

MINUTES FOR 2nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 16th -17th DECEMBER , 2015

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

Time : Meeting to be held at 10: 00 AM

2.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 15 AM

2.2 At the outset, the Chairman requested all members to send their inputs in time after the minutes circulated by the Member Secretary. It was also expressed to come prepared with relevant information w.r.t. to agenda item so that project could be appraised properly in the meeting. He opted Shri R. K. Singh as a Vice Chairman of the Committee.

Confirmation of the Minutes of the 2nd Expert Appraisal Committee (Industry-2) held during 16th -17th December , 2015.

16th December, 2015 (Day 1)

2.3 Environmental Clearance

2.3.1 Expansion of Sugar Plant (from 2500 TCD to 5000 TCD) and Cogeneration Power Plant (from 13 MW to 19.7 MW) at Village Kundal, Taluka Palus, District Sangli, Maharashtra by M/s Kranti Sahakari Sakhar Kharkhana Ltd.- reg EC

The project proponent and their consultant (M/s Ultra-Tech) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 3rd Meeting of the Expert Appraisal Committee (Industry) held during 3rd– 5th December, 2012 for preparation of EIA-EMP report. Sugar unit is listed at S.N. 5 (j) under category 'B' in the schedule of the EIA, Notification, 2006. However, applicability of general condition due to project location within 5 km distance of Sagreshwar Wild life Sanctuary (1.7 Km), the proposal is treated as category 'A' and appraised at Central Level.

M/s Kranti Sahakari Sakhar Kharkhana Ltd. has proposed for expansion of Sugar Plant (from 2500 TCD to 5000 TCD) and Cogeneration Power Plant (from 13 MW to 19.7 MW) at Village Kundal, Taluka Palus, District Sangli, Maharashtra. Total plot area is 50.59 ha. Cost of proposed project is Rs. 66.38 Crore. Sugar plant will be operated for 180 days and CPP will be operated for 220 days. It is reported that Yashwantrao Chavan Sagareshwar Wildlife Sanctuary is located at a distance of 1.7 km. River Krishna and Yerla are located at a distance of 7km and 4 km respectively.

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 PM10 (29.6 µg/m³ to 72.3 µg/m³), SO₂ (4 µg/m³ to 13 µg/m³) and NO_x (9.1 µg/m³ to 21.7 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 72.3 µg/m³ and 13.0 µg/m³ with respect to PM10 and SO₂, which seems to be very

high in respect of PM10. Therefore, the Committee suggested them to install highly efficient bag filter instead of wet scrubber in the bagasse fired boiler (50 TPH) to control particulate emissions. Stack of adequate height will be provided to DG set (2x 320 KVA) and DG set (1010 KVA). Fresh water requirement from Krishna River will be 476 m³/day. Effluent generation from sugar and co-generation will be 626 m³/day. Effluent will be treated in the ETP and treated effluent will be recycled/reused in the process and horticulture purpose. Domestic wastewater generation will be 50 m³/day and the Committee suggested them to treat in STP. No effluent will be discharged outside the plant premises and Zero effluent discharge concept will be followed. Molasses will be collected and stored in the steel tank. Press mud will be used as fertilizer. Ash will be used as fertilizer.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 26th September, 2013. The issues were raised regarding air and water pollution control measures, Recycling of treated effluent etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) The environmental clearance is subject to obtaining prior clearance from wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance shall be considered by the respective authorities on their merits and decision taken.
- ii) Bagfilter alongwith stack of adequate height shall be provided to additional biomass fired boilers to control particulate emissions within 50 mg/Nm³. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Efficiency of pollution control device shall be monitored regularly. Stack monitoring report shall be submitted to the Ministry's Regional Office at Nagpur.
- iii) Total fresh water requirement from Krishna River shall not exceed 476 m³/day and prior permission shall be obtained from the Competent Authority. No groundwater to be used for industrial operation and domestic purpose.
- iv) As proposed, no effluent from sugar 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.
- v) Effluent shall be treated in ETP. Treated effluent shall be recycled/reused within factory premises. Sewage shall be treated in the STP.

- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Bagasse/rice husk storage should be done in such a way that it does not get air borne or fly around due to wind.
- viii) All the issues raised during the public hearing/consultation meeting held on 26thSeptember, 2013 should be satisfactorily implemented.
- ix) As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

The project proponent and their consultant (M/s Mantech 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 38th Meeting of the Expert Appraisal Committee (Industry) held during 20th-21st April, 2015 for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas (including LNG Terminal) are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

M/s. Indian Oil Corporation Ltd. (IOCL) has proposed for Debottlenecking of Salaya Mathura Pipeline(SMPL) to augment the existing crude oil supply chain by laying a new underground pipeline originating from Moda (Gujarat) and after traversing through Rajasthan will terminate at Manpuria (Dausa district). Further an additional pipeline will be laid in Rewari District of Haryana. The total length of the pipeline will be 798 kms (approx.). Out of 798 kms (approx.) of new Pipeline, 287 kms of Pipeline would be laid in the State of Gujarat, 498 kms of Pipeline would be laid in the State of Rajasthan and 13 Kms of Pipeline would be laid in the state of Haryana. The crude supply from this pipeline will be fed to IOCL's three inland refineries Koyali (Gujarat), Mathura (Uttar Pradesh) and Panipat (Haryana) to meet their increased capacities. In order to cater to the peak processing crude oil requirement of Mathura, Panipat (post P-15) and Koyali refineries in the short term, it is proposed to debottleneck/augment the capacity of Salaya-Viramgam section from 21 MMTPA to 25 MMTPA, Viramgam-Koyali section from 8.5 MMTPA to 9 MMTPA, Viramgam-Chaksu section from 13.5 MMTPA to 16.5 MMTPA, Chaksu-Mathura section from 7.5 MMTPA to 9.2 MMTPA and Chaksu- Panipat section from 6 MMTPA to 7.3 MMTPA. Besides replacement of 17 old MLPUs/ Engines of SMPL is under consideration for approval. The same has also been considered in the project scheme. The pipeline alignment is within 10 km range of two wildlife sanctuaries namely Jessore Sloth Bear Sanctuary (2.7 Km) and Balaram – Ambaji Wildlife sanctuary in Banaskantha District, Gujarat (0.09 km). Cost of project is Rs. 1584 Crore. Pipeline will pass Gujarat, Rajasthan and Haryana. Forest area of 5.03 ha is involved in the said project. PP informed that for Gujarat, 1st Stage Forest Clearance received on 29.01.2013, 2nd Stage Forest Clearance received on 27.01.2014 for 6 districts. In principle forest clearance for Banaskantha district received on 25.02.2015. For Rajasthan, 1st and 2nd stage Forest clearance received on 10.05.2013 & 08.08.2013 respectively. Final stage of forest clearance received on 20.11.2014. Following is the list of utilities and associated facilities :

S. No.	Parameter	Vadinar	Rajkot	Surendranagar	Viramgam	Sidhpur	Remarks
1	Existing Land (acres)	290	7.41	7	245	4.45	No additional land is acquired
2	Additional Process Water Requirement KL/Day	Nil	0.25	Nil	0.25	Nil	Will be met through existing source
3	Power Requirement	Being enhanced 3.5 MVA to 7.2 MVA	Being enhanced from 400 KVA TO 500 KVA	No change	Being enhanced from 2.5 MVA to 8.6 MVA	No change	Arranged through State Electricity Board
4	Additional Domestic Water Requirement KL/Day	Nil	Nil	Nil	Nil	Nil	No change in operating manpower setup
5	Additional Sanitary Facilities	Nil	Nil	Nil	Nil	Nil	No change in operating manpower setup
6	Colony for Operatinon Staff	Existing	Existing	Existing	Existing	Existing	No change in operating manpower setup

S. No.	Parameter	Abu Road	Rajola	Chaksu	Rewari	Remarks
1	Existing Land (acres)	15.1	7.04 +5.04*	115	14.33	*No additional land is acquired except at Rajola, where 5 acre land has been acquired
2	Additional Process Water Requirement KL/Day	0.5	0.5	Nil	Nil	Will be met through existing source
3	Power Requirement	Being enhanced from 350 KVA to 500 KVA	Being enhanced from 195 KVA to 400 KVA	Being enhanced from 1.1 MVA to 6.5 MVA	Being enhanced from 4.5 MVA to 5.5 MVA	Arranged through State Electricity Board
4	Additional Domestic Water Requirement KL/Day	Nil	Nil	Nil	Nil	No change in operating manpower setup
5	Additional Sanitary Facilities	Nil	Nil	Nil	Nil	No change in operating manpower setup
6	Colony for Operatinon Staff	Existing	Existing	Existing	Existing	No change in operating manpower setup

Details of Crossings in Debottlenecking of Salaya-Mathura Pipeline Project are as given below:

S. No.	Type of Crossings	Total Number	In Banaskantha District
1.	Major Rivers	42	1
2.	Major Water bodies	37	5
3.	National Highways	12	2
4.	State Highways	41	1
5.	Other roads	255	18
6.	Railway Crossings	14	2

Public hearing was exempted as per para 7 (ii) of EIA Notification, 2006.

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

- i. Prior clearance under the Wildlife (Protection) Act, 1972, shall be obtained from the Standing Committee of the National Board for Wildlife as the pipeline project passes through Eco-sensitive Zone of Jessore Sloth Bear Sanctuary and Balaram – Ambaji Wildlife sanctuary .
- ii. Forest clearance for the forest land involved in the pipeline project shall be obtained.
- iii. The project authority i.e. M/s IOCL shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.
- iv. Annual safety audit shall be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.
- v. The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and / dykes shall be restored adequately after installation of crossings.
- vi. Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.
- vii. The company shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.
- viii. The project authorities shall install SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current

cathodic protection system shall be provided to prevent external corrosion.

- ix. The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.
- x. All the recommendations mentioned in the risk assessment report shall be implemented.
- xi. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.
- xii. The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.
- xiii. The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.
- xiv. The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xv. Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xvi. The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- xvii. At least 1 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. M/s IOCL shall utilized the earmarked funds for implementation of sanitation program under Swachh Bharat Abhiyan. Implementation of such program should be ensured accordingly in a time bound manner.

2.3.3 Proposed capacity expansion of existing facility at survey no. 265 (P), Express Way, Village Manali, Taluk Thiruvottiyur, District Thiruvallur, Tamil Nadu by M/s. Indian Additives Limited- Reg. EC

The project proponent and their consultant (Hubert Enviro Care Systems Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 30th Meeting of the Expert Appraisal Committee (Industry) held during 22nd to 23rd December, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial

area/estate are listed at S.N. 5(f) under category 'B'. However, Manali being covered under list of critically polluted area and attracted General condition of EIA, Notification, 2006. The proposal is therefore, treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s. Indian Additives Limited has proposed for expansion of existing facility at survey no. 265 (P), Express Way, Village Manali, Taluk Thiruvottiyur, District Thiruvallur, Tamil Nadu. Water bodies namely surplus canal from Koralaiyar River (0.2 km), Buckingham canal (0.63 km), Periyathoppu Lake (3.4 km), Bay of Bengal (3.15 Km) Madhavaram Lake (3.65 km), Kadapakkam Panhayat Lake (4.26 km) within 10 km distance. It is reported that no wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

List of products/ by-products – Existing and proposed with Quantity

S.N.	Product	Existing (as per EC obtained in 2009)	After Proposed Expansion	Proposed New component Manufacturing unit (ZDTP)
		MT/annum		
1	Automotive, Marine, Industrial, Rail Road and Natural gas engine Lubricating Oil additive packages.	25000	60000	-
2	Succinimides	10000	25000	-
3	Phenates/ Sulfonates	10000	20000	-
4	PIBSAs	8500	20000	-
5	By product (Mix of sodium sulphide, sodium hydrogen sulphide& caustic)	3500	7000	-
6	Zinc Di-ThioPhosphate (ZDTP)	-	-	20000
7	By product (Sodium Sulphide flakes)	-	-	5000

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during February, 2015 – April, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (53.7 µg/m³ to 61.7 µg/m³), PM_{2.5} (20.8 µg/m³ to 33.6 µg/m³), SO₂ (12.7 µg/m³ to 14.7 µg/m³) and NO₂ (16.7µg/m³ to 25.8 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.751 µg/m³, 0.494 µg/m³ and 2.148 µg/m³ with respect to PM₁₀, SO₂ and NO_x. Scrubber will be provided to control process emission viz. H₂S. Adequate stack height will be provided to additional oil fired boiler and thermic fluid heater. Fresh water consumption from CMWSSB will be increased from 175 m³/day to 308 m³/day after expansion. Effluent generation will be increased from 167 m³/day to 310 m³/day after expansion. Effluent will be treated in the ETP followed by RO and MEE. Sewage will be treated in the STP. Treated effluent will be recycled for process reuse through RO and greenbelt development. No effluent will be discharged outside the plant premises.

After deliberation, the Committee observed that there are certain deficiencies in the water quality monitoring. Therefore, Committee sought following additional information:

- (i) Quantity of fresh water consumption will be reduced after recycling of treated effluent. Water balance need to be reassessed.
- (ii) VOC to be monitored in the Indoor air quality.
- (iii) 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.
- (iv) Toxic material profile to be submitted.

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

2.3.4 Installation of Gas Turbine Generator and Heat Recovery Steam Generator under energy reduction scheme at Tehsil Alibagh ,District Raigarh, Maharashtra by M/s Rashtriya Chemical Fertilizer – reg EC.

The project proponent and their consultant (M/s PDIL) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 30th Meeting of the Expert Appraisal Committee (Industry) held during 22nd to 23rd December, 2014 for preparation of EIA-EMP report. All Chemical Fertilizer are listed at S.N. 5(a) under category 'A' and appraised at Central level.

M/s Rashtriya Chemical Fertilizer (RCF) Ltd. has proposed for installation of Gas Turbine Generator and Heat Recovery Steam Generator under energy reduction scheme at Tehsil Alibagh, District Raigarh, Maharashtra. The RCF in the district of Raigad, Maharashtra, have two trains of Ammonia plant of 1750 MTPD capacity each i.e. combined capacity of 3500 MTPD and three trains (3 x 2020 MTPD)of Urea plant of combined capacity of 6060 MTPD along with all necessary utilitiesincluding steam and power generation, industrial chemicals and infrastructure facilities.The specific energy requirement for Ammonia and Urea is 8.15 and 5.8 Gcal/MT respectively on the basis of daily average.To reduce the energy consumption further, it is proposed to changeover the steamturbine driven equipment (Total 15 No) to motor driven equipment. Due to changeover,the power requirement shall increase from the existing 28 MW to 48 MW. Therefore, tomeet the requirement of increased power, it is proposed to install two nos. of GasTurbine Generators of 32 MW capacity each and two nos. of Heat Recovery Steam Generator of 100 TPH capacity each. The existing two nos. of Steam Turbine Generators (capacity 15 MW each) shall be abandoned. This scheme shall save valuable Natural gas of 10,601 Sm³/Hr (0.25 MMSCMD) and water 6,643 m³/day. The specific daily energy of Urea shall be reduced further by 0.354 GCal/MT of Urea. The total cost of the proposed project of installation of Gas Turbine Generator with Heatrecovery steam generator is approx. Rs.36282 lakhs.The proposal does not envisage any change in product mix or change in rate ofproduction. It aims to the reduction of natural resources namely natural gas (NG) & precious natural water.It is reported that Khadatal River is flowing at a distance of 3 km. Project site is located at a distance of 1 km from Arabian sea. Notified Archaeological site is at a distance of 7 km.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during January, 2015 – February, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (29 µg/m³ to 95 µg/m³), PM_{2.5} (15 µg/m³ to 58 µg/m³), SO₂ (8.2 µg/m³ to 15.3ug/m³) and NO_x (11.3 µg/m³ to 32.1 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.36 µg/m³ with respect to NO_x. Fresh water

requirement will be reduced from 52000 m³/day to 45357 m³/day after the modification. Committee recommended for exemption of public hearing as per para 7 (ii) of EIA, Notification, 2006

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

- 1) Adequate stack height shall be provided to Gas Turbine Generator with Heat recovery steam generator. Low NO_x burners shall be provided to control NO_x emissions.
- 2) As proposed, specific energy consumption for the fertilizer plant shall be 5.446Gcal/MT of urea.
- 3) Efforts shall be made to bring down the water consumption upto 6 m³ per MT of urea production.
- 4) Treated effluent shall be passed through guard pond/holding pond before discharging outside the plant premises and Automatic /online monitoring system (24 x 7 monitoring devices) for flow, and relevant pollutants (i.e. pH, ammonical nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system. The data to be made available to the respective SPCB and in the Company's website.

2.3.5 Revamp of INDMAX Unit at Guwahati Refinery, Guwahati by M/s Indian Oil Corporation Ltd. – reg EC.

The project proponent and their consultant (M/s Mantec Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 9th Meeting of the Expert Appraisal Committee (Industry) held during 10th to 11th June, 2013 for preparation of EIA-EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s Indian Oil Corporation Ltd. has proposed for revamping of INDMAX Unit at Guwahati Refinery, Guwahati. INDMAX is an indigenous technology developed by IOCL R & D for de-sulfurization of Gasoline/Diesel. Product sulfur meets Euro IV/Euro V standards. This is a demonstration unit at IOCL, Guwahati Refinery for production of Gasoline of BS-IV quality by de-sulphurization of Heavy Gasoline from INDMAX Unit. Existing INDMAX unit capacity will be increased from 0.1 MMTPA to 0.15 MMTPA. Guwahati Refinery has a capacity to handle 1 MMTPA crude oil. The proposed products (LPG and Gasoline) will be stored in the existing mounded bullet, Horton sphere and storage tank (FRTV) respectively. Total plot area of Guwahati Refinery is 490 acres. Land required for the proposed project will be 5200m². No forest land is involved. Total cost of project is Rs32.37 crore. It is reported that Amchang Wildlife Sanctuary is located within 5 km distance.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 5 locations during April - June, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (63.7 µg/m³ to 78.21 µg/m³), PM_{2.5} (29.2 µg/m³ to 38.1 µg/m³), SO₂ (5.0 µg/m³ to 6.4 µg/m³) and NO_x (25.2 µg/m³ to 32.6 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.324 µg/m³, 0.697 µg/m³ and 0.805 µg/m³ with respect to PM, SO₂ and NO_x.

As per EC granted for IND Adept Project, SO₂ emissions was estimated to be 5.14 TPD. PP informed that same level will be maintained after expansion of INDMAX. Total water requirement will be increased from 455 m³/hr to 456 m³/hr after installation of INDMAX. Out of which fresh water requirement will be increased from 290 m³/hr. to 291 m³/hr. and remaining water requirement (165 m³/hr) will be met from recycled effluent. Increase in quantity of sour water will be 0.2 m³/hr. total sour water quantity will be 3.5 m³/hr. PP informed that total effluent generation will be 183.2 m³/hr and treated in the existing effluent treatment plant. 165 m³/hr of treated effluent will be recycled/reused and remaining will be discharged into surface water body i.e. River Brahmaputra after achieving standards prescribed. A total of 59.4 tons (maximum) per annum of e-cat (equilibrium catalyst) will be withdrawn from the unit. The Catalyst withdrawn will be stored in the refinery and used as e-cat as and when required.

The Committee noted that public hearing for the proposed 'INDAdept' unit project conducted on 10th January, 2013. The Committee exempted the public hearing under 7 (ii) of the EIA Notification, 2006 as there is no significant increase in pollution load.

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

- i. The environmental clearance is subject to obtaining prior clearance from Wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable.
- ii. Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J-11011/1/2000-IA II(I) dated 24th April, 2000, J-11011/215/2007-IA II (I) dated 7th February, 2008 and J-11011/71/2012-IA II(I) dated 22nd January, 2015 shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional Office at Shillong.
- iii. M/s IOCL shall comply with standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- iv. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
- v. SO₂ emissions after expansion from the plant shall not exceed 5.14 TPD.
- vi. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- vii. Ambient air quality monitoring stations, [PM₁₀, PM_{2.5}, SO₂, NO_x, H₂S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.

- viii. Total raw water requirement from Brahmaputra River shall not exceed 291 m³/hr. Industrial effluent (183.2 m³/hr) shall be treated in the effluent treatment plant. Treated effluent(165 m³/hr) shall be recycled/reused recycled as make up for the raw water cooling tower and coke cutting water. Remaining treated effluent (65 m³/hr) will be discharged into surface water body i.e. River Brahmaputra after achieving standards prescribed. Domestic sewage shall be treated in sewage treatment plant (STP).
- ix. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- x. Treated effluent shall be passed through guard pond. Online continuous pH meter, TOC analyzer and flow meter shall be installed to monitor the treated water quality.
- xi. Oily sludge shall be shall be treated via bioremediation process. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB. Spent Catalyst shall be sent to the Authorized recyclers/re-processors.

Reconsideration for Environmental Clearance

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

The Committee noted that EIA-EMP report has not been prepared by the QCI accredited Consultant.

The proposal was deferred till the EIA-EMP report prepared by QCI accredited Consultant is submitted. The above information shall be provided with the uploading of minutes on the website.

2.3.7 Proposed expansion of bulk drug at village Philrour, Tehsil Khamano, district Fatehgarh Sahib, Punjab by M/s Viva Drugs Pvt. Ltd.–reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 40th meeting held during 18th– 19th May, 2015 and the Committee suggested them to collect and transfer the MEE salt and ETP sludge to TSDF. The Committee also suggested the Environmental Consultant that the information regarding effluent and solid waste management scheme should have been incorporated in the EIA report. Accordingly, PP has updated the EIA-EMP report and submitted the report on 20.08.2015. PP informed that effluent generation will be 8.0 m³/day. Effluent will be segregated into high COD/TDS and low COD/TDS effluent stream. High COD/TDS effluent stream shall be passed through high steam stripper followed by the multiple effect evaporator (MEE). Low COD /TDS effluent and condensate water shall be treated through biological the effluent treatment plant (ETP) followed by Reverse Osmosis (RO). RO rejects shall be evaporated in the MEE. No effluent will be discharge outside the plant premises and 'Zero' effluent discharge shall be followed. MEE salt and ETP sludge will be sent to TSDF for hazardous waste. Waste oil will be sent to the authorized recyclers.

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

- i) Bag filter with stack of adequate height shall be provided to pet coke / oil fired boiler to disperse the air emissions. Limestone powder shall be feed alongwith pet coke as a sulfur capturing agent to control the SO₂ emission.
- ii) Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii) Total fresh water requirement from ground water source shall not exceed 26 m³/day and prior permission shall be obtained from the CGWA/SGWA.
- iv) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE. Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- v) No effluent from the plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be followed.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) 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.
- viii) As proposed, green belt over 3500 m² 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.
- ix) All the issues raised during the Public Hearing/consultation meeting held on 6th December, 2013 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 Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.

2.3.8 Agro/Chemical Intermediate Manufacturing unit at Plot no. Z/34, Dahej, SEZ, Taluka Vagra, District Bharuch, Gujarat by M/s Meghmani Unichem Ltd.– reg EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 34th meeting held during 17th– 19th February, 2015 and the Committee sought following addl. Information:

- i) To conduct one month monitoring of ambient air quality w.r.t. VOC, CO, PM2.5, HC (Methane and non-methane).
- ii) Submission of wastewater treatment scheme.
- iii) Submission of copy of MoU with SSP unit for spent sulphuric acid.

PP vide letter dated 20.06.2015 has submitted the above addl. Information. PP informed that effluent will be segregated into High COD/BOD effluent stream and Low COD/BOD effluent stream. High COD/BOD effluent stream will be passed through steam stripper followed by MEE. Low COD/BOD effluent stream and condensate of MEE will be treated in ETP. Treated effluent will be discharged into GIDC drain leading to marine discharge. PP submitted a copy of MOU with M/s Canberra Chemicals Plot No. C-1, 91/7 GIDC, Nandesri District Vadodara.

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) Company should not manufacture banned agrochemical products.
- ii) ESP shall be provided to coal/lignite fired boiler to control particulate matter. Continuous air emission monitoring system to be installed from the stack. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- iii) Scrubber will be provided to control process emissions. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv) A proper Leak Detection And Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- v) Solvent management shall be carried out as follows :
 - i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
 - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

- iv. Solvents shall be stored in a separate space specified with all safety measures.
- v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
- vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- vi) Total water requirement from GIDC water supply shall not exceed 1410 m³/day and prior permission shall be obtained from the Competent Authority.
- vii) Industrial effluent generation shall not exceed 976 m³/day. Effluent shall be segregated into High COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream shall be passed through steam stripper followed by evaporation in MEE. Low COD/BOD effluent stream and condensate of MEE will be treated in ETP. Treated effluent will be discharged into GIDC drain leading to marine discharge.
- viii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
- ix) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- x) 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) All the recommendations made in the risk assessment report shall be satisfactorily implemented.
- xii) As proposed, green belt over an area of 17765 m² shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 46th meeting held during 20th– 21st August, 2015 and the Committee sought following addl. Information:

- (i) Certified compliance report from the MoEF's Regional Office at Bhopal for existing environmental clearance letter no. SEAC-2009/CR.465/TC.2 dated 31st January, 2011 issued by SEIAA, Maharashtra.
- (ii) Plan for bio-composting as per CPCB guidelines.
- (iii) Resubmission of complete EIA-EMP report incorporating details of monitoring period, ambient air quality data etc.
- (iv) Fresh one month ambient air quality and surface as well as ground water quality data to be collected .
- (v) Video CD of public hearing proceedings to be submitted.

After detailed deliberation, the Committee noted that there is inconsistency in the submitted documents and sought the following addl. Information are sought

- a) Certified compliance report of the Regional Office is not submitted.
- b) Recheck ambient air quality monitoring (PM2.5 and PM10) at least for 2 weeks
- c) Reanalyze surface water quality monitoring report.
- d) Treatment scheme for MEE condensate.
- e) Video CD of public hearing proceedings to be submitted.

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

2.3.10 Expansion of Sugar Plant (from 3500 to 6500 TCD), Molasses based Distillery Unit (45 KLPD to 90 KLPD) and Installation of Cogeneration Power Plant (18 MW) at Village Alegaon, Tehsil Daund, District Pune, Maharashtra by M/s Daund Sugars Ltd.- reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 44th meeting held during 20-21st July, 2015 and the Committee sought following addl. Information:

- (i) Water requirement for the existing sugar unit, distillery plant and Cogen Power Plant to analyzed together.
- (ii) Details of effluent generation from existing plants (i.e Sugar, distillery and cogenpower plant). Effluent treatment facilities provided in the existing unit.
- (iii) Ground water monitoring report of piezometers wells located around compost yards and spent wash lagoon.
- (iv) Detailed Plan for Enterprise Social Commitment considering 2.5 % of project cost may be submitted.
- (v) Action Taken Report on non-complied points observed by the Regional Office.
- (vi) A note on work environment and health status of workers.

PP vide letter dated 5.09.2015 has submitted the addl. information. The Committee suggested that Environmental Consultant needs more clarity as they are not guiding their client properly about the compliance of existing environmental conditions. Fresh water requirement will be increased from 632 m³/day to 913 m³/day after expansion of sugar, distillery including CPP.

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. All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, rain water harvesting structure, Greenbelt, uploading of compliance report on the website etc have been implemented.

- ii. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to coal/bagasse fired boiler to control particulate emissions within 50 mg/Nm³.
- iii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iv. Total fresh water requirement from irrigation Department, Govt. of Maharashtra shall not exceed 913 m³/day after expansion of sugar, distillery (Molasses) as well as CPP. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- v. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation reactor. Treated spent wash will be evaporated in MEE and concentrated spent wash will be incinerated in the incineration boiler to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained. As proposed, the existing unit is switch over from bio-composting to incineration. Thereafter, plant shall be operated for 330 days.
- vi. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.
- vii. Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit should be treated in the effluent treatment plant.
- viii. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.
- ix. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- x. Company shall ensure the quality and marketability of bio-compost produced by distilleries by standard labelling such as 'AGMARK'.
- xi. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- xii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- xiii. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.

- xiv. 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.
- xv. 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.
- xvi. All the issues raised during the public hearing/consultation meeting held on 13th March, 2015 should be satisfactorily implemented.
- xvii. As proposed, green belt over 33% of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xviii. 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.

2.4 Terms of Reference (TOR)

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

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

M/s Sudheer Bio-products Private Limited has proposed for expansion of grain based distillery from 60 KLPD to 75 KLPD at Village Peddavaram, Mandal Nandigama, District Krishna, Andhra Pradesh. Ministry vide letter no J-11011/171/2011-IA-II (I) dated 15th January 2013 has issued the Environmental Clearance. Public consultation was held on 22nd March 2012 for setting up of 60 KLPD distillery. PP informed that plant is yet to be implemented and now in order to make project viable, it has been proposed to implement 75 KLPD directly. Further it was stated that 29 TPH boiler permission for existing set up i.e 60 KLPD which will be adequate for 75 KLPD plant. No additional fuel will be required

As reported, total plot area is 27 acres. Out of this, 33% of the area will be developed with green belt. Total cost of project with expansion is Rs. 75 Crore. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Krishna River is flowing at a distance of 1.1 km. from the proposed site. PP has submitted the location of reserve forests as per following details:

- Venkataya Palem RF- 2.3 kms.
- Jaggayyapeta RF-2.4 kms.
- Gudimetla RF- 4.1 kms.

- Gingupalle RF- 4.1 kms.
- Kuntimaddi RF- 5.0 kms.

Fresh water requirement from ground water and Krishna River will increase from 650 m³/day to 750 m³/day. Wastewater generation will be 564 m³/day. The Committee suggested to specify clearly quantity of water to be drawn from Krishna river and permission to be obtained from the concerned authority. Ground water at project site to be used for domestic purposes only. 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 to be sold to cattle feed. No effluent will be discharged outside the plant premises and zero effluent discharge will be followed. DDGS will be 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 (as available in Ministry web site) 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 grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
6. Proposed effluent treatment system for grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
7. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
8. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
9. Action plan to control ground water pollution.
10. Details of solid waste management including management of boiler ash, yeast, etc.
11. Commitment to install dryer.
12. Action plan to control odour pollution.
13. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

- i. Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was conducted on 22nd March 2012 and as increase in pollution load is insignificant.
- ii. Availability of gain from the market to be assessed adequately
- iii. Permission to be obtained from the concerned authority to use Krishna river water for industrial process. Use of ground water at project site to be restricted for domestic purpose.

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

2.4.2 Proposed Synthetic Organic Resin Manufacturing Unit at at Survey No. 793 of Village Susvav, Taluka Halvad, District Morbi, Gujarat by M/s Parikshit Decor 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 Parikshit Decor Pvt. Ltd. has proposed for setting up of synthetic organic resin manufacturing unit at at Survey No. 793 of Village Susvav, Taluka Halvad, District Morbi, Gujarat It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Total plot area is 18514 m², of which an area earmarked for greenbelt is 6009 m². Total project cost including existing facilities is Rs. 1 Crore. Following products will be manufactured:

Sr. no.	Product	Quantity
1	Phenol Formaldehyde Resin (P. F. Resin)	500 MT/Month
2	Melamine Formaldehyde Resin (M. F. Resin)	300 MT/Month
3	Urea Formaldehyde Resin (U. F. Resin)	300 MT/Month
4	Laminated Sheets	2, 00, 000 Nos./Month

Coal/Briquettes fired boiler having 4 MTD capacity and Thermic Fluid Heater (15 00000 Kcal/Hr will be installed and connected with common stack of 30 m height. Dust Collector followed by bag filters with a suitable stack height will be installed for controlling the Particulate emissions (within statutory limit). Stack of 6m height will be provided to the Proposed DG sets of 250 KVA. Source of methanol is from laminated sheet dryer which will be scrubbed.

Ground water will be used as source of water. Total 63.33 m³/day of water will be used. Against which 20.5 m³/day will be generated. Effluent generated from process, will be treated in ETP based on Photo Fenton treatment. Sludge so generated from the ETP will be sent to TSDF site. Chemically treated water, Boiler blow down, RO reject, cooling tower blow down water will be collected in treated water collection tank and then will be evaporated in steam based evaporation system followed by condenser. The plant is based on ZLD.

Solid/ Hazardous waste will be segregated and stored in suitable containers/ HDPE bags and place in elevated covered platform with leachate collection system before sending to authorized agencies. ETP Sludge and Evaporation residue will be sent to TSDF. Used Oil used within premises as a lubricant / 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 (as referred on Ministry's web site) for preparation of EIA-EMP report.

A. Specific TOR

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

B. Additional TOR

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

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

2.4.3 Expansion cum modification of its existing formulation unit by proposing to manufacture technical grades pesticides (a new technical unit) at Village Sampla, Tehsil Sampla, District Rohtak, Haryana by M/s Pioneer Products Limited- reg. TOR

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

2.4.4 Setting up of grain based Distillery (100 KLPD) at Village Goandpur Jai Chand, Tehsil Haroli, District Una, Himachal Pradesh by M/s Rock and Storm Distilleries Pvt. Ltd.- reg. 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Rock and Storm Distilleries Pvt. Ltd. has proposed for setting up of Grain based Distillery (100 KLPD) at Village Goandpur Jai Chand, Tehsil Haroli, District Una, Himachal Pradesh. No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor falls within 10 km radius of the project site. About 250 direct and indirect employments are generated out of this project. As reported in Form-1, river Satluj is flowing at distance of 14 km from the project site.

After detailed deliberations, the Committee observed from the site specific topo sheet (within 1 km area) that the site is located in watershed area of certain river which has not been clearly explained by the project authority. The Committee did not agree with the proposal. It was suggested to specify details about the flood zone of the river with proper topo sheet and seek the permission first from the Irrigation department confirming that the project site does not fall within flood zone of the river. The proposal is deferred till the information is submitted through online with proper topo sheet.

2.4.5 Setting up of grain based distillery unit (200 KLPD) at Village Dakshin Simla, Police Station Kharagpur, Tehsil Kharagpur-I, District West Medinipur, West Bengal by M/s Svaksha Distillery Ltd.- reg. TOR

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

M/s Svaksha Distillery Ltd. has proposed for Setting up of grain based distillery unit at Village Dakshin Simla, Police Station Kharagpur, Tehsil Kharagpur-I, District West Medinipur, West Bengal. Total plot area is 8.40 ha. Of which 2.80 ha will be developed as green belt. Cost of project is Rs. 200 Crore of which Rs. 20 Crore are earmarked towards pollution control measures. Expected man power for the proposed project is 300 persons. It is reported that no National Parks, Wildlife Sanctuaries, Reserve Forests (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No river is flowing within 10 km radius of the project site.

Fresh water requirement from ground will be 1920 m³/day. Against this 1200 m³/day of spent wash will be generated, which 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 will be followed. DDGS will be used as cattle feed

ESP will be provided to biomass fired boiler (2 x 35 TPH) to control particulate emissions.. Ash will be sold to brick manufacturers. Used oil and grease will be sent to the authorized recyclers/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.

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 grains, their source with availability.
- 4) Details of the use of steam from the boiler.
- 5) Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.

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

B. Additional TOR

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

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.

2.4.6 Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (11600.2 TPA) at Sy. No. 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8, with 3 MW coal/husk/pellets based Captive Power Plant at Village Akkireddigudem & Ramanakkapeta, Tehsil Musunuru, District Krishna, Andhra Pradesh by M/s Porus Laboratories Pvt. Ltd., Unit-IV- 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 and 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 Porus Laboratories Pvt. Ltd. (Unit-IV) has proposed for expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (11600.2 TPA) at Sy. No. 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8, with 3 MW coal/husk/pellets based Captive Power Plant at Village Akkireddigudem & Ramanakkapeta, Tehsil Musunuru, District Krishna, Andhra Pradesh. MoEF&CC has issued EC vide letter no. J-11011/1101/2007- IA II (I) dated 02.02.2009. CFE for change in product

mix has been obtained vide no. 508/PCB/CFE/RO-VJA/HO/2014 dated 29.11.2014. Further, CFO for change in product mix was obtained vide letter no. APPCB/VJA/13734/CFO/HO/2015-16 dated 13.03.2015

No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor falls within 10 km radius of the project site. There are 8 reserved forests within 10 km radius study area; Ramanakkapeta R.F. at 0.85 km (NW) and Ramanakkapeta R.F. at 4.8 km (NW); Somavaram R.F. at 3 km (NE); Lopudi R.F. at 4.5 km (E); Tummagudem R.F. at 3.9 km (N) and Tummagudem R.F. at 7 km (N); Arugolanupeta R.F. at 8 km (NW) and Annavaram R.F. at 8.5 km (SW). Vempadu Major Canal is at 0.23 km (W) and Tammilery River is at 8.4 km (NE) to the project site.

Plot area is 25009 m² of which greenbelt will be developed in the area of 8590 m². Cost of project is Rs. 81.052 Crore including existing investment of Rs. 24.967 Crore. Rs. 31 Crore is earmarked towards capital investment on Pollution control measures and Rs. 38 Crore per annum is kept towards recurring cost. About 300 direct and indirect employments are generated out of this project. Followings are existing and proposed products.

Proposed Expansion Products, their Capacity and Therapeutic Category

Sl. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate / Chemical
1	Bisphenol Acetophenone	333.3	120	Chemical
2	P-Phenolphthalein bisphenol (or) 2-Phenyl-3,3-Bis (4-Hydroxyphenyl) Phthallimide (PPPBP)	10000	3600	Chemical
3	1,5-Bis-[2,6-dimethyl-4-(2-methyl-2-propenoxy) phenyl]-penta-(2,6-dimethyl-1,4-phenyleneoxide (MX-9000)	1389	500.4	Chemical
4	Tetramethyl bisphenol acetone (TMBPA)	276.7	99.6	Chemical
5	[1,1,1-Tri-(4-hydroxyphenyl)] ethane (THPE)	276.7	99.6	Chemical
6	4-Hydroxybenzoxitrile (HBN)	276.7	99.6	Chemical
7	4-Nitro-N-Methyl Phthalimide (4-NPI)	13889	5000.4	Chemical
8	Sumatriptan Succinate	16.7	6	Anti-Migraine
9	3-[2-(Dimethylamine)ethyl]-N-methyl-1H-indole-5-methane sulfonamide	366.7	132	Sumatriptan Intermediate
10	Ciprofloxacin Hydrochloride	1666.7	600	Anti-infective
11	Metformin Hydrochloride	666.7	240	Anti-Diabetic
12	Venlafaxine Hydrochloride	33.3	12	Antidepressant
13	Sertraline Hydrochloride	166.7	60	Antidepressant
14	Celecoxib	100	36	Antirheumatic
15	Clopidogrel Hydrogen Bisulfate	1000	360	Antithrombotic, Antiplatelet agent
16.	Enrofloxacin	33.3	12	Antibiotic
17	Pioglitazone Hydrochloride	66.7	24	Anti-Diabetic
18	Gabapentin	1666.7	600	Anticonvulsant
Total Production Capacity (Maximum 18 products at a time).		32224.7	11600	
R&D activity		0.55	0.2	
Total Production Capacity (18 products at a time and R&D).		32225.3	11600.2	Production will be in Phase-I-75% and Phase-II-25%

By-products

Sl. No.	By-product	Quantity (kg/day)	Quantity (TPA)	Name of product
1.	Piperazine ML's	9756.67	3512.4	Ciprofloxacin Hydrochloride
2	N- Ethyl Piperazine ML's	202.2	72.8	Enrofloxacin
3.	Spent Sulfuric Acid	245126	88243	4-Nitro-N-Methyl Pthalimide

After detailed deliberations, the Committee observed that capacity expansion has been planned to be carried out adjacent to the agricultural plot which fall in between of existing process and new land for the expansion. It was noted that land is purchased in patches on either side of existing plot. The committee felt that the storage of raw material including its processing may pose environmental threat and risk to the farmers and agricultural land. The committee did not agree with proposal and suggested to carry out the process and raw material handling within the same plot or other safer side which may not affect agricultural/crop. The Committee recommended to revise the proposal with adequate site plan and with full details of expansion in comparison to existing products through online.

2.4.7 Setting up of NPK (12 lakh MT) Fertilizer Plant at Sy. No. Bit-II, village Survepalli, near to Krishnapatnam port, Tehsil Venkatachalam, District Nellore, Andhra Pradesh by M/s KRIBHCO- 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 Chemicals Fertilizer Industry are listed at S.N. 5(a) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s KRIBHCO has proposed for setting up of NPK (12 Lakh MT) Fertilizer Plant at Sy. No. Bit-II near to Krishnapatnam port, Tehsil Venkatachalam, District Nellore, Andhra Pradesh. Plot area is 286 Acres. Cost of project is Rs. 1517 crore. There is no National Parks, Wildlife Sanctuaries, Reserve Forests (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the proposed site. It is reports that Sarvepalli inland water reservoir lies within 2km from the project. Expected man power for the proposed project is 274 persons.It is reported that following storage will be maintained

at plant site

Ammonia tank	1 x 10000 MT
Sulhuric acid tank	1 x 10000 MT
Phosphoric storage tank	1 x 10000 MT
MOP storage	36000 MT

Storage at Krishnapatnam (KPCL) port

Ammonia	: 2 x 15000 MT
Phosphoric acid	: 4 x 10000 MT

It is reported that the phosphoric acid, Ammonia and MOP will be sourced from the foreign market through the Krishnapatnam (KPCL) port. While Sulphuric acid will be taken from domestic market.

Maximum power requirement will be 9.5 MW. The power shall be provided by APTRANSCO from grid at 132 KV on outdoor switchyard. Fugitive emission shall be controlled by low emission valves, pump sets and scrubbing system. About 1200 m3/day of fresh water will be required which will be sourced 2 km from Sarvepally reservoir. It is

reported that no effluent will be generated from the NPK plant except the leakages and cleaning operation. There will be collected in individual sumps at respective unit and will be neutralized in common pit and recycled. The plant is based in zero liquid discharge. Solid waste from various sources will be collected and reused within the plant. A part will be sent to the authorized 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:

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 equipmentsto meet the national standards for fertilizer.
- 7) Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluorosilicicacid (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^* , NO_x^* , HF^* , F^* , Hydrocarbon (Methane and Non-Methane) *etc.*, and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*as applicable)
- 10) Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, *Cr as Cr^{+6} , *Total Chromium, Fluoride, *etc.*

B. Additional TOR

- I. Detailed plan for Ammonia storage on site and off site to be drawn
- II. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- III. Detailed water conservation plan including rain harvesting to be worked out to minimize use of fresh water.

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

2.5 Any other

2.5.1 Augmentation of Hydrocarbon Production (2 lakh to 3 lakh bopd) at RJ-ON-90/01 Block located in districts Barmer and Jalore, Rajasthan by M/s Cairn India Ltd{J-11011/80/2013– IA II (I)}

MoEF&CC vide letter no J-11011/80/2013 – IA II (I) dated 11th August 2014 has granted environmental clearance to Cairn India Limited for the above mentioned project.

PP informed that typological errors in the 3rd and 4th rows of the table under clause no 4. PP confirmed that the corrected text may read as given below:

Sl. No.	Particular	Existing		Additional Proposed		Total after augmentation	
		Northern Fields	Southern Fields	Northern Fields	Southern Fields	Northern Fields	Southern Fields
3	Oil Production Capacity (bopd)	200,000	14,200(Satellite Field)	100,000	100,000	300,000	114,200
						The total production including northern and southern fields will not exceed average production of 300,000 bopd at any time.	
4	Gas processing capacity (mmscfd)	40	33	25	67	65	100

After detailed deliberation, the Committee recommended the aforesaid corrections requested.

2.5.2 Standby Facility of 51MW Captive CCGP(Combined Cycle Power Plant) inside Hazira Plant Premises, Gujarat by M/s ONGC- reg. amendment in TOR

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

2.5.3 Expansion of Pesticide Manufacturing Unit at Plot no. 1, 15, 16, Opp. State Bank of India, GIDC Ind. Estate, Nandesari, District Vadodara, Gujarat by M/s GSP Crop Science Pvt. Ltd.- Amendment in Environment Clearance reg.

MoEF&CC vide letter no J-11011/403/2012 – IA II (I) dated 8th May 2015 has granted environmental clearance to M/s GSP Crop Science Pvt. Ltd. for the above mentioned project.

- i. Now, PP informed that Company has already purchased the plot no. 2 and wants to merge with the existing plat at GIDC Industrial Estate, Nandesari, Gujarat, which is adjoining to the existing plot no. 1. So that total plot area will be 43473 m²(Existing: 20473 m² + Proposed : 23000 m²).
- ii. PP informed that typographical errors in the byproducts table mentioned in the EC. PP confirmed that the corrected text may read as given below:

By-products

S. N.	Name of <u>By-products</u>	Existing Capacity (MT/Month)	Proposed Additional Capacity (MT/Month)	After Proposed Expansion (Total) (MT/Month)
1.	Spent HCl (30%)	15	19	34
2.	HBr	8	12	20
3.	Poly Aluminium Chloride	-	25	25
4.	Liquid Ammonia	-	14	14
5.	NaBr	-	4.4	4.4
6.	Methyl Acetate	-	30	30
7.	Spent Sulphuric Acid (45% - 50%)	-	187.5	187.5
8.	Sodium Sulphite (Na ₂ SO ₃)	-	11	11
9.	Sodium Formate	-	15	15

- iii. PP informed that typographical errors in the specific condition no xiii, which may be read as follows :

“Industrial effluent generation shall not exceed 217 m³/day instead of 94.5 m³/day.”

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

2.5.4 Expansion from Manufacturing Fine Chemicals Unit at Village ChinnaSekkadu, Ampattur, District Thiruvallur, Tamilnadu by M/s Cetex Petrochemicals Ltd.- reg. Amendment in EC

MoEF&CC vide letter no J-11011/1113/2008 – IA II (I) dated 16th September 2008 has granted environmental clearance to M/s Cetex Petrochemicals Ltd. for the above mentioned project with following specific condition at S.N. (ii)

“The water requirement and wastewater generation shall not exceed 1.7 MLD and 18 KLD respectively.”

Now, PP informed that actual wastewater generation is 70 m³/day and treated effluent of 63 m³/day will be reused for process purpose and requested for amendment.

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

- i. “The water requirement and wastewater generation shall not exceed 782 m³/day and 70 m³/day respectively.”
- ii. “Multiple Effect Evaporation” shall be installed instead of evaporation pond.

2.5.5 Expansion of Distillery at Walachand nagar, Taluka Indapur, District Pune, Maharashtra by M/s Aurangabad Distillery Private Limited- reg. Extension of Validity of EC .

MoEF&CC vide letter no J-11011/335/2008 – IA II (I) dated 19th August, 2008 has granted environmental clearance to M/s Aurangabad Distillery Pvt. Ltd. for the above mentioned project.

PP informed that due to some unavoidable circumstances they were unable to install the plant with the above said increased capacity within the EC validity period but as per the MoEF&CC norms same was communicated to the MoEF&CC before 6 months. Now, they have requested for extension of validity of EC for another term.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of 3 years with effect from 18.08.2015 with the following addl. specific conditions:

- i. Fresh water requirement shall not exceed 900 m³/day.
- ii. Spent wash generation shall not exceed 720 m³/day. Spent wash shall be concentrated in the MEE. Concentrated spent wash will be incinerated in the boiler to achieve zero discharge.
- iii. Condensate shall be treated in the Condensate polishing tank.
- iv. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

2.5.6 Production Enhancement of Synthetic Drug API (From 2551.5 TPA to 3222 TPA), formulations & proposed production of Steroid & Hormonal products (41.391 TPA) and R&D Products (5 TPA) in the Existing Plant Premises At Village Sejavta, Tehsil & District Ratlam Madhya Pradesh by M/s IPCA–reg. corrections.

MoEF&CC vide letter no J-11011/169/2011 – IA II (I) dated 22nd June, 2015 has granted environmental clearance to M/s IPCA for the above mentioned project. Now, PP requested the following corrections:

S. N.	Reference in EC	Correction desired in EC
1	Para 2.0 line 3 Total existing plant area of 40.47 ha but there is no mention of Sy. Nos.	Khasra nos. to 98, 99 1,99/ 2,99/2, 99/3, 99/4, 99/5, 99/6, 99/7, 99/8, 99/9, 99/10, 100, 101, 102, 103, 104/1, 115/3, 120/1, 121/1, 123, 73, 74/1, 74/2, 76, 77/2, 77/3, 77/6, 80/3, 80/6, 80/8, 80/9
2	Para 3.0 line2- Coal fired boiler	Kindly mention fuel for boilers are coal/petcoke& Bio-briquette.
3	Para 3.0 line12- Sewage will be treated in the sewage treatment plant	Sewage (140 KLPD) will be treated in sewage treatment plant.
4	A Specific Conditions Point iv) line 6 Scrubbers shall be regularly monitored in-house as well as third party & report will be submitted to MoEFRO atBhopal	Requested not to include online monitoring system with stack as CPCB exempted pharmaceutical industries on the requirement of proving online emission monitoring.
5	High calorific value waste viz.process organic residue and spentcarbon shall be	High calorific value waste viz. process organic residue and spent carbon shall be sent to cement

	sent to cement industries	industries / captive incinerator and incineration with MP Waste Management, Pithampur.
6	Fresh water requirement from GW shall not exceed 786m ³ /day and prior permission shall be obtained from CGWA/SGWA. Fresh water requirement from Municipal Supply shall not exceed 119 m ³ /day.	Fresh water requirement of 905 m ³ /day shall be met from municipal water supply or ground water or tanker supply.
7	No mention of By-products (12 nos)	To be included

With regard to point no.5, the Committee did not agree for captive incineration/incineration with MP waste management facility as it contain high calorific value, which suitable for cement factory. Regarding point no.6 the Committee did not agree with the request of PP to compromise on uses of water in order to protect the groundwater.

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

2.5.7 Expansion of Synthetic Drug API (656 TPA to 1268 TPA) and R&D Products (0 to 5 TPA) at Plot No. 89A1B, 90, 91, F10 & 80 Village Pologround Industrial Estate, Tehsil and District Indore, Madhya Pradesh by M/s IPCA – reg amendment in EC.

MEF&CC vide letter no J-11011/352/2011 – IA II (I) dated 15th July, 2015 has granted environmental clearance to M/s IPCA for the above mentioned project. Now, PP requested the following corrections:

S. N.	Reference in EC	Correction desired in EC
1	Specific condition point iii) Air emission should be motored through online (24x7) monitoring system and data to be uploaded on company's website and also provided to concerned SPCB & RO of MEF&CC.	Requested no to include online monitoring system with stack as CPCB exempted pharmaceutical industries on the requirement of proving online emission monitoring.
2	Specific condition point iv) The levels of PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , VOC, CO and HCl shall be monitored in the ambient air and emissions from the stacks	Online ambient monitoring station is not feasible for parameters like PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . The Committee clarified that condition does not prescribed about online continuous monitoring stations.
3	Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed.	PP informed that this is a Zero discharge facility. As per CPCB guidelines such plats does not requires online monitoring of different parameters rather they can provide online flow meter and camera, which is already provided by them. PI. amend this condition accordingly.
4	High calorific value waste viz. process organic residue and spent carbon shall be sent to cement industries.	High calorific value waste viz. process organic residue and spent carbon shall be sent to cement industries / captive incinerator and incineration with MP Waste Management, Pithampur.
5	No mention of By-products (5 nos)	To be included

With regard to point no.2 the Committee was of view to keep the condition intact as ambient and stack monitoring should be carried by the PP. In respect of point no.3 on line monitoring in wastewater has been given in CPCB guidelines and industry should exercise the same. For point no.4, the Committee did not agree for captive incineration/incineration

with MP waste management facility as it contains high calorific value, which suitable for cement factory.

After detailed deliberation, the Committee recommended the aforesaid amendments requested except S.N. 2, 3 & 4.

2.5.8 Molasses based Distillery (30 KLPD) at Village Bamani (Pare), Taluka Khanapur, District Sangli, Maharashtra by M/s Udagiri Sugar and Power Ltd.- amendment in EC.

MoEF&CC vide letter no J-11011/135/2014 – IA II (I) dated 15th May, 2015 has granted environmental clearance to M/s Udagiri Sugar and Power Ltd. for the above mentioned project with following condition:

“The storage of spent wash shall not exceed 5 days capacity.”

Now, PP has requested for the following amendment:

“The storage of spent wash shall not exceed 30 days and 5 days capacity.”

The Committee noted that the ground water quality of the project area is not satisfactory and increase in storage capacity may increase the chances of mismanagement. After detailed deliberation, the Committee recommended to comply with the existing condition for storage capacity of 5 days capacity.

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

MoEF&CC vide letter no J-11011/185/2012 – IA II (I) dated 15th May, 2015 has granted environmental clearance to M/s. Avik Pharmaceuticals Ltd. for the above mentioned project with following condition:

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

Now, PP requested to remove the above condition.

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

2.5.10 Setting up of 100 KLPD distillery & Co-generation Power Plant at Village Ambasamudram Taluka, District Tirunelveli, Tamil Nadu by M/s Empee Sugars and Chemicals Ltd.– reg. amendment in EC condition

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

2.5.11 Expansion of Spirit Grain based distillery unit 50 KLPD to 125 KLPD at Industrial Growth Centre, Defense road, Village Ranipur, Pathankot, District Gurdaspur, Punjab by M/s Pioneer Industries – reg. amendment in EC

MoEF&CC vide letter no J-11011/38/2010 – IA II (I) dated 7th December, 2012 has granted environmental clearance to M/s Pioneer Industries for the above mentioned project. Now, PP vide letter 08.12.2015 has requested for the following amendment in EC:

- i. Increasing the number of days of plant operation from 300 days to 330 days.
- ii. Usage of existing lagoon for storage of spent wash
- iii. Permission for sale of DWGS
- iv. Permission for use of biomass and coal for 25 TPH boiler and 3 MW Cogeneration Power Plant.

The Committee noted that condition of the existing lagoon shown in the photograph is very dilapidated condition as constructed with brick lining so that storage of spent wash in the existing lagoon can not be allowed. Permission for sale of DWGS can not be recommended as same will create odour problem.

After detailed deliberation, the Committee recommended to consider the following amendments only:

- i. Increasing the number of days of plant operation from 300 days to 330 days.
- ii. Use of biomass and coal for the existing 25 TPH boiler and 3 MW Cogeneration Power Plant. As per Notification, 15% coal blending is allowed.

17th December, 2015 (Day 2)

2.6 Environmental Clearance

2.6.1 Expansion of Visakh Refinery from 8.33 MMTPA to 15.0 MMTPA at Village Malkapuram, Tehsil Visakhapatnam (Urban), District Visakhapatnam, Andhra Pradesh by M/s HPCL – reg EC.

The project proponent and their consultant (EIL) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 20th Meeting of the Expert Appraisal Committee (Industry) held during 23rd – 24th June, 2014 for preparation of EIA-EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s HPCL has proposed for expansion of Visakh Refinery from 8.33 MMTPA to 15.0 MMTPA at Village Malkapuram, Tehsil Visakhapatnam (Urban), District Visakhapatnam, Andhra Pradesh. The proposed Visakh Refinery Modernisation Project (VRMP) is the brownfield expansion coming up in the existing premises of HPCL in contiguous area on the east side of existing Refinery created after re-siting HPCL Marketing Terminal & LPG bottling plant and in the plot area available towards north of existing Refinery (next to HPCL-Additional Tankage Project, ATP). This land adjacent to ATP area of Refinery is a leased plot acquired from Visakh Port Trust (VPT) and is already under HPCL possession. VRMP Plant area requirement is 167.5 Acres. Out of which, 122.8 acres land is

located inside the Refinery premises and balance 44.7 acres of land is located in ATP plot (including VPT plot III). Additional 67.5 acres is earmarked for Green belt. The estimated capital cost is Rs. 18412 Crores. It is reported that no national park/ reserved forest/ protected forest is located within 10 km distance. The capacities of various process units, auxiliary and revamp units for post VRMP scenario is as given below:

Process Units and Utilities under VRMP

S. No.	Unit	Capacity
Primary Processing Unit:		
1	Crude Distillation Unit (CDU)	9.0 MMTPA
2	VGO Hydrocracker (FC HCU)	3.3 MMTPA
3	Naphtha Isomerization Unit (NIU)	0.29 MMTPA
4	Solvent De-asphalting (SDA)	3.1 MMTPA
5	Slurry Hydrocracker (SHCU)	2.5 MMTPA
6	PRU	96 TPD
Auxiliary Units:		
6	Hydrogen Generation Units (HGU)	2 x 113 KTPA
7	Sulphur Recovery Units (SRU) including TGTU	2 x 360 TPD
8	Fuel Gas PSA	36 KTPA
9	SWS-I (Non Hydro-Processing)	300 TPH
10	SWS-II (Hydro processing)	185 TPH
11	ARU	2x540 TPH
12	SR. LPG Treater	112 KTPA
13	Integrated Effluent Treatment Plant (IETP) OWS streams - Wet weather flow	1000 m3/hr
Existing Unit Revamps:		
9	Naphtha Hydrotreating Unit (NHT)	1.154 (30% min) MMTPA
10	Continuous Catalytic Reformer (CCR)	0.769 (20% min) MMTPA
11	Diesel Hydro treating Unit (DHT)	2.2 (20% min) MMTPA
New Power Generation Units (CPP)		
	Captive Power Plant (Dual fuel - Naphtha as well as Natural Gas)	2 x 33 MW GTGs or (1x66 MW) + 3 x 33 MW STGs

UTILITY SYSTEM	
Recirculating Sea Cooling Water System	
Cooling Tower Cells	CT-1 : Capacity : 4000 m3/hr Number : 7w+1s CT-2 : Capacity : 4000 m3/hr Number : 7w+1s
Recirculating Sea Cooling Water Pumps	CT-1 : Capacity : 4000 m3/hr Number : 7w+2s CT-2 : Capacity : 4000 m3/hr Number : 7w+2s
Bearing Cooling Water System	
Bearing Cooling Tower Cells	Capacity : 800 m3/hr Number : 4w+1s
Bearing Cooling Water Pumps	Capacity : 800 m3/hr Number : 4w+1s
Demineralized Water System	
RO System	500 m3/hr
DM Water Tanks	2 X 4700 m3 capacity.
Power Plant Configuration	
	New GTG: 2 Power : 2 X 33 MW (Frame VI) or 1 x 66 MW (Frame VI-FA)

Captive Power Plant	HRSG : 2 X 110 TPH ; Pressure : 100 Kg/cm2(g)
	Boiler : 1W+ 1S Design capacity : 225 TPH Pressure : 36 kg/cm2 (g) Steam Turbine Generator: 1. Type : Double Extraction (VVHP to MP & LP) Power : 33 MW 2. Type : Extraction Cum Condensing (VHP to LP & Condensate) Power : 33 MW 3. Type: Total Condensing (VHP to Condensate) Power : 33 MW
Condensate Polishing Unit	Capacity: 65 m3/hr Number : 1W + 1S
Air Compressors (plant air, instrument air and Nitrogen)	Capacity : 13000 Nm3/hr, Number : 2W +1S
N2 System	Gaseous : 1560 Nm3/hr, Liquid Storage : 1000 M3

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during November 2014-January, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (40 µg/m³ to 105 µg/m³), PM_{2.5} (20 µg/m³ to 68 µg/m³), SO₂ (6.3 µg/m³ to 19.0µg/m³) and NOx (9.3 µg/m³ to 23.6 µg/m³) respectively. Environmental Consultant EIL informed that high concentration of PM10 in monitoring area can be attributed to Industrial allied activities in Gajuwaka area as well as vehicular movement. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 29.64 µg/m³ and 37.63 µg/m³ with respect to SO₂ and NOx. The resultant concentrations are within the NAAQS except PM₁₀. It is estimated that the total SO₂ emissions before and after VRMP will be 9.45 TPD and 11.5 TPD respectively. However, approved SO₂ emission load is 11.5 TPD for the existing refinery. It is estimated that the total NOx emissions before and after VRMP will be 7.1 TPD and 11.15 TPD respectively. Heater/furnace will be provided with well proven low NOx burner to reduce the NOx emissions. The height of new stack will be determined taking into consideration the guidelines for minimum stack height. Low Sulphur fuels will be used for internal fuel purpose. Sulphur recovery unit with tail gas treating facilities having 99.9 % efficiency will be provided. PP informed that flare gas recovery system will be installed. Steam injection facility to maintain adequate steam to fuel ration is provisioned to achieve smokeless operations in both existing and new flares. Total water requirement for post VRMP will be 1538 m3/hr. Out of which, fresh water consumption will be 873 m³/hr, which will be met from Greater Visakha Municipal Corporation and remaining water requirement i.e. 665 m3/hr will be met from treated effluent/recycled effluent. Besides, Post-VRMP total sea water requirement will be 21292 m3/hr. In order to have better control in terms of liquid effluent treatment/management of the entire refinery effluent at single location, it is proposed to install a new state-of-the-art Integrated Effluent Treatment Plant (IETP), which shall replace all the existing effluent treatment plants apart from treating additional effluent from the VRMP facilities. The treated effluent from IETP is proposed to be treated in a RO plant to meet the DM water requirement. With the operation of RO plant in post VRMP scenario, the water consumption will be optimised with maximum recycle/reuse option. The rejects of effluent treatment plan will be discharged to the sea cooling water, which ultimately disposed to the sea. The oily sludge (1.5TPD-post VRMP) shall be dewatered, handled and disposed as per existing practice. The bio sludge (2TPD-post VRMP) from bio-treatment section will be utilized as manure/landfill. Small quantities of non-hazardous and non-recyclable solid waste (approx 1500T/ year) will be sent to authorized landfill agency (TSDF) or

recyclers for further disposal. This sludge is estimated to be generated (Approx. 1000 T/ tank) at the periodicity of 5 to 10 years and shall be handled and disposed as per existing refinery practice. The sludge will be treated for oil recovery after which the residual sludge will be subjected to bio-remediation. Spent catalyst shall be disposed to authorized recyclers or TSDF of M/s Hyderabad Waste Management Project (A Ramky Enviro Engineers Ltd division) located in Visakhapatnam, in line with existing practice.

The Committee also discussed the compliance status report dated 17th February, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Chennai. It is reported that most of the conditions are being complied and certain conditions are partially complied and non complied. However, PP agreed to comply with the partially complied condition and non complied conditions as reported by the Regional Office. Regarding recycling of treated effluent, PP informed that a new state-of-the-art Integrated Effluent Treatment Plant (IETP) is proposed to install, which shall replace all the existing effluent treatment plants. Additional 67.5 acres of land is earmarked for Green belt development. The Committee was satisfied with the commitment of PP. The Committee also suggested them to take all the safety measures during construction and operation phase.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 26th June, 2015. The issues were raised regarding CSR; accident in plant premises; impact on environment basically in terms of Traffic pollution; wages for contract workers; local employment; water supply 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 recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering accord of environmental clearance:

- i. M/s HPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- ii. Continuous on-line stack monitoring for SO₂, NO_x and CO of all the stacks shall be carried out. Low NO_x burners shall be installed.
- iii. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. Leak Detection and Repair programme shall be implemented to control HC/VOC emissions.
- iv. SO₂ emissions after expansion from the plant shall not exceed 11.5 TPD and further efforts shall be made for reduction of SO₂ load through use of low sulphur fuel. Sulphur recovery unit with tail gas treating facilities having 99.9 % efficiency shall be provided.
- v. Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.

- vi. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- vii. Fresh water requirement from Greater Visakha Municipal Corporation shall not exceed 873 m³/hr after expansion and prior permission shall be obtained from the competent authority. Industrial effluent generation will be 902 m³/hr and treated in the new state-of-the-art Integrated Effluent Treatment Plant (IETP). Treated effluent shall be fully as make-up water for raw water cooling towers. Domestic sewage shall be treated in sewage treatment plant (STP).
- viii. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.
- ix. Acoustic enclosure /silencer should be installed wherever it is possible.
- x. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xi. The company should make the arrangement for protection of possible fire and explosion hazards during construction and operation phase.
- xii. All the recommendations mentioned in the risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xiii. As proposed, Rs. 60 Crore shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner.

2.6.2 Synthetic Organic Manufacturing Unit at SF No. 32/2 & 33/2(a), Plot No. A4/2 (Part B), SIPCOT Industrial Complex, Village Thervoykandigai, Taluk Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s Jesons Industries Ltd.-reg EC.

The project proponent and their consultant (M/s Hubert Enviro Care System 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 38th Meeting of the Expert Appraisal Committee (Industry) held during 20th– 21st January, 2015 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by State level. However, due to applicability of General Condition for distance from interstate boundary of AP within 5 Km (i.e. 4.05 km), the project proposal is treated as Category 'A' project and appraised at Central level.

M/s Jesons Industries Ltd. has proposed for setting up of Synthetic Organic Manufacturing Unit at SF No. 32/2 & 33/2(a), Plot No. A4/2 (Part B), SIPCOT Industrial

Complex, Village Thervoykandigai, Taluk Gummidipoondi, District Thiruvallur, Tamil Nadu. Plot area is 7.75 acres out of which area earmarked for greenbelt is 10632 m². Cost of project is Rs. 14 Crore. Waterbodies i.e. Senkarai Ammaneri Lake (0.86 Km); ThervoyKandigai Lake (0.87 Km); Poovilambedu Pond (5.6 Km);Kakkavakkam Lake (6.5 Km); Arani River (8.2 Km) are located within 10 Km distance. Reserve Forests i.e. Thervoy RF (2.77 Km), PeriyaPuliyur RF (1.7 Km), Siruvadai Forest and Palem Range RF (7.8 Km) are located within 10 km distance. Following products will be manufactured :

S.N.	Products	Capacity
1	Synthetic Acrylic Polymer Emulsion	60 TPD (18000 TPA)
2	Industrial Synthetic Adhesives and Glues	8 TPD (2400TPA)
3	Thermosetting Acrylic Resins, Ethylene vinyl acetate Emulsions	30 TPD (9000TPA)
4	Polymer of Vinyl Acetate	12 TPD (3600 TPA)
5	Vinyl Copolymers	8 TPD (2400 TPA)
6	Water proofing compounds and Construction emulsions	20 TPD (6000 TPA)

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March–May 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (48.44 µg/m³ to 54.39 µg/m³), PM_{2.5} (21.19 µg/m³ to 24.34 µg/m³), SO₂ (10.18 µg/m³ to 14.80 ug/m³) and NO₂ (21.8 µg/m³ to 24.3 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.615 µg/m³, 0.317 µg/m³ and 0.457 µg/m³ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. It is reported that wet scrubber alongwith adequate stack height will be provided to thermopack heater. Total water requirement will be 108 m³/day of which fresh water requirement will be 100 m³/day from SIPCOT water supply. Industrial effluent generation will be 7 m³/day and treated in the ETP followed by RO. Rejects will be evaporated in the MEE. Permeate of RO will be recycled. Sewage will be treated in the STP. DG set (1 x 250 KVA) will be installed. ETP sludge will be sent to TSDF. Used oil will be sent to the authorized recycler/re-processors.

Public hearing is exempted as unit is located in the industrial area and environmental clearance is already granted to the industrial area.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Wet scrubber along with stack of adequate height should be installed to thermopack heater to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Total fresh water requirement from SIPCOT Water supply should not exceed 100 m³/day.
- v) Total industrial effluent generation shall not exceed 7 m³/day. Effluent will be treated in the ETP followed by RO to achieve zero discharge. RO rejects shall be evaporated in the MEE. RO permeates shall be recycled/reused in the process. No effluent will be discharged outside the plant premises. Domestic sewage shall be treated in STP. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

- vi) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- vii) Green belt over 10632 m² area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- viii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- ix) 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.

2.6.3 Agrochemical Manufacturing Plant (52000 TPA) alongwith CPP (6.0 MW) at Plot no. Z-112 at Village Lakhigam, SEZ Dahej, Tehsil Vagra, District Bharuch, Gujarat by M/s Rallis India Limited – 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 8th Meeting of the Expert Appraisal Committee (Industry) held during 16th– 17th May, 2013 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Rallis India Limited have proposed for setting up of agrochemical manufacturing plant (52000 TPA) alongwith CPP (6.0 MW) at Plot no. Z-112 at Village Lakhigam, SEZ Dahej, Tehsil Vagra, District Bharuch, Gujarat. Total plot area is 37.5 acres of which greenbelt will be developed in 35 % of the plant area. Total cost of project is Rs. 200 Crore. Rs. 25 Crore and Rs. 2.5 Crore are earmarked towards capital cost and recurring cost per annum. Estuary of Narmada river is located at a distance of 2.0 km. No ecological sensitive area (wild life sanctuaries)/ reserved /protected forest is located 10 km distance. Following products will be manufactured:

S.N.	Particulars	Quantity
1	Products	
	Agrochemical Technical	52000 TPA
	Agrochemical Formulations	10000 TPA
2	Captive Power Plant	6.0 MW

PP clarified that at a time 10 products will be manufactured. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during December, 2013–February 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (62.9 µg/m³ to 88.5 µg/m³), PM_{2.5} (25.7 µg/m³ to 44.8 µg/m³), SO₂ (7.0 µg/m³ to 14.7 µg/m³) and NO₂ (15.4 µg/m³ to 29.1 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.23 µg/m³, 13.77 µg/m³ and 10.20 µg/m³ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. H₂S, NH₃, HCl, SO₂ and HBr. Fresh water requirement from GIDC water supply will be 3000 m³/day.

Effluent generation will be 750 m³/day and segregated into High COD/TDS and Low COD/TDS effluent streams. High COD/TDS will be passed through steam stripper followed by MEE. Concentrated salts will be sent to ATFD. Low COD/TDS effluent stream and condensate will be treated in the ETP followed by ultra filtration, nano filtration and Reverse Osmosis. 40 % treated effluent will be recycled and 55% treated effluent will be disposed through GIDC drain. The Committee noted after recycling of 855 m³/day treated effluent will reduce fresh water requirement. The net fresh water requirement will be 2015 m³/day. High COD effluent will be sent to incinerator. Process waste/ waste residue containing pesticide, Date expired products will be sent to common incinerator. Fly ash will be sent to cement industry /brick manufacturers. Used /spent oil will be sent to the authorized recyclers/re-processors. The Committee also suggested the flue gas from the reactor containing mercaptan will be finally routed to incinerator.

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

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

- i. National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.
- ii. Bagfilter alongwith adequate stack height shall be provided to coal fired boiler and thermic fluid heater to control particulate emissions.
- iii. Scrubber shall be provided to control process emissions viz. H₂S, NH₃, HCl, SO₂ and HBr. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- vi. All necessary steps should be taken for monitoring of chlorine, HCl and HBr as well as VOCs in the proposed plant.
- vii. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- viii. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- ix. Total water requirement from GIDC water supply should not exceed 2015 m³/day and prior permission should be obtained from the Competent authority.

- x. Effluent generation shall not exceed 750 m³/day and segregated into High COD/TDS and Low COD/TDS effluent streams. High COD/TDS will be passed through steam stripper followed by MEE. Concentrated salts will be sent to ATFD. Low COD/TDS effluent stream and condensate will be treated in the ETP followed by ultra filtration, nano filtration and Reverse Osmosis. 40 % treated effluent will be recycled and 55% treated effluent will be disposed through GIDC drain after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- xi. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed.
- xii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- xiii. As proposed, greenbelt should be developed at least 33% of the plot area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xiv. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xv. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

2.6.4 Proposed Chemicals unit at plot no. 2 & 3, Village Ukharala, District. Bhavnagar, Gujarat by M/s Medinex Laboratories Pvt. Ltd. – reg EC.

The Committee noted that there are several non-compliance points reported by the Regional Office in their monitoring report. Therefore the Committee recommended them to submit point wise action taken report on the non compliance conditions alongwith photographs.

2.6.5 Expansion of molasses based distillery (from 45 KLPD to 135 KLPD) at Village Khursapar (Bela), Taluka Umred, District Nagpur, Maharashtra by M/s Purti Power Sugar Ltd. - reg EC.

The project proponent and their consultant (M/s Creative Enviro Services) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Meeting of the Expert Appraisal Committee (Industry) held during 11th– 12th June, 2012 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category ‘A’ and appraised at Central level.

M/s Purti Power Sugar Ltd. has proposed for expansion of molasses based distillery (from 45 KLPD to 135 KLPD) by installing 2 x 45 KLPD distillery at Village Khursapar (Bela), Taluka Umred, District Nagpur, Maharashtra. Cost of expansion project is Rs. 55 Crore. Total plot area is 47.69 ha. of which, area earmarked for greenbelt is 5.0 ha. Waterbodies namely

Rama Dam (2 km), Venna River (1.5 km) and Nanda Nadi (5.5 km) are located within 10 km distance. It is reported that no archeological structure, reserved forests, sanctuaries, wildlife sanctuary is located within 10 km distance. Muniyar Reserve Forest is located at a distance of 3 km.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2012 – February, 2013 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (26.9 µg/m³ to 58.4 µg/m³), PM_{2.5} (9.4 µg/m³ to 29.5 µg/m³), SO₂ (12.2 µg/m³ to 16.9 µg/m³) and NO_x (10.1 µg/m³ to 12.3 µg/m³) respectively. Steam demand will be met from the existing boilers. ESP has been installed in the existing boiler. Incineration boiler will be installed for spent wash burning and 4 MW power will be generated. Spent wash will be treated through anaerobic bio-digestion followed by concentration in MEE and incineration in incineration boiler. No effluent will be discharged outside the plant premises. From the existing unit 30 % spent wash will be treated through composting route and 70 % will be incineration boiler route. However, for the proposed unit 100 % spent wash will be treated through incineration boiler route. Fly ash will be used for composting and brick manufacturing. The Committee noted that fresh water requirement is very high. Therefore, the Committee suggested them to restrict fresh water requirement upto 10 KL per KL of alcohol produced.

The Committee also discussed the certified compliance report issued by the Regional Office, Bhopal vide letter no 5-9/2003 (Env)/1029 dated 14.08.2015. The Committee found compliance report satisfactory.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 25th November, 2014. The issues were raised regarding local employment, tree plantation etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) As proposed, ESP shall be provided to the bagasse/spent wash fired boiler to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii) Total fresh water requirement from surface water source for distillery unit shall not exceed 1350 m³/day after expansion.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation process and evaporated in MEE. Concentrated spent wash shall be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained. From the existing unit 30 % spent wash will be treated through composting route and 70 % will be incineration boiler route. However, for the proposed unit 100 % spent wash will be treated through incineration boiler route.

- iv) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- v) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and MPCB.
- viii) Bagasse/biomass/coal storage in the existing sugar unit shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash in the sugar unit shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 5 ha. land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 25th November, 2014 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 Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

Reconsideration for Environmental Clearance

2.6.6 Expansion of Grain Based Distillery from 100 KLPD to 200 KLPD and Cogeneration Power Plant (from 5 MW to 10 MW) at Village Machchana and Sangat Kalan, Tehsil and District Bathinda, Punjab by M/s BCL Industries and Infrastructure Ltd. – reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 46th meeting held during 20-21st August, 2015 and the Committee sought following additional information:-

- i. The environment statement for the year 2012-2013 is yet to be submitted.
- ii. The constitution of environment management cell indicating the name of Officers, the designations, their qualifications, duties assigned and the activities of the Environment Management Cell during last one year is yet to be submitted.
- iii. The insurance policy under the Public Liability Insurance Act, 1991 is yet to be procured.
- iv. Non compliance of Insurance Policy under the Public Liability Insurance Act, 1991
- v. Non compliance on physical and financial progress about CSR activities.
- vi. Uploading of six monthly reports is yet to be done.

PP vide letter no BCL/2015/1057 dated 29.10.2015 has submitted the above mentioned information. The Committee found satisfactory response.

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) ESP alongwith stack of adequate height shall be provided to additional biomass/coal fired boiler (35 TPH) to control particulate emission within 50mg/Nm³. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- ii) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB guidelines. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- iv) Dedicated Cell with qualified personnel for Environment management should be established to take care of all pollution related activities including monitoring.

- v) Total fresh water requirement from surface water supply shall not exceed 1350 m³/day for distillery and cogeneration unit after expansion. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Spent wash generation shall not exceed 6 KI/KI of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vii) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- viii) Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.
- ix) No effluent from distillery and co-generation power plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be adopted.
- x) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xi) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office at Bhubaneshwar and WBSPCB.
- xii) No storage of wet cake shall be done at site to avoid odour problem. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- xiii) Biomass storage shall be done in such a way that it does not get air borne or fly around due to wind. For this, it shall be kept in wet form.
- xiv) 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 alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- xv) At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

2.6.7 (i) Proposed Capacity Expansion from 7.5 MTPA to 8 MTPA along with Proposed Distillate Yield Improvement and (ii) Proposal for installation of feed preparation unit catalytic dewaxing unit at district Medinipur, West Bengal by M/s Haldia Refinery – reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 44th meeting held during **20-21st July, 2015** and the Committee sought following additional information:-

- i. Details of existing stack and proposed stacks.
- ii. Stack wise sulphur emissions to be estimated.
- iii. Air pollution Control Device to be proposed.
- iv. GLC of SO₂ due to proposed project estimated to be 68.79 µg/m³, which seems to be higher side. Measures to be taken to bring down the GLC of SO₂. Detailed action plan for reduction of SO₂.
- v. Water audit report and their recommendation to be furnished.
- vi. Water quality monitoring data of the upstream and downstream of the meeting point of the river and effluent stream.
- vii. Details of action plan alongwith compliance submitted to the SPSCB/CPCB in respect of CPA.
- viii. Details of greenbelt (existing and Proposed) to be submitted.
- ix. Compliance report of existing EC and action taken report.

PP has submitted the above mentioned addl. information. The Committee found satisfactory response.

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

- i. M/s IOCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- ii. The process emissions [SO₂, NO_x, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- iii. Continuous on-line stack monitoring for SO₂, NO_x and CO of all the stacks shall be carried out. Low Nox burners shall be installed. Fuel oil with Sulphur content less than 0.6 % shall be used.
- iv. Low NO_x burner shall be installed in new project units of DYIP and in FPU as well as in the existing CDU-I and VDU-I heater.
- v. SO₂ emissions after expansion from the refinery shall not exceed 941 Kg/hr. Sulphur recovery units shall be installed for control of H₂S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.

- vi. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. Leak Detection and Repair programme shall be implemented to control HC/VOC emissions.
- vii. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, by-product (elemental sulphur), atmospheric emissions etc.
- viii. Fresh water requirement from Geonkhali Water Supply System and ground water source (16 deep tube wells) will be 1270 m³/hr.
- ix. Industrial effluent generation shall not exceed 1150 m³/day after expansion. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make up for the raw water cooling tower and remaining treated effluent (112 m³/hr) shall be discharged into surface water bodies.
- x. All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flowrate, pH and TOC shall be provided.
- xi. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the plant premises.
- xii. As proposed, spent catalyst shall be sent to the authorized recycler/re-processors. Oily Sludge shall be treated in the Sludge Centrifuge provided in the ETP and the cake generated from the centrifuge is further sent for bioremediation for disposal.
- xiii. The membership of common TSDF shall be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Lucknow. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
- xiv. Green belt over 19.5 acres land area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xv. All the commitments made to the public during public hearing/public consultation meeting held on 9th February, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi. 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 Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.

2.6.8 EC of M/s. Coromandel Sugars Limited at SF. No. 151, Makavaali Village, Krishnarajpet Taluk, Mandya District, Karnataka– reg. Revalidation of EC as per NGT order

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 46th meeting held during 20-21st August, 2015 and the Committee sought following additional information:-

- (i) Last 1 year data regarding fly ash management.
- (ii) Actual distance to the scale to be reflected w.r.t. the environmental sensitivities including archeological monuments within 10 km distance on the toposheet.
- (iii) Effluent treatment scheme of sugar unit alongwith method of disposal of treated effluent and copies of CTOs
- (iv) Details of Enterprises Social Commitment based on need of surrounding villagers and time bound action plan including annual budgetary allocation to be submitted.
- (v) Commitment to install bagfilter in the existing boilers.
- (vi) Water balance chart of the distillery and cogeneration power plant.
- (vii) Latest water quality data of the river at upstream and downstream of plant site.
- (viii) Action Plan to be prepared for reduction of the water consumption.
- (ix) Effort to be made to recycle/reuse MEE Condensate, spentlees and effluent from utilities.

Accordingly, PP has submitted the following addl. information:

(i) Last 1 year data regarding fly ash management

Details of ash generation are as given below:

S.N.	Description	Unit	Quantity
Consented Ash quantity			
1	Boiler Bottom/Fly Ash	TPA	
2	Ash from Scrubber	TPA	22200
Total		27000	
1	No. of Days of Crushing Operation	No.s	300
2	Actual days of crushing during 2014-2015	No.s	177
3	Quantity of Ash (Calculated)	TPA	13115
4	Ash sold to farmers (2014 – 2015)	TPA	13045

(ii) Actual distance to the scale to be reflected w.r.t the environmental sensitivities including archaeological monuments within 10 km distance on the toposheet:

List of Environmental Sensitivities S.N.	Description	Distance from the project site (km)	Direction
Rivers			
1	Hemavathi River	2	W
Reserve Forest			
1	Matada RF	8.87	SW
2	Karoti State Forest	2.7	E
Notified Archeological Monuments			
1	Lakshminarayana temple (Notify by: ASI)	9.29	SE
2	Panchalingeshwara (Notify by: ASI)	8.83	NW
3	Brahmeshwara (Notify by: State ASI)	7.22	N

Hillocks			
1	Hillocks	8	SE
2	Hillocks	9.7	NE

(iii) **Effluent treatment scheme of sugar unit along with method of disposal of treated effluent and copies of CTOs**

Quantity of effluent generation and mode of treatment is as given below:

No.	Description	Quantity (KLD)	Mode of Treatment/Disposal
1	Trade effluent from sugar plant	480	Sent to Effluent Treatment Plant and treated wastewater used for on land irrigation on land owned by the industry.
2	Cooling Tower Blow down, Boiler Blow Down and DM Plant back wash	490	Used for quenching of ash and dust suppression and excess shall be used for irrigation.
3	Domestic Wastewater	50	Sent to Septic tank followed by Soak Pit
Total		1020	

(iv) **Details of Enterprises Social Commitment based on need of surrounding villagers and time bound action plan including annual budgetary allocation to be submitted**

S.N.	Description	Amount (Rs.)				
		2016	2017	2018	2019	2020
I	EP (Eradicating Extreme Hunger & Poverty)	64,50,000	49,62,000	41,35,000	49,62,000	57,88,000
Activities: 1. Construction of SSM Box Drainage and formation of road with gravel filling. 2. Providing potable water - RO plant 3. Providing water filters 4. Drinking water facility to Govt. High School						
II	PE (Promotion of Education) Activities: 1. Training to woman on Tailoring (IZ) 2. Honoring SSLC Toppers, PUC Toppers 3. Sponsoring 1st year education fees to one MBBS, Engineering & one BVSc student 4. Sponsoring Books to GHPS Students of 10 Schools	10,00,000	13,33,000	15,56,000	13,33,000	14,44,000
III	PGE (Promoting Gender Equality & Empowering Women) Activities: 1. Empowering women - Formation of Women SHG SHG's - Training, Book keeping, Bank linkage 2. Mass marriage at Hemagiri Sri Kalyana Venkataramana Swamy Temple 3. Financial help to	7,75,000	10,33,000	12,06,000	11,20,000	9,48,000

	Orphan students					
IV	En (Ensuring Environmental Sustainability) Activities: 1. Conducting veterinary camps 2. Felicitating the farming community by giving prizes for their selected best bullock pairs 3. Organizing Green Nurturing programme as per Karnataka State Pollution Control Board Guidelines in GHPS. 4. Planting of forest saplings with tree guards at GHPS - under Green Nurturing Programme.	6,80,000	8,74,000	9,71,000	7,77,000	6,80,000
V	PNH (Protection of National Heritage, Art & Culture) Activities: I. Contribution for Construction of 1. Sri Rama Mandira at Maduvinakodi village 2. Sri Lakshmidevi Temple at Narayanapura village 3. Sri Basaveshwara Temple at Kuppahalli village 4. Sri MahakaliLakshmidevi Temple at Chowdenahalli village 5. Sri Siddarameshwara Temple, at Makavalli village 6. UtsavaStamba at Makavalli Village II. Construction of shed to protect the idols of God Sri Lakshminarayana Temple, Hosaholalu (National Heritage Temple recognised by GOI)	17,00,000	18,90,000	20,78,000	17,94,000	15,12,000
VI	RS (Promotion of Rural Sports) Activities: 1. Providing Public Address system to Schools of Makavalli, Lingapura, Vaddarahalli,	7,00,000	9,33,000	9,33,000	9,33,000	9,33,000

	Heggadahalli, Mallenahalli, Sadugonahalli, Kundanahalli and Karoti villages 2. Conducting of Taluk Level Sports Events					
VII	RD (Rural Development Infrastructure Project) Activities: 1. Contribution for Construction of SamudhayaBhavana 2. Construction of compound forTemples 3. Formation of metalling road by restructuring the existing earhen road 4. Constructions of compound wall for Anganavadi buildings 5. Constructions of compound wall for Govt. High Schools 6. Constructions of toilet for girls at Govt. Junior Colleges 7. Construction of Cycle stand at Govt. High Schools 8. Construction of play ground at Govt. High Schools 9. Infra structure development at Centunary Govt. Higher Primary Schools	38,00,000	40,80,000	42,26,000	41,86,000	38,00,000
Grand Total		1,60,00,000	1,60,00,000	1,60,00,000	1,60,00,000	1,60,00,000

(v) Commitment to install bag filter in the existing boilers

M/s. Coromandel Sugars Limited has submitted the undertaking to install bag filters in place of ventury scrubbers to the existing 2 x 45 TPH boilers, until the commissioning of 30MW co-generation plant.

(vi) Water balance chart of the distillery and cogeneration power plant

PP informed that total water requirement from the distillery, cogen power plant (30 MW) and existing sugar plant cane crushing including co-gen power plant (12 MW) is 450 m³/day, 900 m³/day and 1500 m³/day respectively.

(vii) Latest water quality data of the river at upstream and downstream of the plant site

PP has submitted the copy of KSPCB monitoring dated 28.02.2015.

(viii) Action Plan to be prepared for reduction of the water consumption

PP informed the following measures to be taken:

Treated wastewater is reused in process, cooling of mill bearings and cooling towers

- *Adoption of cooling towers in place of spray pond to reduce drift loss.*
- *Condensate from spent wash evaporator reused for diluting molasses.*
- *Treated wastewater reused for ash quenching, ash conditioning and dust suppression*
- *Treated wastewater reused for greenbelt development*

(ix) Effort to be made recycle/reuse MEE condensate, spent lees and effluent from utilities

- a) Spent wash generated from the distillery (Molasses based) is concentrated in multiple effect evaporators (MEE).
- b) Condensate from the MEE is sent to ETP, while the concentrate is sent for incineration to 15 TPH capacity boiler which uses coal as secondary fuel in combination with the spent wash concentrate as fuel
- c) While effluent from distillery operations using grain as raw material is sent to MEE
- d) Concentrate known as Distillers Dried Grains With Soluble (DDGS) of 900 TPM is sold as cattle

The Committee verified the documents submitted by the project proponent and found satisfactory response with respect to pollution control measures adopted in management of waste and water conservation measures within the plant. .

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

- (i) Bagfilters shall be provided to the existing 2 x 45 TPH boilers in place of ventury scrubbers to control particulate emissions.
- (ii) Effluent from the existing Sugar Unit shall be treated in the efficient ETP and treated effluent shall be recycled/reused in the process in order to reduce the overall fresh water requirement for the entire project.
- (iii) No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- (iv) Automatic /online monitoring system (24 x 7 monitoring devices) for air pollution as well as water pollution in respect of flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- (v) Bagasse/biomass/Coal storage in the existing sugar unit shall be done in such a way that it does not get air borne or fly around due to wind.
- (vi) Boiler ash in the sugar unit 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.

2.6.9 Proposed Dahej Nagothane Ethane Pipeline (485 km) Project (1.25 MMTPA) of M/s Reliance Gas Pipeline Ltd. (wholly owned subsidiary of M/s Reliance Industries Ltd.) through Gujarat-Maharashtra- reg EC.

The project proponent and their consultant (M/s Bhagavathi Anna Labs Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 21st Meeting of the Expert Appraisal Committee (Industry) held during 30th July 2014 TO 1st August 2014 for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas (including LNG Terminal) are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

M/s Reliance Gas Pipeline Ltd. (wholly owned subsidiary of M/s Reliance Industries Ltd.) has proposed to build and operate a 486 km long pipeline for transportation of liquid Ethane. The pipeline will transport liquid Ethane made available from RIL's Dahej Manufacturing Division (DMD) to RIL's Hazira Manufacturing Division (HMD) and to RIL's Nagothane Manufacturing Division (NMD). The dedicated pipeline network, named as Dahej – Nagothane Ethane Pipeline (DNEPL) is designed to transport 1.25 MMTPA (i.e. 159 TPH; 89 TPH for NMD and 70 TPH for HMD) of liquid Ethane. Total Cost of the project is approximately Rs. 1,428 crores. Out of 486 km proposed pipeline, approximately 26 km passes through Dahanu Taluka Eco- Fragile Area.

DNEPL will originate from Dahej in Gujarat and terminate at Nagothane in Maharashtra with a spur pipeline to Hazira. The length of the mainline from DMD to NMD is ~440 km. The length of spur pipeline to HMD is about 46 km. Approximately 256 km of the pipeline passes through the state of Gujarat and approximately 230 km passes through the state of Maharashtra. The pipeline passes through 4 districts in Gujarat viz. Bharuch, Surat, Navsari and Valsad and 3 districts in Maharashtra viz. Thane, Palghar & Raigad. Except for approximately 89 km, the entire pipeline is proposed to be laid in the existing Right of Use (RoU) of RGTIL's (Reliance Gas Transportation Infrastructure Limited) East West Gas Pipeline (EWPL) and RIL's existing Hazira Dahej Pipeline (HDPL). For the new 89 km length of pipeline, 18-m wide RoU will be acquired under the provisions of Petroleum and Minerals, Pipelines (Acquisition of Right of User in Land) Act, 1962.

Out of the total pipeline length in Maharashtra State, approximately 26 km passes through Dahanu Taluka which has been declared as ecologically fragile area where the development activities are monitored by Dahanu Taluka Environment Protection Authority (DTEPA) constituted by MoEF. Pipeline within this area will be laid entirely within the existing RoU of EWPL in forest as well as non-forest areas. Hence no fresh RoU will be acquired for the proposed pipeline passing through Dahanu Eco-fragile area.

The proposed route crosses 9 nos. of rivers under tidal influence namely Bhukhi river (80 m), Narmada river (1,100 m), Mindhola river (50 m), Kim (Mainline) (80 m), Kim (Hazira Spur) (150 m), Purna River (110 m) in Gujarat, Nigade River (80m), Amba River (150m) and Amba Tributary (152m) in Maharashtra. In addition to this, the proposed route passes through other major rivers namely Tapi River (650 m), Ambikariver (200 m), Bhatsai River (300 m) and Kalu River (250 m). Approximately 30 km of route length is passing through reserved and protected forest area. PP informed that the said Pipeline route has been selected after review, analysis and comparison with alternate routes available. It completely avoids Buffer Zone of followings;

- a) Karnala Bird Sanctuary (10.2 km),
- b) Tansa Wildlife Sanctuary (11.65 km)
- c) Matheran Ecosensitive Zone (390m)

d) Proposed Western Ghat Eco-sensitive Zone.

There is permanent land requirement of about 12.18 ha for setting up additional facilities such as Mainline Valve Stations & Intermediate Pigging Stations.

Water requirement during Construction Phase during laying of pipeline and construction of associated facilities is about 491KLD. Water requirement during construction phase will be met through local sources. Water required for Pump Station, MLVs and M&R during operation phase is estimated to be approximately 19 KLD. Water requirement at MLVs and IPSs will be primarily met by providing tube well at respective locations. As the pipeline will be laid underground, excavated soil will be reused for back filling. Top soil will be reinstated on top layer as original.

The proposals for both diversion and re-diversion of forest land for laying of 30.918 km (~45 ha) pipeline have been submitted to the concerned State Forest Departments which are under process. The proposed project crosses through 9 tidal influenced water bodies namely Bhukhi, Narmada, Purna, Kim, Kim-Hazira, Mindhola in Gujarat, Amba, Amba Tributary and Nigade in Maharashtra.

Gujarat Coastal Regulatory Zone (GCZMA), vide letter Env-10-2015-162-E dated 01.07.2015 has recommended the proposal to grant CRZ clearance. Maharashtra Coastal Regulatory Zone (MCZMA), vide letter CRZ-2015/CR-73/TC 4 dated 08.12.2015 has recommended the proposal to grant CRZ clearance. Stage – I Forest Clearance for diversion of 0.18 ha protected forest land has been obtained from MoEF&CC Western Zone vide letter no. 6-GJB062/2015-BHO/326 dated 07.12.2015. Stage – I Forest Clearance for diversion of 25.66 ha forest land has been obtained from MoEF&CC WCZ, Nagpur vide letter no. FC-II/MH-21/2015-NGP/522 dated 11.12.2015. PP has submitted the copy of minutes of meeting issued by Dhanu Taluka Environment Protection Authority vide their letter no. DTEPA/MTG-44/FW-Extracts/2015/184 dated 17.04.2015.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 29th April, 2015 for Bharuch District; on 8th May, 2015 for Surat District; on 15th April, 2015 for Navsari District; on 22nd April, 2015 for Valsad District. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 10th April, 2015 for Palghar District; on 10th June, 2015 for Thane District; on 4th April, 2015 for Raigarh District; The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. Forest clearance for the forest land involved in the pipeline project shall be obtained.
- ii. The RGPL shall strictly adhere to the provisions of the CRZ notification, 2011 issued by the MoEF&CC.
- iii. The RGPL shall ensure that the pipeline will be laid across the CRZ area using horizontal direction drilling (HDD) technique at least 5 m below the river bed and there will be no impact on the river regime.

- iv. The project authority i.e. M/s Reliance Gas Pipeline shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.
- v. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- vi. Annual safety audit shall be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.
- vii. The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and / dykes shall be restored adequately after installation of crossings.
- viii. Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.
- ix. The company shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.
- x. The project authorities shall install SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.
- xi. The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.
- xii. All the recommendations mentioned in the risk assessment report shall be implemented.
- xiii. All the issues raised during the public hearing/consultation meetings held on 29th April, 2015 for Bharuch District; on 8th May, 2015 for Surat District; on 15th April, 2015 for Navsari District; on 22nd April, 2015 for Valsad District. on 10th April, 2015 for Palghar District; on 10th June, 2015 for Thane District; on 4th April, 2015 for Raigarh District shall be satisfactorily implemented.
- xiv. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.
- xv. The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.

- xvi. The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.
- xvii. The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xviii. Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xix. The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- xx. 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. M/s Reliance Gas Pipeline shall utilized the earmarked funds for implementation of sanitation program under Swach Bharat Abhiyan. Implementation of such program should be ensured accordingly in a time bound manner.

17th December, 2015 (Day 2)

2.7 Terms of Reference (TOR)

2.7.1 Proposed LPG Bottling Plant (21000MTPA) at SIPCOT Industrial Park, Village Thervoy Kandigai, Tehsil Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s SHV Energy Private Limited – reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Isolated Storage & Handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) activities is listed at 6(b) of the Schedule of EIA Notification, 2006 under category 'B' and appraised at State level. However, due to applicability of General Condition i.e. location of project less than 5 km from interstate boundary (Tamil Nadu- A.P), the proposal is treated as Category 'A' project and appraised at Central Level.

M/s SHV Energy Private Limited has proposed LPG Bottling Plant (21000MTPA) at SIPCOT Industrial Park, Village Thervoy Kandigai, Tehsil Gummidipoondi, District Thiruvallur, Tamil Nadu. Total plot area is 40470.65 m², of which green belt will be developed in 16187 m² area i.e 39%. Cost of project is Rs. 22 Crore. It is reported that no Eco-sensitive area national park is located within 10 km distance. Arani river is flowing at a distance of 8.2 Km south. It is reported that reserved forests namely Thervoy – 2.77 km east, Periya Puliyur- 1.7 km south, Palem range- 7.8 km west and Siruvadai- 4.4 north are located within 5 km of the project site. There water bodies namely Senkarai lake- 0.86 km (north), Thervoy Kandigai lake - 0.87 km (east), Poovilambedu pond- 5.6 km (North east) , Kakkavakkam lake – 6.5 km (South) within 10 km of the project site.

The proposed project is an installation of above ground storage tank. The project involves storage and filling. The proposed facility will receive LPG through road by tankers from Tuticorn. The LPG from tankers is unloaded and stored in two bullet tank of 125 MT and bullet of 50 MT. Total 10 m³/day of fresh water will be used. Against this, 2 m³/day of

process and 3 m³/day of paint booth washing wastewater will be generated, which will be treated in ETP.

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 list of hazardous chemicals to be stored alongwith storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
6. Risk Assessment & Disaster Management Plan
 - Identification of hazards
 - Consequence Analysis
 - Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
 - Onsite and offsite emergency preparedness plan.

B. Additional TOR

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

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

2.7.2 Development drilling of 72 wells at District East Godavari, West Godavari and Krishna, Andhra Pradesh by M/s ONGC – reg TOR.

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

M/s ONGC Ltd. has proposed development drilling of 72 wells at District East Godavari, West Godavari and Krishna, Andhra Pradesh. As per Form-1, it is reported that no wells are falling within forest area, wildlife zone and eco sensitivity zone. Total cost of Rs. 792 Crores for drilling of 72 wells is involved. Area required for drilling will be approx. 5-6 acres for each location.

Development activities are confined to two on land PML blocks, viz., West Godavari and Godavari Onland, in the Krishna Godavari Basin, Andhra Pradesh. These two PML blocks spread over in 3 districts viz., East Godavari, West Godavari and Krishna Districts of

Andhra Pradesh. Under the present proposal EC is sought in respect of 72 locations out of which 16 locations are of West Godavari PML Block. Out of these 16 locations 2 locations are in West Godavari and 14 locations are in Krishna district. The remaining 56 locations are of Godavari Onland PML Block. Out of these 56 locations, 8 locations are falling in West Godavari District and 48 locations are falling in East Godavari District of A.P. The operational areas in KG Basin On-land cover 3454.32 sq.km.

Details of wells are;

S. no.	District	Field	PML Block	Proposed locations in the respective field
1	East Godavari	Mandapeta	Godavari Onland	12
2		Kesanapalli west	Godavari Onland	12
3		Pasarlapudi	Godavari Onland	8
4		South Pasarlapudi	Godavari Onland	4
5		Ravulapalem	Godavari Onland	4
6		Koravaka	Godavari Onland	2
7		Geddanapalli	Godavari Onland	2
8		Mukkamala	Godavari Onland	2
9		East Rangapuram	Godavari Onland	2
TOTAL				48
10	West Godavari	Elamanchili	Godavari Onland	2
11		Bantumilli south	Godavari Onland	6
12		Suryaraopeta	West Godavari	2
TOTAL				10
13	Krishna	Malleswaram	West Godavari	12
14		Vanadurru South	West Godavari	2
TOTAL				14
TOTAL wells proposed in the three districts 72				

D.G. sets will be used during drilling operation. Acoustic enclosures will be provided to D.G. sets. Consumption of fuel (HSD) during drilling operations will be approximately 3-4 KL/day

About 25 m³/day of water will be required for drilling operation. Waste water will be collected in impervious HDPE lined pits. Water based mud (drilling fluid) will be used for drilling operation. Main constituents of the fluid are Bentonite and Barites, both of which are natural minerals. Storage of Chemicals and additives will be required for proposed activities. All quantities will be below specified thresholds for storage permits under the MSIHC Rules. Precautionary measures will be taken as per The Hazardous Wastes (Management, Handling and Trans-boundary Movement) Amendment Rules, 2009.

PP informed that with regard to development drilling, the public hearings have recently been conducted for the same districts in the year of 2014 and 2015 where new drillings are proposed. It was informed that public hearing was held on 08.01.2014 at Kaikalur in Krishna District, on 13.03.2014 at Penugonda in West Godavari district and on 06.01.2015 at Mandapeta in East Godavari District respectively for development drilling on which TORs issued vide letter no. No J-11011/31/2012-IA II. PP accordingly requested for exemption of Public hearing in the same districts.

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

A. Standard TOR

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.
5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area alongwith map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980 as project involves forest land.
7. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
8. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
9. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
10. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
11. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
12. Details of Ambient Air Quality monitoring at 8 locations for PM_{2.5}, PM₁₀, SO₂, NO_x, CO, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Measurement of Noise levels within 1 km radius of the proposed wells.
16. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
17. Incremental GLC as a result of DG set operation, flaring etc.
18. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.

19. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
20. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
21. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, *etc.* during all project phases.
22. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc.* including its disposal options during all project phases.
23. Disposal of spent oil and lube.
24. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
25. Commitment for the use of water based mud (WBM) only
26. Oil spill emergency plans for recovery/ reclamation.
27. H2S emissions control.
28. Produced oil/gas handling, processing and storage/transportation.
29. Details of control of air, water and noise pollution during production phase.
30. Measures to protect ground water and shallow aquifers from contamination.
31. Whether any burn pits being utilised for well test operations.
32. Risk assessment and disaster management plan for independent reviews of well designed construction *etc.* for prevention of blow out. Blowout preventer installation.
33. Environmental management plan.
34. Total capital and recurring cost for environmental control measures.
35. Emergency preparedness plan.
36. Decommissioning and restoration plans.
37. Documentary proof of membership of common disposal facilities, if any.
38. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
39. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
40. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

B. Additional TOR

1. Public hearing is exempted as per 7 (ii) of EIA, Notification 2006.
2. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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

2.7.3 Expansion of bulk drug manufacturing unit (from 103.83 MTPA to 189.03 MTPA) at Plot No. 1482- 1486, Trasad Road, Taluka Dholka, District Ahmedabad, Gujarat by M/s Concord Biotech 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 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 Concord Biotech Limited has proposed for expansion of bulk drug manufacturing unit (from 103.83 MTPA to 189.03 MTPA) at Plot No. 1482- 1486, Trasad Road, Taluka Dholka, District Ahmedabad, Gujarat. The existing plant has obtained the EC by this Ministry's letter no. J-11011/188/2007-IA II(I) date d 10.08.2007. Total plot area is 38 acres. Cost of project is Rs. 20 crore, out of which Rs. 4.5 crore will be used for environmental pollution control measures. As per Form-, it is reported that no ecologically sensitive area wildlife sanctuary, reserved forests/protected forests and historical place is located within 10 km distance. Following products will be manufactured:

Sr. No.	Name of Product	Quantity (MTPA)		
		Existing	Proposed	Total
A	Enzyme – 25.0 MTPA			
1	Amidase Enzyme	15	10	25
B	Antibiotic – 23.1 MTPA			
2	Vancomycin	3	1	4
3	Teicoplanin	1	1	2
4	Daptomycin	0.5	0	0.5
5	Fidaxomycin	3	0	3
6	Mupirocin & salts	6	2.5	8.5
7	Fosfomycin	1	0	1
8	Dalbavancin	0.5	0	0.5
9	Telavancin	0.5	0	0.5
10	Capreomycin	0.1	0	0.1
11	Tobramycin sulphate	2.5	0	2.5
12	Oritavancin	0	0.5	0.5
C	Antiparasitic – 1.90 MTPA			
13	Milbemycin oxime	1	0.9	1.9
D	Antifungal- 1.98 MTPA			
14	Pneumocandin Bo	0.2	0	0.2
15	Caspofungin	0.2	0	0.2
16	Micafungin	0.93	0	0.93
17	Anidulafungin	0.65	0	0.65
E	Immunosuppressant-122 MTPA			
18	Tacrolimus	1	0	1
19	Mycophenolic Acid	0.5	0	0.5
20	Cyclosporine	7	0	7

21	Rapamycin	0.3	0.2	0.5
22	Mycophenolate Mofetil & Mycophenolate sodium	45	68	113
F	Onco products-4.05 MTPA			
23	Ixabepilone	0.1	0	0.1
24	Romidepsin	0.1	0	0.1
25	Temsirolimus	0.05	0	0.05
26	Everolimus	0.6	0.4	1
27	Ridaforolimus	0.05	0	0.05
28	Pimecrolimus	0.5	0	0.5
29	Doxorubicin	0.6	0.25	0.85
30	Daunorubicin	0.45	0.15	0.6
31	Epirubicin	0.2	0	0.2
32	Idarubicin	0.1	0	0.1
33	Bleomycin	0.1	0	0.1
34	Geldanamycin	0.1	0	0.1
35	Mitomycin	0	0.1	0.1
36	Dactinomycin	0	0.1	0.1
37	Trabectedin	0	0.1	0.1
G	Statin – 9 MTPA			
38	Lovastatin	7	-1	6
39	Pravastatin	1	0	1
40	Orlistatin	2	0	2
H	R & D Products			
		1	1	2
Total		103.83	85.2	189.03

In the existing plant, furnace oil fired boilers (2 nos.) has already been installed alongwith DG set having capacities (1000 KVA & 680 KVA). In the proposed expansion additional DG set having 1000 KVA capacity will be installed. Boilers are connected with stacks of adequate height.

Total fresh water requirement from ground water source will be increased from 399.5 m³/day to 556 m³/day after expansion. Wastewater generation will be increased from 210 m³/day to 399 m³/day after expansion. The process waste water will be treated in ETP with RO treatment alongwith MVR/MEE. Condensate of MEE & RO reject will be utilized for cooling. Entire quantity of treated effluent will be used for greenbelt. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil will be sent to the authorized recycler/re-processor. Waste residue, distillation residue and spent carbon will be sent to common incineration facility.

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

B. Additional TOR

- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. A separate chapter on status of compliance of Environmental Conditions granted by 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.
- iii. To analyse/ enlist microbes in extraction and disposal.

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.

2.7.4 Expansion of Synthetic Organic Chemicals Manufacturing Unit at Plot No. 21 & 22, Block No. 395/4 & 396/P, Village Moraiya, Taluka Sanand, District Ahmedabad, Gujarat by M/s Macro Polymers Pvt. Ltd. (Unit-3)- 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 Macro Polymers Pvt. Ltd. (Unit-3) has proposed for expansion of synthetic organic chemicals manufacturing unit at Plot No. 21 & 22, Block No. 395/4 & 396/P, Village Moraiya, Taluka Sanand, District Ahmedabad, Gujarat. The existing unit was established in the year 1998. It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No information regarding Environmental sensitivity has been provided in the Form-1 however, during presentation it was informed Sabarmati River is flowing at a distance of 7.1 km and Moti Devati Lake is at a distance of 3.3 km at North-East direction.

Total plot area is 4770 m², of which an area earmarked for greenbelt is 200 m². Committee suggested for enhancement of greenbelt as per the guidelines. Total project cost including existing facilities is Rs. 75 Lakh. Following products will be manufactured:

Sr. No.	Name of Products	Production Capacity (MT/Month)		
		Existing	Proposed	Total after Expansion
1	Industrial & Decorative Coating Polymers	30	Nil	30
2	Purified Butanol /Glycerin (by rectification / distillation / extraction only)	510	Nil	510
3	Resin Solutions (by Formulation)	1500	(-) 1000	500
4	Resin manufacturing by synthesis	Nil	1000	1000
	A. Alkyd Resins			
	B. Polyamide Resins			
	C. Polyester Resins			
	D. Acrylic Resins			
	E. Rosin Esters and Derivatives			
5	Resin manufacturing by synthesis	Nil	500	500
	A. Amino Resins (Melamine resin/ Urea resin/ Phenol Resins)			
	B. Ketonic Resins			
By-Product				
1	Caustic Lye (45%)	Nil	870	870

Coal/ briquette fired Thermic Fluid Heater (15 lac Kcal/Hr) will be installed with multi cyclone separator followed by bag filter and connected with common stack of 33 m height. Stack of 7m height will be provided to the proposed DG sets of 160 KVA.

Ground water will be used as source of water. Total 23 m³/day of water will be used. Effluent generated from process, will be treated in ETP based on anaerobic and aerobic treatment. Waste water shall be treated with H₂O₂ to decompose phenol at source and then transfer to ETP. Treated effluent will be used for horticulture. The plant is based on ZLD.

Solid/ Hazardous waste will be segregated and stored in suitable containers/ HDPE bags and place in elevated covered platform with leachate collection system before sending to authorized agencies. ETP Sludge and Evaporation residue will be sent to TSDF. Used Oil used within premises as a lubricant / sold to registered recycler. Waste and residue, filler residue will be collected, stored and disposed to TSDF site.

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

A. Specific TOR

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

B. Additional TOR

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

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

2.7.5 Setting up of Synthetic Organics (Polyurethane-300 MMTPM) Unit at Block No. 176, Village Kadodara, Taluka Palsana, District Surat, Gujarat by M/s Radhey Foam 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 (Polyurethane-300 MMTPM) 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 Radhey Foam Pvt. Ltd. has proposed for setting up of synthetic organics unit at Block No. 176, Village Kadodara, Taluka Palsana, District Surat, Gujarat. It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Tapti is flowing at a distance of 12.8 km in North-West direction.

Total plot area is 11100 m², of which an area earmarked for greenbelt is 4415 m². Total Project cost including existing facilities is Rs. 1.95 crore. Polyurethane- 300 MMTPM will be manufactured.

50KVA power will be sourced from Daxin Gujarat Vij Company. A standby DG set of 50 KVA capacity will be installed. Ground water will be used as source of water. Total 26.3 m³/day of water will be used. Effluent generated from process, will be treated in ETP with minimal quantity.

Solid/ Hazardous waste will be segregated and stored in suitable containers/ HDPE bags and place in elevated covered platform with leachate collection system before sending to authorized agencies. Used Oil used within premises as a lubricant / sold to registered recycler. Waste foam will be reused. Carbon waste residue will be collected, stored and disposed to TSDF site. Discarded container will be send for recycling.

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

A. Specific TOR

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

B. Additional TOR

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

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

hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

2.7.6 Setting up of grain based distillery (55 KLPD) Plot No. 200 to 208, Village Kanaka, Tehsil Khallikote, District Ganjam, Orissa by M/s Chillika Distilleries Pvt. Ltd. – reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level. However, it is noted that proposed project is for setting up 55 KLPD grain based distillery which is less than threshold quantity of 60 KLPD for its appraisal at Central level. Further, it is observed that as per Form-1 submitted by the PP, the project does not attract General Condition.

Therefore, the Committee recommended the proposal to transfer the State Authority (SEIAA/SEAC, Odisha) for consideration.

2.7.7 Expansion of Pesticide unit at S. P. 3- 7/B (B1+B2), Keshwana Industrial Estate, Taluka Kothputli, District Jaipur, Rajasthan by M/s Agrow Allied Ventures Pvt. Ltd.- reg. TOR

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

M/s Agrow Allied Ventures Pvt. Ltd. has proposed for expansion of pesticide unit at S. P. 3- 7/B (B1+B2), Keshwana Industrial Estate, Taluka Kothputli, District Jaipur, Rajasthan. The existing unit has been issued the Environmental Clearance vide letter no J-11011/261/2012 dated 30th January 2015. Cost of proposed expansion is 12 Crore of which 2 Crore will be used for environmental pollution control measures. Plot area is 40400 m². It is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Following products will be manufactured:

Sr. No.	Name of product	Quantity (MT/month)		
		Existing	Proposed	Total
1.	2,4-D Sodium Salt	173	00	173
2.	2,4-D Acid Technical	141	00	141
3.	2,4-D Amine Salt	150	00	150
4.	2,4-D Ethyl Ester Technical	50	00	50
5.	Clodinafop- Propargyl Chloride Technical	1.7	00	1.7
6.	Lambda Cyhalothrin Technical	1.7	00	1.7
Herbicides				
7.	Glyphosate	00	50	50
8.	Pretilachlor	00	20	20
9.	Atrazine	00	10	10
10.	Imizathypr	00	10	10

11.	Sulphosulpron	00	2.5	2.5
12.	Metsulphron	00	2.5	2.5
13.	Metribuzin	00	10	10
14.	Quizalafop - p- ethyl	00	10	10
15.	Oxyflurofen	00	10	10
16.	Pendimathalien	00	20	20
17.	Bispyribac Sodium	00	10	10
Insecticides				
18.	Diafenthuron	00	20	20
19.	Imidacloprid	00	10	10
20.	Acetamiprid	00	10	10
21.	Thiamethoxam	00	10	10
22.	Cypermethrin	00	20	20
23.	Permethrin	00	10	10
24.	Delta cypermethrin	00	10	10
25.	Buprofezin	00	10	10
26.	Fipronil	00	10	10
27.	Thiophenate methyl	00	10	10
28.	Emamectin benzoate	00	10	10
29.	Bifenthrin	00	10	10
30.	DDVP	00	10	10
31.	Chlorpyriphos	00	20	20
32.	Indoxacarb	00	05	05
33.	Novaluron	00	10	10
34.	Fenpyroximate	00	10	10
Fungicides				
35.	Azoxystrobin	00	15	15
36.	Tricyclozole	00	10	10
37.	Hexacanazole	00	10	10
38.	Mancozeb	00	150	150
39.	Metalexyl	00	10	10
40.	Diafenaconzole	00	10	10
41.	Propiconazole	00	10	10
42.	Tebuconazole	00	10	10
Intermediates				
43.	MPBD	00	25	25
Total		517.4	600.0	1117.4
By-Products				
1	HCl (28 to 30%)	100	50	150
2	Recovered Di Chloro Phenol (30%)	60	00	60

Total	160	50	210
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Pesticides Formulation		Existing MT/Annum	Propose MT/Annum	Total MT/Annum
Pesticide (Fungicides, Herbicides & Insecticides)				
1	Liquid	12300	0	12300
2	Powder	5500	0	5500
3	Granule	2200	0	2200
Total		20000	0	20000

Cyclone followed by bag dust collector is provided to coal fired boiler (2TPH). DG set (2nos.- 300 KVA each) already exists. Further boiler (coal fired) having capacity of 5 TPH will be connected to cyclone and bagfilter. DG set (2 nos. - 500 KVA each) will be installed and connected with stack of adequate height.

Water requirement from ground water source will increase from 40.5m³/day to 149 m³/day. Against this quantity of wastewater will increase from 21.45 m³/day to 111.5 m³/day. Effluent generation will be 3 m³/day. Effluent will be treated in ETP and then sent to RO for reused. RO reject will be sent to ME and condensate of ME will be reused for washing cooling makeup. The plant is based on ZLD.

ETP sludge, MEE salt & inorganic salt from process will be disposed of to TSDF. Process residue will be sent for common incineration. Distillation residue will be sent for incineration or cement factory for co processing. Used oil as lubricant will be sold to registered reprocessor. Discarded containers/ bag will be sent to the authorized 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:

A. Specific TOR

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

- Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area.
- ii Plan for odour control.
- iii Ban items not to be covered for manufacturing.
- iv 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**' 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.

2.7.8 Manufacturing of Chlorinated Paraffin at Sy. No. 62/A, Village Gondiparla, Mandal and District Kurnool, Andhra Pradesh by M/s Shivtek Industries Private Limited – reg TOR

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

2.7.9 Proposed Carbon Black- 15,000 MT/Month, Coal Tar Pitch-25,000 MT/Month, Napthalene- 4000 MT/Month, S.N.F/ Dispersing agent Phenol based- 7500MT/month, P.C.E – 2500 MT / month (Proposed), Heavy & light cresote oil- 21000 MT / Month, Tail Gas- 7,00,000,00 NM3/Month (for 15000 TPM of Carbon Black Manufacture) at Village Mahistikry, Taluka Haripal, District Hooghly, West Bengal by M/s. Himadri Chemicals and Industries Ltd. – confirmation of TOR.

The proposal was considered in 46th EAC meeting for industry-2 held during 20-21st August 2015 wherein the Committee noted that a court case no. 77/2014/PB/1EZ against the project is pending in the NGT, wherein the Honble Court has directed the Company to obtain the environmental clearance for the existing carbon black unit. In this regard, the Committee was of the view that under these circumstances the proposal is treated for the post facto Environmental Clearance. The Committee further added so as whether it is to be considered as a case of violation before considering the environmental clearance. Accordingly the proposal was referred to the Ministry for taking view.

Further proposal examined in the Ministry and it is observed that the Carbon black was introduced in the EIA, Notification's Schedule on 25.06.2014. While, the unit was established prior to 25.06.2014. Therefore, it cannot be treated as a case of violation. In this background the proposal is again referred to EAC for consideration of Terms of Reference. The committee in its 2nd EAC meeting held during 16-17th December 2015 recommended the same TOR which has been issued to PP electronically alongwith Public hearing in addition to following additional TOR

- i A separate chapter on status of compliance of Environmental Conditions granted by State 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.

2.7.10 Proposed expansion of Chlor-Alkali plant and Thermal Power Plant at plot no. CH-17, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat by M/s Gujarat Alkalies and Chemicals Ltd.- reg TOR

The project authorities and their 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 Chlor-Alkali Industries having production capacity more than 300 TPD and located outside notified industrial area are listed at 4(d) under category 'A' and appraised at Central level.

M/s Gujarat Alkalies and Chemicals Ltd. has proposed for expansion of Chlor-Alkali plant and Thermal Power Plant at plot no. CH-17, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat. It is reported that no environmental sensitivity such as wildlife sanctuary/eco sensitive zone/ reserve forest is involved within 10km radius of the project site. Total cost of the project is Rs. 1839.32 crores. Plot area of the site is 28.944 ha. Following products will be manufactured:

S. No.	Products	Existing capacity (MTPM)	Additional Proposed Capacity (MTPM)	Total capacity after expansion (MTPM)
1	Caustic Soda (100%) Lye/Prills/Flakes	23550	24000	47550
2	Chlorine Gas	20784	21264	42048
3	Hydrochloric acid	7260	5580	12840
4	Hydrogen Gas	695.1	523	1218.1
5	Sodium Hypochlorite	1019	1019	2038
6	Dilute Sulphuric acid (78-80%)	589	461	1050
7	Gypsum	780	0	780

Details of Existing and Proposed capacity of Captive power Plant (CPP)

S. No	Plant	Existing capacity (MW)	Additional Proposed (MW)	Total after expansion (MW)
1.	Coal based Captive Power Plant			
a.	Power	0	120	120
b.	Steam	0	60TPH	60TPH
2.	Natural Gas Based Captive Power Plant			
a.	Power	70,560 MWH/M		--
b.	Steam	120 TPH HP 24 TPH IP		

The power required for proposed unit will be met from 120MW captive power plant. For emergency the demand will be met from existing 5 (nos.) 1 MW capacity. ESP will be provided to contain particulate matters from power plant and connected to stack of adequate height. Three stage caustic scrubbing system will be provided for control of chlorine in addition to single stage water scrubbing system for HCl.

Water will be supplied by GIDC and total water required for proposed unit will be 22200 m³/day of which 11200 m³/day for chlor-alkali plant and 11000 m³/day for coal based thermal power plant. The influent will be treated in ETP based on ion exchange process. The liquid effluent collected from various section of the plant will be primarily the acidic wastes produced during secondary brine purification & DM water unit. All these effluent will be collected in effluent collection pit for pH adjustment. 32 % HCl and 32 % NaOH will be dosed in controlled rate in the collection pit for pH adjustment of collected effluent. The treated effluent (after pH correction) is collected in treated water collection pit, from there it will be pumped to lagoon and sent for sea discharge through subsea pipeline.

Brine sludge from caustic soda plant with approximate quantity of 28800 MTPA will be stored and disposed within owned TSDF site. Fly ash of quantity 60000 MTPA shall be sent to cement manufacturing plant.

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

A. Specific TOR:

1. Details on demand of the product- chlorine and its associated products.
2. Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, etc.), its storage and handling.
3. Details of proposed source - specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, etc.) and equipments to meet the national standards.
4. Details on products to be stored and handling-chlorine, caustic soda, etc.
5. Details on tail gas treatment.
6. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
7. In case of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new units in the existing industry premises, remediation measures adopted to restore then environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
8. Details on ground water quality and surface water quality of nearby water sources and other surfaced rains. The parameters of water quality may include Residual chlorine*, TDS*, alkalinity*, pH* & Mercury* (in water & sediment), etc. (*- As applicable)
9. Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO₂*, NO_x*, CO₂*, CO*, Chlorine*, acid mist* etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*-As applicable)
10. Specific programme to monitor safety and health protection of workers.
11. Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
12. Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management plan.

CPP:

- 1) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram.

- Details of water balance calculated shall take into account reuse and re-circulation of effluents.
- 2) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
 - 3) Plan for recirculation of ash pond water and its implementation shall be submitted.
 - 4) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
 - 5) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc. should also be furnished.
 - 6) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
 - 7) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
 - 8) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.

B. Additional TOR:

- i Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii 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.
- iii CRZ clearance is to be obtained.
- iv Impact of effluent on marine life.

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.

2.8 Any Other

2.8.1 Proposed capacity expansion from 60 KLPD to 90 KLPD for distillery unit at village Bhadson, block Indri, DistKarnal, Haryana by M/s Piccadily Agro Industries Limited- reg. amendment in EC.

MoEF vide letter no J-11011/495/2008 – IA II (I) dated 19th August, 2008 has granted environmental clearance to M/s Piccadily Agro Industries Limited for expansion of distillery unit from 60 KLPD to 90 KLPD (60 KLPD on molasses and 30 KLPD on molasses/grain).

Now, M/s Piccadily Agro Industries Limited has proposed for amendment in Environmental Clearance regarding use of raw material (Grain / Molasses) in Existing Distillery Unit at Village Bhadson, Umri Road, Tehsil Indri, District Karnal (Haryana). The amendment is mentioned in the table below:-

Particulars	Existing	After Amendment in EC
Distillery	90 KLPD (30 KLPD Grain + 60 KLPD Molasses Based Or 90 KLPD Molasses Based)	90 KLPD (90 KLPD Grain / Molasses Based)
Cogeneration Power Plant	3 MW	No amendment
Products	RS/ENA/Malt/Fuel Ethanol	No amendment
Number of working days	270 days/annum	330 days/ annum

Presently and after proposed amendment also, there is/will be no capacity enhancement. The only change will be in the mode of operation i.e. both molasses & grain will be used in 90 KLPD distillery. The project is/will be based on "Zero Effluent Discharge". *Total plant area is 28.3 ha (70 acres) of which area earmarked for Greenbelt / Plantation Area (ha) is 9.3 ha. Total Cost of the Expansion Projects' Rs. 25 Crores, which will be used for implementation of EMP. Fresh water requirement for Grain Based Distillery 777 KLPD (8.63 KL/KL) or Molasses Based Distillery is 873.3 KLPD (9.7 KL/KL) and for bottling & blending = 250 KLPD*

PP informed the following reasons for proposed amendment :

- i. Low availability of molasses in the area.
- ii. Area is rich in grain availability due to presence of number of rice mills.
- iii. To keep the option of both grain & molasses as raw material so that in case of non availability of one raw material other than can be used & the distillery remains operational.
- iv. On grain based operation, DDGS (Distiller's Dry Grain Soluble) generated as by product will be used as cattle feed.
- v. Project will be based on 'Zero' effluent discharge.
- vi. No increase in the existing capacity.
- vii. Reduction in water consumption – Grain operation 9 KL/KL & molasses operation 10 KL/KL.
- viii. No additional land is required for proposed amendment.

Ministry's RO (Northern Region) vide their letter no. 4-220/2006-RO (NZ)/ 537 dated 15.10.2015 has forwarded the certified compliance report of the environmental conditions stipulated in the existing EC. The Committee was satisfied with the compliance report.

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

- i) Bagfilter shall be provided to slop /bagasse/coal fired boiler (25 TPH) to control particulate emissions.
- ii) Total fresh water requirement from ground water source for Grain Based Distillery shall not increase 777 KLPD (8.63 KL/KL) or for Molasses Based Distillery shall not increase 873.3 KLPD (9.7 KL/KL) and for bottling & blending shall not increase 250 KLPD. Prior permission shall be obtained from the CGWA/SGWA.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE. Concentrated spent wash shall be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated and recycled/reused in process. Spent wash generation from molasses based distillery shall not exceed 6 KI/KI of alcohol produced. Spent wash from grain based distillery will be passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- iv) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

2.8.2 Additional Exploratory Drilling(23 wells) at NELP-II Block KG-ONN-2004/1 by M/s Oil India Ltd.-reg. Amendment in EC.

M/s Oil India Ltd. has proposed for drilling of additional exploratory drilling of 23Wells in East Godavari District, AP.

The Committee noted that PP has submitted incomplete Form1. Basic information containing only 4 points have been submitted instead of 24 points. Therefore, the Committee suggested them to fill up online form-1 for TOR, not as amendment as this is case of new project for additional wells. The proposal is rejected from the amendment list.

2.8.3 Expansion of Chemical Manufacturing unit (Pigment; from 15 MTPM to 280 MTPM) at Block No. 231 & 232,Village Ekalbara, Tehsil Padra, District Vadodara Gujarat by M/s Greenovat Organics Pvt. Ltd. –reg amendment in EC.

MoEF vide letter no J-11011/606/2010 - IA II (I) dated 25.06.2015 has granted environmental clearance to M/s Greenovat Organics Pvt. Ltd. for the above mentioned project with the following specific conditions:

- i) Total industrial effluent generation shall not exceed 67 m³/day. As proposed, industrial 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. Domestic sewage should be treated in STP.

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

Now, PP informed that they have obtained the membership dated 11.06.2015 of CETP, M/s EICL, Umraya for discharging effluent (80 m³/day) to the CETP after pretreatment in the ETP. PP also informed that as per actual proposal, wastewater generation will be increased from 18 m³/day to 80 m³/day after expansion. Now, PP has requested for amendment in the EC conditions.

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

- i) Total industrial effluent generation shall not exceed 80 m³/day. Effluent shall be treated in ETP. Treated effluent shall be discharged to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent from ETP shall be monitored regularly. Domestic sewage should be treated in STP.
- ii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

2.8.4 Mankapur Chini Mills, Distillery Division, 100 KLD Distillery at Village Datauli, Mankapur Gonda Uttar Pradesh by M/s Mankapur Chini Mills Distillery Division –reg. amendment in EC condition.

MoEF vide letter no J-11011/318/2006 IA II (I) dated 04.12.2006 has granted environmental clearance to M/s Mankapur Chini Mills Distillery Division for the above mentioned project. Now, PP has requested for following amendments:

- (i). Increase in number of operational days of distillery plant from 270 days to 330 days.
- (ii). Amendment in spent wash treatment system concentration & incineration alongwith energy recovery (6.6 MW).

PP informed that Spent wash will be concentrated in MEE and concentrated spent wash will be incinerated in slop fired boiler to achieve Zero discharge. Other effluent i.e. spent lees, condensate and utilities effluent will be treated in the Effluent Treatment Plant. Treated effluent will be used for cooling tower make up, boiler feed water and in process. No effluent will be discharge outside the plant premises. Bagfilter will be provided to bagasse/slop fired boiler (45 TPH) to control particulate emission. Ash will be used as manure.

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

- i. Working day of distillery will be 330 days
- ii. Spent wash generation shall not exceed 8 KL per KL of alcohol produced i.e. 800 m³/day.
- iii. Spent wash shall be concentrated in MEE and concentrated spent wash shall be incinerated in bagasse/slop fired boiler to achieve Zero discharge. Other effluent

- i.e. spent lees, condensate and utilities effluent shall be treated in the Effluent Treatment Plant comprising secondary and tertiary treatment facilities. Treated effluent shall be reused/recycled for cooling tower make up, boiler feed water and in process.
- iv. No effluent from distillery, sugar and cogeneration power plant shall be discharged outside the premises and Zero discharge concept shall be adopted.
 - v. Bagfilter alongwith stack of adequate height shall be provided bagasse/slop fired boiler
 - vi. Fresh water requirement shall not exceed 10 KL per KL of alcohol produced i.e. 1000 m³/day for distillery.
 - vii. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

2.8.5 150 KLPD molasses based distillery and 6 MW Co-generation power project at MIDC Tembhorni, Village Tembhorni Taluka Madha, District Solapur, Maharashtra by M/s Khandoba Distilleries Ltd.- reg. amendment in EC.

MoEF&CC vide letter no J-11011/773/2007 IA II (I) dated 16.01.2008 has granted environmental clearance to M/s Khandoba Distilleries Ltd. for the above mentioned project. Now, PP has requested for the following amendments in the EC conditions:

- i) Anaerobic digestion of the spent wash for recovery of methane, concentration of digested spent wash effluent (from anaerobic digester) in MEE, drying of concentrated effluent (approx. 70% solids) in a drier, palletizing the dried spent wash and finally burning the pellets in the incineration boiler.
- ii) Modification of APCD in the incineration boiler.
- iii) Utilization of ETP sludge, yeast sludge in the incineration boiler with concentration and dried spent wash.
- iv) Inclusion of ENA and anhydrous ethanol as product alongwith rectified spirit/export quality rectified spirit/special denature spirit.

After detailed deliberation, the Committee recommended the aforesaid amendments except point no (ii).

2.8.6 Expansion of Bulk Drugs Manufacturing Unit at Plot No. 582, ECP Road, Village Luna, Taluka Padra, Districts Vadodara, Gujarat by M/s Paragon Organics- reg. amendment in EC.

MoEF vide letter no J-11011/603/2009 - IA II (I) dated 24.12.2012 has granted environmental clearance to M/s Paragon Organics for the above mentioned project with the following specific conditions:

- i) Total effluent generation shall not exceed 20 m³/day. Industrial effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and agitated thin film drier (ATFD). Low TDS/COD effluent stream shall be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment (RO system). Condensate and recover water shall be recycled/reused within factory premises. The domestic effluent shall be treated in STP.
- ii) No effluent shall be discharged outside the premises and 'Zero' effluent discharge concept shall be followed.

Now, PP informed that they have obtained the membership dated 31.08.2015 of CETP, M/s EICL, Umraya for discharging effluent (22 m³/day) to the CETP after pretreatment in the ETP. Now, PP has requested for amendment in the EC conditions.

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

- i) Total industrial effluent generation shall not exceed 22 m³/day. Effluent shall be treated in ETP. Treated effluent shall be discharged to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent from ETP shall be monitored regularly. Domestic sewage should be treated in STP.
- ii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

2.8.7 Expansion of Dyes & Pigments Intermediates Manufacturing Unit at Survey no. 73 behind GEB Sub-station, Village Karkhadi, Taluka Padra, District Vaodara, Gujarat by M/s Philoden Agrochem Pvt. Ltd.- Environment Clearance reg.- reg. Amendment in EC.

MoEF vide letter no J-11011/56/2010 - IA II (I) dated 10.08.2015 has granted environmental clearance to M/s Philoden Agrochem Pvt. Ltd. for the above mentioned project. Now, PP has requested for the following amendments in the EC conditions:

S.N.	Existing Condition	To be amended in EC
1	Industrial effluent shall be segregated into high COD, high TDS and low COD/TDS effluent streams. As proposed, High COD effluent stream shall be incinerated. High TDS effluent shall be treated with steam stripper followed by RO. Low COD/TDS effluent will treated in ETP. Rejects from RO should be evaporated in MEE. Treated effluent and Condensate and recovered water shall be recycled/reused within factory premises. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.	Industrial effluent shall be segregated into high COD, high TDS and low COD/TDS effluent streams. As proposed, High COD effluent stream shall be passed through steam stripper and treated in MEE followed by ATFD. Low TDS effluent stream (93 m ³ /day) shall be treated in the ETP comprising primary and secondary effluent treatment facilities. Treated effluent shall be sent to the EICL Umaraya for further treatment.

Now, PP informed that they have obtained the membership dated 02.06.2015 of CETP, M/s EICL, Umraya for discharging effluent (100 m³/day) to the CETP after pretreatment in the ETP. Now, PP has requested for amendment in the EC conditions.

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

- i) Industrial effluent shall be segregated into high COD, high TDS and low COD/TDS effluent streams. As proposed, High COD effluent stream shall be passed through steam stripper and treated in MEE followed by ATFD. Low TDS effluent stream (93 m³/day) shall be treated in the ETP comprising primary and secondary effluent

treatment facilities. Treated effluent shall be sent to the EICL Umaraya for further treatment after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent from ETP shall be monitored regularly. Domestic sewage should be treated in STP.

- ii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

2.8.8 Capacity Expansion of Mundra- Bathinda Pipeline from 9MMTPA to 11.25MMTPA by converting of 2 of its 4 intermediate pigging stations into pumping stations by M/s HPCL-Mittal Energy Limited.- reg EC.

The Committee found that PP has submitted application for one section of pipeline expansion instead of entire stretch. Therefore, the Committee suggested them to submit revised proposal online. The said project proposal shall be considered in the forthcoming meeting without waiting for minutes.

2.8.9 Bulk Drug Manufacturing Unit at Plot/Survey nos 447, 450-52, 455 to 476, 482 to 510 at Village Ontimamidi (Kona), Mandal Thodangi, District East Godavari, Andhra Pradesh by M/s Divis Laboratories Limited Unit-IV- reg. amendment in ToR

MoEF&CC vide letter no J-11011/408/2014 IA II dated 31st March, 2015 has graded TOR for preparation of EIA-EMP report alongwith public hearing.

Now, PP has requested for the following amendment in the TOR letter:

S.N.	Description	TOR points received on 31.03.2015	Points to be amended in the TOR
1	Land Area	198 ha (489 acres)	271.34 ha (670.5 Acres)
2	Net Water Requirement	397.5 KLD (as per Form1 application, water requirement was 6500 KLD)	6500 KLD
3	Production Capacity	15,744.5 TPA	18394.5 MTPA
4	Number of Products	86	95
5	Estimated cost of project	390 Crore	600 Crore
6	Zero Liquid Discharge	As per point no 27 under standard TOR ' Action Plan for Zero discharge of effluent should be included "	As per detailed discussion during the meeting, the treated effluent meeting sea discharge limits will be discharged into sea
7	Sy. Nos.	447, 450, 451, 452, 455 to 460, 482 to 510	66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 447, 450, 451, 452, 455 to 460, 482 to 510
8	Public hearing	Public hearing to be conducted	Proposed project is under Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) so in case PCPIR conducts public hearing then Divi's need not conduct public hearing.

The Committee suggested them that water requirement of project is very high. Therefore, PP should take adequate water conservation measures to reduce fresh water requirement and also explore the possibility to go for Zero effluent discharge mode. Public

hearing exemption can only be given after obtaining EC by the PCPIR for the industrial estate/area otherwise at this stage public hearing to be conducted. After detailed deliberation, the Committee recommended the aforesaid amendment requested except s.n. 8.

2.8.10 One well B-CY-EOT-1 in onshore PEL Block II in Cauvery Basin, Tamilnadu by M/s ONGC –reg. amendment in TOR.

MoEF&CC vide letter no J-11011/2/2011-IA II(I) dated 1.12.2014 has issued TOR for preparation of EIA –EMP report alongwith public hearing. Now, PP has informed that ONGC has already conducted public hearing on 10.07.2014 for development well drilling in onshore located at Deebambalpuram and Neikunnam Villages in Tanjavur District.

Therefore, the Committee recommended the proposal for exemption of public hearing under section 7 (ii) of EIA Notification, 2006 .

2.8.11 Exploratory Drilling of Additional 2 wells in PEL Block L-II located in District Tanjavur, Tamilnadu by M/s ONGC- reg. amendment in TOR.

MoEF&CC vide letter no J-11011/276/2013-IA II(I) has issued TOR to M/s ONGC for preparation of EIA –EMP report alongwith public hearing. Now, PP has informed that ONGC has already conducted public hearing on 10.07.2014 for development well drilling in onshore located at Deebambalpuram and Neikunnam Villages in Tanjavur District.

Therefore, the Committee recommended the proposal for exemption of public hearing under section 7 (ii) of EIA Notification, 2006 .

2.8.12 Expansion of Bulk Drug manufacturing unit of M/s Maithri Laboratories at village Gaddapotharam, Jinnaram, district Medak, AP- reg. amendment of TOR /correction of names.

MoEF&CC vide letter no J-11011/40/2014-IA II(I) dated 8.05.2015 has issued TOR to M/s Maithri drugs Ltd. for preparation of EIA –EMP report alongwith public hearing.

Now, PP has requested for the following corrections :

S.N.	As TOR	Corrections to be done
1	Name of Company i.e M/s Maithri drugs Ltd.	M/s Maithri Laboratories
2	Name of Village i.e. Bonthpally	Gaddapotharam

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

2.8.13 Expansion of Bulk drugs and its intermediate manufacturing unit (120 TPA to 273 TPA) of M/s Maithri Drugs Pvt. Ltd at Sy. No. 205, 222-226 village Bonthpally, TehshilJinnaram, district Medak, Telangana – reg. amendment in TOR

MoEF&CC vide letter no J-11011/39/2014-IA II(I) dated 28.11.2014 has issued TOR to M/s M/s Maithri drugs Pvt. Ltd. for preparation of EIA –EMP report alongwith public hearing.

Now PP has requested for the following amendment in the product list:

S N.	As per TOR	Amendment requested
1	Aripiprazole '81 TPA'	Telmisartan '12 TPA'

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

2.8.14 Proposed 45 KLPD distillery unit of M/s. Krantiagrani Dr. G. D. Bapu Lad SahkariSakharKarkhanaLtd., Village Kundal, Tal. Palus, Dist. Sangli, Maharashtra. 4– reg. amendment of TOR.

PP informed that now they want to revise the distillery capacity from 45 KLPD to 60 KLPD. The Committee suggested them to apply fresh form1 for revised capacity of distillery for grant of TOR through online portal and recommended to reject the amendment proposal for revised capacity.

2.8.15 Isolated LPG storage facility (2 x 16,00 MT) at Bharana Village ,Gujarat by M/s Petro Tankages India Limited- reg. amendment in TOR reg.

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

2.8.16 Expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL- reg. amendment in TOR

Ministry vide letter no J-11011/413/2014-IA II (I) dated has granted TOR to HPCL Mumbai Refinery for preparation of EIA-EMP report alongwith public hearing. PP informed that public hearing for MR-II tankage project was conducted on 17.03.2015. Now, PP requested for exemption from public hearing. The Committee noted that public hearing was conducted for Tankages project in adjoining project site. However, this project relates to expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA. Therefore, the Committee recommended to conduct public hearing and incorporate the issues raised alsongwith their comments in the final EIA – EMP report.

2.8.17 Additional Onshore Exploratory Drilling of 20 Wells in PEL Block L-II, District Tiruvurulur, Nagapatnam, Pudukotli, Tanjavur in Tamil Nadu by ONGC.- amendment in TOR

MoEF&CC has issued TOR to M/s ONGC for preparation of EIA –EMP report alongwith public hearing. Now, PP has informed that ONGC has already conducted public hearing on 10.07.2014 for development well drilling in onshore located at Deebambalpuram and Neikunnam Villages in Tanjavur District.

Therefore, the Committee recommended for exemption of public hearing under section 7 (ii) of EIA Notification, 2006. The Committee also suggested them that all three projects of Tanjavur District may be merged and submit consolidated EIA report for a total of 23 exploratory drilling wells.

2.8.18 Environmental clearance for Expansion of Molasses based Distillery from 45 KLPD to 75 KLPD at Nillikuppam town, Panruti Taluk, District Cuddalore, Tamil Nadu by EID Parry- Amendment to EC issued vide letter no.

Ministry vide letter no J-11011/233/2008-IA II (I) dated 15th June, 2015 has issued amendment in the EC for spent wash treatment, wherein following line is mentioned:

“The spent wash generated (302 m³/day) after bio-methanation shall be composted with press mud”

Now, PP vide letter dated 18.06.2015 has requested for the following correction:

S.N.	As per MoEF&CC letter	Correction sought
1	The spent wash generated (302 m ³ /day) after bio-methanation shall be composted with press mud	The spent wash generated (742 m ³ /day) after bio-methanation shall be composted with press mud

The Committee suggested that spent generation shall not exceed 8 KL per KL of alcohol produced i.e. 600 m³/day and accordingly recommended for correction.

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

Proposal was considered in the 38th EAC meeting held during 20th-21st April, 2015 and recommended the following amendment:

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

The proposal was process for approval and the Ministry referred the matter for examination in respect of 33 % greenbelt as at present there is no addl. land is available. Therefore, the Committee recommended the following modification in the above said para :

“Green belt shall be developed in 2.83 acres of land to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.”

2.8.20 Bulk Drugs Manufacturing Unit (2539.43 MTPA) at Sy. No. 99-101, 115, 119, 120, 121, 123, 124, 125, 126, 127, 130, 133, 134, 136, 1160, 112, 17, 118, 1146, 138/A, 122,131,100,113,114,116,128,129,132, Village Ranu, Tehsil Padra, District Vadodara, Gujarat by M/s IPCA Laboratories Limited

Ministry vide letter no J-11011/353/2010-IA II (I) dated 18th January, 2013 has issued EC to M/s IPCA Laboratories with following specific condition:

“The effluent generation shall not exceed 7.45 m³/day”

However, as per record, the actual generation of effluent is 345 m³/day. As per Form-1, actual quantity of bulk drug is mentioned as 2539.43 MTPA.

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

2.8.21 Proposed expansion of Chlor Alkali plant at Gnanananda Place, Kalapet, Pondicherry by M/s Chemfab Alkalis Ltd.- regarding extension of validity of EC

The proposal was considered in 1st EAC meeting held during 30th November 2015 to 1st December 2015. However during processing the Committee's members received a representation from Sh. K.Irisappan who apprehended for submission of wrong information by PP in form-1 for taking extension of EC. To verify this, the Committee was of the view to re-examine the matter in next EAC meeting. The matter has been examined and discussed with PP. it is found that the information submitted by PP is in order.

Now, the Committee recommended the validity of extension of EC till 15.08.2017 subject to compliance of following additional specific condition:

- i. CRZ clearance shall be obtained for laying of pipeline for marine outfall and for discharge of treated wastewater.
- ii. Effluent shall be treated in the ETP. Treated effluent shall be discharged for marine outfall after conforming standard prescribed by the CPCB/SPCB.
- iii. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
- iv. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

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

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

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

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

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

6. **Environmental Status**

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

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

7. Impact and Environment Management Plan

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

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

8. Occupational health

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

9. Corporate Environment Policy

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

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

The following general points shall be noted:

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

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

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 2nd MEETING OF EAC (INDUSTRY-2)
HELD ON 16 – 17th December , 2015

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