F	16º	26’	03”	82º	24’	59”
E	16º	28’	42”	82º	25’	00”
D	16º	31’	42”	82º	29’	58”
L	15º	30’	00”	82º	30’	00”
M	15º	30’	00”	82º	21’	00”
N	15º	12’	00”	82º	21’	00”
O	15º	12’	00”	82º	26’	30”

P	14º	54’	00”	82º	26’	30”
Q	14º	43’	00”	82º	10’	00”
R	14º	43’	00”	82º	00’	00”
A	15º	29’	00”	82º	00’	00”

Project Benefits:

- Expected Oil production of 26.71 MMT (Million Tonnes) in the next 12 years
- Expected Gas production of 51.33 BCM (Billion Cubic Meters) in the next 16 years
- Enhance reliable Oil and Gas supplies, which will in-turn contribute to country’s economy by enhancing energy security
- Indirect employment opportunities to the unskilled/skilled local people as well as increase in business opportunities

After deliberation, the Committee sought following additional information:

1. Recommendation of SCZMA regarding sub-sea pipeline transfer to onland terminal.
2. Details of forest land involve in the project. Copy of forest clearance to be submitted.
3. Submission of evacuation plan involving cost implication and measures to be undertaken in the event of Tsunami and cyclone.

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

36.3.7 Expansion of Chemicals Manufacturing Unit at 84 Vaanapadi Road, Ranipet, District Vellore Tamil Nadu by M/s Stahl India Pvt. Ltd.- reg. EC.

The project proponent and their consultant (M/s Perfect Enviro Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 18th Meeting of the Expert Appraisal Committee (Industry) held during 28th-30th April, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry located outside the notified industrial area are listed at S.N. 5(f) under Category ‘A’ and appraised at the Central level.

M/s Stahl India Pvt. Ltd. has proposed for expansion of Chemicals Manufacturing Unit at 84 Vaanapadi Road, Ranipet, District Vellore Tamil Nadu. Existing unit was established in 1999 and commissioned in 2000. Unit has proposed to increase the production capacity from 5150 MTPA to 23400 MTPA. Total plot area is 58500 m^2 of which greenbelt will be developed in 46000 m^2. Cost of expansion project is Rs. 350 lakhs. It is reported that no environmentally sensitive area like National Parks, Wildlife sanctuaries, estuaries are located within 10 km distance. Chettithangal lake and Palar River are located at a distance of 1.9 km and 3.5 km respectively. Amur Reserve Forest and Valapakkam RF are located within 10 km distance. The following products will be manufactured:

S.N.	Product	Quantity (MTPA)
1	Acrylic Resin	2800
2	Water based blendings/ dispersions	7500

3	Shoe Blendings	2500
4	Polyurethanes Resins	3100
5	Solvent based blendings /Dispersion	5000
6	Dry Formulation	2500
	Total	23400

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 and May 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (39.9 µg/m^3 to 80.3 µg/m3), PM2.5 (16 µg/m^3 to 43.6 µg/m^3), SO_2 (4.6 µg/m^3 to 18.1 ug/m^3) and NOx (11.8 µg/m^3 to 42.4 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.809 µg/m^3, 2.11µg/m^3 and 2.61 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Stack will be provided to DG sets (1 x 350 KVA + 1 x 500 KVA) and boiler (3 TPH). Vapour generated in the poly acrylic reactor will be sent to an alkali scrubber. All the vessels will be provided with jacket in which chilled water is circulated. Dust emissions are expected in the charging, blending and packaging areas of the powder dry formulation section. All these activities will be carried out under dust hoods, such that the dust generated in these activities are extracted away from the operators using induced draft. Total water requirement will be increased from 132 m^3/day to 250 m^3/day after expansion. Out of which fresh water requirement from SIPCOT water supply will be 169 m^3/day and remaining water requirement (81 m3/day) will be met from treated effluent. Effluent generation will be increased from 36 m^3/day to 90 m^3/day after expansion. Effluent will be treated in ETP. No effluent will be discharged outside the plant premises. Treated effluent will be recycled / reused for cooling tower make up and gardening. Hazardous waste will be disposed to TSDF site.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Tamil Nadu Pollution Control Board on 7th October, 2014. The issues were raised regarding quantity of effluent generation; water consumption and its source; analysis of effluent; local employment; education facilities etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) The levels of PM_{10}, SO_2, NO_X and VOC should be monitored in ambient air.

ii) Vapour generated in the poly acrylic reactor shall be sent to an alkali scrubber. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.

iii) Dust extraction system alongwith dust hood followed by bagfilter shall be provided at charging, blending and packaging areas of the powder dryformulation section to control particulate emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.

iv) Total fresh water requirement from SIPCOT water supply should not exceed 169 m^3/day.

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

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

vii) As proposed, green belt should be developed in the area of 46000 $m^2$with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

36.4 Reconsideration for Environmental Clearance

36.4.1 Additional crude oil tanks (8 nos.) at Village Singach & Vadinar, Tehsil Lalpur and Khambhaliya, District Jamnagar, Gujarat by M/s Bharat Oman Refineries Limited – reconsideration of EC

The project proponent and their consultant (M/s ABC Techno Labs India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 14th Meeting of the Expert Appraisal Committee (Industry) held during 19th- 20th December, 2013 for preparation of EIA-EMP report. All isolated storage & handling of hazardous chemicals are listed at S.N. 6(b) under category 'B' and appraised at state level. Since EC for establishment of existing SPM and Crude oil cross country pipeline obtained from MoEF & CC and considering proposal integrated in nature, the project proposal is treated under category 'A' project.

Bharat Oman Refinery has proposed for establishment of 8 additional Crude Oil Tanks at Vadinar, Jamnagar District, Gujarat and utilizing the existing SPM, subsea pipeline connecting the SPM with COT, and the cross country VBPL to cater to the increased crude processing rate of 7.8 MMTPA of refinery after expansion. The additional 8 nos. of storage tanks shall be established within this allotted land. The cost of the proposed project is about Rs. 250 Crores. . The cross country Vadinar-Bina pipeline has enough capacity to meet the proposed Refinery processing capacity of 7.5 MMTPA after debottlenecking. Total plot area is 167 ha. The additional storage tanks shall be established within the allotted land. Part of marine sanctuary and marine national park fall within 15 Km distance. It is reported that the

proposed additional crude oil storage tanks of BORL is out of Eco Sensitive Zone area and it does not fall in the area of Marine National Park and Marine Forest.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 3 locations during March, 2014 and May 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (52.42 µg/m^3 to 83.85 µg/m3), SO_2 (11.02 µg/m^3 to 19.38 ug/m^3), NOx (13.7 µg/m^3 to 25.88 µg/m^3) and HC (1.12 to 1.28 PPM) respectively. The AAQM data is within the NAAQS. Possible evaporation of hydrocarbons into the atmosphere is due to increase in the number of tanks. In order to control hydrocarbon leakages, the tanks will be provided with double seals to reduce the fugitive emissions. Water requirement from ground water source will be 120 m^3/day. The sources of effluent are storm water drainage, crude water draw off from each of the tanks and sanitary wastewater. Storm water is discharged directly to the outfall point through an open drain and this aspect remains the same. However, the Committee suggested that storm water should pass through efficient oil and grease catchers to trap leaked oil and grease. The crude oil draw off will be treated in ETP. The treated effluent will be used for gardening/horticulture purpose. Oily sludge will be disposed off through approved TSDF facilities.

The Committee also discussed the compliance status report dated 10th February, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. It is reported that floor washing and other effluent generated in the terminal have been routed to ETP. Treated effluent is reused for greenbelt development. HC detectors (11 nos) have been installed in crude storage and transfer locations. It is reported that storage facilities were commissioned in 2009 and cleaning was not undertaken yet. No oily sludge from crude tank has been generated. A green cover of 50 m width has been provided alongside the periphery of COT. As on date more than 25000 nos. of various species have been planted. Besides, 50 ha of mangrove plantation have been raised. The Committee was satisfied with compliance report.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the State Pollution Control Board on 16th July, 2014. The issues were raised regarding emission of crude oil vapour; measures to prevent ground water pollution from oily wastewater; local employment; socio-economic development; free drinking water; fire fighting system and safety etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

PP has submitted the letter no. ENV-10-2014-16-E dated 3rd December, 2014 issued by the Gujarat CZMA, wherein it is clarified that establishment of additional crude oil storage tanks for BORL, Crude Oil Terminal at Vadinar, District Jamnagar does not attract the provisions of CRZ notification 2011. However, they have directed not to carry out any construction activity in CRZ area without obtaining prior CRZ clearance from the Competent Authority.

PP has submitted the copy of letter no. C/JMN/24/T-7/597/2013-14 dated 15.10.2013 issued by Sh. R D Kamboz, Chief Conservator of Forest, Marine National Park, Jamnagar, wherein it is clarified that project site is not included in the Eco-sensitive zone as a area of Marine National Park and Marine Forestician.

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

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

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

iii. Total fresh water requirement from ground water source shall not exceed 120 m^3/day and prior permission should be obtained from the CGWA/SGWA.

iv. The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains should be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond should be conducted.

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

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

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

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

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

x. All storage tanks should be provided with design features based on applicable OISD standards.

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

xii. Bottom oil sludge should be handled, stored and disposed as per CPCB/ MoEF guidelines.

xiii. At least 10 meter wide green belt should be developed on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 30th meeting held during 22nd – 23rd December, 2014 and the Committee deferred the proposal for want of certified compliance report from the MoEF&CC's Regional Office for the environmental conditions prescribed in the existing EC.

The Committee also discussed the compliance status report dated 23rd January, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. It is reported that spent wash after anaerobic treatment in the bio-methanation plant was treated in RO plant. The permeate of RO has been recycled and rejects were taken for compost with press mud. To reduce the effluent, MEE has been installed. Total of 16 acres bio-composting yard consisting of 14 acres open composting & two acres of covered composting yard. Three piezometers have been installed around the compost yard and regular sampling was carried out by SPCB. However, no monitoring reports were submitted. The Committee suggested them to install piezometers wells and trend analysis with monitoring report should be submitted in accordance with condition. ESP has been installed in the boiler. About 25000 plants have been planted covering 33 % of the total area. The Committee found satisfactory response on compliance report.

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

i. Total fresh water requirement from MIDC and rain water harvesting should not exceed 1071 m3/day for distillery and prior permission shall be obtained from Competent Authority. Water consumption should be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

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

iii. Spent wash generation from molasses and grain based distillery shall not exceed 8 Kl/Kl of alcohol and 6 Kl/Kl of alcohol respectively. The spent wash from molasses based distillery shall be treated in bio-methanation plant followed by concentration in Multiple Effect Evaporator (MEE) and concentrated spent wash shall be bio-composted with press mud to achieve 'Zero' effluent discharge. Condensate shall be recycled /reused for cooling tower make up and boiler water make up. Spent wash from grain based distillery shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS shall be dried to form DDGS. Spent wash shall be stored in impervious pucca 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.

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

v. Continuous online (24X7) monitoring of flow and pollutants to be installed within the treatment system and data to be uploaded on the company's website and provided to respective RO of MEF&CC.

vi. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, COD, Chloride, Sulphate and total dissolved solids should be monitored. Trend analysis with monitoring report shall be submitted to the Regional Office.

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

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

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

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

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

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

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

36.4.3 Proposed 30 KLPD Distillery at Village Watwate, TalukaMohol, District Solapur, Maharashtra by M/s Jakraya Sugar Ltd – reconsideration of EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 26th meeting held during 29th – 30th October, 2014 and the Committee deferred the proposal for want of following addl. information:

(i) Re-analysing the river water and ground water qualities and the same to be submitted within 15 days.

(ii) Item-wise details along with time bound action plan for ESR for 2.5% of project cost to be prepared and submitted.
(iii) Copy of valid consent to operate of existing sugar unit.

PP vide letter dated 27th November, 2014 has submitted the above mentioned information.

PP has submitted the copy of consent to operate dated 13.02.2015 issued by the Maharashtra Pollution Control Board for the existing sugar and cogeneration unit. The Committee deliberated upon ESR action plan submitted for ESR of Rs. 26.45 Lakhs per year for till life of the plant. Activities identified are identification of employable youth; village infrastructure; drinking water facility; women empowerment through training and financial supports; education support; primary health center; agriculture development programme etc. Committee observed that surface water quality in terms of TDS level is 1262 mg/l, which is on higher side. PP was not able to explain the reasons for high value. The Committee suggested that surface water quality should be monitored again and data to be submitted.

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

36.4.4 Phenol formaldehyde Resin (87.5 MTPM) and Melamine Formaldehyde Resin (37.5 MTPM) Manufacturing Unit at Sy.No.86/P, Plot NO.1, behind Rajhuvir Ginning, National Highway No.8B, Village Hadamtala, Taluka Kotala Sangani, District Rajkot, Gujarat by M/s Kunj Laminates – reconsideration of EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 26th meeting held during 29th – 30th October, 2014 and the Committee deferred the proposal for want of following addl. information:

(i) Conduct ambient air quality monitoring w.r.t PM10, PM2.5, SO2, NOx and CO for one month period.
(ii) Layout map of proposed unit reflecting process, ETP and other important features adequately.
(iii) Layout map of proposed greenbelt in the plan covering 33% of the project area. .

PP vide letter dated 16th December, 2014 has submitted the above mentioned information.

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

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

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

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

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

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

v) Total fresh water requirement from ground water source should not exceed 15 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

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

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 18th March, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

36.5 Terms of Reference (TOR)

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

The project authorities and their Consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of

References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

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

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

Total water requirement from ground water source will be 13.5 m3/day. Total effluent generation will be 7.52 m3/day. Effluent generation will be 7.52 m3/day. Effluent will be segregated into High TDS/Low TDS effluent streams and treated through RO. RO permeate will be recycled/reused within the process. However, the Committee insisted to install adequate ETP to treat the industrial effluent. No effluent will be discharged outside the plant premises. Inorganic salt and RO salt will be sent to TSDF. Waste oil will be sent to the authorized recycler/re-processors.

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

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

B. Additional TOR

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.

36.5.2 Expansion of bulk drug & Intermediate manufacturing unit (123.5 MTPM to 492.5 MTPM)Plot No. A-27 (Gat No. 230,231,232 & 233), MIDC Chincholi, Tahsil Mohol, District Solapur, Maharashtra by M/s. Smruthi Organics Limited.- reg TOR

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

M/s Smruthi Organics Limited has proposed for expansion of bulk drug & Intermediate manufacturing unit (123.5 MTPM to 492.5 MTPM)Plot No. A-27 (Gat No. 230,231,232 & 233), MIDC Chincholi, Tahsil Mohol, District Solapur, Maharashtra. Total plot area is 88116.32 m^2 out of which Land acquired within industrial area is 35506.62 Sq.m. and outside the industrial area is 52609.70 Sq.m. PP informed that the site is located outside the industrial area. Cost of project is Rs. 79.29 Crores. The GIB sanctuary at Nannaj is located at a distance of 9.5 km.

Following products will be manufactured:

Sr. No.	Name of Products & by products	Existing Products Quantity MT/Month	Proposed Products Quantity MT/Month	Total MT/Month
1.	Norfloxacin	15	--	15
2.	Pefloxacin	3	1	4
3.	DiloxanideFuroate	5	10	15
4.	Metformin HCL	60	340	400
5.	Ciprofloxacin HCL	9.5	5.5	15
6.	Enrofloxacin	1	1	2
7.	Carbidopa	0.5	--	0.5
8.	Fenofibrate	0.5	--	0.5
9.	Amlodipine Besilate	0.5	3.5	4
10.	2-Furoyl Chloride	0.5	--	0.5

11.	Phthaloyl Amlodipine	5	1	6
12.	Amlodipine Base	1	1	2
13.	S-Amlodipine	0.5	0.5	1
14.	1-Acetyl Amine-5-Nitro-2-Propoxy Benzene (ANPB)	1	--	1
15.	2-Furoic Acid	0.5	1.5	2
16.	Amlodipine Maleate	0.5	0.5	1
17.	Amisulpride	0.5	--	0.5
18.	Telmisartan	0.5	3.5	4
19.	Losartan Potassium	1	--	1
20.	Zidovudine	5	--	5
21.	Lamivudine	5	--	5
22.	Lamotrigine	2	--	2
23.	Acyclovir	5	--	5
24.	Levodopa	0.5	--	0.5
Total		**123.5**	**369**	**492.5**
Note: From the above list of products, Product nos. 22, 23 and 24 shall be discontinued.				

Multi-cyclone dust collector will be provided to coal/bagasse fired boiler. The Committee suggested them to install bagfilter to control particulate emissions. Water requirement from MIDC water supply will be increased from 201.5 m3/day to 231.5 m3/day after expansion. Accordingly, Industrial effluent will increase from 54.5 m3/day to 79.5 m3/day. Effluent will be segregated into high TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be concentrated in MEE. Low TDS/COD and condensate stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. PP informed that existing EC obtained vide MoEF letter no J-11011/738/2007 IA II (I) dated 12.05.2008 for expansion of bulk drug manufacturing. Distillation Residue, Residue and Waste, spent carbon and sludge from wastewater treatment will be sent to CHWTSDF. Boiler ash will be sent to brick manufacturers.

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

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

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

B. Additional TOR

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

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

3. NBWL approval to be taken as project fall within 10 km distance of GIB sanctuary at Nannaj.

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.

36.5.3 Proposed Expansion project of 60 KLPD grain based Distillery (60 klpd to 120 klpd), & 2.5 MW Co-Generation Power Plant at Village Dhuma, Tehsil Mungeli, District Bilaspur, Chhatisgarh by M/s Bhatia Wines and Merchants Pvt. Ltd. – reg TOR.

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

M/s Bhatia Wines and Merchants Pvt. Ltd. has proposed for expansion of grain based Distillery (60 KLPD to 120 KLPD), & Co-Generation Power Plant (2.5 MW) at Village Dhuma, Tehsil Mungeli, District Bilaspur, Chhattisgarh. PP has put up 60 KLPD distillery plant. It is reported that no eco-sensitive area is located within 10 km distance. Cost of project is Rs. 90.20 Crore. Rs. 98 Lakh and Rs. 50 Lakh per annum are earmarked towards capital cost and recurring cost per annum. Seonath River, Maniari River and Tesua River area flowing within 10 km distance

The plant based on molasses as feed stock generate 30 KLPD total spirit for 60 days in a year. The same plant generate 30 KLPD spirit when operated on grain as the feed stock for 240 days in a year. In addition BWMPL has put up another 30 KLPD grain spirit plant. BWMPL now proposes to put up a new plant of 60 KLPD capacity based upon grain as raw material. Hence after expansion the plant shall produce a total of 120 KLPD alcohol based on grain whereas on molasses the maximum plant capacity shall be 60 days only. Plot area is 25 acre.

PP informed that additional rice husk /coal fired boiler (25 TPH) will be installed. Bagfilter will be provided to rice husk /coal fired boiler. Unit-1 consist of 30 KLD molasses mode and 20 klpd grain. The spent wash of unit-1 is sent to equalization tank, bio-digester, two stage secondary treatment and ferti-irrigation. 30 KLPD grain production Unit 2 and 10 KLPD grain production unit -1 after part recycling are sent to multi effect evaporator after decanter centrifuge for separation of wet cake. The thin slops and wet cake are mixed and sent to DWGS dryer for making DDGS. In case of expansion, Spent wash will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. No effluent will be discharged outside the plant premises and zero effluent discharge concepts will be followed. The Committee suggested that unit should stop ferti-irrigation from spentwash and submit treatment scheme for spent wash instead of ferti-irrigation. Yeast sludge is fried and disposed as landfill. ETP sludge is dried and used as manure. Boiler ash shall be used for landfilling/brick manufacturing. DDGS is used as cattle feed.

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

1. Unit should stop ferti-irrigation of spent wash from the existing unit and submit treatment scheme for spent wash as whole.
2. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
3. Number of working days of the distillery unit.
4. Details of raw materials such as molasses/grains, their source with availability.
5. Details of the use of steam from the boiler.
6. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
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 discharge.
8. Spent wash generation should not exceed 8 KL/KL of alcohol production.
9. Capacity for spent wash holding tank alongwith make and action plan to control ground water pollution.
10. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
11. Details of bio-composting yard (if applicable).

B. Additional TOR

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

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

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.

36.5.4 Proposed expansion of Sugar from 4900TCD to 6000 TCD, & Co-generation capacity from 15 MW to 21 MW at Gut no.61, Akiwat, Takaliwadi Road, Takaliwadi, Taluka-Shirol, Dist. Kolhapur Maharashtra by M/s Shree Gurudatt Sugars Ltd. – reg. TOR

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA-EMP report. Sugar industry is listed at S.N. 5(j) under category 'B'. However, due to applicability of general condition for inter-state boundary within 5 km, proposal is treated at Category 'A' project and appraised at Central level.

M/s Shree Gurudatt Sugars Ltd. has proposed for expansion of Sugar from 4900TCD to 6000 TCD, & Co-generation capacity from 15 MW to 21 MW at Gut no.61, Akiwat, Takaliwadi Road, Takaliwadi, Taluka-Shirol, Dist. Kolhapur Maharashtra. Plot area id 90.73 acres. Cost of project is 86.34 Crore. Rs. 11.50 crore is earmarked towards capital cost for EMP. Krishna River is flowing at a distance of 4.27 km from the project site. It is reported that no national park/sanctuary is located within 10 km distance. ESP will be provided to bagasse fired boiler. Water requirement will be 418 m3/day and met from Krishna River. Effluent generation will be 600 m3/day from sugar unit and treated in the ETP. ETP sludge will be sent for manure. Used/spent oil will be sent to authorized recycler. Ash will be sent to brick manufacturing. DG set (1x500 KVA + 1 x 125 KVA) will be installed.

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

1. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
2. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
3. 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.

4. Number of working days of the sugar production unit.
5. Details of the use of steam from the boiler.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
7. Management plan for solid/hazardous waste generation, storage, utilization and disposal.
8. Details of surface water quality on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.
9. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, SO_2, NOx, *etc*., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.

B. Additional TOR

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

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

36.5.5 Proposed expansion from 4.74 TPM to 53.0 TPM of bulk drug intermediates at Plot No. 42, SVCIE, Jeedimetla, Rangareddy District, Telangana State- reg TOR

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

36.5.6 Debottlenecking and expansion of Existing Petrochemical Complex, Reliance Industries Limited, Hazira at GIDC Mora plot, Village Mora, Tehsil Chorasi, District Surat, Gujarat by M/s Reliance Industries Ltd.- TOR reg.

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA-EMP report. All petrochemical based processing located inside the industrial area are listed at S.N. 5(e) under category 'B' and appraised at State level. All petrochemical complexes are listed at S.N. 5(c) under category 'A' and appraised at Central level.

M/s Reliance Industry Ltd. has proposed for Debottlenecking and expansion of Existing Petrochemical Complex, Reliance Industries Limited, Hazira at GIDC Mora plot, Village Mora, Tehsil Chorasi, District Surat, Gujarat. PP has obtained environmental

clearance from MoEF vide letter no. J-11011/32/2005 IA (II) I dated 30th June, 2005 for expansion of petrochemical complex. Plot area is 398.32 ha. Cost of project is Rs. 2100 Crore. Tapi Estuary and Gulf of Khambhat are located within 15 km distance.

Now, RIL HMD is now planning to expand/debottleneck some of the plants i.e. Cracker Plant, Ethylene (C2), Propylene (C3), C4 products (such as LPG, Butadiene, Butene 1, MTBE/Isobutylene, Butanediol, HIPB etc.), C5 derivatives and resins (C5 HCR resin, 72% DCPD, 85% DCPD, etc.), C6-C8, C9 and C9 resins, Styrene, PBR, Polyester Plants (Polyester Staple Fibre + chips, Partially Oriented Yarn, PET), PP, PE, PVC etc. Once debottlenecked the complex will have increased production of certain products. This activity will be through technological upgradation processes such as:

a. Optimization and debottlenecking of limiting equipment
b. Feed composition optimization.
c. Increase in operational time.
d. Change of hardware equipment.
e. Replacement of existing reactors /equipment and addition of parallel reactors / equipment etc.
f. Value addition of product slate by new processes / plants

The major stack emission sources in the existing petrochemicals complex are from Heat Recovery Steam Generators (HRSG) in the captive power plant, vaporisers in polyester complex, fresh feed furnaces in cracker plants and Combination of fuel i.e. natural gas, HSD, C9, naphtha, Retrol Cracker gas, biogas, LSHS etc. are used in the existing petrochemicals complex. Waste process gaseous streams are vented after complete burning through flare stacks. In the proposed debottlenecking and expansion project, PM, NOx and SO2 will be major air pollutants from fuel burning units as combination of fuel will be used. Fuels proposed to be used will include natural gas, HSD, C9, naphtha, Retrol Cracker gas, biogas, LSHS etc.

Water requirement from surface water i.e. Singanpore weir will be increased from 1,39,288 m^3/day to 1,60,347 m^3/day after expansion. Reliance industry has taken permission for withdrawal of 35 MGD water. Effluent generation will be increased from 56604 m^3/day to 61287 m^3/day after expansion. Effluent will be segregated into high TDS and low TDS effluent streams. Low TDS effluent will be treated in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be reused for cooling tower make up. High TDS effluent stream will be segregated on the basis of oil content stream and non oil content stream. Effluent will be treated in the ETP comprising primary and secondary treatment facility. Treated effluent will be discharged into sea. Coke (VCM plant) and coke (cracker plant) will be sent to TSDF/ incineration/co-processing with cement plant plant. Spent catalyst will be sent to the authorized re-processors.

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

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.
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.
10. Effluent treatment scheme to be upgraded to reduce the fresh water requirement.
11. Details of water conservation method to be adopted.

B. Additional TOR

1. The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
3. Plan for reduction/use raw water to be submitted.
4. Detailed plan for up gradation of existing treatment scheme to provided.

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.

36.5.7 Proposed Chemical manufacturing (6900 TPA) with three intermediate: Chromic acid (2100 TPA), Basic Chromium Sulphate (4500 TPA), Sachharin (300 TPA) at plot no. 56 Sirigitti Industrial Area, district Bilaspur, Chattisgarh by M/s BEC Fertilizers Ltd. – reg TOR

The Committee noted that unit has proposed for setting up of manufacturing of synthetic organic chemicals which covers under 5 (f) category and located within industrial. Therefore, unit is treated as category 'B' and appraised at State level. Since SEIAA/SEAC, Chhattisgarh is operational, the said proposal may be sent to SEIAA/SEAC, Chhattisgarh.

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

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

M/s. Reolaxe Laminate Pvt Ltd. has proposed for setting up of resin manufacturing unit (2800 MTPM) Located at Survey No. : 565, (old Sy. No. 394/1), Village Nava Sadulka, Taluka Morbi, District Rajkot, Gujarat. Plot area is 17604 m^2 of which greenbelt will be developed in 5870 m^2. Cost of project is Rs. 1 crore. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin	1100
2	Melamine Formaldehyde Resin	500
3	Urea Formaldehyde Resin	1200
4	Electrical Insulation Board and HP Decorative Laminated sheets.	200000 Nos. / Month

Bagfilter will be provided to coal/white coal/ agro waste fired boiler / thermic fluid heater to control particulate matter. Fresh water requirement will be 24 m3/day. Industrial effluent generation will be 18.26 m3/day. Industrial effluent will be treated in ETP with photo fenton oxidation process method followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers.

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

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

14) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

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

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

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

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

M/s Pidilite Industries Limited has proposed for Expansion (262 to 345 MTPM) of Organic Pigments" (Azo Pigments) as well as "Quinacridone Pigments " & Pigment Emulsions Plot. No. 23, 1st phase, notified industrial area, GIDC Vapi, District Valsad, Gujarat. Plot area is 38443 m^2. Total capital cost of the project after proposed expansion will be Rs. 14700.25 lakh and project will be completed by July 2016.

Following products will be manufactured:

S.N.	Product	Quantity (in MTPM)		
		Existing	Proposed	Total after proposed expansion
1	CarbazoleDioxane Violet Pigment	25	0	25
2	Organic Pigment (Azo- Orange/Yellow/ Red)	85	30	115
3	Pigment emulsion	137	33	170
4	Quinacridone Pigment	15	20	35
	Total	**262**	**83**	**345**
	By-products			

S.N.	Product	Quantity (in MTPM)		
1	Phosphoric Acid (10-30%) from Quinacridone Pigment	218.5	291.35	509.85
2	Calcium Sulphate (Gypsum)*	0	110	110

Presently the unit has installed Two nos of multi cyclone separator followed by bag filter attached to the pulveriser. After proposed expansion, the unit shall install one additional multi cyclone separator followed by bag filter attached to the pulveriser. Adequate height of process vent will be provided. Adequate multi cyclone separator followed by bag filter provided to briquettes fired boiler. Adequate stack height and stack monitoring facilities is provided.

Water requirement from GIDC water supply will be 1564 m3/day. After proposed expansion, total Industrial wastewater generation will be 1369 m3/day, which will be treated in existing primary, secondary & tertiary treatment plant & discharged into under ground effluent drainage line to CETP Vapi for further treatment & ultimate disposal into Arabian Sea, for which we have already obtained membership of CETP. After proposed expansion; Average 50 TPM of ETP waste, 0.25 TPM used oil, 2.0 TPM of discarded containers, 26.6 TPM process residues, 0.19 TPM spent catalyst will be generated. ETP waste shall be disposed off into TSDF Vapi, Process residue will be sent to cement industries for co-processing, spent catalyst will be sent for re-processing, discarded containers will be sold to authorized recycler, used 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-I for preparation of EIA-EMP report.

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H_2S*, HF*, *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting ‘Zero’ liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

1. The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
3. Recommendation from the SPCB is required.

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.

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

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

M/s Heranba Industries Limited (Unit:I) has proposed for expansion of Pesticides (from 47.38 to 589.75 MTPM) at Plot. No. 1504, 1505, 1506 GIDC Vapi, District Valsad, State Gujarat. Plot area is 9740 m^2. Cost of project is Rs. 62 crore. Following products will be manufactured:

No	Product	Quantity (MTPM)		
		Existing	Proposed	Total after proposed expansion
1	Cypermethric Acid Chloride	12	88	100
2	Deltamethrin Technical	0	30	30
3	Diclorovos Technical	0	15	15
4	Glyphosate Technical	0	30	30
5	Lamdacyhalothrin Technical	0	20	20
6	Permethrin Technical	0	20	20
7	Temephos Technical	0	10	10
8	Tricyclozole Technical	0	20	20
9	Acephate Technical	0	175	175

10	Hexaconazole Technical	0	5	5
11	Imidacloprid Technical	0	10	10
12	Profenophos Technical	0	15	15
13	Cypermethrin Technical	0	100	100
14	Alpha Cypermethrin Technical	0	60	60
	Total	**12**	**598**	**610**
	By-products			
1	Ammonium Chloride Powder (85%)	5.028	54.77	59.8
2	Sodium Sulphite Powder (80%)	5.58	272.0	277.58
3	Hydro Chloric Acid solution (30%)	19.992	211.828	231.82
4	Hydro Bromic Acid solution (20%)	0	260.85	260.85
5	Sodium Sulphate powder (80%)	16.788	155.412	172.2
6	Bromo Benzene	0	132.0	132.0
7	SS- CMAC	0	62.5	62.5
8	Cypermethrin (2^{nd} crop)	0	24.0	24.0
	Total	47.388	1193.36	1240.75

At present, the unit is having one number of 5 TPH steam boiler. Additional two number of Natural Gas/furnace oil fired Steam Boiler having capacity 5 TPH each will be installed. At present, the unit is having one number of 380 KVA of D G set (standby). Additional 1000 KVA capacity of D.G. Set, will be installed. Adequate stack height and stack monitoring facilities will be provided. Presently the unit has installed two numbers of two stage water scrubber followed by alkali scrubber to scrub HCl& SO2 gas generated from the process. After proposed expansion, the unit shall install additional three numbers of two stage water followed by alkali scrubbers to scrub HCl, Br2 & SO2 gas generated from the process. Adequate height of process vent will be provided. The unit shall install new incineration system as per CPCB guide lines to incinerate high COD & high Ammonical nitrogen effluent. Adequate capacity of scrubbing system & chimney will be provided.

Total Raw Water requirement is 410 KLD (Fresh: 374.7 KLD + condensate from MEE 35.3 KLD) supply will be met from GIDC water supply dept. Total industrial Waste Water Generation is 208.98 KLD, out of which 138.5 KLD normal effluent, 48.34 KLD high TDS effluent & 22.14 KLD high COD/NH3 effluent. Normal effluent will be treated in primary, secondary & tertiary treatment plant, high TDS will be treated in MEE & high COD effluent will be incinerated in incineration system. Domestic waste water (15 KLD) will be disposed off through Septic Tank. After proposed expansion; 220 TPA of ETP waste, 1.5 TPA used oil, 20 TPA of discarded containers, 3150 TPA of MEE salt, 1099 TPA of process residue, 125 TPA of ash from incinerator, 3 TPA of sludge from wet scrubber will be generated. ETP waste, MEE waste, & sludge from wet scrubber shall be disposed off into TSDF Vapi or SEPPL, Kutch, Process residue will be sent to cement industries for co-processing, Incinerated ash will be sold to brick manufacturer, discarded containers will be sold to authorized recycler, used 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-I for preparation of EIA-EMP report:

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

B. Additional TOR

1. The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.
2. Recommendation from the SPCB is required.
3. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
4. Detailed plan for odor control
5. Detailed plan for treatment scheme after expansion.

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.

36.6 Any Other Items

36.6.1 Synthetic organic chemicals industry (dyes & dye intermediates) at Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra by M/s Godavari Biorefineries Ltd.– reconsideration of TOR

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 32nd meeting held during 20th – 21st January, 2015 and the Committee sought present compliance status to the environmental condition. PP vide letter dated 14.02.2015 has submitted additional information.

PP vide letter dated 17thJanuary 2015 has submitted the above additional information.

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

A. Specific TOR

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

B. Additional TOR

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

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

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

36.6.2 Construction of additional Storage Tanks (capacity 16626 KL)Mounded Bullets, LPG Bottling Plant at Port Exim Park area, Visakhapatnam, Andhra Pradesh by M/s East India Petroleum Pvt. Ltd.– reconsideration of TOR.

TOR was issued to M/s East India Petroleum Pvt. Ltd for the above mentioned project on 22.01.2015.

Now, PP vide letter dated 11.03.2015 has requested for amendment in TOR for removal of LPG expansion from the scope of project owing to business consideration and confirming that, the proposed expansion will be limited to POL only. Therefore, the Committee recommended the same TOR prescribed vide MoEF&CC letter dated 22.01.2015 alongwith Public Hearing.

36.6.3 Expansion of Vishakh Refinery (from 8.33 MMTPA to 15.00 MTPA) at Village Malkapuram, District Visakhapatnam, Andhra Pradesh by M/s HPCL – reconsideration of TOR.

MoEF&CC vide letter dated18.09.2014 has issued TOR for the above mentioned project. During QRA study by M/s HPCL, following re-alignment of the plot plan was carried out:

(a) Shifting the CDU & SHCU/SDA units towards east side of the Refinery.
(b) Shifting of the new units (HCU-H2) towards west in the crude tank area.

The above was done to contain risk contours within Refinery boundary.

The following capacity as per revalidated DFR:

S.N.	Main Processing Units	Unit	Capacity as per Form -I	Capacity as per revalidated DFR
1	CDU/VDU-IV	MMTPA	9.0	9.0
2	Alkylation Unit	KTPA	200	200
3	Full Conversion HCU	MMTPA	2.8	3.3
4	Solvent Deasphalting Unit	MMTPA	2.5	3.1
5	Slurry Hydrocracker Unit	MMTPA	2.8	2.5
6	PRU	TPD	128	96
7	ISOM	KTPA	69 Revamp 30%	292 (New Unit)

S.N.	Product	Capacity as per Form –I (KTPA)	Capacity as per revalidated DFR (KTPA)
1	Crude (Feed)	15000	15000
Products			
2	LPG	478	606
3	Propylene	115	104
4	ATF	31	31
5	Kerosene	693	693
6	MS/ Naphtha	2260	2967
7	HSD	8828	9080

After detailed deliberation, the Committee recommended the same TOR prescribed vide MoEF&CC letter dated18.09.2014.

36.6.4 Exploratory Drilling (24 additional wells) of M/s ONGC Ltd. in On-shore PEL Block L-II of Cauvery Basin, Tamil Nadu – amendment in EC

MoEF&CC vide letter no. J-11011/2/2011 dated 21.08.2013 has issued environmental clearance for the above mentioned project proposal. Shri J S Sharma, GM, HSE, M/s ONGC informed that Basin Manager has requested for the following amendments in the well locations:

S.N.	Existing Name, Taluka and District	Amendment Requested for
1	VNAB, Tiruvarur (Taluk) Tiruvarur (District)	KZAH, Kilvelur (Taluk) Nagapattinam (District)
2	B-CY-NKK5 Mannargudi (Taluk) Tirvarur (District)	MDAA Thiruthuraipoondi (Taluk) Tiruvarur (District)
3	B-CY-PD-3 Needamangalam (Taluk) Tiruvarur (District)	PUAC Valangaiman (Taluk) Tiruvarur (District)

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

17th March, 2015 (Day 2)

36.7 Environmental Clearance

36.7.1 Drug Manufacturing Unit. at Block No. 141/B, Village Tundav, Tundav Anjesar Road, Taluka Savli, District Vadodara, Gujarat by M/s Riata Organics Pvt. Ltd – reg. EC.

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 17th Meeting of the Expert Appraisal Committee (Industry) held during 18th-19th March, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Riata Organics Pvt. Ltd. has proposed for setting up of Bulk Drug and Intermediates manufacturing Unit at Block No. 141/B, Village Tundav, Tundav-Anjesar Road, Taluka Savli, District Vadodara, Gujarat. Plot area is 7035 m^2 of which greenbelt will be developed in 2302 m^2. Cost of project is Rs. 4.0 Crore. It is reported that there are no national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, reserve forests etc. Nearest surface water bodies are Raniya pond (5.3 Km); Tundav Pond (2.75 km); Manjusar Pond (6.87 km); Mahi River (6.87 km); Lasundra Pond (5.0 km) and Chandrenagar pond (5.0 Km).

Following products will be manufactured:

S.N.	Products	Existing capacity (MTPM)	Additional Capacity (MTPM)	Total Capacity (MTPM)
1	SEL ACT 34 (Cattle Food)- Existing	50	--	50
Proposed				
2	Losartan Potassium & Intermediates	--	15	15
3	Glibenclamide and its intermediates	--		
4	Valsartan and its intermediate	--		
5	Celecoxib and its Intermediate	--		
6	Desloratadine and its intermediate	--		
7	Lacosamide and its intermediate	--		
8	Lansoprazole and its intermediate	--		
9	Venlafaxine and its intermediate	--		
	Total	50	15	65

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (55.52 µg/m^3 to 86.97 µg/m^3), $PM_{2.5}$ (41.75 µg/m^3 to 49.58 µg/m^3), SO_2 (12.08 µg/m^3 to 15.21 ug/m^3) and NOx (13.85 µg/m^3 to 18.54 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/m^3, 0.85 µg/m^3, 0.03 µg/m^3 and 0.0162 µg/m^3 with respect to PM, SO_2, NOx and HCl. The resultant concentrations are within the National Ambient Quality Monitoring Standards (NAAQM). Bagfilter will be provided to agro waste/coal fired boiler. DG set (150 KVA) will be installed with stack of adequate height. Two stage scrubber (water and alkali) will provided to control process emissions i.e. HCl and SO_2. Water requirement from ground water source will be increased from 0.5 m^3/day to 45 m^3/day after expansion. Wastewater generation will be increased from 0.3 m^3/day to 29.0 m^3/day after expansion. Effluent will be treated through solvent stripper followed by MEE. MEE salt after drying will be sent to TSDF. Condensate will be treated in ET followed by RO. RO permeate will be reused in boiler, cooling tower, washing and flushing purposes. RO rejects will be sent to MEE for evaporation. No effluent will be discharged outside the plant premises. Inorganic salt, MEE salt and ETP waste will be sent to TSDF site. Stripper from condensate will be sent to co-processing in Cement plant or common incineration facility. Used oil will be sent to the authorized recycler/re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 23rd December, 2014. The issues were raised on the benefit of village from project; CSR and pollution control measures, etc. The Committee noted that issues have satisfactorily been responded by the project proponent in term of pollution control measures and incorporated in the final EIA-EMP report.

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

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

iii. Total fresh water requirement from ground water source shall not exceed 45 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iv. Trade effluent will be passed through solvent stripper followed by MEE. Condensate from MEE shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused for boiler make up, cooling tower, washing and flushing purposes within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

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

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

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

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

ix. Solvent management shall be as follows :

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

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

xi. All the issues raised during the Public Hearing/consultation meeting held on 23rd December, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

xiii. 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.

36.7.2 Expansion of bulk drugs & intermediate manufacturing unit-I alongwith CPP (3MW) at village Gunlamachanoor, Mandal Halnoor, district Medak, Andhra Pradesh by M/s Covalent Lab. Pvt. Ltd. reg. EC

The project proponent and their consultant (M/s KKB Envirocare Consultants Pvt. LTd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 15th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th January, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (bulk drugs) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Covalent Lab. Pvt. Ltd. has proposed for expansion of bulk drugs & intermediate manufacturing unit-I alongwith CPP (3MW) at Village Gunlamachanoor, Mandal Halnoor, District Medak, Andhra Pradesh.

M/s Covalent Lab. Pvt. Ltd. has proposed for expansion of Bulk Drugs & Intermediates manufacturing unit–I along with CPP (3 MW) at Village Gundlamachanoor, Mandal Hatnoor,District Meddak, Andhra Pradesh. The site is at a distance of about 15km from Pattancheru Industrial Area, existing for the past 25 years or so. The existing Unit was established in 1989 and obtained environmental clearance for manufacturing of bulk drugs for 36 TPA vide MoEF letter no. J-11011/88/2004-IA dated 30.11.2004. Cost of project is Rs. 212.94 crores. Rs. 21.0 Crore and Rs. 6.0 Crore per annum towards capital cost and recurring cost on environmental protection and management measures. APPCB lifted ban vide GO Ms No. 64 dated 25.07.2013, originally imposed in 1997 and allowed the existing industries to apply for expansion. Nakka Vagu and Manjeera River is flowing at a distance of 1km and 2.5 Km respectively. It is reported that no ecological sensitive area or protected area as per wildlife protection Act, 1972 is located within 10 km distance. The said industry is located at a distance of 15 Km from the CEPI identified Patancheru-Bollaram stretch. Total plot area is 155197 m^2, of which greenbelt will be developed in 55871 m^2 area. It is proposed to manufacture 65 bulk drugs and its intermediates on campaign basis with any 20 products manufactured at a time along with 3 MW Captive Power Plant.

List of existing products being manufactured is given below:

S.N.	Product Name	Quantity (TPA)
Environmental Clearance (EC)		
1	Flucinazole	2.16
2	Nalidixic acid	14.4
3	Naproxen	36
Consent from APPCB		
1	Cefixime	24.00
2	Cefpodoxime Proxetil	11.99
3	Cefurosime Axetil	24.00
4	Cefuroxime Sodium	3.00
5	Ceftriaxone Sodium	6.00
6	Cefpirome	3.00
7	Cefdini	6.00
8	Cefprozil	3.00
9	Cefepime	6.00

List of proposed products to be manufactured is as given below:

S.N.	Product Name	Quantity (TPA)
1	Cefixime Trihydrate	780
2	Cefpodoxime Proxetil	120
3	Cefurosime Axetil	180
4	Cefuroxime Sodium	180
5	Cefdinir Monohydrate	72
6	Cefprozil Monohydrate	60
7	Meropenem	60
8	Doripenem Monohydrate	60
9	7-AVNA	60
10	MEAT (Thio Ester)	60
11	Cefuroxime Acid	36
12	Cefotaxime Sodium	36
13	Faropenem Sodium	36
14	7-APCA	36
15	Cefuroxime Sodium	24
16	Cefpirome Sulfate	12
17	Cefepime Dihydrochloride Monohydrate	12
18	Cefditoren Pivoxil	12
19	Ceftibuten Monohydrate	24
20	Cefazoline Sodium	12
21	Cefoperazone Sodium	12
22	Cefoxitin Sodium	6
23	Ceftazidime Pentahydrate	6
24	Ceftizoxime Sodium	12
25	Cephalothin Sodium	12
26	Cefpodoxime Acid	12
27	Cefcapene Pivoxil	9.6
28	Cefmetazole Sodium	12
29	Cefmetazole	12
30	Imipenem	24

31	Cilastatin Sodium	24
32	Ertapenem Sodium	12
33	Biapenem	12
34	Panipenem	12
35	Tebipenem Pivoxil	1.2
36	Darifenacin Hydrabromide	6
37	Solifenacin Succunate	6
38	Tolterodine Tartrate	6
39	7-Amino-3-(methoxymethyl)-8-oxo-5-thai-1-azabicyclo[4.2.0] oct-2-ene-2-carboxylic acid (7-AMCA)	12
40	7-Amino3-thiazole cephalosporanic acid (7-ATCA)	24
41	Lacosamide	120
42	Cinacalcet Hydrochloride	120
43	Fexofenadine Hydrochloride	120
44	Dronedarone Hydrochloride	120
45	Deferasirox	120
46	Silodosin	24
47	Fingolimod Hydrochloride	24
48	Sitaglinptin Phosphate	24
49	Prasugrel Hydrochloride	24
50	Venlafaxine Hydrochloride	24
51	Pregabalin	24
52	Diacerein	24
53	Linezolid	24
54	Ropinirole Hydrochloride	24
55	D-Cycloserine	24
56	Clopidogrel Hydrogen Sulfate	24
57	Bosentan	24
58	Candesartan Cilexitil	24
59	Febuxostat	24
60	Azilsartan medoxomil	24
61	Soilfenacin Succinate	24
62	Darifenacin Hydrobromide	24
63	Trospium Chloride	24
64	Tolterodine Tartrate	24
65	Valsartan	24
Total production capacity 2400TPA (Maximum 20 Products at a time) with 3MW coal based CPP		

S.N.	By-Product	TPA	By product from the product
Proposed By- Products from APIs & API Intermediates			
1.	Triphenylphosphine oxide	**565.5**	CefiximeTrihydrate
		159.94	Cefdinir Monohydrate
		62.4	Cefprozil Monohydrate
		17.16	CefditorenPivoxil
		4.2	CeftazidimePentahydrate
		88.78	7-AVNA
		60.0	MEAT (Thio Ester)

		52.94	7-APCA
		34.32	7-Amino3-thiazole cephalosporanic acid (7-ATCA)
2.	2-Mercaptobenzothiazole	**280.8**	CefiximeTrihydrate
		57.6	CefpodoximeProxetil
		3.84	Cefpirome Sulfate
		88.46	Cefdinir Monohydrate
		3.6	CefepimeDihydrochloride Monohydrate
		6.0	CefditorenPivoxil
		4.8	CeftazidimePentahydrate
		100.8	Cefotaxime Sodium
		6.0	Ceftizoxime Sodium
		6.47	Cefpodoxime Acid
		36.36	MEAT (Thio Ester)
3.	Sodium Acetate	**549.82**	Cefuroxime Axetil
4.	Mixed Solvent (Ethanol≈50%, Cyclohexane≈6%, Ethyl Acetate ≈1% & Water≈43%)	**621.82**	

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014-May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (25 µg/m^3 to 69 µg/m^3), $PM_{2.5}$ (9 µg/m^3 to 29 µg/m^3), SO_2 (5 µg/m^3 to 14 ug/m^3) and NOx (5 µg/m^3 to 18 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.63 µg/m^3, 8.2 µg/m^3 and 5.7 µg/m^3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Electrostatic precipitator (ESP) and the stack of 55 m height will be provided to 30 TPH coal fired boiler and Multi cyclone dust collector followed by Bag filter with a stack 30m height will be provided 10 TPH Coal fired boiler (standby) and 30m combined stack for 4 TPH & 15 K.cal/hr Thermic Fluid heater (standby) for controlling the particulate matter and effective dispersion of flue gases. Multi stage Scrubber with water/caustic solution will be provided to control HCl. Multi stage scrubber with caustic solution will be provided to control HF and HBr. Multi stage scrubber with caustic solution will be provided to control SO_2 emission. Fresh water requirement from ground water source /tanker supply will be increased from 53.5 m3/day to 457 m^3/day after expansion. Effluent generation will be increased from 9.2 m^3/day to 298 m^3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted.

The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Bangalore. It is reported that 4 TPH coal fired boiler with 100 ft high chimney and with cyclone separator and dust collector is in use. The Committee suggested to install bagfilter in the coal fired boiler to control particulate emissions. In order to meet the

emergency steam purpose and function as a standby equipment, a 10 TPH coal fired boiler has been erected. CFE for the same is under consideration. Chilled water coolant vent condensers are provided to all storage tanks. For MDC storage tank project authorities have provided brine at – 20^{O}C. Low TDS and high TDS effluent are collected through separate streams and stored in above ground tanks. They are sent to stripper and then into MEE and ATFD. Greenbelt is developed in 26359.7 m^2. Pas have purchased 6 acres of land in the adjacent plot. The Committee found satisfactory response with compliance report.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 4th December, 2014. The issues raised were regarding local employment, greenbelt, CSR, odour nuisance, implementation of Zero effluent discharge, ground water contamination etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee noted that court case is pending with respect to CETP and individual units on the pollution problem caused by the group of industries. Therefore, Committee sought following additional information:

(i) Details of pending court cases and a copy of affidavit filed by the project proponent.
(ii) Copy of decisions, if any, issued by the court.
(iii) Submission of the revised greenbelt plan with layout.

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

36.7.3 Expansion of Bulk Drugs (from 96 TPM to 421.2 TPM) at Sy. No. 388 & 389, village Borapatla, Mandal Hathnoor, district Medak, Telangana by M/s Aurobindo Pharma Ltd. (Unit-1) - reg. EC

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

36.7.4 Setting up of Resin Manufacturing Unit of M/s Shri Sai Nath Décor L.L.P, at Plot no. 19, Sy. No. 52/P, Village Hadamtala, TalukaKotdaSangani, District Rajkot, Gujarat – reg. EC

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

36.7.5 Resin Manufacturing Unit at Survey No. 774/1, Village Vasna Rathod, Taluka Dehgam, District Gandhinagar, Gujarat by M/s Brosis Lam Pvt. Ltd – reg. EC

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

M/s Brosis Lam Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No. 774/1, Village Vasna Rathod, Taluka Dehgam, District Gandhinagar, Gujarat. Total plot area is 4816 m^2 of which area earmarked for greenbelt is 765 m^2. Cost of resin plant is Rs. 1 crore. It is reported that no national park/ wildlife sanctuary/reserve forest is located within 10 km distance. Thol Bird sanctuary is located at a distance of 41.69 km. Following products will be manufactured:

S.N.	Details	Capacity
	Laminated sheets:	2,50,000 Sheets/Month
1	P. F. Resin	750
2	M. F. Resin	250
3	U. F. Resin	100

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March, 2014- May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (38.3 µg/m3 to 76.6 µg/m3), $PM_{2.5}$ (33.6 µg/m3 to 47.3 µg/m3), SOx (9.4 µg/m3 to 16.2 ug/m3) and NOx (16.6 µg/m^3 to 23.2 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 15 µg/m^3, 1.0 µg/m3 and 5.0 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS except PM10. Multicyclone dust collector will be provided to coal/white coal/agro waste fired boiler& Thermic fluid heater to control particulate emissions. The Committee suggested that bagfilter to be installed in place of dust collector for better efficiency. DG set (350 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total water requirement is 53.2 m^3/day, of which fresh water requirement from ground water source will be 15.09 m^3/day. Remaining water requirement will be met from treated effluent and condensate. Industrial effluent generation will be 14.45 m^3/day. Industrial effluent will be treated in ETP with photo fenton oxidation process method followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 18th November, 2014. The issues were raised local employment, solid waste management, protective measures etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

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

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

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

v) Total fresh water requirement from ground water source should not exceed 53.0 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

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

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 18th November, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

36.7.6 Expansion of Petrochemical Unit at Plot No.73, 120 Wanachiwadi, Post Masur, Taluka Karad, District Satara, Maharashtra by M/s Satyam Petrochemical Ltd – reg.

The Committee noted that EIA/EMP is prepared by M/s Sadekar Enviro Engineers Pvt. Ltd., who is QCI accredited Consultant for category 'B' project. However, project falls under Category 'A' project. Consultant informed that their application is under process at QCI for category 'A' project. Therefore, the Committee recommended that first of all get approval for Category 'A' project for the activity namely Synthetic Organic Chemicals 5 (f).

36.7.7 Manufacturing of organic chemicals products at Village kala Talev, Tehsil, district Bhavnagar, Gujarat by M/s Archit Organics – reg. EC.

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 16th Meeting of the Expert Appraisal Committee (Industry) held during 20th-21st February 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Archit Organosys Limited has proposed for setting up of Synthetic organic manufacturing unit at Sy. No 228/1a Paiki 7, Paiki 2 Village Narmad, Tehsil & District Bhavnagar, Gujarat. Total plot area is 56434.79 m^2 of which greenbelt will be developed in 18625 m^2. Cost of project is Rs. 40 crores. The following products will be manufactured:

S.N	Products	Quantity (MTPM)
1	Chlorinated Paraffin Wax	2000 MTPM
2	Mono Chloro Acetic Acid (MCAA)	2000 MTPM
3	Sodium Mono-chloro Acetic Acid (SMCA)	500 MTPM
4	Tri Chloro Acetyl Chloride (TCAC)	250 MTPM
	By-products	
1	HCl	2000 KL
2	Sodium Hypochloride/ Calcium Hypo Chloride	5 MTPM

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March -May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (51.8 µg/m3 to 79.8 µg/m3), PM2.5 (30.1 µg/m3 to 47.5 µg/m3), SOx (9.0 µg/m^3 to 19.4 ug/m3) and NOx (12.0 µg/m^3 to 24.1 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4 µg/m^3, 0.15 µg/m3 and 0.55 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Multi cylcone dust collector will be provided to coal fired boiler. The Committee suggested them to install bagfilter instead of dust collector. Combined three stage water scrubber followed by two stage alkali scrubber will be provided to control process emissions viz. HCl, Cl_2 and SO2. The Committee also suggested them to take proper measures to capture chlorine emissions at working area at storage facilities. Water requirement will be 289.56 m^3/day of which fresh water requirement will 251.96 m^3/day. Industrial effluent generation will be 4.6 m^3/day and treated in the ETP. Treated effluent will be recycled/reused for industrial purpose. DG set (500 KVA) will be installed. Power requirement from Gujarat Electricity Board will be 750 HP. ETP sludge will be sent to TSDF. Used oil will be sent to the authorized recyclers/re-processors. It was informed that chlorine (60-70T/d) will be obtained from M/s Nirma located at a distance of 1km.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 19th December, 2014. The issues were raised regarding local employment, adverse impact of proposed unit nearby village etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information :

1 Whether any National Park/Wildlife Sanctuary/Reserve Forest is located within 10 km distance? If yes then give details thereof.
2 During presentation, it was informed that the total water requirement is 343.44 m3/day. However, as per page 2.24 of EIA report, water requirement is mentioned as 289.56 m3/day. Correct figure to be specified.
3 Source of water supply to be mentioned.
4 Give details of treatment scheme for domestic effluent and industrial effluent. Details of usage of treated effluent.
5 Details of measures to be taken for Chlorine leakage from working area and storage area.
6 Risk and Disaster preparedness and Management Plan be prepared.
7 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 for 5 years. Time bound action plan to be submitted.

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

36.7.8 Expansion of Chlorinated Paraffin Wax (from 150 MTPM to 1500 MTPM) Manufacturing Unit at Survey Nio.1067/B, Village Chhatraj, Kadid Road, TalukaKalol, District Gandhinaar, Gujarat by M/s Kemplast Industries – regarding EC

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 10th Meeting of the Expert Appraisal Committee (Industry) held during 29th-31st July, 2013 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 Kemplast Industries have proposed for Expansion of Chlorinated Paraffin Wax (150 MTPM) Manufacturing Unit at Survey No.1067/B, Village Chhatral, Kadid Road, TalukaKalol, District Gandhinagar, Gujarat. Plot area is 5005 m^2 of which greenbelt will be developed in 1691 m^2. Cost of project is Rs. 2.74 Crore. It is reported that no national park is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Existing (MTPM)	Additional (MTPM)	After Expansion (MTPM)
1	Chlorinated Paraffin	150	1350	1500
By-products				
1	HCl (30% solution)	250	2500	2750
2	Sodium hypo Chloride	1.5	10.5	12
3	Calcium hypo Chloride	1.5	10.5	12

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2013- December, 2013 and submitted baseline

data indicates that ranges of concentrations of PM_{10} (59 µg/m^3 to 77 µg/m^3), $PM_{2.5}$ (33 µg/m3 to 48 µg/m3), SOx (10.1 µg/m3 to 17.1 ug/m3) and NOx (20.3 µg/m^3 to 27.8 µg/m3) respectively. The results of ambient air quality are within the NAAQS. HCl absorption tower (2 nos.) followed by water scrubber (1 no. common) followed by alkali scrubber (1 no. common) will be provided to Chlorinated paraffin wax vessel to control process emissions viz. HCl and Cl_2. Fresh water requirement from ground water source will be increased from 10.4 m^3/day to 89.96 m^3/day after expansion. Scrubbed water will be used as byproducts namely, HCl and Sodium hypo chloride. There will be no generation of process effluent. Sewage generation will be 2.9 m3/day. The Committee suggested them to treat sewage and reuse treated sewage for horticulture purpose. No effluent will be discharged outside the plant premises. Residue from wet scrubber namely HCl and Sodium hypo chloride will be sold to actual users and approved vendor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 20th October, 2014. The issues were raised advantages to village due to expansion; and precaution for worker working in the factory etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i) HCl absorption tower (2 nos.) followed by water scrubber (1 no. common) followed by alkali scrubber (1 no. common) will be provided to Chlorinated paraffin wax vessel to control process emissions viz. HCl. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.

ii) Continuous monitoring system for HCl and chlorine shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.

iii) Proper hood alongwith suction facility and scrubbing arrangement shall be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided alongwith automatic start of the scrubbing system.

iv) The levels of PM_{10}, SO_2 , NO_x, CO, HCl, Cl_2, VOCs in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.

v) Total water requirement from ground water source shall not exceed 89 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

vi) Effluent from utilities shall be treated in ETP comprising Ultra Filtration and Reverse Osmosis. Treated effluent shall be recycled/reused in process and cooling tower make up water. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Water quality of treated effluent from ETP shall be monitored regularly. Sewage shall be treated and treated sewage shall be reused for horticulture purpose.

vii) No effluent from the plant shall be discharged outside the factory premises and ‘Zero’ effluent discharge concept shall be followed.

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

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

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

xi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 20th October, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

While appraising the project proposal it was observed that the proposal was submitted online in the amendment to EC section. Now it is suggested that application should be submitted in environment clearance section within one week from uploading of minutes on the website.

36.8 Reconsideration for Environmental Clearance

36.8.1 Molasses based Distillery (45 KLPD) at Village Nimbal (BK), Tehsil Indi, District Bijapur, Karnataka by M/s M. S Patil Sugars Ltd.- reconsideration of EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 28th meeting held during 1st – 2nd December, 2014 and the Committee deferred the proposal for want of following additional information:

i. Confirmation of existing EC issued for sugar unit and cogeneration power plant. Whether these unit/facilities are implemented or not?

ii. Different figures /concentration of pollutants have been indicated in EIA report. Similarly, values of plot areas are given to be different. Followings are noted in report and during presentation:

- At page 10 of EIA Report, predicted GLC is mentioned as PM10 (1.56 ug/m3), SO2 (3.30 ug/m^3) and Oxides of Nitrogen (12.52 ug/m3). Whereas at page 59 of EIA report, GLC of NOx and SPM is calculated as 4.33 ug/m^3 and 13.01 ug/m^3.

- At page 12 of EIA report, plot area is mentioned as 97 acre while at page 3, land required is mentioned as 110 acre.

- As per TOR presentation, distillery plant will be operated for 270 days. Whereas EIA report is prepared for 300 days per annum distillery operation. But in presentation, calculation for bio-composting has been carried out based on 270 days.

- As per TOR presentation, spent wash treatment scheme comprises bio-methanation followed by concentration in MEE and burning in incineration boiler to achieve zero discharge. Whereas, as per page 8 of EIA report, spent wash treatment scheme suggested bio-methanation followed by concentration in MEE and bio-composting to achieve zero discharge. Reasons for change in the effluent treatment process.

PP has submitted the above mentioned addl. Information. PP informed that environment clearance for sugar plant of 5000 TCD and 19 MW Cogeneration Power Plant from SEIAA, Karnataka on 8th October, 2012. PP informed that the said sugar and cogeneration unit was not implemented and now it is clubbed with this proposal. Plot are is 110 acres. Distillery will be operated for 270 days. As regard to spent wash treatment, PP informed that the feasibility of incineration is not techno-economically viable and in case of failure of incineration it will be difficult to dispose the spent wash. Hence bio-composting of concentrated spent wash is proposed. PP has earmarked Rs. 586.5 lakh towards Enterprise Social Commitment for next 5 years. Activities incorporated are capacity building training for vocational course; village infrastructure; drinking water facility; women empowerment; education support through building; primary health centres; agriculture development program etc.

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

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

ii) ESP along with stack of adequate height shall be provided to bagasse fired boilers (110 TPH) and bagfilter alongwith stack of adequate height shall be provided to concentrated spent wash fired boiler to control particulate emissions within 50 mg/Nm^3.

iii) Total fresh water requirement from River shall not exceed 1538 m^3/day for sugar, distillery and CPPand prior permission shall be obtained from the Competent Authority.

iv) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be biocomposted with pressmud to achieve 'Zero' discharge. Spentlees, effluent from sugar plant & Utilities and condensate shall be treated in the ETP and treated effluent shall be recycled/reused for cooling tower make up and process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

v) 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.

vi) As proposed, no effluent from distillery and co-generation power plant shall be discharged outside the plant premises and Zero discharge shall be adopted. Water

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

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

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

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

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

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

xii) 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 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.

xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 31.08.2013 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 Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

36.8.2 Greenfield Soda Ash Plant (1500TPD) alongwith Captive Power Plant (50 MW) at Village Kuranga, TalukaDwarka, District Jamnagar, Gujrat by M/s RSPL Ltd.- reconsideration of EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 32nd meeting held during 20th – 21st January, 2015 and the Committee deferred the proposal for want of following additional information:

i) Action plan for reduction/control of ammonia leakage from the process.

ii) Disaster management plan for cyclone, Tsunami etc.
iii) A note based on available data indicating social economic impact on fisherman due to the project.
iv) Action plan for Enterprises Social Commitment considering 2.5 % of the project cost for five years.
v) MoU with the cement plant/brick manufacturers for fly ash utilization.

PP vide letter dated 18.02.2015 has submitted the above mentioned addl. information. PP informed that all the possible steps to avoid loss of ammonia are meticulously in-built in the process plant design itself. Provision of ammonia gas sensors, redundant level transmitters, safety valves etc. will be installed. Provision of dyke wall, water sprinklers, water monitor have been considered to absorb the leaked ammonia and to collect the same in Pit. PP informed that proposed marine facilities will consist of intake of sea water from Arabian Sea and Marine outfall for the discharge of effluent in Arbian Sea by laying buried pipeline with diffuser ports. No commercial fishing operation by trawling exists in the area. No displacement of fisherman community. Mitigation measures will be implemented. Action plan for ESC considering 2.5 % i.e. 43.70 Crore has been submitted. Activities include assistance for upgradation of nearby villages schools; supply of drinking water & sanitation; Health/PHC; Community/Infrastructure development; Water conservation measures; Social Forestry; Contribution to Prime Minister's relief funds ; upliftment of fishermen community etc.

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

i) Clearance from National Board for Wildlife for Gaga Wildlife Sanctuary shall be obtained.
ii) Stage – I forest clearance shall be obtained for 0.94 ha forest land.
iii) CRZ clearance shall be obtained for laying of sea water intake and effluent facilities in Arbian Sea.
iv) ESPs shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/KSPCB guidelines.
v) The levels of PM10, PM2.5, SO2, NOx, VOC, CO and NH_3 shall be monitored in ambient air.
vi) As proposed, scrubbers shall be provided to the 5 nos. Lime Kilns. Scrubber shall be provided to ammonia recovery system and filtration/calcination section. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
vii) Bagfilter shall be provided to lime grinding system. All crushers and transfer points shall be provided with dust extraction system consist of hoods, bag house, ID fans and exhaust duct. Closed storage, covered belt conveyor, baghouse/bagfilter shall be provided at transfer points. All the air pollution control devices suggested in the EIA/EMP shall be implemented.

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

ix) Total fresh water requirement from Arbian Sea shall not exceed 60 MLD and prior permission shall be obtained from the Competent Authority.

x) As proposed, process effluent should be treated in ETP. Treated effluent should be discharged into Arabian Sea at a designated point having diffuser system as recommended by NIO after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP. Treated sewage shall be reused for horticulture purpose.

xi) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.

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

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) Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 as amendment in 2003. Fly ash shall be provided to cement and brick manufacturers for further utilization.

xv) Unit shall create covered coal storage along with facilities of garland drain around coal handling area which leads to a settling pit. Pucca road shall be created in and around coal storage area and parking area.

xvi) As proposed, green belt area of 189 ha shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xvii) As proposed, 2.5 % (i.e. 43.70 Crore) 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.

36.8.3 Expansion of Chemical Manufacturing Plant (15 MTPM to 500 MTPM) at Block No.231 & 232,Village Ekalbara, Tehsil Padra, District Vadodara, Gujarat by M/s Greenovat Organics Pvt. Ltd – reconsideration of EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 9th meeting held during 10th – 11th June, 2013 and the Committee deferred the proposal for want of following additional information:

i) Recommendation on proposed expansion project from the Gujarat Pollution Control Board.

ii) Compliance status report on the conditions stipulated in the existing CTE/CTO.

iii) Point wise reply/commitment on the issues raised by the public in public hearing.

PP vide e-mail dated 29.12.2014 has submitted the above mentioned addl. information. GPCB vide letter no. GPCB/CCA-VRD-8(3)/ID-21954/233835 dated 18th December, 2014 has recommended that since CETP is unable to accept the quantity of effluent to this expansion project, the unit will go for Zero Liquid Discharge (ZLD). The unit shall maximize their recycling efforts in order to reduce the discharge quantity of effluent.

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

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

ii. Scrubber shall be provided to control process emissions viz. HCl, Cl_2 and Br . The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

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

iv. Total fresh water requirement from ground water source shall not exceed 155 m3/day m3/day and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

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

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

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

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

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

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

xii. All the issues raised during the Public Hearing/consultation meeting held on 24th August, 2012 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

xiv. 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.

36.8.4 Expansion of existing Ethyl Cellulose Unit (20 TPM) by installing Organic Chemical Plant (79.69 TPM) at Sy.No.303/2 & 302/P, Village Abrama, Tehsil & District Valsad, Gujarat by M/s Asha Cellulose (I) Pvt. Ltd. – reconsideration of EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 5th – 7th March, 2013 and the Committee deferred the proposal for want of following additional information:

i) Monitoring report from GPCB regarding existing unit.
ii) CRZ clearance/ recommendation from State Coastal Zone Management Authority.

PP vide letter dated 19th December, 2014 has submitted the addl. information. PP informed that GPCB has issued consent to establish letter no. GPCB/CCA-VSD-152/ID:23135/230205 dated 10.11.2014 after verifying of compliance of consent conditions of existing unit. Gujarat SCZM vide their letter no ENV-10-2013-74-E dated 3rd December, 2014 clarified that proposed plant for expansion is not following within CRZ area and does not attract the provision of CRZ Notification 2011. They have also directed not to carry out any construction activity (4800 m^2), which attracts the provision of CRZ notification 2011 and

not to discharge any treated effluent into the estuary of river Auranga without obtaining necessary permission from the Competent Authority.

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

i) Adequate stack height should be provided to oil/gas fired boiler/thermopack.

ii) The levels of PM_{10}, SO_2, NO_X, CO, NH_3, HCl, $Cl_2$and VOC should be monitored in ambient air.

iii) Bag filter shall be provided to additional spin flash dryers. At no time, the emission levels should go beyond the prescribed standards.

iv) Total fresh water requirement from ground water source should not exceed 52.7 m^3/day and prior permission should be obtained from the CWGA/SWGA.

v) Total effluent generation should not exceed 240.5 m^3/day. Effluent should be should be treated in in the ETP comprising primary, secondary and tertiary treatment (RO). RO rejects will be evaporated in MEE. The RO permeates and MEE condensate shall be recycled in the process.

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

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

viii) Green belt should be developed in 6,325 m^2 out of total plant area.

ix) All the issues raised during the Public Hearing/consultation meeting held on 15th December, 2012 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

36.8.5 Expansion of Pesticides (Rodenticides), Aluminium Phosphide (25 to 75 MTPM) & Zinc Phosphide (25 to 75 MTPM) Unit at 808 A/2, 3rd Phase, GIDC, Village Vapi, TalukaPardi, District Valsad, Gujarat by M/s Sandhya Organics Chemicals Pvt Ltd – reconsideration of EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 8th meeting held during 16-17th May, 2013 and the Committee deferred the proposal for want of following additional information:

i) Compliance report from the State Pollution Control Broad for the existing Consent to Establish/Operate to be submitted.
ii) Existing status report on occupational health of the employees to be submitted.

PP vide letter dated 15th September, 2013 has submitted the addl. information. PP submitted the copy of latest inspection report dated 21.09.2013. The Committee found that information is satisfactory.

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

I. Adequate stack height should be provided to oil/gas fired boiler/thermopack.

II. The levels of PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO and VOC shall be monitored in ambient air.

III. Water scrubber (demister and venturi) will be provided to the reactors to control process emissions viz. P_2O_5. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

IV. Total fresh water requirement from GIDC water supply shall not exceed 20 m^3/day.

V. As proposed, industrial effluent generation shall not exceed 2.7 m^3/day. Industrial effluent will be used scrubbing media. Phosphoric acid will be generated as by-product. Domestic effluent shall be treated in the STP. Treated effluent shall be reused for gardening / horticulture purpose.

VI. No effluent shall 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. The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.

IX. 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.

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

36.8.6 Resin Manufacturing Unit at S.No.6/A, Village Changodar, District Ahmedabad, Gujarat by M/s Creative Laminates – regarding Environmental Clearance

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 26th meeting held during 29th -30th October, 2014 and The Committee noted that as per page no. 4.16 of EIA-EMP report, predicted SPM is in the range of 20 ug/m3 to 60 ug/m^3 and resultant SPM due to the proposed project is in the range of 121.5 ug/m3 to 157 ug/m3. The Committee suggested to recheck the SPM prediction data. Reasons for high PM10 data to be submitted.

PP vide letter dated 27th December, 2014 has submitted the addl. information. PP informed that the reason for high incremental data reported was due to air dispersion model was run without considering air pollution control measures. Now, PP estimated the incremental SPM as 6.42 ug/m^3 and resultant SPM level was observed to be 84.02 ug/m^3, which is within the standards.

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

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

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

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

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

v) Total fresh water requirement shall be exceed from exceed 12.8 m^3/day. No ground water shall be used. As informed the water requirement will be met from authorized pipeline for the area.

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

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

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

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

x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 4th July, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

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

36.9 Terms of Reference (TOR)

36.9.1 Proposed manufacturing of pesticides and pesticide specific intermediates at Plot no. G-154,155,156,157,164,165, 166,167, RIICO Industrial area, Village: Sanwad, Tehsil: Mavli, District Udaipur, Rajasthan by M/s. Rotam Crop Protection Pvt. Ltd. – Reg TOR

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

M/s. Rotam Crop Protection Pvt. Ltd. Proposed manufacturing of pesticides and pesticide specific intermediates at Plot no. G-154,155,156,157,164,165, 166,167, RIICO Industrial area, Village: Sanwad, Tehsil: Mavli, District Udaipur, Rajasthan. Plot area is 8560 m2. Cost of project is Rs. Rs. 30 Crore, of which 3.0 crore will be earmarked to environmental pollution control measures. It is reported that no national park/wildlife sanctuary is located within 10 km distance.

Following products will be manufactured:

Sl. No.	Name of Products	Quantity* (MT/Month)	Quantity* (MT/Annum)
A.	**Plant-1**		
1	Fenpropimoph	28	300

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

*Note: Unit will have total production capacity 1250 TPA, out of above.

The main source of emission will be flue gas emission from stack attached to boilers & process gas stack attached to Alkali scrubber followed by water. Unit will also install one D.G. set (capacity 250 KVA) as standby arrangement. Total water requirement will be 216.5 m3/day , out of which 143 m3/day is fresh water and 73.5 m3/day is recycled water. Effluent generation will be 76.5m3/day. Wastewater will be treated in ETP having RO and MEE. Treated water will pass through RO and reject of RO will be sent to MEE for further treatment. RO permeate & condensate from MEE will be used for utility and green belt development. There will no effluent discharge outside industry premises and it is zero liquid discharge. The evaporation salts and ETP sludge will be sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.

4. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including 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

Public hearing was exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report.

Public hearing was exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report. The Committee prescribed the above ToRs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs to the Ministry for obtaining Environmental Clearance.

36.9.2 Proposed Capacity Expansion (280.4 MTPM to 2716.2 MTPM) of Synthetic Organic Chemicals (Epoxidised Soyabean Oil, Methyl Soyate & Plasticizers) at Plot No 16-19, GIDC Estate, Phase-1 Vapi, Gujarat by M/s. Consumers Plastics Pvt. Ltd. – Reg TOR

The project authorities and their Consultant (M/s Percitech Laboratories Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within interstate boundary, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006

M/s. Consumers Plastics Pvt. Ltd have Proposed Capacity Expansion (280.4 MTPM to 2716.2 MTPM) of Synthetic Organic Chemicals (Epoxidised Soyabean Oil, Methyl Soyate & Plasticizers) at Plot No 16-19, GIDC Estate, Phase-1 Vapi, Gujarat. MoEF&CC vide letter

no. J-11011/871/2008-IA II (I) dated 10th February 2009 has issued the Environmental Clearance to the existing unit.

Total existing plot area is 6761 m^2. The total cost of proposed project will be Rs.3.50 Crore. Total 40 personal will be employed after expansion. Proposed expansion will be carried out in the existing plot. No additional land will be required for proposed Expansion Project. It is reported that no national park/wildlife sanctuary is located within 10 km distance. River Damanganga is flowing at the distance of 3.32 km from the project site. Following products will be manufactured;

Sr. No.	Name of Finished products	Quantity in MT/Month		
		Existing	Proposed	Total
1.	PVC/ HDPE Pipes	40.0	NIL	40.0
2.	Epoxidised Soyabean Oil	200.0	400.0	600.0
3.	Methyl Soyate			
4.	Di Octyl Phthalate (DOP)	NIL	1000.0	1000.0
5.	Di-Iso-Nonyl Phthalate (DINP)			
6.	Di-IsoDecyl Phthalates (DIDP)			
7.	Di Butyle Phthalates (DBP)			
8.	Di Octyl Maleate (DOM)			
9.	Di Butyl Maleate (DBM)			
10.	Di (2-Ethylhexyl) Adipate (DOA)			
11.	Polymer Compound & Master Batch	NIL	500.0	500.0
12.	Plastic Extruded & Molded Products	NIL	500.0	500.0
	Total	**240.0**	**2400.0**	**2640.0**
By Products*				
1.	Sodium Formate	*15.0	*-15.0	Nil
2.	Glycerol	*25.4	*50.8	*76.2
	Total	**280.4**	**2450.8**	**2716.2**

Note:
*In existing operations, Sodium Formate is being generated as by product during manufacturing of Epoxidised Soyabean Oil. After proposed project, new manufacturing process of Epoxidised Soyabean Oil will adopted, where Sodium Formate will not be generated.

In Existing operations, water requirement for the plant is 22.0 m3/day. Total water consumption after proposed expansion will be 55.0 m3/day. The water will be sourced from the GIDC Water Supply Department. In existing operations Industrial Effluent @ 2.2 m3/day is given primary treatment and passed through netuch filter and then utilized for gardening purpose. After proposed expansion Industrial Effluent @ 51.0 m3/day to be treated in proposed modified effluent treatment plant and treated water will reused in cooling and gardening purpose, the domestic effluent is/will be disposed off through septic tank/ soak pit system. There will be no discharge of treated effluent outside the company premises.

Existing power requirement is 150 KVA after proposed expansion total power requirement will be 350 KVA sourced from Dakshin Gujarat Vij Company Limited (DGVCL). Natural Gas @ 2495 SCMD to be used as fuel in steam boiler and proposed thermic fluid heater, Natural gas is/will be sourced from GSPC gas supply.

Used oil to be reused as lubricant in plant operations. Discarded containers to be reused for packing/ sold to the authorized dealers. ETP sludge will be disposed of to TSDF site.

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

A. Specific TOR

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

B. Additional TOR

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

2. Recommendation of SPCB is required for proposed activity.

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.

36.9.3 Proposed expansion for manufacturing of dye & Dye intermediate and pesticide manufacturing (from 5595 MTPA to 17378.17 MTPA) at plot no. 903,923, GIDC Estate, district Valsad, Tehsil Pardi, Vapi, Gujarat by M/s Aarti Industries Ltd. (Alchemie Organics Division) – reg TOR

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

M/s Aarti Industries Ltd. has proposed for expansion of pesticide (from 5595 MTPA to 17378.17 MTPA) at plot no. 903,923, GIDC Estate, district Valsad, Tehsil Pardi, Vapi, Gujarat. The unit has obtained Environment Clearance vide letter no. J-11011/497/2008-II (I) dated 14.11.2008. However, the unit has not been able complete the project and is now lapsed.

The expansion will be carried out at existing plot located in GIDC. The expected cost of proposed expansion is Rs.15.15 crore. The total plot area of the unit is 11,970sq.m. Existing green belt area is approx. 2346 sq. m. After expansion, the green belt area will be remaining same. River Damanganga is flowing at distance of 5.0 km fom the project site. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S. No.	Products	Existing Quantity as per consent in MT / Year	Quantity as per proposed Expansion in MT / Year
1	**Hydrogenation**		
1.1	DCBH (Di Chloro Benzene Hydro chloride)	3000	7800
1.2	1,3 D.F.B.(Di Flouro Benzene)	100	
1.3	3,5/2,6 DFA (Di Flouro Aniline)	30	
1.4	OT Base	0	
1.5	Di Anisidine	0	
1.6	Ortho Toluene	0	87
1.7	Ortho Anisidine	0	87
1.8	Ortho Chloro Aniline	150	975
2	**Diazotization**		
2.1	2,3/2,5 DCP (Di Chloro Phenol)	300	2400
2.2	3,5 Di Chloro Nitro Benzene	1050	
2.3	1,3,5 TCB	0	
2.4	Para Flouro Phenol (PFP)	100	
3	**Bromination**		
3.1	3,4,5 Tri Flouro Bromo Benzene	40	1000
3.2	2 Bromo 4 Flouro Acetanilide	74	
3.3	Di Chloro Bromo Benzene	100	
3.4	Acetic Acid	26	29.17
4.	**Condensation**		

S. No.	Products	Existing Quantity as per consent in MT / Year	Quantity as per proposed Expansion in MT / Year
4.1	Quinalphose (TECH) (Diethyl 2-Hydroxy Thiophosphoryl Chloride)	600	600
5.	**Para Flouro Anisol**	0	200
6.	**Hydrolysis**		
	4 CAP	0	200
	2 CAP	0	
	2,3,4 TFA	0	
7.	**Chlorination**		
7.1	2,6 DCPNA	25	4000
7.1	2,4,6 TCA	0	
	Total	**5595**	**17378.17**
	Bye Products		
1	Sulphuric Acid (70%)	2310	1739.60
2	Dilute Sulphuric Acid	51326	12325.02
3	HBr Solution	87.5	72.91
4	HCl (30%)	0	769.29

The unit has proposed one additional D.G set. Diesel requirement for one D.G set will be 150 L/hr. Total diesel consumption will be 250 L/hr. Furnace oil consumption will be nil as the unit will not use in-house incinerator. The unit have electricity from Daxin Gujarat Vij Company Ltd. The existing electricity consumption is 1200 KVA and electricity consumption due to proposed expansion will be 800 KVA. Total electricity requirement after proposed expansion will be 2000 KVA.

The source of water is GIDC. As per consent, the unit is using 404 m3/day freshwater for industrial and domestic purpose. For proposed expansion, the unit has proposed additional 195 m3/day of fresh water consumption. After expansion, total water consumption will be 867 m3/day, of which 599 m3/day is fresh water and 288 m3/day recovered water.

As per consent, the industrial effluent generation is 79 KLD and sewage generation is 20 KLD. Concentrated & toxic effluent stream of 11.7 KLD is sent for in-house incineration. Existing effluent is treated in ETP having primary, secondary and tertiary treatment. Treated water is sent to CETP. The wastewater will increase from 99 m3/day to 302 m3/day. Due to proposed expansion, additional sewage generation will be 40 m3/day. Hence, after expansion sewage generation will be 60 KLD (20 KLD + 40 KLD).The existing ETP is adequate to treat 167 KLD of effluent. Treated effluent will be subjected to R.O. followed by MEE to achieve zero liquid discharge for industrial effluent. Sewage will be treated in STP separately. Treated water from STP will be used for gardening purpose (30 m3/day) and in cooling tower (30 m3/day).

The process emission is from two stacks. One stack having height 16 m is attached to Reactor of 2-Bromo 4Flouro Acetanilide/ Di Chloro Bromo Benzene Reactor and there is provision of Water Scrubber followed by Alkali Scrubber as air pollution control system. Second stack of incinerator having height 30 m and there is provision of Caustic Scrubber air pollution control system. The unit has proposed three process stacks. One stack having height 11 m attached to chlorinator reactor and there is provision of water scrubber followed

by Alkali Scrubber to control emission of Cl_2 &HCl. Second stack having height 11 m attached to SFD and there is provision of water scrubber to control emission of PM. Third stack having height 11 m attached to Dizo vessels and there is provision of water scrubber followed by Alkali Scrubber to control emission of NOx& HCl.

The unit has proposed to discontinue of in-house incineration facility. Thus there will be no generation of incineration ash. ETP waste will be disposed at TSDF Site. Spent solvent, Date expired pesticides, Spent filter cloth, Distillation residue, Spent carbon are disposed by sending to common incineration. Spent catalyst will be sent to registered regenerator. Used oil is sent to registered recyclers.Discarded containers/Bags/Liners are reuse or sale to actual user after decontamination.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including 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

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

2. 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. The following general points shall be noted.

3. Recommendation of SPCB to be submitted for proposed activity.

Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report. The Committee prescribed the above ToRs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs to the Ministry for obtaining Environmental Clearance.

36.9.4 Proposed manufacturing of API and bulk drugs (capacity 14019 TPA) at village Kongavani palem, Mandal Bhogapuram, district Vijayanagaram, Andhra Pradesh by M/s Divis Laboratories Limited Unit-III (A) – Reg TOR.

The project authorities and their Consultant (M/s Ramky Enviro Engineers Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Divis Laboratories Limited Unit-III (A) has proposed manufacturing of API and bulk drugs (capacity 14000 TPA) at village Kongavani palem, Mandal Bhogapuram, district Vijayanagaram, Andhra Pradesh.

This proposed unit is to be developed in an area of 60.7 Ha (150 acre), of which Green belt will be developed in 20 ha of land (33% of project area). Cost of project is Rs. Rs 150 Crores. About 3000 personal will be employed under the project. It is reported that land is adjacent to sea-shore near Bay of Bengal. It is reported that no reserve forests/ wildlife sanctuary are located within 10 km distance. River Champavathi is flowing within 10 km, However PP did not mention exact distance from the project site. In the form -1, PP has proposed for manufacturing of bulk drugs with capacity of 10000 TPA (63 products), but in the presentation he has proposed for 14000 TPA (apprx. 38 products).

Following 38 products will be manufactured:

S.No	Product	Qty. MTA	S.No	Product	Qty. MTA
1	(+) N-Formyl Octa Base	450	20	2,4-Thiazole methyl amine	50
2	Octamandalate Base	780	21	L-Valine methyl ester HCl	382
3	PMPA	780	22	4-Bromomethylbiphenyl-2-Carbonitrile	630
4	CHEA(100%)	540	23	NOG	400
5	Atipadichloride	1210	24	2,4,5-Trifluorophenylacetic acid	350
6	2-(S) - Acetoxy propionylchloride	135	25	Triazole HCl	350
7	4-CPCCA	50	26	O-benzyl hydroxylamine hydrochloride	10

8	3-HAP	330	27	[(+/-)-trans -1,2-bis(methanesulfonyloxymethyl)cyclohexane	5
9	Benzyladrinone HCl	560	28	P-Methyl-CƆ- Pyrrolidino Propiophenone Hcl	10
10	2-Acetyl-6-methoxy naphthalene	5000	29	2-Amino-6-Bromo Pyridine	10
11	2-(n-Butyl)-4-Chloro-5-formyl imidazole	250	30	6-Chloro Uracil	10
12	Beta-Ionylidine ethyl triphenyl phosphene bromide	400	31	3-Phthalimido piperidine	10
13	C10-dialdehyde	150	32	Boc azido piperidine	10
14	1,2,3-Tri-O-Acetyl-5-deoxy-n-ribofuranose	50	33	Chloroquinozoline	10
15	Acetonide	132	34	8-Bromo-7-(but-2-ynyl)-3-methyl-1H Purine-2,6(3H,7H) dione	10
16	ZL-Valine	150	35	5-[4-Methylbiphenyl-2yl]-2-trityl-2Htetrazole	500
17	DL-2,2-Dimethyl cyclopropane-1-carboxylic acid	30	36	6-®-2,2,6-Trimethyl-1,4-cyclo hexadione	15
18	Dimethylacetylene di carboxylate	30	37	Naproxen	100
19	N-Hydroxy succinamide	30	38	Dextromethorphan HBr	100

Total Production capacity : 14019 TPA

The fresh water will be drawn from the river Chanpavathi having quantity of 3560 m3/day Against this water requirement wastewater of 2470 m3/day will be generated. The entire wastewater will be treated in effluent treatment plant, MEE, Spray drier, RO consisting of Physical, Chemical and Biological treatment options, part of the treated water will be reused and rest will be discharged into the Sea after meeting sea discharge standards. It is reported that wastewater of 1050 m3/day of quantity will be discharged into the sea after meeting the standards. The wastewater generated will be segregated based on BOD/COD, High TDS, Low TDS and necessary treatment options will be provided for treating individual streams. Domestic wastewater stream will be treated in STP and treated wastewater will be reused for flushing and in greenbelt.

The main sources of air emissions in the unit are process emissions, boiler, DG set and fugitive emissions due to the evaporation of solvents. To minimize the process emissions necessary scrubbers will be provided and the facilities will be designed with maximum flexibility to have an open type ventilation system and fumes if any, shall not linger in the plant. Boilers will be provided with particulate matter emission control measures (ESP/Bag filter/Multi cyclone) and for proper dispersion of gases emissions stack height meeting CPCB standards will be provided. DG set will be provided with stack height meeting CPCB standards. For minimizing the losses of solvents all reactors will be provided with condensers and due care will be taken by ensuring proper fixation of the fixtures etc.

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

A. Specific TOR

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

B. Additional TOR

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

2. CRZ clearance to be obtained for disposal of effluent into the sea.

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.

In addition, M/s Divis Laboratories Limited Unit-III (A) needs to furnish the information in revised Form-1 as per presentation in meeting and the same to be uploaded on website within 10 days after issue of minutes in the Ministry's website.

36.9.5 Proposed Bentonite Sulphur plant (capacity 25000MT/Year) in the existing NFL Unit at Panipat, Haryana by M/s National Fertilizer 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 the fertilizer units are listed at S.N. 5(a) under category 'A' and appraised at Central level

M/s National Fertilizer Limited has proposed for manufacturing of Bentonite Sulphur plant (capacity 25000MT/Year) in the existing NFL Unit at Panipat, Haryana. PP informed that the process involve mixing of molten sulphur and Benonite in the ratio of 9:1 at 130- 140 ^{o}C in preparation vessel. The Committee observed that process does not involve any chemical reaction of synthesis. Manufacturing process involved only blending of the materials. The manufacturing process does not lead to any generation of solid, liquid wastes or gaseous emission.

After detailed deliberation, the Committee recommended the aforesaid proposal for exemption from environmental clearance process.

36.9.6 Proposed manufacturing of Agro Chemicals & Organic intermediates (702 MTPM) at Plot. No. Z/96/E, SEZ:II, Dahej Industrial estate, Tahsil Vagra, District Bharuch, Gujarat by M/s Yashashvi Rasayan Pvt. Limited – reg TOR

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

M/s Yashashvi Rasayan Pvt. Limited Proposed manufacturing of Agro Chemicals & Organic intermediates (702 MTPM) at Plot. No. Z/96/E, SEZ:II, Dahej Industrial Estate, Tahsil Vagra, District Bharuch, Gujarat. Plot area is 62526 m2, of which 19996 m2 will be developed under Greenbelt/plantation. Total 170 persons are proposed to be employed. Cost of project is Rs. Rs. 215 Crore. It is reported that no national park/wildlife sanctuary/eco sensitive zone is located within 10 km distance. River Narmada is flowing at a distance of 7 km from the project site.

Site is located in Dahej Industrial Estate, Dhaej as SEZII on which Environmental clearance is yet to be obtained by State. It was informed that public hearing of this industrial estate where project site is located is to be conducted. PP has submitted a copy EC for Dhej SEZ only.

Following products will be manufactured:

Sl. No.	Product	Capacity, TPM
1	3,6 DI CHLORO METHOXY BENZOIC ACID	500.00
	OR	
2	DI POTASSIUM SALT OF 3,6 DI CHLORO SALICYLIC ACID	701.50

	OR	
3	2,5 DI CHLORO PHENOL	510.92
	OR	
4	2,5 DI CHLORO ANILINE	664.75

Either of One product will be manufactured

Total fresh water requirement by the unit is 380 m3/day, which will be sourced from the Dhej SEZ limited. Waste streams will be segregated into High TDS/COD and low TDS/COD. Wastewater will be treated in ETP having primary treatment and aeration process as secondary treatment and then further treatment through activated carbon bed/ sand filter before sending to holding tank from where after confirming norms wastewater will be disposed off into GIDC Effluent draining system for final discharge into Arabian Sea. Domestic wastewater will be disposed through septic tank & soak pit. The noted that treatment scheme proposed by the PP is not adequate. It was suggested to give detailed treatment scheme with advance treatment system before final discharge.

There will be flue gas emission from 15 TPHx2 capacities of coal fired boiler. Adequate capacity of electro static precipitator along with 55 m height will be provided and Incinerator having 300 Kg/hr capacity using Furnace Oil/LDO. DG set of 270 kg/hr of capacity will be provided using HSD. Used oil, process waste & residue, spent carbon from ETP, used rubber hand glove/pipes will be incinerated in the unit own incineration system. The evaporation salts and ETP sludge will be sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers.

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

A. Specific TOR

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, CS_2 *etc*., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including 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

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Adequate wastewater treatment scheme to be provided
3. Plan to be submitted for reduction of fresh water
4. Green belt development and plantation plan to be provided adequately as per guidelines of CPCB

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.

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

The project proponent and their consultant (M/s Ganpati Sugar industries Limited) 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 molasses based Distillery Units are listed at S.N. 5(g) under Category 'A' and appraised at the Central level.

M/s Ganpati Sugars Industries Limited has Proposed 30 KLD Molasses Distillery Plant and 2 MW Captive Power plant at 1421 A / 1421 AA / 1421 E / 1421 EE, Chowtkur Village Pulkal Mandal Medak District Telangana. PP informed that there is no National Park/Tiger Reserve/Elephant corridor within 10 km radius of the project site. However, Manjira Wildlife Sanctuary is situated at a distance of 10.1 km from the project site. Chatkuri Reserve Forest is situated at distance of 0.5 kms from the project site. Manjira river is flowing at distance of 3.8 km from the project site. Project will be implemented on 16 Acres of land which is already in possession. The proposed cost of project is Rs. 57.45 Crore. The unit will produce the following products;

S.No.	Product	Production Capacity
1.	RS/ENA/Ethanol/Pharma Alcohol/Industrial Alcohol	30 KLPD
2.	Captive Power Plant	2 MW

It was informed that Molasses generation from 5000 TCD of existing sugar plant will be 225 TPD. Total molasses generation from sugar if it operates for 150 days will be 33750 Tonnes/Annum. Molasses produced from the sugar will be adequate for running the distillery for 270 days.

Water requirement for the proposed project will be sourced from the groundwater/Manjeera Reservoir. Total water requirement for the proposed project will be 360m3/day. Spent wash generation will be restricted to 8 KL/KL of spirit production. The PP has proposed that spent wash will be treated in Bio-digested followed by Multi Effect Evaporator (MEE) followed bio- composting. The unit is based on zero liquid discharge concept. The committee noted that the plant is in vicinity of reserved forest and therefore, the PP needs to adopt the sound technology to achieve zero liquid discharge. Further the unit is to take the press mud from the 18 km distance from the existing sugar unit having 5000 TCD capacity.

Boiler of 10 TPH capacity using Coal and Bio mass will be installed. Bag filter will be provided to the boiler through a stack of adequate height to reduce the emission of particulate matters.

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

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 odor pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Authenticated map to be provided from the Forest/Wild life showing that the unit is away from 10 km distance from the wildlife sanctuary.
3. Detailed Action plan to be provided for reduction in fresh water.
4. Permission to be obtained for drawing the water from the river only.

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.

36.9.8 Proposed Project of Active Pharmaceuticals Ingredients (APIs) and its Intermediates Manufacturing unit (475.2 TPA) at Plot No. 61 to 66 (Sy. No. 125), Raichur Growth Centre Industrial Area, Chicksugur(V), Raichur district, Karnataka by M/s. Sai Nikhil Pharma Pvt. Ltd. – reg TOR

All the synthetic organic chemicals industry (Active Pharmaceutical Ingredient Manufacturing Unit) located inside the notified industrial area are listed at S.N. 5(f) under Category 'B'. However, as per amendment notification dated 25.06.2014, any project or activity specified in category 'B' will be appraised at the Central level as Category 'A' located in whole or in part within 5 km. from the boundary of critically polluted areas as identified by the CPCB. PP informed that the proposed project is located at a distance more than 5 km. Therefore, entire proposal may be treated as Category 'B' and appraised at the State Level i.e. SEIAA/SEAC, Karnataka.

The Committee recommended for transferring the project to the SEAC/SEIAA, Karnataka for appraisal.

36.9.9 Expansion of existing capacity of Phosphoric Acid Plant (125000 MTPA to 216000 MTPA) at plot no. 239/2-242, 243, 244/3 SPIC Nagar, Village Mullakadu, Taluka Thoothukudi, District Tuticorin, Tamil Nadu by M/s Greenstar Fertilizers Ltd – reconsideration of TOR

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

M/s Greenstar Fertilizers Ltd has proposed for expansion of existing capacity of Phosphoric Acid Plant (125000 MTPA to 216000 MTPA) at plot no. 239/2-242, 243, 244/3 SPIC Nagar, Village Mullakadu, Taluka Thoothukudi, District Tuticorin, Tamil Nadu. There is no ecologically sensitive/protected area/reserved forest within 10 km radius from the project site. The Gulf of Manar at a distance of 2.81 km in the East side. Plot area of the project site is 519438 m2, of which 129830 m2 (24.99% of total area) has been proposed for Green Belt. Total cost of project is Rs. 129 Crore, out of which 6.04 Crore is earmarked for environmental projection measures and 2.4 crore is kept for recurring cost. Total 170 personnel will be employed under the project.

Following products will be manufactured:

S. No.	Product	Existing capacity	Proposed capacity
1	Phosphoric Acid	125000 TPA	216000TPA
2	DAP	606100 TPA	No change

The water consumption will increase from 3840 m3/day to 4046 m3/day. Existing plant is drawing the water from the integrated effluent treatment plant of Southern Petrochemical Industries Corporation Limited. AS informed, there will be no wastewater generation. Additionally, 2 stage lime treatment is available to neutralize the acidity of spillage/drain. This water will be used for process. Multistage Scrubbing System is considered to reduce the Fluorine emission. Gypsum pond water in existing plant is recycled back to the plant and no effluent is disposed from the plant. No effluent is disposed from the plant. Treated sewage water will be used for greenbelt development.

It was informed that in the Phosphoric Acid manufacturing process, Fluorine Recovery unit for recovery of fluorine and multicyclone followed by bag filter has been provided to remove the particulate matter in exhaust gas. In the existing DAP plant, scubbing system has been installed for un-reacted ammonia.

After expansion, about 1080000 MT of Gypsum will be generated, which will be sold to cement and Cement Sheet manufacturing plant.

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

A. Specific TOR

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

B. Additional TOR

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

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

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

36.9.10 Expansion of Existing Bulk Drug manufacturing unit production capacity at Survey numbers 52, 53, 59/1, 59/2A, 59/2B, 74, 75/1, 75/2, 75/3, 76/1B, 76/3, 76/4, 76/7, 76/8 &76/9, Kanagala village, Hukkeri Taluku, Belagavi district, Karnataka State by M/s M/s.HLL Lifecare Limited (KANAGALA PLANT) –reg TOR

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

36.8.11 Proposed capacity expansion of existing facility at survey no. 265 (P), Express Way, Manali Village, Thiruvottiyur Taluk, Thiruvallur District, Tamil Nadu by M/s. Indian Additives Limited. – reg. amendment in TOR

MoEF&CC vide their letter no. J-11011/400/2014 IA II (I) dated 20th February, 2015 has issued TOR for the above mentioned project.

Now, PP has requested for following amendment in the product list in the TOR letter dated 20.02.2015:

S.N.	Product	Existing	Proposed Expansion (MTPA)	Proposed new component (MTPA)
1	Automotive Marine, Industrial, Tail Road and Natural gas engine lubricating oil additivities packages.	25000	60000	--
2	Succinimides	10000	25000	--
3	Phenate/Sulfonate	10000	20000	--
4	PIBSA	8500	20000	--

5	By product (Mix of Sodium Sulphide, Sodium Hydrogen sulphide & caustic	3500	7000	--
6	Zinc Di- Thio Phosphate (ZDTP)	--	--	20000
7	By product (Sodium Sulphide Falkes)	--	--	5000

After detailed deliberation, the Committee recommended the said amendment requested with the same TOR issued earlier.

36.9 ADDITIONAL ITEMS

36.9.1 Proposed Installation of Diesel Hydro treatment Unit (DHT) and associated facilities to produce 100% BS-IV HSD (capacity 2.6 MMTPA of DHT) at village Anik, Mahul, Tehsil Kurla, district Mumbai Maharashtra by M/s BPCL Mumbai Refinery- Site Visit Regarding

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 34th meeting held during 17-19th February, 2015, a Sub-committee of EAC comprising Sh. R. K. Garg and Shri Niranjan Raghunath Raje alongwith Representatives from MoEF Shri Lalit Bokolia, Additional Director & Member Secretary and Shri A. N Singh, Joint Director shall visit M/s BPCL Mumbai Refinery to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any.

Site visit was conducted by the subcommittee on 13th March 2015. List of officials attended the site visit is as given below:

(i) From **BPCL- Mumbai Refinery**.

S.N.	Name	Designation
1	Mr S S Sunderajan	EXECUTIVE DIRECTOR, MUMBAI REFINERY
2	Ms S N Chogle	GM (HR)
3	Mr Srikant Desai	GM (ENG. & ADVISORY SERVICES)
4	Mr H S Paranjape	GENERAL MANAGER (FINANCE)
5	Mr M B Pimpale	GM (PROJECTS)
6	Mr V Suresh	DGM (TECHNOLOGY)
7	Mr P V Ravitej	DGM(MANUFACTURING)
8	Mr K A Kunjumon	DGM (PRODUCT DESPATCHES)
9	Mr S B Kadam	DGM (MAINTENANCE)
10	Mr M S Krishnamoorthy	DGM (PROJECT TECHNOLOGY)
11	Mr T Paramasivam	CHIEF MANAGER MAINT (E&I)
12	Mr S M Joshi	CHIEF MANAGER (E&E)
13	Mr V R Gupta	CHIEF MANAGER (TECHNOLOGY)
14	Mr D Sen	CHIEF MANAGER (UTILITIES)
15	Mr D Das	CHIEF MANAGER MAINT (M&C)

16	Ms S S Sapre	MANAGER (E&E)

At the outset, M/s BPCL briefed the Sub-Committee about the existing operations and the proposed expansion including the existing requirement of water, fuel, power and the emissions, quantity of effluent generation and its mode of treatment and discharge and HW generation and its disposal. These figures were also presented for the expansion proposal also.

They informed the details of fuel and loss and SO2 emission being lowest in the country (even that of Mathura refinery) (after CDU4 commissioning) of 10.44 MT/D was highlighted. Trends of raw water consumption with respect to crude throughput year wise from 2008-09 was shown. Environment Initiatives taken in the year 2014 like MOU signed with RCF for sharing 6000 MT/D of raw water equivalent of Sewage Treatment Plant treated water to reduce the municipal water dependency, existing STP (250 KLD) commissioned in December 2014, rain water harvesting area of 25000 m2 yielding about 59 TKL of rain water was explained. Moreover measures taken for ambient air pollution reduction like flare gas recovery unit commissioned in year 2014 resulting in NIL flare. Also 125 m tall flare stack leading to flare gas emission at a higher level for better dispersion due to increased height, 40 KVA solar power plant supplying complete power to administration building were shown. As a part of Green earth campaign 10,000 trees planted in 100 days in 2014-15 and 4 Acres of green belt developed at APMC Vashi, tree census carried out at Refinery, Sports club and Chembur colony resulting in 11852 trees belonging to 123 species and 40 families were identified and Simpsons Index indicating a good diversity of species were explained.

After discussion, Sub-Committee visited following the spots/ section of the plant:

1 Isom & DHT site & DHDS control room visit
2 Ambient Monitoring station
3 Bioremediation site
4 ETP plant

Proposed DHT site was shown where 3 out of the 5 tanks were already dismantled. The other two tanks will be ready for dismantling by mid April.

DHDS control room visit:
DHDS process is used to desulfurize the incoming diesel feed streams having high sulfur content to very low product sulfur to meet the BS3 /4 product specifications. The unit was designed for reducing feed sulfur content of 1.0% to product sulfur of 35 ppm. Since last 3 months (from December 2014) the unit is operated on dearomatisation mode to increase the product volumes thus resulting in a very low product sulfur of 8 ppm. The purpose of the safety interlocks were explained. The typical time taken to restart whenever the interlock got activated were told as typically few hours to one week in case of an equipment failure (RGC motor). Also the product diesel online inferential were explained alongwith the benefits of having online measurements for sulfur. Hydrogen plant interlocks were shown to the group like IS1 how the steps given has to be done on the reverse to restart the process that was tripped due to activation of the interlock.

BIOREMEDIATION SITE

Visit was also made to Bio-remediation site near TK 114. BPCL informed that 2400 m3 of oily sludge after oil recovery being bio-remediated using OIL Zapper bacteria developed by M/S OTBL (ONGC TERI BIOTECH LTD).

ETP plant

It was told that plant is zero discharge plant and complete water is recovered and used as make up in the three cooling towers**.** When the DHDS and ARU cooling towers were converted to raw water from sea water in 2008 as sea water mist from the cooling towers was causing an extensive damage to the nearby pipelines and structures due to corrosion caused by salts present in sea water. From 2009 onwards, to reduce the raw water consumption in the cooling towers, treated effluent water was used in the cooling towers after doing some preliminary checks in the CRDC and after chemical injection of ClO_2 in the make up water liner to cooling towers.

They explained about the water savings accrued in the cooling towers on use of treated effluent water as substitute of fresh raw water. Since 2009, monetary savings are realized to the tune of Rs. 1 crore to 2. 4 crores per annum as the fresh water cost has gone up from Rs. 40 to Rs. 70 per KL.

The Committee visited the guard pond and then the Activated carbon filter outlet water quality. Sample of outlet of Activated carbon filter outlet was taken and in the physical appearance, the water was quite clean and transparent.

In view of the above, the Committee recommends that TOR for Installation of Diesel Hydro treatment Unit (DHT) and associated facilities may be provided to BPCL with the following stipulation.

i. The layout of the expansion plant should be such that major consequences of any accidental release are contained within the plant boundary.
ii. The SO2 emissions after implementation of proposed unit should not increase from the existing stipulation of 10.44 MTPD.
iii. Action plan to make operational two non functional online ambient air quality monitoring stations.
iv. Water balance chart for the existing unit and proposed project indicating fresh water requirement, evaporation loss, effluent generation, quantity to be recycled/reused.
v. Action plan to reduce fresh water requirement.
vi. Action plan to create bioremediation site for oily sludge as per CPCB guidelines.
vii. Item-wise details along with time bound action plan for need based activities should be prepared for Enterprise Social Commitment.

The Committee discussed the site visit report of the Sub-Committee in 36th EAC meeting held during 16-17th March 2015 and prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I .

A. Specific TOR

1. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.

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

B. Additional TOR

1. Public Hearing is exempted as per para 7(ii) of EIA, Notification, 2006 as the same was conducted by the SPCB on 25th September 2012.
2. The layout of the expansion plant should be such that major consequences of any accidental release are contained within the plant boundary.
3. The SO2 emissions after implementation of proposed unit should not increase from the existing stipulation of 10.44 MTPD.
4. Action plan to make operational two non functional online ambient air quality monitoring stations.
5. Water balance chart for the existing unit and proposed project indicating fresh water requirement, evaporation loss, effluent generation, quantity to be recycled/reused.
6. Action plan to reduce fresh water requirement.
7. Action plan to create bioremediation site for oily sludge as per CPCB guidelines.
8. Item-wise details along with time bound action plan for need based activities should be prepared for Enterprise Social Commitment

The Committee prescribed the above ToRs for preparation of EIA/EMP reports without Public Hearing. The proponent should prepare EIA/EMP Report based on the above TORs to the Ministry for obtaining Environmental Clearance.

36.9.2 Expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL- Site Visit Regarding

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 32nd meeting held during 20-21st January , 2015, a Sub-committee of EAC comprising Sh. R. K. Garg, Shri Niranjan, Raghunath Raje, Shri M B Lal (Co-opted) alongwith Representatives from MoEF namely Shri Lalit Bokolia, Additional Director & Member Secretary and Shri A. N Singh, Joint Director shall visit M/s HPCL Mumbai Refinery to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any.

Site visit was conducted by the sub-committee on 14th March 2015. List of officials attended the site visit from HPCL- Mumbai Refinery is given below:

S.N.	Name	Designation
1	Shri N S J Rao	Executive Director
3	Shri Vijay S. Agashe	(GM-Projects)
4	Shri M Rambabu	(GM- Operation and Maintenance)
5	Shri S. K. Kulkarni	(GM-Materials)
6	Shri A. R. Tamhankar	(DGM-I/C)- Technical
7	Shri A. B. Chattopadhyay	(DGM-Technical)
8	Shri Ganesh Joshi	(DGM-Operations)
9	Shri Kamlakar Vikhar	(DGM-Maintenance)
10	Shri K. Shankar N Murty	(DGM-Finance)
11	Shri Sriramulu Yelisetty	(DGM-Inspection)
12	Shri Shaji Idicula	(DGM-Materials)
13	Shri Krishanu Ghosh	(DGM-Central Engineering)

At the outset, M/s HPCL gave brief presentation before the Sub-Committee and explained about the existing operations, the proposed refinery configuration during expansion, raw water requirement, waste water generation and its mode of treatment and discharge, fuel, power and the emissions and HW generation and its disposal. Following is the refinery configuration after proposed expansion:

(i) Debottlenecking of existing FR CDU for enhancing crude capacity

(ii) Installation of a New Single VDU at FR (In lieu of Existing FR & LR VDUs) for energy optimization
(iii) Installation of a New VBU for bottoms upgradation
(iv) Revamp of MS Block units with a capability to produce Euro-V MS
(v) Modifications in DHDT for VGO Hydrotreating
(vi) Installation of a New HGU for Hydrogen balance
(vii) Modification/revamp of offsites and utilities as required

After presentation, the subcommittee visited the sites where new VPS unit and hydrogen plant are proposed and also visited to the Integrated effluent treatment plant and bioremediation site for oily sludge in the existing refinery.

OBSERVATIONS:

During site visit following observations were made:

i. The crude refining capacity which is presently 7.5 MMTPA (with 4.0 MMTPA Kuwait + 3.5 MMTPA Bombay High) will be increased to 9.5 MMTPA (with 6.0 MMTPA Kuwait + 3.5 MMTPA Bombay High).
ii. The proposed expansion will be carried out in the existing premises of refinery.
iii. New storage tanks will be installed in the south part of the unit. VBU will be installed in place of asphalt ancillary facilities. Proposed HGU will be installed near existing DHT site, which located east part of the Refinery.
iv. Hydrogen plant will be installed towards hill side.
v. SO_2 emissions will be maintained within prescribed limits of 12.6 TPD.
vi. Water requirement from Bombay Municipal Corporation will be 9000 m3/day. Sea water being used for cooling is 2500 m^3/day.
vii. It was observed that oil and grease as well as scum floating in the final outlet of the drain discharging out to the sea.
viii. The main consideration in locating new storage tankages and layout will have to be safety of the surrounding areas.
ix. Sub-committee accordingly suggested HPCL to carry out risk analysis study and ensure that the damage distance in case of any accident remains within boundary of the plot. If this study shows any change in layout or the quantity of the product to be stored this will have to be incorporated in the proposal.
x. Existing oily sludge bio-remediation site need to be improved by providing, garland drain, leachate collection tank, HDPE lining, proper raw oily sludge storage area etc.
xi. Only one online ambient air quality monitoring station out of three was linked online with CPCB website.

RECOMMENDATIONS:

The Sub-Committee recommended the following additional points for TOR.

i. Company shall provide proposed crude as well as products tankages plot plan
ii. Estimate SO_2 emissions considering existing all stacks in the refinery.
iii. Sulphur balance giving input from crude and any other outside fuel and output in various products and emissions.

iv. Detailed water balance chart of the existing and proposed expansion considering inlet raw water, process losses, wastewater generation and treated effluent to be recycled.

v. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.

vi. Action plan to reduce oil and grease content as well as scum in the treated effluent discharged into sea.

vii. Action plan to install series of mechanized oil catchers in the discharge drain to contain oil and grease /scum.

viii. Final effluent letting out to the sea shall be passed through holding tank and action plan to install online monitoring system viz. pH meter, flow meter and TOC analyzer to be provided.

ix. HPCL to carry out risk analysis study and ensure that the damage distance in case of any accident remains within boundary of the plot. If this study shows any change in layout or the quantity of the product to be stored this will have to be incorporated in the proposal.

The Committee discussed the site visit report of Sub-committee in 36th EAC meeting held during 16-17th March 2015 and prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I with Public Hearing.

A. Specific TOR

1 Complete process flow diagram describing each unit, its capacity along-with material and energy balance.

2 Details of intermediate product, their storages and final products to be manufactured.

3 Sulphur balance giving input from crude, refinery fuel (if used) and any other outside fuel and output in various products and emissions.

4 Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.

5 Details of emissions from all the stacks including volumetric flow rate.

6 Details on availability of raw materials (crude oil, natural gas, chemicals, *etc.*), its source and storage at the plant.

7 Details on mode of transportation of crude and products.

8 Details of storage capacity of crude and products.

9 Ambient air quality data should include hydrocarbon (methane and non-methane), VOC, Ni & V etc.

10 Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.

11 Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.

12 Storm water management plan.

13 Estimation SO_2 and NOx emissions load.

14 Details on flaring system.

15 Details of VOC recovery devices in the storage tanks.

16 Arrangement for spill management.

17 Oily sludge management plan.

18 Risk Assessment & Disaster Management Plan

i. Identification of hazards
ii. Consequence Analysis
iii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
iv. Arrangement for fire protection and control.

B. Additional TOR

1 Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2 Company shall provide proposed crude as well as products tankages plot plan
3 Estimate SO_2 emissions considering existing all stacks in the refinery.
4 Sulphur balance giving input from crude and any other outside fuel and output in various products and emissions.
5 Detailed water balance chart of the existing and proposed expansion considering inlet raw water, process losses, wastewater generation and treated effluent to be recycled.
6 Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
7 Action plan to reduce oil and grease content as well as scum in the treated effluent discharged into sea.
8 Action plan to install series of mechanized oil catchers in the discharge drain to contain oil and grease /scum.
9 Final effluent letting out to the sea shall be passed through holding tank and action plan to install online monitoring system viz. pH meter, flow meter and TOC analyzer to be provided.
10 HPCL to carry out risk analysis study and ensure that the damage distance in case of any accident remains within boundary of the plot. If this study shows any change in layout or the quantity of the product to be stored this will have to be incorporated in the proposal.

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.

36.9.3 Expansion of Technical grade Pesticides Manufacturing (from 900 TPA to 3000 TPA) at Plot No.SP-9 (D-1), RIICO Industrial Area, Village Khushkhera, District Alwar, Rajasthan by M/s HPM Chemicals and Fertilizers Ltd. –Site Visit Regarding

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 28th meeting held during 1st-2nd December , 2014, a Sub-committee of EAC comprising Shri Niranjan Raghunath Raje, Member EAC. Dr. C. S. Dubey, Member EAC alongwith Representatives from MoEF Shri Lalit Bokolia, Additional Director & Member Secretary and Shri A. N Singh, Joint Director shall visit the site of M/s HPM Chemicals and Fertilizers Ltd. to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any. Dr. B. Sengupta could not be participated in the site visit due to his other important assignment.

Site visit was conducted by the subcommittee on 7th March 2015. Dr. Nikhil Aggarwal, Managing Director from M/s HPM Chemicals and Fertilizers Ltd. was present alongwith other officials and briefed the Sub-Committee about the existing operations and the proposed expansion. Capacity of the existing unit 900 TPA, which is proposed to be increased the production capacity upto 3000 TPA. Existing plot area is 6000 m^2. No additional land will be acquired for proposed expansion. Cost of project is Rs. 5 Crore. Fresh water requirement from RIICO water supply will be increased from 50 m^3/day to 118 m^3/day after expansion. Effluent generation will be increased from 16 m^3/day to 40 m^3/day after expansion. Bio Briquette / waste wood fired boiler is being used and same will be used for expansion.

Ministry has earlier issued environment clearance vide letter no J-11011/459/2009 IA II (I) dated 04.02.2010 to M/s HPM Chemicals and Fertilizers Ltd. for setting up of existing Technical Pesticide unit.

After discussion, Sub-Committee took a round of the site and the following are the observations:

1. At the time of visit, plant was not operational.
2. The Committee noted that one of the conditions regarding Zero liquid discharge which was given in the earlier EC has not been followed. At present, effluent treatment plant of 25 m^3/day based on primary treatment facility and secondary treatment facility exists and treated effluent is being discharged to the common drainage system. Hence the condition is not complied.
3. Another condition to conduct bioassay test of the treated effluent in the guard pond was verified and found that there is no guard pond and bioassay test is being carried out.
4. As per the Condition given in the earlier EC, the Company was to develop adequate arrangement for odour control. However, intense Odour was observed in the plant premises even when the plant was not in operation.
5. As per the Condition given in the earlier EC, the Company was to install chilled brine based condenser to prevent VOC emission. However, solvents are being stored in the underground tank and no vent lines are connected with condenser.
6. Some of the machineries seem to be old. Transfers of products are being carried manually/semi mechanized.
7. Scrubber provided without online monitoring system.
8. Dust collector has been provided to boiler based on fuel i.e. waste wood.
9. A double chamber Incinerator has been installed.
10. Housekeeping at the formulation unit, particularly packaging section was not satisfactory.
11. Two beds medical care centre was provided within the premises.
12. Plantation observed in only front side of the unit. Rest of the area has been paved.

Based on the above observations, the Sub-committee proposed that project proponent should first comply with the following recommendations prior to consideration of TOR for expanding the existing facility:

1. Zero effluent discharge to be followed with adequate tertiary treatment facility within the existing ETP.
2. In case effluent to be used in greenbelt then guard pond to be developed for bioassay test.
3. Adequate arrangement for odor control within the plant premises.
4. Vent line of solvent storage tank shall be connected with chilled brine condenser.
5. Proper products handling facility at formulation unit to be developed.

The compliance on the above points should be submitted along with photographs for further consideration.

.....xxxxxx.....

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. <u>Forest and wildlife related issues (if applicable):</u>

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

6. Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

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

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

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

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

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

vi. Measures for fugitive emission control

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

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

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

and a scheme for greening of the roads used for the project shall also be incorporated.

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

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

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

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

8. Occupational health

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

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

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

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

9. Corporate Environment Policy

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

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

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

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

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

11. Enterprise Social Commitment (ESC)

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

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

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

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

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

****