

FINAL MINUTES FOR 42nd RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 16-17th June, 2015

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

Time : Meeting held at 10: 00 AM

42.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 30 AM

42.2 Confirmation of the Minutes of the 40th Reconstituted Expert Appraisal Committee (Industry-2) held during 18-19th May, 2015.

16th June, 2015 (Day 1)

42.3 Environmental Clearance

42.3.1 Drilling Operations for On-shore Oil & Gas Exploration 8 wells at Cambay Basin, Block CB-ONN-2010/11 in Ahmedabad & Anand Districts, Gujarat by M/s Gail (India) Ltd. – reg EC.

The project proponent and their consultant (M/s SENES Consultants India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per draft Terms of References (TORs) awarded during the 12th Meeting of the Expert Appraisal Committee (Industry) held during 30th September, 2013 to 1st October, 2013 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in Para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Gail (India) Ltd. has proposed for Drilling Operations for On-shore Oil & Gas Exploration 8 wells at Cambay Basin, Block CB-ONN-2010/11 in Ahmedabad & Anand Districts, Gujarat. Ministry of Petroleum and Natural Gas (MoPNG), Govt. of India, awarded the oil and gas exploration block CB-ONN-2010/11 jointly to M/s. GAIL India Limited (PI-25%), M/s Bharat Petro Resources Limited (BPRL) (PI-25%), M/s Engineers India Limited (EIL) (PI-20%), BF Infrastructure Limited (BFIL) (15%) and Monnet Ispat and Energy Limited (MIEL) under the New Exploration Licensing Policy (NELP). The CB-ONN-2010/11 block covers an area of 131 sq. km and is located in Ahmedabad and Anand Districts of Gujarat. The Production Sharing Contract (PSC) for the Block was signed on 28th March, 2012 and the Petroleum Exploration License (PEL) was made effective from 15th March, 2013. Sabarmati River passes through the block. PP informed that drilling site is located at a distance of 0.4 km and 0.3 km from river and flood plain. It is reported that no forest land is involved within the block boundary. It is reported that no ecological sensitive area is located in the vicinity of the project area. The only nearest bird sanctuary is Nal Sarovar Birds Sanctuary, which is 30km away from the block area. Cost of project is Rs. 160 Crores. The block coordinates are as given below:

Point	Longitude	Latitude
A	72°20'54.00"	22°34'60"
B	72°29'1"	22°35'60"

C	72°28'58.00"	22°33'29"
D	72°26'50.00"	22°31'26"
E	72°27'8.00"	22°23'35"
F	72°21'40.00"	22°28'41"

Depth of drilling will be between 2000 m to 2500m. Estimated drilling period of each well will be 120-150 days. Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during Post Monsoon 2013 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (51.4 µg/m³ to 93.7 µg/m³), SO₂ (11.0 µg/m³ to 14.3 µg/m³) and NO_x (11.54 µg/m³ to 13.4 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.44 µg/m³, 8.81 µg/m³ and 3.6 µg/m³ with respect to PM, NO_x and CO. The resultant concentrations are within the NAAQS. Test flaring will be undertaken in accordance with the CPCB guidelines for discharge of gaseous emissions for oil and gas extraction industry. Water requirement from ground water source will be 40 m³/day. Water based mud will be used. Wastewater generation will be 20 m³/day. The water will be either solar evaporated or adequately treated in the ETP. The drill cuttings will be removed from the fluid by the shale shakers and centrifuges and transferred to the cuttings containment area. Once the drilling fluid/mud has been cleaned it will be returned to the fluid tank and pump down the drill string again. It is estimated that 200 MT of formation cutting and few hundred m³ of mud from spent drilling fluid will be generated in the form of solid waste, during drilling operation. Drill cutting and drilling mud will be disposed off in accordance with Notification dated 30th August, 2005-GSR 546 E point no C " Guidelines for disposal of solid waste, drill cutting and drilling fluids for offshore and onshore drilling operation. During site construction, approximately 40-45 workers are likely to be involved.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 21st January, 2015 for District Anand and 30th January, 2015 for Ahmedabad. The concerns raised were regarding compensation to be paid to farmers; ground water; waste water treatment; restoration after seismic study etc. The Committee noted that these concerns have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

However, after deliberation, the Committee sought following additional information and documents:

- (i) As per page 64 of EIA report, levels of PM_{2.5} are reported in the range of 200 to 472 ug/m³ whereas levels of PM₁₀ are reported in the range of 39.29 to 174 ug/m³. Re-checking the values and the reasons for submitting wrong details in the EIA report to be provided.
- (ii) Reanalyzing Non-methane
- (iii) Reanalyzing water quality of Sabarmati River.

The proposal was deferred for internal consideration till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee underrated the consultant and noted that Consultant needs improvement in monitoring and interpretation of data.

42.3.2 Proposed Installation of Diesel Hydro treatment Unit (DHT) and associated facilities to produce 100% BS-IV HSD (capacity 2.6 MMTPA of DHT) at Village Anik, Mahul, Tehsil Kurla, District Mumbai, Maharashtra by M/s BPCL Mumbai Refinery – Reg EC

The project proponent and their consultant (M/s Engineers India Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 36th Meeting of the Expert Appraisal Committee (Industry) held during 16th-17th March, 2015 for preparation of EIA-EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s BPCL Mumbai Refinery has proposed for Installation of Diesel Hydro treatment Unit (DHT) and associated facilities to produce 100% BS-IV HSD (capacity 2.6 MMTPA of DHT) at Village Anik, Mahul, Tehsil Kurla, District Mumbai, Maharashtra. Plot area is 454 acres. Cost of project is Rs. 2368 Crore. It is reported that there is no national park/ wild life sanctuary/ eco- sensitive area/ reserve forest is within 10 km distance of project site. Configurations of units under proposed DHT project is as given below:

S.N.	Unit Description	Existing Capacity	Proposed Capacity
1	Diesel Hydrotreater Unit	New Unit	2.6 MMTPA
2	Revamp of HGU – II	149 MTPD	194 MTPD
3	Revamp of DHDS SWS Unit	515 MTPD	650 MTPD
4	Revamp of RMP SWS Unit	600 MTPD	735 MTPD
5	New Amine Regeneration Unit	New Unit	2400 MTPD
6	Revamp of SRU Trains	250 MTPD	335 MTPD
7	New Gas Turbine (GT)	New Unit	34 MW

Product Yields of Refinery (Post-DHT scenario)

S. N.	Products	TPD
1	Propylene (Chemical Grade)	255
2	Liquified Petroleum Gas	1310
3	Food Grade Hexane	117
4	Toluene	22
5	Benzene	120
6	SBP	30
7	Combined Naphtha	900
8	Reliance Naphtha	540
9	Euro IV MS-with 750VLI	1934
10	Euro IV MS-with 950 VLI	4972
11	LABFS	151
12	RturnKero	0
13	MTO	300
14	ATF	2160
15	E-III Diesel	0
16	Euro IV Diesel	14304
17	Navy Grade Diesel	360
18	LDO	150
19	LOBS 100	81
20	LOBS 150	81
21	LOBS 500	510.3
22	LOBS 65	67

23	LOBS 250	16.2
24	FO-180 Cst	900
25	FO-380 Cst	3113
26	Bitumen- VG10	201
27	Bitumen –VG30	1800
28	Refinery Fuel	2205
29	CCU Coke	98.4
30	FCC Coke	58
31	Elemental Sulphur	164.9

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 3 locations during January, 2014- January, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (47.5 µg/m³ to 64.1 µg/m³), PM_{2.5} (14.5 µg/m³ to 22.9 µg/m³), SO₂ (6.3 µg/m³ to 8.3ug/m³), NO₂ (18.5 µg/m³ to 27.1 µg/m³) and ammonia (6.6ug/m³ to 10.1ug/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 7.05 µg/m³ and 7.01 µg/m³ with respect to SO₂ and NO_x. The resultant concentrations are within the NAAQS. SO₂ emission load after DHT project will be 10.44 MTPD. Low sulphure fuel oil, H₂S amine treated refinery fuel gas, re-gassified liquefied natural gas (R LNG) with Sulphur free is used as fuel for control of SO₂ emission. Low noise NO_x burner will be installed. Implementation of efficient technologies for minimizing fuel consumption. Provision of SRU based on maximum Claus Recovery Conversion (MCRC) with an efficiency of 99 %. Flare gas recovery system has been provided for recovery of flare gas. Demountable flare system of 125 m height has been provided for better dispersion of gases at elevated height. Fresh water requirement from Municipality of Greater Mumbai will be increased from 13000 m³/day to 16100 m³/day after expansion. Effluent generation will be increased from 135 m³/hr. to 155 m³/hr after expansion, which will be treated in the ETP having capacity of 240 m³/hr. Treated effluent will be recycled fully as make-up water for raw water cooling towers. Sewage will be treated in the STP and treated sewage will be reused for horticulture /gardening purposes. PP informed that a total of 2500 employees are working in the existing refinery and 25 additional employees are proposed. A total 361 MT of cobalt, molybdenum based spent catalyst would generated after every 4 years depending on the catalyst life. The spent catalyst will be sold or recycled as per the existing practices. Metal scrap and packaging materials will be sold for reprocessing. Greenbelt has been developed in 14 acre area of the Refinery and additional 10 acre around Refinery boundary.

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 BPCL 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 10.44 TPD and further efforts shall be made for reduction of SO₂ load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H₂S emissions.
- v. 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.
- vi. Fresh water requirement from Municipality of Greater Mumbai after expansion shall not exceed 16100 m³/day after expansion and prior permission shall be obtained from the competent authority. Industrial effluent generation will be 155 m³/hr and treated in the effluent treatment plant. Treated effluent shall be fully as make-up water for raw water cooling towers. Domestic sewage shall be treated in sewage treatment plant (STP).
- vii. As committed, BPCL needs to implement the outcome of study for water reduction and optimize use of fresh water through water auditing.
- 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 manufacturing process in material handling.
- xii. At least 2.5 % of the total cost of the project 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 Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

42.3.3 Manufacturing of Particle Boards (4000 m³/month) with Captive Resin Unit (Urea formaldehyde Resin (600 MTPM), Phenol Formaldehyde Resin (300 MTPM) and Melamine Formaldehyde (100 MTPM)] at Sys.No.160/P1/P2, Village Lalpur, Taluka Morbi, District Rajkot, Gujarat by M/s Rainbow Laminate Pvt. Ltd – reg EC.

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 24th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th September, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical

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

M/s Rainbow Laminate Pvt. Ltd has proposed for setting up of Manufacturing of Particle Boards (4000 m³/month) with Captive Resin Unit (Urea formaldehyde Resin (600 MTPM), Phenol Formaldehyde Resin (300 MTPM) and Melamine Formaldehyde (100 MTPM)] at Sys.No.160/P1/P2, Village Lalpur, Taluka Morbi, District Rajkot, Gujarat. PP informed that storage of formaldehyde will be more than 5 Ton. Cost of project is Rs. 4.5 Crore. It is reported that no ecologically sensitive area located within 10 Km distance. Total plot area is 16289 m² of which greenbelt will be developed in 5375 m². Following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin	300 MTPM
2	Melamine Formaldehyde Resin	100 MTPM
3	Urea Formaldehyde Resin	600 MTPM
4	Particle Boards	4000 Nos./Month

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during April - June, 2013 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (58.8 µg/m³ to 74.2 µg/m³), PM_{2.5} (29.5 µg/m³ to 46.7 µg/m³), SO₂ (13.1 µg/m³ to 23.9 µg/m³) and NOx (14.4 µg/m³ to 28.8 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.118 µg/m³, 0.044 µg/m³ and 0.031 µg/m³ with respect to SPM, SO₂ and NOx. The resultant concentrations are within the NAAQS. Bag filter will be provided to coal/lignite fired boiler (Thermic fluid heater) to control particulate emissions. DG set (400 KVA) will be installed. Hood and Condenser system will be provided to Dryer to control methanol. Total water requirement from ground water source will be 8.5 m³/day. Industrial effluent generation will be 3.0 m³/day. Industrial effluent from resin unit will be treated in ETP followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSD. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 9th February, 2015. The issues were raised regarding air pollution control system; water pollution control system; social upliftment; safety of workers etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter along with stack of adequate height should be installed to coal & lignite fired boiler & Thermic fluid heater to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.

- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 8.5 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Condensate shall be recycled/reused in the process. Phenol shall be recovered/removed from effluent.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt of 5375 m² should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 9th February, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

42.3.4 Resin Manufacturing Unit at Sy.No. 24 P, village Jambudiya Dist., Rajkot, Gujarat by M/s Pawan Formalin Pvt. Ltd. – reg EC

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

M/s Pawan Formalin Pvt.Ltd has proposed for setting up of Resin Manufacturing Unit ofat Sy.No. 24/ P, village Jambudiya Dist., Rajkot, Gujarat. Paneli reserve forest is located at a distance of 2.07 km. It is reported that no National Park/ Wildlife sanctuary is located within

10 km distance. Cost of the project is Rs. 3.6 Crore. Plot area is 10060 m² of which greenbelt will be developed in 3096 m². The following products will be manufactured:

S.N.	Products	Capacity
1	Formaldehyde (37 %)	1800 MTPM
2	Urea Formaldehyde Resin	250 MTPM
3	Melamine Formaldehyde Resin	250 MTPM
4	U F Molding Powder	250 MTPM
5	Hexamine	90 MTPM

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during November, 2013 - January, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (63.2 µg/m³ to 80.2 µg/m³), PM_{2.5} (30.1 µg/m³ to 44.7 µg/m³), SO₂ (8.1 µg/m³ to 20.7 µg/m³) and NOx (14.4 µg/m³ to 30.7 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.5 µg/m³, 2.5 µg/m³ and 7.5 µg/m³ with respect to SPM, SO₂ and NOx. The resultant concentrations are within the NAAQS. Multi-cyclone dust collector will be provided to biomass/coal fired boiler to control particulate emissions. The Committee suggested them to install bagfilter instead of multi-cyclone dust collector. DG set (300 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total fresh water requirement from ground water source will be 65.45 m³/day. Industrial effluent will be treated in ETP followed by multiple effect evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 11th February, 2015. The issues were raised regarding benefit of employment, social welfare, 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 recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter along with stack of adequate height should be installed to biomass/coal fired boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 65.5 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP followed by Multiple effect evaporator to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Condensate shall be recycled/ reused in the process.

- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 3096 m² area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 11th February, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

42.3.5 Development of offshore MB platform and infield pipelines in offshore west coast near Mumbai by M/s Panna- Mukta-Tapti Joint Venture of M/s ONGC-RIL-BG Exploration and Production of India Ltd. (BGEPIL) – reg EC.

The project proponent and their consultant (M/s SGS) 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 – 1st August, 2014 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed at 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Panna-Mukta-Tapti Joint Venture of M/s ONGC-RIL-BG Exploration and Production of India Ltd. (BGEPIL) has proposed for Development of Offshore MB Platform and Infield Pipeline Project (WGS84 UTM Projection) in offshore area of West Coast in Arabian Sea near Mumbai. PP has made following justification for the proposed project:

- (i) Recovery of additional reserves from the Mukta field through drilling at MB.
- (ii) To bring MA wells back into production in a late life of this project is important from "Operability and Profit" point of view.
- (iii) Production from the proposed platform will not affect the production handling capacity at the main platform.

Panna field is located at about 95 km NW of the Mumbai city and is 70 km from the nearest Shoreline. The Panna block has an aerial extent of 430 sq. km with a water depth of 45 m. Central process platform was commissioned in early July 1997. Oil is being loaded out

through an SBM system using a tanker. The gas is being exported through pipeline. Presently the field is producing about 26000 bbl per day of oil and about 85 million cubic feet per day of gas.

Mukta field is located adjacent to the Panna field on its western side. It has an aerial extent of 780 sq. km with a water depth of 65 m. It is 80 km from the nearest shoreline.

The existing production platform (PPA) is equipped with facilities for processing the production from Panna field. These facilities include dual separation facilities for low pressures (150 psi/10.5kg/cm²) oil production with the capacity to handle 45,000 BOPD (7 mm³/d), 110,000 BWPD (18 mm³/d) and 180 MMCFD (5.2 MMm³/d) of associated gas. Use of multiple trains allows for continuous production through one train if problems develop in a train vessel. The crude is separated, dehydrated and then pumped to the SBM and moored storage tanker. Associated gas is dehydrated and either compressed for sales or used as fuel.

Following are the project configuration:

- (i) MB, a new nine slot normally unmanned installation approximately 25 km west of the Panna Processing Platform (PPA).
- (ii) 14" production pipeline and 5 " lift gas pipe line linking MA to MB. (5.2 KM)
- (iii) 14" production pipeline and 5" lift gas pipeline linking MB to PPA (20.5 Km).
- (iv) Modifications on PPA platform including new launchers and receivers, piping and instrumentation.
- (v) Modifications on MA to allow production of MA fluids via MB.
- (vi) Drilling of six production wells from MB.

Cost of project is Rs. 1340 Crore.

The production platform (PPA) is equipped with facilities for processing the production from Panna field. These facilities include dual separation facilities for low pressures (150 psi/10.5kg/cm²) oil production with the capacity to handle 45,000 BOPD (7 mm³/d), 110,000 BWPD (18 mm³/d) and 180 MMCFD (5.2 MMm³/d) of associated gas. Use of multiple trains allows for continuous production through one train if problems develop in a train vessel. The crude is separated, dehydrated and then pumped to the SBM and moored storage tanker. Associated gas is dehydrated and either compressed for sales or used as fuel. PPA fuel/lift gas sweetening system with design capacity 25 MMSFCD has been installed to reduce the H₂S concentration from approximately 1000PPm to less than 10 ppm. Acid gas composed of CO₂, H₂S and amine carryover will be released through a pressure control valve into the low pressure Flare Header, where it is mixed with assist gas and burned in an incinerating pilot flame.

During drilling stage, water based mud and synthetic oil based mud will be used for certain critical hole sections. Total water requirement for drilling will be 95 m³/day for each well of which 50 m³/day will be used for mud preparation and 45 m³/day will be used for domestic purposes including drinking. Quantity of wastewater expected to be generated from one well during drilling operation is around 25-30 m³/day. Drilling muds carrying drill cuttings will be passed through screen and cuttings will be separated. Drilling fluids will be recycled or will be discharged on the ocean when spent and not suitable for further drilling. The used synthetic oil based mud will be brought back to shore for appropriate disposal/reuse. Chromium free compounds only be used in the mud system. Drill cuttings will be discharged in the sea. Sanitary wastewater will be treated in the sewage treatment plant.

Consequent to presentation, the committee observed that there are certain deficiencies in the proposal. Therefore, Committee sought following additional information:

- (i) Detail of quantity of oil, gas and produce water generation for which existing environmental clearance obtained.
- (ii) Detail of quantity of oil, gas and produce water generation for which environmental clearance is sought.
- (iii) Treatment and Disposal of produced water. Characteristics of treated produced water.
- (iv) Details of depth of drilling to be carried out.
- (v) Crosscheck and rectification of all monitored environmental baseline data
- (vi) Reasons for variation in monitored data of TDS in the bottom water during 2012-2013.
- (vii) A note on impact and emergency plan in case of oil leakage.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee noted that data quality is poor and rated the Environmental Consultant under rated.

42.3.6 Expansion of Laminate & Resin Manufacturing Unit at Diamond Harbour Road, Village Kanchowki, Tehsil Bishupur, District-24 Parganas (South), West Bengal by M/s Century Ply boards Ltd.- reg. EC

The project proponent and their consultant (M/s SGS India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 6th Meeting of the Expert Appraisal Committee (Industry) held during 5th to 7th March, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Century Ply boards Ltd. has proposed for expansion of Laminate & Resin Manufacturing Unit at Diamond Harbour Road, Village Kanchowki, Tehsil Bishupur, District-24 Parganas (South), West Bengal. Total plot area is 44344.93 m² of which greenbelt area earmarked is 16755.3 m². It is reported that no National Park, Wildlife Sanctuary is located within 10 km radius of the project site. Cost of project is Rs. 5857.53 lakhs. Rs.152.2 lakhs and Rs.30 lakhs has been earmarked for the capital cost and recurring cost per annum towards the environmental protection measures. Following are the details of the existing and the proposed products.

Product	Existing	Proposed Additional	Total after expansion
Decorative laminates	300000 sheets/month	300000 sheets/month	600000 sheets/month
PF resin	480 Tons/month	480 Tons/month	960 Tons/month
MF resin	275 Tons/month	275 Tons/month	550 Tons/month

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March -May, 2013 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (53.4 µg/m³ to 77.8 µg/m³), PM_{2.5} (16.6 µg/m³ to 29.8 µg/m³), SO₂ (5.8 µg/m³ to 7.7 µg/m³) and NO_x (31.4 µg/m³ to 47.3 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs

after the proposed project would be $0.0003 \mu\text{g}/\text{m}^3$, $7.937 \mu\text{g}/\text{m}^3$ and $8.236 \mu\text{g}/\text{m}^3$ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Bagfilter will be provided to wood waste/lignite fired hot water generator & heat exchangers to control particulate emissions. Bagfilter will be provided to sanding machine. Additional DG set (1 x 600 KVA) will be installed. Water requirement from ground water source will be increased from 46 m³/day to 70 m³/day after expansion. Industrial effluent generation from cooling tower blow down will be 10 m³/day. Domestic effluent will be disposed off through septic tank followed by soak pit. The Committee suggested to recheck the generation of process effluent from condensate. No effluent will be discharged outside the plant premises. Glue sludge and Used oil/spent oil will be sent to West Bengal Waste Management Group Haldia. Ash will be sent to low land filling at back side of factory.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 21st November, 2014. The issues were raised regarding development of local area, infrastructure development of the area, ambulance facility, tube wells etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

However, after deliberation, the Committee sought following additional information and documents:

- (i) Layout of greenbelt around the proposed and existing plant to be submitted .
- (ii) Surface and Ground Water quality data to be reanalyzed and fresh one monitoring data to be submitted.
- (iii) Detailed Plan for Enterprise Social Commitment considering 2.5 % of project cost.
- (iv) Generation of process effluent from condensate to be quantified. Characteristics of process condensate alongwith disposal plan to be submitted.
- (v) Scheme to treat sewage generated from the factory 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. The committee under rated performance of consultant.

42.3.7 Expansion (30 KLPD to 100 KLPD) with change in feed stock from cane juice to fully Molasses based distillery at Herwad, Taluka Kolhapur, Maharashtra by M/s Karan Sugars Pvt.Ltd.-reg EC.

The Committee noted that baseline data w.r.t. AAQM, Water Quality monitoring, Noise monitoring, Soil quality monitoring etc were collected in the year 2011 and incorporated in the EIA report. TOR was issued for new 100 KLPD molasses based distillery on 03.12.2014. As per latest guidelines issued by the Ministry, baseline data shall not be older than 3 years. Therefore, latest baseline data shall be collected and incorporated in the EIA report. Fresh appraisal shall be done as and when revised EIA-EMP report is 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.

42.3.8 Resin manufacturing unit at survey no. 330, village RavaparNadi, Tehsil Morvi, district Rajkot, Gujarat by M/s Rajal Laminate Private Limited- reg EC

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 24th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th September, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Rajal Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No. 330, Village Ravapar Nadi, Taluka Morbi, District Rajkot, Gujrat. Total plot area is 10927 m² of which greenbelt will be deelooped in 3812 m². Cost of project is Rs. 1 Crore. It is reported that there is no national park/ wildlife sanctuary/ reserve forest is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin	360 MTPM
2	Melamine Formaldehyde Resin	120 MTPM
3	Urea Formaldehyde Resin	120 MTPM
4	Electrical Insulation Board and H P Decorative Laminated Sheets	1,50,000 Nos/Month

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October-December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.2 µg/m³ to 83.5 µg/m³), PM_{2.5} (21.7µg/m³ to 31.7 µg/m³), SO₂ (5.1 µg/m³ to 11.5 ug/m³) and NO_x (5.1 µg/m³ to 18.3 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 11.6 µg/m³, 2.5 µg/m³ and 2.4 µg/m³ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal fired Thermic fluid heater/boiler to control particulate emissions. DG set (250 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total fresh water requirement from ground water source will be 23.78 m³/day. Industrial effluent generation will be 9.2 m³/day. Industrial effluent from resin unit will be treated in ETP with photo fenton oxidation process method followed by evaporator. Effluent from utilities i.e. cooling tower and boiler blow down will be collected in collection tank and treated. Condensate from evaporator will be recycled/reused in process. Sewage will be treated in the STP. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 15th April, 2015. The issues were raised regarding local employment, fly ash disposal etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter along with stack of adequate height should be installed to coal fired Thermic fluid heater/boiler to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 23.78 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 15th April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

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

The project proponent and their consultant (M/s Pridhvi Envirotech (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 8th Meeting of the Expert Appraisal Committee (Industry) held during 16th to 17th May, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry

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

M/s Aurobindo Pharma Ltd. (Unit-1) have proposed for expansion of Bulk Drugs Unit at Sy. No. 379, 385, 386, 388 to 396 & 269, Village Borapatla, Mandal Hathnoor, District Medak, Andhra Pradesh. Existing land area was 65.5 acres. Plot area proposed after expansion is 71 acres of which greenbelt will be developed in 24.5 acres. The cost of existing project is Rs. 222 Crore and additional cost will be Rs. 70 Crore. Of which Rs. 15.0 Crore is earmarked towards capital cost for implementation management plan. It is reported that there are no ecologically sensitive areas like national parks, sanctuaries are located within 10 km distance. Manjeera River is flowing at a distance of 2.5 Km. Following products will be manufactured:

S.N.	Products	Production Quantity after expansion (in TPM)
1	Metformin Hydrochloride	200.0
2	Gabapentin	40.0
3	Cefuroxime Axetil	23.5
4	Cephalexin Monohydrate	15.0
5	Gemfrozil	10.0
6	Metoprolol Tartrate	10.0
7	Simvastatin	7.0
8	Ciprofloxacin Hydrochloride	7.0
9	Nevirapine	5.0
10	Losartan Potassium	5.0
11	Irbesartan	5.0
12	Topiramate	5.0
13	Florfenicol	5.0
14	Atorvastatin	4.0
15	Cefprozil	3.0
16	Cefadroxil	3.0
17	Pantoprazole Sodium Sequihydrate	3.0
18	Paroxetine Hydrochloride	3.0
19	Entacapone	3.0
20	Cefazolin Sodium	3.0
21	Ceftiofur Hydrochloride	3.0
22	Ceftriaxone Disodium Hemiheptahydrate	3.0
23	Cefotaxime	3.0
24	CefpodoximeProxetil	3.0
25	Terbinafine Hydrochloride	3.0
26	Cefdinir	2.5
27	Citalopram Hydrobromide	2.5
28	Glyburide	2.5
29	Cefalothin Acid	2.0
30	Cefradin	2.0
31	Famciclovir	2.0
32	Mirtazapine	2.0
33	Metroprolol Succinate	2.0
34	CeftibutenDihydrate	2.0
35	Retanovir	2.0
36	Cefepime Hydrochloride	2.0
37	CeftazidimeDihydrochloride	2.0
38	Escitaloprama Oxalate	2.0

39	Telmisartan	2.0
40	CefiximeTrihydrate	1.5
41	Cefaclor Monohydrate	1.0
42	Lamivudine	1.0
43	Stavudine	1.0
44	Lisinopril	1.0
45	Candesartan Cilxetil	1.0
46	Modafinil	1.0
47	Sevelamer Hydrochloride/Carbonate	1.0
48	Perindopril tert-Butylamine	0.5
49	BisoprololFumarate	0.5
50	Amisulpride	0.5
51	Donepezil Hydrochloride	0.5
52	Fluvastatin	0.5
53	Risperidone	0.5
54	Rabeprazole Sodium	0.5
55	Ribavirin	0.5
56	Bupropion Hydrochloride	0.5
57	DoxazosinMesylate	0.5
58	Aripiprazole	0.5
59	Cefoxitin Sodium	0.5
60	CephapirinBenzathine	0.5
61	Ceftizomime Acid	0.5
62	CefditorenPivoxil	0.5
63	Cefsulodin Sodium	0.5
64	Terazosin Hydrochloride Dihydrate	0.3
65	Ondansetron	0.2
66	CefpiromeD;ihydroiodide	0.2
	TOTAL	421.2

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October – December, 2013 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (41.34 µg/m³ to 79.23 µg/m³), SO₂ (7.0 µg/m³ to 16.0ug/m³) and NO_x (10 µg/m³ to 38 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.58 µg/m³, 2.60 µg/m³ and 4.46 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the NAAQS.

Bag filter has been provided to coal fired boiler (1x 27.5 TPH + 1x8 TPH). Bag filter will be provided to the additional coal/husk fired boiler (39 TPH). Turbine & Generator (3.95 MW) will be installed. Additional DG sets (3x750 KVA + 4 x1010 KVA) will be installed. Scrubber will be provided to control process emissions viz. HCl and Butane. As per page 3-24 of EIA report, 132.87 kg of butane will emit from process and control by providing scrubber. However, The Committee suggested them to tap the butane and use as fuel. Water requirement will be increased from 140.8 m³/day to 1280 m³/day after expansion. Out of which fresh water from ground water source will be 886 m³/day. Industrial effluent generation will be increased from 51.3 m³/day to 522 m³/day after expansion. Industrial effluent will be segregated into low and high strength streams based on characteristics of wastewater viz. TDS, COD etc. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and ATFD. Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) based biological treatment process followed by RO. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Sewage generation will be 70 m³/day and treated in the

STP. Evaporation salt, process inorganic salts, sludge from wastewater pre-treatment will be sent to TSDF. Process organic residues, spent carbon, Spent mixed solvents will be sent cement manufacturers. Power requirement will be 10 MW.

The Committee also discussed the compliance status report dated 29th October, 2012 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Bangalore. It is reported that all the tank of old ETP have to be upgraded and have to be above the ground. Water quality of water body to be upgraded. Freeborad should be provided in the tanks to avoid overflow. The solids are to be collected from the ATFD in closed manner and taken to storage area. The permission from the State Ground Water Department for the operating bore wells is yet to be obtained. Some products manufactured the use of Methylene Di Chloride is continuing due to lack of alternative solvents. The products which were not consented by PCB were manufactured. In some cases they have exceeded the permitted quantity limits of some drugs. The water consumption is beyond what is permitted by the Pollution Control Board. The ZLD unit biological treatment system is not working to the designed standards. The DO levels and MLVSS of the Unit have to be continuously checked/monitored. There is need for employing experienced people for operating all the units ZPLD. The maximum GLC points are not marked on the ground and hence, it is not known if the AAQ is monitored at these points. No plan was submitted to PCB regarding eco-development measures and community welfare activities. The Committee noted that the clarity is lacking with respect of compliance on the observations made by the Regional Office, MoEF&CC. But PP insisted that they have complied with conditions. The Committee suggested them to submit compliance report to the non complied points.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the State Pollution Control Board on 21st January, 2015. The issues were raised regarding source of water supply, rain water harvesting, local employment, village development program, discharge of waster to CETP, accident due gas leakages etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

Since there are several non compliance points, the Committee after deliberation was of the view that status of compliance report/ response to be submitted first. The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website and will be discussed internally in the meeting.

Reconsideration for Environmental Clearance

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 36th meeting held during 16th– 17th March, 2015 and the Committee sought following additional information:-

- (i) Detailed need based plan of Corporate Social Commitment for 5 years to be prepared and submitted.
- (ii) Details of scheme of scrubbing unit at gasification plant.
- (iii) Commitment to install bagfilter in coal based boiler.

- (iv) As per page 10-4 of EIA-EMP report, it is mentioned that cyclone separator will be provided to rock grinding section and furnace oil fired hot air generator to bring down particulate emissions. Adequate pollution control device to be provided to arrest the emission.

During presentation, PP informed that Rs. 18 Lakh has been earmarked towards ESR for providing RO plant for drinking water (2 nos. x 500 LPH); Primary Health Centre; Ambulance and Anganvadi Centre Repair Works within 5 years of period. The Committee suggested them to increase the amount upto 2.5 % of total project cost. The producer gas will be sent to the gas cleaning plant with counter current flow of water. The water will be re circulated /reused after gravity settling. Tar will be stored in HDPE drums in designated area. Bagfilter will be provided to coal fired boiler to control particulate emissions within 50mg/m³. As per PP submission Cyclone separator followed by bagfilter to be provided rock grinding section and furnace oil fired hot air generator to bring down particulate emissions less than 50 mg/m³. The Committee also suggested the environmental consultant to provide wet scrubber to the furnace oil fired hot air generator.

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) As proposed, Silicon Fluoride gases shall be passed through three stage–wet scrubbers before discharging into atmosphere through adequate stack height to control fluorine content within 15 mg/m³. After three stages, if fluorine content in emission is not meeting the prescribed norms then efficiency of scrubber shall be improved by adding additional stage of scrubber. Scrubbing shall have interlocking system with main plant.
- ii) As proposed, Bag filter will be provided to 6 TPH coal fired boiler to control particulate emission within 50 mg/m³. Cyclone followed by bag filter should be provided to SSP plant and grinding section for controlling fugitive emissions. Alkali scrubbing system will be provided in LABSA manufacturing process to control SO₂ emissions.
- iii) The gaseous emissions (SO₂, NO_x, CO and Fluoride) and particulate matter from process stacks shall conform to the norms prescribed by the CPCB/ Karnataka State Pollution Control Board (KSPCB) from time to time.
- iv) Fluoride monitoring through continuous fluoride analyzer shall be carried out in ambient air as well as stack.
- v) Total fresh water requirement from ground water source shall not exceed 610 m³/day and prior permission shall be obtained from CGWA/SGWB.
- vi) As proposed, industrial effluent shall be treated in effluent treatment plant (ETP) and recycled / reused for dust suppression, ash conditioning, greenbelt development in the process for SSP/NPK and coal gasifier.
- vii) No effluent shall be discharged outside the premises and 'Zero' discharge shall be ensured.
- viii) On-site temporary storage of hazardous waste (Hydro-fluorosilic acid) shall be done as per the guidelines prescribed by MoEF/CPCB. Piezometric wells shall be installed to monitor the leaching of waste.
- ix) Green belt over 12.35 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.

- x) All the commitments made to the public during public hearing/public consultation meeting held on 22nd July, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.
- xii) As proposed, fly ash from coal as fuel shall be sent to brick manufacturers/cement plant. Fly ash from biomass shall be sent to brick manufacturers. Sulphur sludge shall be used as raw material for SSP. Gypsum sludge will be utilized as filler materials in NPK plant/sold outside to user agencies. Silica precipitate shall be used as filler material in NPK mixture. Spent catalyst will be sent to TSDF.

42.3.11 Expansion of Bulk Drug Unit (from 150 MTPM to 170 MTPM) at Plot No.6129/11/A, Phase-IV, GIDC Estate, Vapi, district Valsad, Gujarat by M/s Gemasko Pharmachem Industries – 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 additional information:

- (i) VOC data should be monitored for one month and submitted.

PP vide letter no VWEMCL/Mem.Corr/2014-15/1242 27th February, 2015 has submitted the addl. information.

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

- i) Adequate stack height shall be provided to gas fired thermic fluid heater and boiler.
- ii) The levels of PM2.5, PM10, SO₂, NO_x, CO, NH₃ and VOC shall be monitored in ambient air.
- iii) Scrubber should be provided to process vents to control NH₃. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by GPCB.
- v) The water consumption from GIDC water supply shall not exceed 19 m³/day.
- vi) Total industrial effluent generation shall not exceed 5.5 m³/day. Effluent will be treated in ETP and treated effluent will be sent to CETP inlet through GIDC underground drainage. No process effluent shall be discharged in and around the project site. Suitable treatment to be given for ammonical nitrogen in the effluent.

- vii) 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.
- viii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from 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.
- ix) Green belt should be developed in 87 m²land.

42.3.11 Coal Bed Methane (CBM) in Block, SP(NE)-CBM-2008/IV, Sohangpur CBM Block of M/s Essar Oil Limited (E&P Division), Madhya Pradesh & Chhattisgarh-reg EC

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

17th June, 2015 (Day 2)

42.6 Environmental Clearance

42.6.1 Proposal for Manufacturing decorative laminated sheets and various resin located at Survey No. 121/p/2, Village Rohishala, Tehsil Maliya, District Morbi, Gujarat M/s Shinemica Laminates Pvt. Ltd.-reg EC.

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 24th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th September, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Shinemica Laminate Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Survey No. 121/p/2, Village Rohishala, Taluka Maliya, District Morbi, Gujarat. The estimated cost of the project is 7 crore, of which 5 crore will be used for implementation of Environmental Pollution Control measures. Total plot area is 11635 m² of which greenbelt will be developed in 3840 m². It is reported that no wildlife sanctuary/reserve forest, critically polluted area falls within 10 km radius of the unit. Following products will be manufactured:

Sr. No.	Product	Quantity (MT/Month)
1.	Decorative Laminates Sheets	4,00,000 sheets/month
2.	Phenol Formaldehyde Resin	600 MT/month
3.	Melamine Formaldehyde Resin	250 MT/month
4.	Urea Formaldehyde Resin	400 MT/month

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2014 and December, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{2.5} (25.4 µg/m³ to 48.8 µg/m³), PM₁₀ (55.5 µg/m³ to 82.4 µg/m³), SO₂ (10.9 µg/m³ to 21.8ug/m³) and NO_x (15.9 µg/m³ to 28.5 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.471 µg/m³, 0.177 µg/m³ and 0.145 µg/m³ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Cyclone followed by bagfilter will be provided to agro-waste fired boiler, briquettes/coal/lignite fired boiler/thermic fluid heater to control particulate emissions. Adequate height of vent will be provided to DG set (250 KVA). Hood & condenser will be provided to vent of dryer. Total water requirement will be 28.5 m³/day of which fresh water requirement from ground water source will be 20 m³/day. Total wastewater generation will be 14 m³/day of which industrial effluent generation will be 9 m³/day. Industrial effluent will be treated in the ETP followed by evaporator. No effluent will be discharged outside the plant premises to achieve zero discharge. Condensate from evaporator will be reused for greenbelt development. ETP sludge and evaporation residue will be sent to TSDF. Fly ash will be sent to brick manufacturers. Used oil will be sent to the authorized re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 10th April, 2015. The issues were raised regarding greenbelt, pollution control measures, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter along with stack of adequate height should be installed to agro-waste fired boiler/briquettes/coal/lignite fired boiler/thermic fluid heater to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 20 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB. Phenol shall be recovered from the effluent.

- vii) The company should obtain the Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 10th April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

42.6.2 Proposed Ammonia/Urea Fertilizer Complex at Ramagundam Unit Tehsil Ramagundam Mandal, District Karimanagar, Andhra Pradesh by Consortium of M/s Engineers India Ltd., NFL and FCI -reg EC.

The project proponent and their consultant (M/s 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 16th Meeting of the Expert Appraisal Committee (Industry) held during 20th to 21st February, 2014 for preparation of EIA-EMP report. All the Fertilizer Plants are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

Consortium of M/s Engineers India Ltd., NFL and FCI have proposed for setting up of new Ammonia/Urea Fertilizer Complex at Ramagundam Unit Tehsil Ramagundam Mandal, District Karimanagar, A.P. The proposal consists of new ammonia and urea plant along with associated offsite and utility facilities within the premises of existing Ramagundam Fertilizer complex. Single stream plant of Urea plant (prilled urea of 3850 MTPD) and Ammonia plant (2200 MTPD) will be installed. The plant will be designed to use NG/RLNG (2.26 MMSCMD) as feed and fuel. New CPP of 27.5 MW (GTG + HRSG) will be installed. Specific energy consumption will be 5.0 Gcal/MT of Urea. EC was obtained for existing project in 1999. However, due to shut down of plant, plant and machinery sold as scrap. Apart from buildings which will be refurbished, all plant machinery and equipment would be established a new. Cost of project is Rs. 5465 crores. Out of which Rs. 35 Crores and Rs. 8.77 Crore are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. It is reported that no national parks/wildlife sanctuary is located within 10 km distance. The proposed project will be installed in the existing premises. Ammonia storage will be 2 x 10,000 Ton. The Committee suggested them that storage of ammonia will not be more than 10000 Ton.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March -May, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (44 µg/m³ to 109 µg/m³), PM_{2.5} (28 µg/m³ to 68 µg/m³), SO₂ (7.8 µg/m³ to 34.2 µg/m³) and NO₂ (8.3 µg/m³ to 25.6 µg/m³), CO (0.19 mg/m³ to 1.44 mg/m³) and Ammonia (11 µg/m³ to 19.4 µg/m³) respectively. It is reported that the main reason for higher PM₁₀ is due to open cast mining activity. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 7.383 µg/m³, 0.278 µg/m³ and 23.0 µg/m³ with respect to PM10, SO2 and NOx. The resultant concentrations are within the NAAQS except PM10.

GT exhaust flue gas will be utilized for generating high pressure steam in HRSG, BFW preheating and low pressure steam generation. Natural gas will be received through pipeline. 80% Urea will be dispatched through rail and 20 % through road networks. Stack height of 60 m will be provided Primary Reformer and GT/HRSG stack. Prilling tower of 130 m height will be installed. Vacuum vent scrubber will be installed to control ammonia emission from prilling tower. Fresh water requirement from Yellampalli Barrage will be 30500 m³/day. The ammonia and Urea process condensate will be treated and sent to the condensate polishing unit for further treatment and recycle as polished water. Other effluents (6572 m³/day) such as cooling tower and boiler blowdown waste, DM/CPU regeneration waste flare seal drain, compressor house drain etc. will be treated in the ETP. The treated effluent will be recycled and used for greenbelt development in the fertilizer complex including fertilizer township and balance effluent shall be sent for disposal to Godavari River via nallah. Sewage (240 m³/day) will be treated in the STP and treated sewage will be used for gardening and horticulture area. Spent catalyst generation will be 900 – 1300 MT in every 5-6 years. Spent catalyst /spent oil will be sold to authorized re-processors.

After deliberation, the Committee sought following additional information and documents:

- (i) Total plot area of the project site. Layout map indicating existing greenbelt and proposed greenbelt with different colour and details (in ha./m²).
- (ii) Number of existing trees to be cut.
- (iii) List of items in plant configuration indicating new and old to be utilized.
- (iv) Proper justification for presence of Benzen and ammonia in the baseline data of AAQM. If required, it should be reanalyzed.
- (v) Reduce wastewater generation by adopting 3 R's (Reduce, Recycle, Reuse) concept. Plan and efforts made in this regard to be provided.
- (vi) Explore the possibilities for not discharging the treated effluent into the river. A plan accordingly to be prepared with respect to field condition. In case no option is available, then water modeling study using different season hydraulic data, considering various scenarios, to be carried out.
- (vii) 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.

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

42.6.3 Active Pharmaceuticals Ingredients Manufacturing Project at Sy.No.64/P2/P2, Village Vaghrol, Tehsil Dantiwada, District Banaskantha, Gujarat by M/s La Chandra Pharmalab Pvt. Ltd.- reg EC.

The project proponent and their consultant (M/s Anand Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 22nd Meeting of the Expert Appraisal Committee (Industry) held during 28th to 29th August, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s La Chandra Pharmalab Pvt. Ltd. has proposed for setting up of Active Pharmaceuticals Ingredients Manufacturing Project at Sy. No. 64/P2/P2, Village Vaghrol, Tehsil Dantiwada, District Banaskantha, Gujarat. Plot area is 10186 m² of which greenbelt will be developed in 3486 m². Cost of project is Rs. 6 Crore of which Rs 54 lakh amount has been earmarked towards environmental management facilities. Dantiwada Dam is located at a distance of 4.5 km. It is reported that no areas which are important or sensitive for ecological reasons are located within 15 Km distance. Following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	16-DEhydro Pregnenolone Acetate	1.0
2	Progesterone	0.833
3	Pregnenolone	1.0
4	Estradiol -1	0.833
5	Testosterone	0.833

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during 15th October, 2014 and 15th December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (21.0 µg/m³ to 81.0 µg/m³), PM_{2.5} (15 µg/m³ to 55 µg/m³), SO₂ (10 µg/m³ to 21µg/m³) and NOx (12 µg/m³ to 26 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.72 µg/m³, 3.5 µg/m³ and 1.69 µg/m³ with respect to PM₁₀, SO₂ and NOx. The resultant concentrations are within the NAAQS. Multicyclone followed by bagfilter will be provided to agro briquettes fired boiler to control particulate emissions. DG set (50 KVA) will be installed. A common scrubber will be provided to all the reactors. Solvent recovery system will be provided to solvent loss points. Bagfilter will be provided to the Rotary Vacuum Dryer. Total fresh water requirement from ground water source will be 22.5 m³/day. Industrial effluent generation will be 17.8 m³/day and treated in ETP. Treated effluent will be used for horticulture purpose. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil and spent catalyst will be sent to the authorized re-processors/recycler. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 16th April, 2015. The issues were raised regarding local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Multicyclone followed by Bag filter shall be provided to the briquettes fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii) The levels of PM10, SO₂, NO_x, VOC and CO shall be monitored in ambient air.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.
- iv) Total fresh water requirement from ground water source shall not exceed 22.5 m³/day and prior permission shall be obtained from the CGWA/SGWA.
- v) Trade effluent shall be treated through steam solvent stripper followed by ETP. Treated effluent shall be used for cooling tower make up water/ horticulture. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- vi) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- ix) Solvent management should be as follows :
 - Reactor should be connected to chilled brine condenser system
 - Reactor and solvent handling pump should have mechanical seals to prevent leakages.
 - The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents should be stored in a separate space specified with all safety measures.
 - Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
 - All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.

- x) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi) At least 2.5 % 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.

42.6.4 Resin manufacturing unit at Survey No. 573, Village Jagudan, Tehsil Mehsana, District Mehsana, Gujarat by M/s Parista laminates-reg EC.

The project proponent and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 26th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th October, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Parista Laminates has proposed for setting up of Resin Manufacturing Unit at Survey no. 573 Village Jagudan, Tehsil Mehsana, District Mehsanan, Gujarat. Total plot area is 2975 m² of which greenbelt will be developed in 388 m². Cost of resin plat is Rs. 1.0 crore. It is reported that there is no National Park/Wildlife Sanctuary/ Reserve Forest is located within 10 km distance. The following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	P. F Resin	200
2	M F Resin	150
3	U F Resin	200

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 –December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.14 µg/m³ to 82.90 µg/m³), PM_{2.5} (19.85 µg/m³ to 28.07 µg/m³), SO_x (9.47 µg/m³ to 13.25ug/m³) and NO_x (15.66 µg/m³ to 21.23 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 12.5 µg/m³, 0.6 µg/m³ and 3.1 µg/m³ with respect to SPM, SO₂ and NO_x. The resultant concentrations are within the NAAQS. Bagfilter will be provided to coal/briquettes fired boiler& Thermic fluid heater to control particulate emissions. DG set (350 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total fresh water requirement from ground water source will be 23.4 m³/day. Industrial effluent generation will be 6.5 m³/day. Industrial effluent will be treated in ETP with photo fenton oxidation process method followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 22nd April,

2015. The issues were raised regarding local employment, socio-economic condition improvement, greenbelt development etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter along with stack of adequate height should be installed to coal/briquettes fired boiler & Thermic fluid heater to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 23.4 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 22nd April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

42.6.5 Proposed Bulk Drugs Manufacturing Unit at SP-4-4, RIICO Industrial Area Keshwana, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Dhanuka Laboratories Ltd.reg EC.

The project proponent and their consultant (M/s EQMS) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 6th Meeting of the Expert Appraisal Committee (Industry) held during 5th to 7th March, 2013 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within 5 km from interstate boundary, proposal is treated as category 'A' and appraised at Central Level.

M/s Dhanuka Laboratories Ltd. has proposed for setting up of Bulk Drugs Manufacturing Unit at SP-4-4, RIICO Industrial Area Keshwana, Tehsil Kotputli, District Jaipur, Rajasthan. Total pant area is 32800 m² of which greenbelt will be developed in 10824 m². Total project cost is Rs. 70.00 Crore. Out of which Rs. 5 Crore and Rs. 60 Lakh are earmarked towards capital cost and recurring cost per annum of implementation of environmental management plan. No forest land is involved. Interstate boundary of Haryana is located within 5 Km distance. It is reported that no national park/wildlife sanctuary/reserve forest is located within 10 km distance. Following products will be manufactured:

S.N	Products	Capacity (kg/month)
1	7 –ACCA	3000
2	Cefaclor	3000
3	Cefixime	12000
4	Cefdinir	1000
5	Cefuroxime Axetil	4000
6	Cefprozil	1000
7	CefditorenPivoxil	1000
8	Cefcapene	225
9	Ceftibuten	200
10	Pregabaline	3000
11	Sertraline Hydrochloride	2000
12	Ondansetron	2000
13	Clopidogrel	5000
14	Gabapentin	4000
15	R&D products	5000
16	CefpodoximeProxtil	4000
	Total	50425

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March – June, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (65 µg/m³ to 121 µg/m³), PM_{2.5} (28 µg/m³ to 52 µg/m³), SO₂ (8.1 µg/m³ to 17ug/m³) and NOx (14 µg/m³ to 34 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.52 µg/m³, 0.45 µg/m³, 7.13 µg/m³, 0.02 with respect to PM₁₀, SO₂, NOx and NH₃. The resultant concentrations are within the NAAQS. Multi cyclone separator will be provided to coal fired boiler to control particulate emissions. The committee suggested them to install bagfilter instead of multicylcone. Scrubber will be provided to control process emissions viz. HCl, HBr and Ammonia. Scrubber will be provided to the vent of incinerator. DG set (6 x 500 KVA) will be installed. Total water requirement will be 160

m³/day of which fresh water requirement will be 150 m³/day and remaining 10 m³/day will be met from treated effluent. PP informed that industrial effluent will be segregated into high TDS/COD and low TDS/COD effluent streams. High TDS/COD effluent process stream will be evaporated in MEE and evaporated effluent will be incinerated. High TDS/COD effluent RO reject stream will be evaporated in MEE. Low TDS/COD effluent stream alongwith condensate will be treated in the ETP followed by RO. RO permeate(108 m³/day) will be recycled to cooling tower make up. However, the Committee suggested them to incorporate solvent steam stripper before MEE and ATFD after MEE to be installed.

After deliberation, the Committee sought following additional information:

- i) Incorporate solvent steam stripper before MEE and ATFD after MEE in the ETP scheme. Submit revised effluent treatment scheme.
- ii) Revised solid waste management plan including generation quantity and its management plan

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

42.6.6 Molasses/Grain based Distillery (65 KLD) alongwith CPP (24.2 MW) and production of 2.5 MW from spent wash incinerator boiler and expansion existing sugar unit at Rajeswarapuram Village, Nelakondapalli Mandal, district Khammam, Telangana State by M/s Madhucon Sugar and Power Industries-reg EC.

The project proponent and their consultant (M/s Environmental Engineers & Consultants in Pollution Control) 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 molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Madhucon Sugar and Power Industries has proposed for setting up of Molasses/Grain based Distillery (65 KLD) alongwith CPP (24.2 MW) and production of 2.5 MW from spent wash incinerator boiler at Rajeswarapuram Village, Nelakondapalli Mandal, district Khammam, Telangana. It is reported that no national park/sanctuary is located within 10 km distance. Palair Reservoir is located at a distance of 0.72 km. Total available land is 134 acres. Out of which distillery will be installed in the land area of 20 acres. Plant will be operated for 200 working days on molasses and 130 days on grain. Total working days of plant will be 330 days.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 28th December, 2014 to 26th January, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (40.5 µg/m³ to 66.9 µg/m³), PM_{2.5} (16.2 µg/m³ to 26.8 µg/m³), SO₂ (9.6 µg/m³ to 15.9 µg/m³) and NO_x (8.8 µg/m³ to 13.9 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.65 µg/m³ and 0.43 µg/m³ with respect to PM₁₀ and PM_{2.5}. The resultant concentrations are within the NAAQS. Bagfilter

alongwith adequate stack height will be provided to spent wash/coal fired boiler. Fresh water requirement from ground water source/ Palair Canal will be 650 m³/day. Spent wash generation from molasses and grain based distillery will be 520 m³/day and 390 m³/day respectively. Spent wash from molasses based will be evaporated in MEE followed by incineration boiler to achieve zero discharge. 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). Spentlees, MEE condensate and utilities wastewater will be treated in the effluent treatment plant followed by tertiary treatment facility and treated effluent will be recycled/reused for cooling tower make up. Condensate, spentlees and utilities effluent will be treated and recycled/reused in fermentation process and cooling tower make up. No effluent will be discharged outside the factory premises and 'Zero' effluent discharge concept will be implemented. DDGS will be used as cattle feed and Fly ash will be sent to brick manufacturing unit.

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

- i) Distillery unit shall be based on Molasses/Grain based Distillery (65 KLD) and production of the plant shall not exceed the maximum capacity defined i.e. shall never exceed to 60 KLPD.
- ii) Bagfilter alongwith adequate stack height will be provided to spent wash/coal fired boiler. The stack emissions 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) In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records shall be maintained. The emissions shall conform to the limits prescribed by Karnataka State Pollution Control Board (SPCB).
- iv) 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.
- v) Total fresh water requirement from ground water source/ Palair Canal shall not exceed 650 m³/day for distillery and cogeneration unit and prior permission for drawl of water shall be obtained from the competent authorities.
- vi) Spent wash generation from molasses and grain based distillery shall not exceed 8 KI/KI of alcohol produced and 6 KI/KI of alcohol produced respectively. Spent wash from molasses based distillery shall be concentrated in MEE. Concentrate from MEE shall be incinerated in cogeneration boiler to achieve zero discharge.

Spent wash from grain based shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS shall be dried in the dryer to form DDGS. Spentlees, effluent from utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/ reuse.

- vii) Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit shall be treated in the effluent treatment plant (ETP). Water quality of treated effluent shall be monitored regularly. In any case, no wastewater/treated effluent shall be discharged into river/natural stream. Domestic effluent shall be treated in treatment plant.
- viii) As proposed, no effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) Spent wash for molasses should 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.
- 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. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bangalore and SPCB.
- xii) Bagasse/biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xiii) Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv) Adequate housekeeping arrangements to be made in sugar as well in distillery unit in the working zone.
- xv) 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. Bagasse ash and coal ash shall be stored separately.
- 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 Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

Reconsideration for Environmental Clearance

42.6.7 Exploratory Drilling of 10 Wells in NELP-VI, Onshore Block CY-ONN-2004/2 in Ariyalur District, Tamil Nadu by M/s ONGC– reg. EC

The project proponent and their consultant (ONGC) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 10th Meeting of the Expert Appraisal Committee (Industry) held during 16th– 17th May, 2013 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC have proposed for exploratory drilling of 10 Wells in NELP-VI, Onshore Block CY-ONN-2004/2 in Ariyalur District, Tamil Nadu. The block was awarded to ONGC (80 %) & BPCL (20%) with ONGC as operator. The production sharing contract (PSC) between ONGC and BPCL was signed on 02.03.2007. The Petroleum Exploration License (PEL) was granted w.e.f. 30.05.2008 for 7 years. The cost of drilling project is Rs. 200.00 Crore. Block area is 375 Km². Environmental clearance was obtained for 4 locations vide MoEF letter no. J-11011/842/2007-IA II(I) dated 14th January, 2011. Now, it is proposed to drill additional 10 wells. The target depth of drilling of these wells is 3000-4500 m. It is reported that forest land is not involved. The Coordinates of the tentative proposed locations are as under:

Name of Locations	Latitude	Longitude	Accessibility
A1	11° 12' 22.53"	79° 27' 13.158"	Chennai-Gangaikondacholapuram X road-Kumbakonam NH (45c). 2.0 km from Gangaikondacholapuram X road towards Jayakondam (Highway 227).
A2/NPAI	11° 09' 38.862"	79° 22' 53.786"	Chennai-Gangaikondacholapuram X road-Annaikarai- Kumbakonam NH (45c). Annaikarai-Periyavalayam junction-Vanathirayanpattinam-Udayarpalayam road. Location just about 1.0 km north of Vanathirayanpattinam.
B2	11° 12' 12.12"	79° 29' 12.4"	Chennai-Gangaikondacholapuram X road-Kumbakonam NH. About 3 km from Gangaikondacholapuram X road in Kattagaram South village road.
B3	11° 07' 44.41"	79° 23' 6.808"	Chennai-Gangaikondacholapuram X road-Annaikarai- Kumbakonam NH (45c). Annaikarai-Periyapalayam junction-Udayarpalayam road. Periyapalayam X road -Angarayanallur East-Anaikudam road. Location 1.5 km East of Anaikudam.
B4	11° 08' 10.65"	79° 22' 03.548"	Chennai-Gangaikondacholapuram X road-Annaikarai- Kumbakonam NH (45c). Annaikarai-Periyapalayam junction-Udayarpalayam road. Periyapalayam X road -Angarayanallur East-Anaikudam road. 1.0 km west of Anaikudam x

			road.
B5	11° 08' 40.445"	79° 17' 51.414"	Chennai-Gangaikondacholapuram x road-Kumbakonam NH. Gangaikondacholapuram X road-Jayamkondam- Udayarpalayam town. Udayarpalayam –Thathanur. Location About 3 km east of Thathanur.
B6	11° 07' 2.543"	79° 20' 47.605"	Chennai-Gangaikondacholapuram X road-Annaikarai- Kumbakonam NH (45c). Annaikarai-Periyapalayam junction-Udayarpalayam road. Periyapalayam X road -AngarayanallurEast-Anaikudam road. 3.0 km west of Anaikudam x road.
B7	11° 07' 39.064"	79° 19' 2.931"	Chennai-Gangaikondacholapuram x road-Kumbakonam NH. Gangaikondacholapuram X road-Jayamkondam- Udayarpalayam town. Udayarpalayam –Thathanur. Location About 6.5 km east of Thathanur.
NPAE	11° 11' 3.32"	79° 15' 30.79"	Jayamkondam-Udayarpalayam-Paluvur Highway. About 4 km from Udayarpalayam towards Paranam –Kumiliyan road. Location is nearer to Paranam village.
BH1/ NPAF	11° 09' 28.775"	79° 13' 44.561"	Chennai-Gangaikondacholapuram X road-Annaikarai- Kumbakonam NH (45c). Annaikarai-Periyavalayam junction-Vanathirayanpattinam-Udayarpalayam. Udaiyarpalayam-Managathiroad(Highway227).Location about 2.5 km north of Managathi village.

Additionally, PAs informed to the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 – May, 2014 and submitted baseline data indicate range of concentrations of PM10 (42 µg/m³ to 73 µg/m³), PM2.5 (18 µg/m³ to 36 µg/m³), SO₂ (6 µg/m³ to 12 µg/m³) and NO₂ (11 µg/m³ to 18 µg/m³) respectively.

Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from surface water source will be 25m³/day. Water based mud (WBM) will be used. Total wastewater generation will be around 6m³/day. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to the Authorised recyclers. HSD (6 KLPD) will be used as fuel in rig and D.G. sets during drilling period. DG sets will be installed. Blow out prevention techniques will be part of drilling rig unit. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged. All fuels, lubricants and chemicals will be kept in a well-designed storage facility with regular inventory checking. Used and unused chemicals will be stored in a lined & bounded area. Waste oil/spent oil/waste batteries will be sold to registered recyclers/re-processors. DG set (3 x 1250 KVA) will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Tamil Nadu Pollution Control Board on 20th October, 2014. The concerns raised were regarding anticipation of ground water depletion, impact of drilling activity, compensation packages etc. The Committee noted that these concerns

have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Case was presented in the 32nd EAC meeting held during January, 2015 and the Committee suggested them to submit ATR on the non-compliance points observed by the Regional Office. Accordingly, PP vide letter no ONGC/CHSE/ENV/Cauvery Asset/ EC-TOR/2015-16 dated 3rd June, 2015 has submitted ATR on the non complied points observed by the RO, Bangalore. The Committee found satisfactory response to the non-complied points.

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

- i. The present EC is for Exploratory Drilling only. In case Development drilling to be done in future, prior environmental clearance must be obtained from the Ministry.
- ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, methane & Non-methane HC etc.
- iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iv. Approach road shall be made pucca to minimize generation of suspended dust.
- v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
- vi. Total water requirement shall not exceed 30 m³/day and prior permission shall be obtained from the concerned agency.
- vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bangalore.
- ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

- xi. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- xii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- xiii. The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xiv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xvi. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xvii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
- xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xx. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xxi. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bangalore.
- xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bangalore.
- xxiii. 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. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxiv. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

- xxv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxvi. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxvii. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 36th meeting held during 16th – 17th March, 2015 and the Committee deferred the proposal for want of following additional information:

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

PP has submitted the recommendation of SCZMA, Andhra Pradesh, which was issued vide their letter no. 1742/Env/CZMA/2015 dated 21st May, 2015. SCZMA has recommended the case for sub-sea pipeline transfer to onland terminal. PP has submitted the copy of forest clearance letter no 4-APB141/2005-BAN/2406 dated 24th March, 2006 for diversion of 0.44 ha. of forest land. PP informed that no fresh forest clearance is required in this project as same alignment will be used. They have presented the evacuation plan and committee found it satisfactory.

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

- i. Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur clean diesel shall be used. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- ii. CRZ clearance shall be obtained.
- iii. Gas produced during testing shall be flared with appropriate flaring booms.
- iv. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.
- v. Total water requirement shall not exceed 30 m³/day and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.

- vi. Water based drilling mud shall be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30th August, 2005.
- vii. The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall undertake conservation measures to protect the marine animals/biota in the region. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.
- viii. Treated wastewater (produced water or formation water) shall comply with the marine disposal standards notified under the Environment (Protection) Act, 1986. Sewage treatment on board of the rig as per MARPOL regulation. Residual chlorine shall not exceed 1 mg/l before disposal. Standard for injection produced water into confined hydrocarbon reservoir structure at more than 1000 m with oil in water content of less than 10 ppm shall be complied.
- ix. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.
- x. All the guidelines shall be followed for the disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30th August, 2005. Different types of wastes shall be kept segregated.
- xi. High efficiency equipment shall be used to separate solids, hydrocarbons and water such as shale shakers with improved capacity to filter smaller solids, low shear pumps for use in produced water shall be employed.
- xii. Good book keeping practices shall be put in place to manage wastes such as waste tracking program i.e. identify where and when the waste generated, the type of waste and its volume, the disposal method and its location, and the personnel responsible for the waste management.
- xiii. A waste minimisation plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimised equipment maintenance schedules.
- xiv. Only essential rig personnel shall be on board the rig. Emergency Response Plan and health, safety and environment (HSE) system shall be installed. Geo- hazard and geotechnical studies shall be carried out to ensure safe drilling operations.
- xv. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MOEF/CPCB authorized recyclers/re-processors only.
- xvi. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick within 500 meters shall be provided.
- xvii. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.
- xviii. The International 'Good Practices' adopted by the Petroleum Industry viz International norms to safeguard the coastal and marine biodiversity shall be implemented by the company.
- xix. The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MOEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.

- xx. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- xxi. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.
- xxii. Full drawings and details of Blow Out Preventor to encounter well kick due to high formation presence, if encountered, shall be submitted to the Ministry's Regional Office within 3 months of the issue of environment clearance.
- xxiii. On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well. The position at the end of the activities shall be communicated in detail to the Ministry indicating the steps taken i.e. whether all the wells are plugged or abandoned and necessary precautions taken.
- xxiv. A brief report on environmental status & safety related information generated and measures taken as well as frequency of such reporting to the higher Authority shall be submitted to this Ministry and its respective Regional Office at Bangalore.
- xxv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.
- xxvi. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.
- xxvii. Adequate funds both recurring and non-recurring shall be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- xxviii. Petroleum and Natural Gas (safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.
- xxix. Concrete plan of action for Enterprise Social Responsibility consisting 2.5 % of project cost shall be prepared in consultation with the District Authority and the local people and a mechanism for it monitoring should be worked out. Action plan shall be submitted to MoEF's RO Office for monitoring.

42.6.9 Bulk Drugs manufacturing unit (50000 MTPM) at Survey No: 291, 293 & 296, kuthotapally Village, Amangal Mandal, Mahabubnagar District, Telangana State by M/s VSR Life Sciences Pvt. Ltd. - reg. EC

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 32nd meeting held during 20th– 21st January, 2015 and the Committee suggested them to submit a copy of latest No Objection Certificate from Panchayat.

PP vide letter dated 15th March, 2015 has submitted the copy of 'No Objection Certificate' dated 12.03.2015 issued by the Office of the Grama Panchayat Secretariat, Akuthotapally ; Copy of 'No Objection Certificate' dated 03.03.2015 issued by the Office of the Gram Panchayat, Polepally; Copy of 'No Objection Certificate' dated 03.03.2015 issued by the Office of the Gram Panchayat, Medigadda ; Copy of 'No Objection Certificate' dated 04.03.2015 issued by the Office of the Gram Panchayat, Mangalpally ; Copy of 'No Objection Certificate' dated 05.03.2015 issued by the Office of the Gram Panchayat, Vittaipally; Copy of 'No Objection Certificate' dated 05.03.2015 issued by the Office of the Grama Panchayat, Vasudevapur; Copy of 'No Objection Certificate' dated 03.03.2015 issued by the Office of the Gram Panchayat, Kadthal for establishment of bulk drug and intermediate manufacturing industry by M/s VSR Life Sciences Pvt. Ltd

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

- i) Bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii) The levels of PM_{2.5}, PM₁₀, SO₂, NO_x, VOC and CO shall be monitored in ambient air.
- iii) scrubber should be provided to process vents to control process emissions. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.
- v) Total fresh water requirement from ground water source shall not exceed 80 m³/day and prior permission shall be obtained from the CGWA/SGWA.
- vi) Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream should be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- vii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- viii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.
- ix) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- x) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xi) Solvent management should be as follows :
 - Reactor should be connected to chilled brine condenser system
 - Reactor and solvent handling pump should have mechanical seals to prevent leakages.
 - The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents should be stored in a separate space specified with all safety measures.
 - Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- xii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xiii) At least 5.0 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

42.6.10 Expansion of manufacturing of Synthetic Organic Resin unit at Village Bhimasar, Anjar-Bhimasar Road, Tal.Anjar, Distt. Kutch, Gujarat by M/s Natural Petrochemicals Pvt. 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 the following additional information:

1. Re-examining /rechecking of all the ambient air quality data as the same was not properly documented.
2. Details of wastewater treatment scheme.
3. Inlet and outlet characteristics of wastewater.
4. Point-wise response to public hearing issues.

PP vide letter dated 14th May, 2015 has submitted the above addl. information.

M/s Natural Petrochemicals Pvt. Ltd. has proposed for expansion of manufacturing of Synthetic Organic Resin unit at Village Bhimasar, Anjar-Bhimasar Road, Tal. Anjar, Distt. Kutch, Gujarat. Cost of expansion project is Rs. 14.89 crores. Plot area is 42291 m² of which greenbelt will be developed in 14000 m². Following products will be manufactured :

S.N.	Product	Existing (TPM)	Proposed Additional (TPM)	Total after expansion (TPM)
1	Unsaturated Polyester Resin	1000	2300	3500
2	Alkyd Resin	200		
	Total	1200	2300	3500

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2013 - February, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (58.0 µg/m³ to 136 µg/m³), PM_{2.5} (14 µg/m³ to 48 µg/m³), SO₂ (6.0 µg/m³ to 32µg/m³) and NOx (10 µg/m³ to 35 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.48 µg/m³, 4.87 µg/m³ and 0.6209 µg/m³ with respect to PM₁₀, SO₂ and NOx. The resultant concentrations are within the NAAQS. Multi cyclone separator followed by bagfilter will be provided to agro waste/fire wood fired thermic fluid heater to control particulate emissions. Adequate stack height will be provided to oil fired thermic fluid heater. DG set (1 x 380 KVA + 1 x 250 KVA) will be installed. Water requirement from Gujarat Water Infrastructure Ltd. will be increased from 25.0 m³/day to 60 m³/day after expansion. Wastewater generation will be increased from 6 m³/day to 25 m³/day after expansion. Industrial effluent will be treated in the ETP and evaporated in the Thermic fluid heater to achieve 'Zero effluent discharge'. ETP sludge and evaporation salt will be sent to TSDF.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 4thDecember, 2014 under the chairmanship of Additional District Magistrate, Kutch. The issues were raised regarding no impact on village, CSR, local employment etc. The Committee discussed the issues and found satisfactory.

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) Bag filter shall be provided to agro waste/fire wood fired thermic fluid heater to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- ii) Total fresh water requirement from Gujarat Water Infrastructure Ltd. should not exceed 60 m³/day.
- iii) Industrial effluent will be treated in the ETP and evaporated in the Thermic fluid heater to achieve 'Zero effluent discharge'. Condensate will be reused/recycled for cooling tower make up/ process.
- iv) No effluent shall be discharged outside the factory premises and zero effluent discharge concept shall be adopted.
- v) 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.
- vi) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- vii) All the issues raised during the public hearing/consultation meeting held on 4thDecember, 2014 should be satisfactorily implemented.
- viii) As proposed, green belt over 14000 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.
- ix) As proposed 2.5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

42.7 Terms of Reference (TOR)

42.7.1 Expansion of Caustic Chlorine Products and Value Added Derivatives along with installation of new Chloromethane Plant at Village Birlagram, Nagda, District- Ujjain, Madhya Pradesh by M/s. Grasim Industries Ltd. (Chemical Division)-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 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). Chlor alkali industry > 300 TPD production capacity or a unit located outside the notified industrial area/estate is listed at S.N. 4 (d).

M/s Grasim Industries Ltd. has proposed for expansion of caustic chlorine and value added derivatives along with installation of new chloromethane plant at village Birlagram, Nagda, district- Ujjain (MP). Plot area is 153 acres of which area earmarked for green belt development is 58.5 acres. Expansion will be done in the existing unit. Cost of project is Rs 285 crores. Chambal River is flowing at a distance of 1.0 km. It is reported that there is no national park, wildlife sanctuary, biosphere reserve, tiger/elephant reserve within the 10km radius. Following are the existing and the proposed products to be manufactured:-

S.No.	Name of plant	Existing capacity (TPA)	Proposed capacity (TPA)	Total capacity after expansion (TPA)
1	Caustic soda	270000	180000	450000
2	Chlorine	215200	149800	365000
3	Hydrochloric acid (100%)	79000	56000	135000
4	Sodium Hypochlorite (100%)	53520	36480	90000
5	Hydrogen	6730	4670	11400
6	Compressed hydrogen	960	500	1460
7	Poly Aluminium Chloride	27720	137280	165000
8	Stable bleaching Powder	29436	25314	54750
9	Chlorinated Paraffin	27000	18645	45645
10	ChloroSulphonic Acid	23400	Nil	23400
11	Calcium Chloride (100%)	54000	Nil	54000
12	Carbon Dioxide	23760	Nil	23760
13	Chloromethane	Nil	36000	36000

Alkali Scrubbers have been provided to Membrane cell (Unit I & II) to absorb unreacted chlorine. Water Scrubbers have been provided to Membrane cell (Unit I & II) to absorb HCl vapours. Water Scrubbers have been provided Poly Aluminium chloride plant to control HCl and Al₂O₃. Alkali Scrubbers have been provided to Stable Bleaching powder plant to control chlorine emission. Bagfilter has been provided to Stable Bleaching powder plant to control particulate emissions. Water Scrubber has been provided to Chlorinated Paraffin plant to control HCl emissions. Total water requirement from Chambal river will be increased from 3495 KLD to 6000 KLD after expansion. Effluent generation will be 315 m³/ day after expansion. Effluent will be treated in the ETP. Treated effluent will be discharged into a common industrial channel which is 1.5 km away from the plant which finally joins the Chambal river downstream about 6km for the plant site. Brine sludge is being/ will be generated from Caustic soda plant which is being/ will be disposed in a secured captive landfill facility made and managed as per MoEFCC guidelines. Small quantity of used oil from rotating equipment's, exhausted resin, and exhausted carbon generated on replacement/ cleaning activities is being/ will be sold to authorized recyclers. Sludge generated from Sewage Treatment Plant (STP) is being / will be used as manure for greenbelt/ plantation development.

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

- 1) Details on 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) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 4) Details of proposed source-specific pollution control schemes (salt washing, filtration, cell ventilation gas, chlorine handling and safety, *etc.*) and equipments to meet the national standards.
- 5) Pollution control measures proposed in the plant namely, Chlorinated Paraffin, Chloromethane, Chloro Sulphonic Acid *etc*
- 6) Details on product storage and handling – chlorine, caustic soda, *etc.*
- 7) Details on tail gas treatment.
- 8) Details on requirement of energy and water along with its source and authorization from the concerned department.
- 9) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 10) 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 the environmental quality of the groundwater, soil, crop, air, *etc.*, are affected due to salinity and a detailed compliance to the prior environmental clearance/consent conditions.
- 11) Details on groundwater quality and surface water quality of nearby water sources and other surface drains. The parameters of water quality may include Residual chlorine*, TDS*, alkalinity*, pH* & Mercury* (in water & sediment), *etc.* (* - As applicable)
- 12) Details on existing ambient air quality and expected, emissions for PM10, PM 2.5, 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)
- 13) Specific programme to monitor safety and health protection of workers.
- 14) Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
- 15) Details of the emergency preparedness plan for chlorine/Hydrogen storage, handling and transportation and on-site and off-site disaster management plan.

B. Additional TOR

- i. 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.
- 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 plan for rain water harvesting and at least pond to be created for 2-3 month capacity
- iv. Possibility to be explore for further utilization of salts.

- v. Data to be collected for VOC and HCl monitoring

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.

42.7.2 Expansion of project Manufacturing of (Construction Emulsions, Synthetic Acrylic Polymer Emulsions, Industrial Synthetic Adhesives, Glue & Adhesives) at Survey No. 377/1/7, Zari causeway Road, Behind Stone Quarry, Kachigam, Daman(U.T.)by M/s Jensions Industries 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 Jensions Industries Ltd has proposed for Expansion of project Manufacturing of (Construction Emulsions, Synthetic Acrylic Polymer Emulsions, Industrial Synthetic Adhesives, Glue & Adhesives) at Survey No. 377/1/7, Zari causeway Road, Behind Stone Quarry, Kachigam, Daman (U.T.) Plot area is 2927.08 square meter. River Damanganga is flowing at a distance of 1.1km. A Cost of the project is 40 lakhs. It is reported that there is no National Park, Wildlife Sanctuary, Biosphere reserve within the distance of 10km radius. Interstate Gujarat Border is located within 5km distance.

Following are the existing and proposed products to be manufactured:-

S. No.	Products	Existing Production capacity (MTPM)	Proposed production capacity (MTPM)
Existing Products			
1	Synthetic Adhesives	250	250
2	Textile Auxillaries	450	450
3	Primary Ink	50	50
Proposed Products			
4	Acrylic Polymers	--	835
5	Vinyl Polymers	--	800
6	Glue &Adhesives	--	170
	TOTAL	750	2555

Stack of adequate height will be provided to additional oil fired boiler (600 Kg/Hr.). No additional utilities will be installed for the proposed expansion project. Working hour of boiler will be increase for proposed expansion project. Total water requirement from the borewell/tanker water supply will increase from 20.4 m3/day to 58.2 m3/day after expansion.

Industrial Effluent will be treated in the ETP followed by Evaporator. Condensate from evaporator will be reused for cooling and gardening purpose. ETP waste is/will be stored properly & disposed of to CSWD site of GEPIL, MotaRandha, Silvassa. Process Residue is/will be stored properly & disposed of to CSWD site of GEPIL, MotaRandha, Silvassa. The used oil will be collected & stored separately and reused as lubricant in plant operation. Discarded drums/bags is/will be reused or given back to supplier.

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

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

B. Additional TOR

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

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. 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.

42.7.3 Euro-IV HSD Project along with Installation of LPG Mounded Bullet and Facility upgradation of Existing LPG Bottling Plant & Complete at Bokakhat Tehsil , Goaghat District, Assam by M/s Numaligarh refinery 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 Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s Numaligarh refinery Limited has proposed for Euro-IV HSD Project alongwith Installation of LPG Mounded Bullet and Facility upgradation of Existing LPG Bottling Plant & Complete at Bokakhat Tehsil, Goaghat District, Assam. Refinery plant area is 750 acres and marketing terminal area is 265 acres. Cost of the project is 1578.55 Crore. Deopahar historical site is situated 5km from the refinery boundary. It is reported that there is no National Park, Wildlife Sanctuary within the distance of 10 km. However, Kaziranga National park and Garampani & Wildlife sanctuaries are situated at an aerial distance of 22.5 km north-west and 20 km south-east from the refinery boundary. River Kaliyani, Dhansiri & Brahmaputra are flowing within 10 km distance. Total crude processing capacity is 3.0 MMTPA. Following are the existing and the proposed products:-
Product Slate (@ 3MMTPA crude throughput)

CASES	BASE CASE	DESIGN CASE A1: Production of Euro-V HSD
	'000 KTPA	'000 KTPA
LPG	0.1036	0.104
NAPHTHA SALES	0.192	0.239
NAPHTHA PETROCHEM	0.160	0.160
EURO-III GASOLINE (REGULAR)	0.173	0.173
EURO-IV GASOLINE (REGULAR)	0.048	0.048
KEROSENE	0.492	0.048
ATF	0.060	0.105
EURO-III HSD	1.566	0
EURO-IV HSD	0	1.582
EURO-V HSD	0	0.36
SULPHUR	19.4 TPD	21.22 TPD
COKE	0.085	0.085
WAX	50000 TPA	50000 TPA

Unit Capacities

Unit Name		Base Case	Design case- A1
		Present Capacity	Capacity (MMTPA)
1	Crude Unit	3.0 MMTPA	Same as Nameplate capacity
2	Naphtha Hydrotreater	271 KTPA	Same as Nameplate capacity
3	Naphtha Splitter	160 KTPA	Same as Nameplate capacity
4	Isomerisation	55.5 KTPA	Same as Nameplate capacity
5	SRR	168 KTPA	Same as Nameplate capacity
6	HCU	1.45 MMTPA	Same as Nameplate capacity
7	Delayed Coker Unit	0.306 MMTPA	Same as Nameplate capacity
8	CCU	0.115 MMTPA	Same as Nameplate capacity
9	HGU (EXISTING)	48600 TPA	Same as Nameplate capacity
10	SRU (in TPD)	19.3 TPD	19.3+7.5
11	FGSU	7.92 TPH	7.92+6.5 TPH
12	SWS	20.3 M3/Hr	20.3+15 M3/hr
13	ARU	26.8 TPH	26.8+25 TPH
14	NEW HGU	--	8000 TPA
15	NEW DHT	--	1 MMTPA

Modifications envisaged in existing Utility systems to achieve Complete Euro-IV HSD

System	Modifications required
Steam and Power	1 Gas engine generator (8 MW) and UB (50 TPH)
Cooling Water System	1 additional (1000 m ³ /hr) Cooling Tower cell with circulation pumps (1+1) in the New cooling water system
Nitrogen System	Existing facility is adequate
Raw Water System	Additional cooling water make up pumps (1+1)
Compressed Air System	Existing facility is adequate
DM plant	1 Additional DM chain of 65 m ³ /hr with deaerator
Fuel gas	Existing facility is adequate
Fuel oil	Existing facility is adequate

SO₂ emission will be 10 kg/hr after implementation of proposed project. Raw water requirement for complete Euro-IV HSD project will be 55 m³/hr. Power requirement will be 3.028 MW. Fuel requirement will be 4.9 TPH. Effluent generation will be 1.3 m³/hr and treated in the ETP. Solid waste generation will be 65 tons every 3 years.

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

1. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.
3. Sulphur balance giving input from crude, refinery fuel (if used) and any other outside fuel and output in various products and emissions.
4. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
5. Details of emissions from all the stacks including volumetric flow rate.
6. Details on availability of raw materials (crude oil, natural gas, chemicals, etc.), its source and storage at the plant.
7. Details on mode of transportation of crude and products.
8. Details of storage capacity of crude and products.
9. Ambient air quality data should include hydrocarbon (methane and non-methane), VOC, Ni & V etc.
10. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
11. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Also, include treatment details such as primary (physico-chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems
12. Storm water management plan.

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

B. Additional TOR

1. Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was conducted on 14th July, 2011 and as increase in pollution load is insignificant.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

It was recommended that '**TORs**' 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.

42.7.4 Proposed capacity enhancement of resin manufacturing from 100 TPM to 1700 TPM at S.F nos. 176B/4, 181, 182/1, 182/2, etc at Village Chinna Obulapuram, Taluka Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s Century Plyboards (I) 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 Century Plyboards Ltd. has proposed for expansion of Capacity of Resin manufacturing from 100 TPM to 1700 TPM at Village Chinna Obulapuram, Taluk Gummidipoondi, District Thiruvallur, Tamil Nadu. Existing plot area is 66327.98 m² and additional land (25717 m²) will be acquired. Therefore, total plot area is 92044.98 m². Total cost of project is Rs. 55 crores. Pulicatlake and ThamaraiEri lake are at distance 6.4km and 3.4km respectively from the project site. Pulicat lake bird sanctuary and Amirthamangalam are located at distance of 6.4 km and 8.98 km from the site. Following are the details of the existing and proposed products:-

S. No.	Products	Existing Production Capacity (TPM)	Proposed Addition (TPM)	Total Production Capacity (TPM)
Wood Products				
1	Plywood & veneer	1500	3700	5200
2	Pre-laminated boards	--	3500	3500
3	Raw PB boards	--	3500	3500
Resins				
4	Combined resin production PF – Phenol Formaldehyde UF – Urea Formaldehyde MF – Melamine Formaldehyde MUF – Melamine Urea Formaldehyde UMF – Urea Melamine Formaldehyde	100 (PF, UMF, MUF, MF & UF)	1600 (PF, UMF, MUF, MF, UF)	1700

Bagfilter will be provided to Thermic fluid heater to control particulate emissions. Multi-cyclone separators will be provided to hot air generator. Dust collector (Bagfilter type) will be provided to wide belt standing. Stack of adequate height will be provided to additional DG sets (1x600 KVA + 1x365 KVA+ 1x250 KVA+ 1x180 KVA+1x 200 KVA). Fresh water requirement from the existing bore wells will increased from 22 m³/day to 80 m³/day after expansion. Effluent generation from washing will be 2 m³/day and re-circulated as a solvent for mixing catalyst. Domestic effluent will be treated in the STP with capacity of 45 KLD and treated sewage will be used as gardening purpose. No effluent will be discharged outside the plant premises. STP sludge will be used as manure. Residue ash from TFH/Hot air generator will be used for land filling. Spent oil/waste oil will be sent to the authorized re-processors. Green belt area after expansion will be 30391.14 square meter.

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

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

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

B. Additional TOR

- I. Copy of application to be submitted for clearance NBWL in respect Pulicat lake bird sanctuary
- 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.

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.

42.7.5 Expansion of Molasses based Distillery (from 60 to 100 KLPD)alongwith Co-generation power plant (from 1 MW to 6.76 MW) at Villages Babhanikhas and Sadarakpur, Tehsil Mankapur, District Gonda, U.P. by M/s Balrampur Chini Mills Ltd Unit: Babhnan (Chemical Division)-reg TOR.

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

M/s Balrampur Chini Mills Ltd Unit: Babhnan (Chemical Division) has proposed for expansion of Molasses based Distillery (from 60 to 100 KLPD) alongwith Co-generation power plant (from 1 MW to 6.76 MW) at Villages Babhanikhas and Sadarakpur, Tehsil Mankapur, District Gonda, U.P. Plot area is 44 acres. Cost of the project is 72 crore . Out of which Rs. 43.70 crore and 1.00 crore are earmarked towards capital cost and recurring cost per annum for implementation of environment management plant. It is reported that there is no National Park, Wildlife Sanctuary, Biosphere Reserves within the distance of 10km from the project site. River Bisuhi is flowing at a distance of 6.01 Km. No. of working days is 330 days /Annum.

Bagfilter will be to boiler (45 TPH) to control particulate emissions. Total fresh water requirement from ground water source will be 1110 m³/day after expansion. Spentwash generation will be 1000 m³/day after expansion and evaporated in MEE and incinerated in the incineration. Other effluent (condensate, spent lees, floor washing and blow down) will be treated in the ETP. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge. Total ash will be used as manure. Fermenter sludge will be used as manure.

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

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

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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

42.7.6 Expansion of Bulk Drugs and Intermediates Manufacturing Unit (From 1000 TPM to 3704 TPM) at Sy. No. 533, 535 & 536, Village Bonthapally, Mandal Jinnaram, District Medak, Telangana by M/s. Granules India Limited 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. Granules India Limited Ltd. has proposed for Expansion of Bulk Drugs and Intermediates Manufacturing Unit (From 1000 TPM to 3704 TPM) at Sy. No. 533, 535 & 536, Village Bonthapally, Mandal Jinnaram, District Medak, Telangana. Plot area is 8.17 acres of

which greenbelt will be developed in 2.7 acres. Cost of project is Rs. 53 Crores. Bonthapally RF at 3.1 km in southwest direction, Jinnawaram RF at 2.4 km in southwest direction, Naguwaram RF at 4.3 km in west direction, Nawabpet RF at 3.7 km in north direction, Gottaimukkala RF at 3.8 km in north direction and Mambapuram RF at 4.2 km in northwest direction. There are no ecologically sensitive areas like national parks, and sanctuaries within 10 km radius of the site. The existing and proposed manufacturing capacity is as follows:

S.N.	Name of the Product	CAS No.	Capacity (TPM)	
			Permitted	Total after Expansion
1	Paracetamol	103-90-2	1000	2000
2	Metformin HCl	1115-70-4	---	1000
3	Guaifenesin	93-14-1	---	300
4	Methocarbamol	532-03-6		100
5	CiproflocacinHCl	86483-48-9		100
6	O-floxacin	82419-36-1	---	100
7	Levofloxacin	100986-85-4	---	100
8	Research & Development Products		---	1
9	Pilot Plant Products		---	3
	Total		1000	3704

List of Utilities

S.No	Utility	Permitted	Proposed	Total after expansion
1	Coal Fired Boiler	10TPH	10TPH*	2x10 TPH
2	DG Set**	250KVA 500KVA 500KVA	3x 750 KVA	3 x 750KVA 2 x 500 KVA 1 x 250 KVA

* 10TPH boiler proposed will be kept as standby

** DG sets shall be kept as standby.

Bagfilter will be provided to coal fired boiler (10 TPH). DG sets capacity will be enhanced by adding 3 x 750 KVA DG sets. DG sets shall be provided with stack heights based on the CPCB formula for effective stack height. Total water requirement will be increased from 123.1 m³/day to 335 m³/day after expansion. Out of which fresh water requirement from HMWS & SB Industrial Water supply will be 180 m³/day and remaining water requirement (155 m³/day) will be met from recycled water. Effluent generation will be increased from 51.5 m³/day to 160.5 m³/day after expansion. The effluents generated from the plant are from process, washings, DM rejects and scrubbers of about 112 KLD, are sent to Stripper followed by MEE, AFTD. The condensate from MEE and AFTD is treated along with lab washings, utility blow downs of 26 KLD and domestic effluent of 22.5 KLD in a biological treatment plant followed by Reverse Osmosis for reuse in cooling towers. 24 acres of land of the total land area is developed as green belt. Solid wastes are generated from process, solvent distillation, stripper, AFTD, ETP (primary & secondary), and DG sets. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration. The evaporation salts are sent to TSDF. Filter media like activated carbon and hy-flow are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers. The sludge from effluent treatment plant is sent to TSDF. Ash generated from coal fired boilers is sent to brick manufacturers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorized buyers after detoxification. MoEF vide letter no F No. J-11011/393/2007 IA II (I)

dated 16th August, 2007 has granted environmental clearance to M/s. Granules India Limited Ltd. for expansion of bulk drugs.

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

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

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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

42.7.7 Expansion of Fertilizer Plant at Plot No. 96, SectorA, Sirgitti Industrial Area, Tehsil Bhilai, District Bilaspur, Chhattisgarh by M/s BEC Fertilizers-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the

draft Term of References for the preparation of EIA-EMP. All Chemicals Fertilizer Industry are listed at S.N. 5(a) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s BEC Fertilizers has proposed for Expansion of Fertilizer Plant at Plot No. 96, Sector A, Sirgitti Industrial Area, Tehsil Bhilai, District Bilaspur, Chhattisgarh. Plot area is 47.66 Acres. Cost of project is Rs. 75 crore. It is reported that there is no national park, wildlife sanctuary located within 10Km distance. Following are the existing and proposed products to be manufactured:-

S.no.	Product/plant	Existing cap (MT PA)	Proposed cap (MT PA)	Remarks
1	Sulphuric acid	40000	140000	
2	A Single Super phosphate	140000	440000	Combined capacity of all the three products will not exceed 4,40,000 TPA
	B Triple super Phosphate	-	100000	
	C Boronated Single super Phosphate	-	40000	
3	Granulated Fertilizer (SSP/TSP/NPK/Customized Fert)	45000 (NPK)	440000	

Twin Cyclone will be provided to Granulation Plant. Multi stage scrubber system with venture and spraying towers will be provided to SSP Plant at Den Outlet. Alakli scrubber, demister and mist-eliminators will be provided to acid plant at final absorption tower to control SO₂ emissions and acid mist. Total water requirement from CSIDC water supply will be increased from 350 m³/day to 1550 m³/day after expansion. All the effluent water from cooling towers bleed, boiler blow down and RO plant of sulphuric acid plant will be recycled and utilized fully in SSP/TSP plant for processing. Effluent generation from floor washing and spillage water will be sent to ETP for treatment. ETP sludge will be utilized in SSP plant. Used oil and Catalyst (V₂O₅) will be sold to re-processors. Sulphur sludge will be used in SSP products as modifier. Area earmarked for greenbelt is 18.35 acres.

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:

- 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 (H₂SiF₆) and its uses.
- 8) Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck, etc.

- 9) Details on existing ambient air quality for PM10, PM2.5, Urea dust*, NH₃*, SO₂*, 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

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

It was recommended that 'TORs' 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.

42.7.8 Expansion & Modernization of Molasses based Distillery (from 10 KLPD to 100 KLPD) alongwith Co-generation Power Plant (3 MW) at Village Tapri, Tehsil & District- Saharanpur, Uttar Pradesh by M/s Co-operative Company Limited- reg TOR.

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

M/s Co-operative Company Limited has proposed for expansion & modernization of Molasses based Distillery (from 10 KLPD to 100 KLPD) alongwith Co-generation Power Plant (3 MW) at Village Tapri, Tehsil & District- Saharanpur, Uttar Pradesh. Plot area is 9.84 acres of which greenbelt will be developed in 3.24 acres. Cost of the project is Rs. 120.50 crore. Out of which Rs. 35 crore and Rs. 3.5 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of environment management plan. Hindan river is flowing within 10 km radius. It is reported that there is no National Park, Wildlife Sanctuary within the 10 km area from the project site. Following are the existing and proposed products to be manufactured:-

Project Proposal	Unit	Existing Capacity	Proposed Expansion Capacity	Total Capacity after Expansion & Modernization
	Molasses based Distillery	10KLPD	90KLPD	100 KLPD
	Co-Generation Power	NIL	3 MW	3 MW

Total no of working day will be 330 days per annum. Total water requirement from ground water source / recycled water will be 900 m³/day. Bagfilter will be installed with the boiler. Spent wash generated during Molasses operation, will be first treated in Bio Reactor (Bio-Methanation) and after that will be concentrated in Multi-effect evaporator and then used as fuel in boiler. Spent lees generation from distillation column will be recycled partly to the columns for dilution and balance will be used for cooling tower make up. Domestic waste water generated from the plant will be treated in Septic Tank and treated water will be used in green belt development.

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

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

B. Additional TOR

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.

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

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

42.7.9 Augmentation of grain based feedstock in the existing 90 KLPD Distillery Unit (45 KLPD based on Molasses and 45 KLPD based on Molasses/Grain based distillery) by adding 45 KLPD Grain based Distillery and Establishment of 25 TPD CO2 Plant at Village Karedu & Mandal Lopadu, District Prakasam, Andhra Pradesh by M/s Pearl Distillery Limited-reg. TOR.

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

MoEF&CC vide letter no J-11012/13/98- IA II (I) dated 19th July, 2007 to M/s Pearl Distillery Ltd. for 90 KLPD Distillery Unit (45 KLPD based on Molasses and 45 KLPD based on Molasses/Grain based distillery). Now, PP has proposed to run the existing 45 KLPD molasses based Distillery alternatively with grain i.e. amendment requested as 45 KLPD molasses/Grain based plant. And also proposes to establish 25 TPD CO2 plant to collect Carbon Dioxide from fermentation area. Therefore, capacity of grain based distillery will be increased from 45 KLPD to 90 KLPD. Total plant area is 98.04 acres of which greenbelt will be developed in 76.86 acres. Fresh water requirement will be 655 m³/day. Spent wash from grain based distillery will be treated through decanter followed by MEE to form DWGS. Spent wash from molasses based distillery will be treated through anaerobic treatment followed by MEE and incineration in the incineration boiler. DWGS will be sold to cattle feed. Fly ash will be sent to brick manufacturers. Public hearing was conducted on 29.03.2005, which was prior to EIA Notification, 2006.

In this project the Committee was of the view that after expansion in the grain based distillery there may not be environmental impact as overall production within approved capacity i.e. 90 KLPD. After detailed deliberations, the Committee recommended the project for amendment in the existing environmental clearance. The proposal needs to apply through online portal on website.

42.7.10 Expansion of Sugar plant (from 5000 TCD to 7500 TCD) and molasses based Distillery Plant (from 60 KLPD to 75 KLPD) at Villages Chikkonahalli & Hurugalawadi, KoppaHubli, District Mandya, Karnataka by M/s NSL Sugar Limited-reg TOR.

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

M/s NSL Sugar Limited has proposed for expansion of Sugar plant (from 5000 TCD to 7500 TCD) and molasses based Distillery Plant (from 60 KLPD to 75 KLPD) at Villages Chikkonahalli & Hurugalawadi, KoppaHubli, District Mandya, Karnataka. Plot area is 110 acres. No additional land will be acquired. Cost of the project is Rs. 45.00 Crore. Shimshariver is flowing at a distance of 2.2 km from the site. It is reported that there is no National Park, Wildlife Sanctuary within the distance the distance of 10 km from the site. No. of days of distillery plant capacity will be 135 KLPD. Sugar will be operated for 240 days.

Following are the existing and proposed products to be manufactured:-

S. No.	Unit	Product		In Operation	Proposed Additional	Total after expansion
			Existing Capacity			
1	Sugar	White Crystal Suagr	5000 TCD	5000 TCD	2500 TCD	7500 TCD
2	Co-gen	Power	26 MW	26 MW	--	26 MW
3	Distillery	RS/ENA/Ethanol	60 KLPD Molasses/cane juice based 60 KLPD grain based Total capacity:120 KLPD	60 KLPD	15 KLPD Molasses based	75 KLPD Molasses/Cane juice based 60 KLPD grain based Total capacity:135 KLPD

Total fresh water consumption in the existing units is 4023 m³/day and demand will be met from Shimsha River. No additional water is required. Effluent generation will be increased from 1925 m³/day to 2135 m³/day after expansion. The sugar trade effluent will be restricted to 100 lits/ton of cane crushed. The effluent will be treated in the ETP. Spent wash will be restricted to 600 KLD @ 8 KL/KL alcohol produced during molasses based distillery operation. Spent wash will be treated in bio-digester. Treated spentwash will be evaporated in MEE followed by Rotary Dryer/spray dryer and incineration. Existing 100 TPH boiler will be upgraded to 110 TPH boiler with some minor modification. ESP will be installed in the 100 TPH boiler to control particulate emissions. Bagasse will be used as fuel in Co-generation boiler. Ash from baggase will be used as manure. Ash from concentrated spent wash & bagasse are used as fuel in boiler. MoEF vide letter no. J-11011/11/2011-IA II (I) dated 23rd April, 2013 has granted EC to M/s NSL Sugar Ltd. for expansion of Distillery Plant. Public hearing was conducted on 30th August, 2012.

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

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

11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

- a. Public hearing is exempted as per section 7 (ii) of EIA Notification, 2006 as public hearing was conducted on 30th August, 2012.
- b. 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**' 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.

42.7.11 Greenfield Facility of Manufacturing Plant for Methylcobalamin (b12) at Plot No. 555, HSIIDC Barhi part 2, Tehsil Ganaur, District Sonapat, Haryana by M/s Royal Enterprises- reg TOR.

All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, absence of SEIAA in Haryana, proposal is treated as category 'A' and appraised at Central Level.

M/s Royal Enterprises has proposed for setting up of Greenfield Facility of Manufacturing Plant for Methylcobalamin (b12) at Plot No. 555, HSIIDC Barhi part 2, Tehsil Ganaur, District Sonapat, Haryana. Cost of project is Rs. 1.55 Crore. Plot area is 1800 m². River Yamuna is flowing at a distance of 9.2 km. Interstate Boundary (UP) is located at a distance of 8.78 km distance. Following products will be manufactured :

S.N.	Product	Quantity (Kg/Month)
1	Methylcobalamin (b12)	30 kg/month
	By-product	
1	Sodium Iodide	

Water requirement from HSIDC water supply will be 300 lt per day. Effluent will be treated in the ETP and send to CETP (maintained by HSIDC Govt. Organization). Fuel consumption i.e. HSD used 50 lit/day. one DG set (60 KVA) will be installed. Hazardous waste will be sent to TSDF.

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

1. Executive summary of the project

2. Justification of the project.
3. Promoters and their back ground.
4. A copy of Gazette Notification issued by the Govt. of Haryana indicating location of the project in notified GIDC should be included necessarily.
5. Project location and plant layout.
6. Infrastructure facilities including power sources.
7. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
8. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
9. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
10. List of products alongwith the production capacities.
11. Detailed list of raw material required and source, mode of storage.
12. Manufacturing process details alongwith the chemical reactions and process flow chart.
13. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
14. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
15. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
16. Name of all the solvents to be used in the process and details of solvent recovery system.
17. Details of water and air pollution and its mitigation plan.
18. Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
19. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
20. Zero discharge effluent concepts to be adopted.
21. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
22. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
23. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
24. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
25. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
26. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.

- vi) Liver function tests (LFT) during pre-placement and periodical examination.
- 27. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
- 28. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
- 29. A tabular chart with index for point wise compliance of above TORs.

B. Additional TOR

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

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.

42.8 Any other

42.8.1 Setting up of 120 KLD grain based distillery plant with 5 MW Power Plant of at village Karia, PS Bagnan, district Howrah, West Bengal by M/s Madushala Distilleries Pvt. Ltd.- amendment in TOR for revised dag number/survey no.

MoEF&CC vide letter no. J011011/104/2014 – IA II (I) dated 17th July, 2014 has issued TOR to M/s Madhusal Distilleries Pvt Ltd. for setting up of 120 KLPD Grain based Distillery alongwith 5 MW Power Plant at Dag no. of Mauza Karia 280, 321-328, 332, 333, 336-339, 347-353, 357-361, 367, 369-375, 379-388, 394-399, 419, 421, 424, 439, 443, Dag No. Mauza Khuleperiya 226, 293, 294, 295, Village Karia, PS Bagnan, District Howrah, West Bengal.

Now, PP informed that the Dag Numbers have been incorrectly mentioned in Form-1 due to typographical error. The correct Dag Nos. are as follows :

Mouza Karia: 321-328, 332,333, 336-339, 347, 348, 349, 350, 351-353, 357-361, 367-374, 380-390, 398-404, 406-421, 424,443, 445 and 449 & Dag Nos. of Mauza- Khuleperiya; 226, 293, 294, 295. Total plot area will remains 43.27 acres only. PP has requested to amend the existing TOR letter by incorporating the said Dag nos.

After detailed deliberation, the Committee recommended the said corrections in the existing ToR letter.

42.8.2 40 Developmental Wells of M/s GeoenproPetroleum Ltd. in Kharsang Oilfield, Dist. Changlang, Arunachal Pradesh- reg. extension of EC

Environmental Clearance was obtained on 15th November, 2007. Considering seven years, EC was valid upto 14.11.2014. PP has applied in the MoEF&CC on 26.12.2013, which was within valid period.

Regional Office, Shillong has confirmed that M/s Geo Enpro Petroleum Ltd. has drilled 23 (twenty three) wells at Kharsang Oil Field, Arunachal Pradesh till 14th November, 2012 considering the validity period of the environmental clearance as 5 years while 6 (six) wells have been drilled during 18.02.2013 to 21.08.2013. Remaining 11 development wells out of 40 wells are yet to be drilled.

MoEF&CC has issued amendment notification no. SO 1141 (E) dated 29th April, 2015 for extension of validity of environmental clearance, wherein validity period of environmental clearance has been increased to seven years from five years. PP informed that the all 40 wells could not be drilled during the EC period due to the following reasons:

Limited fair weather window (mid-November to mid February) at Kharsang for drilling site preparation, mobilization of material and services etc. Drilling of few wells took considerably long time due to complex geological conditions. Since number of prospective zones were encounter during drilling of wells, testing of all the zones took more time than anticipated. Due to remoteness of the Kharsang Field, it took longer time for mobilization of drilling rig package, associated service, material etc for drilling and completion of wells. Now, PP informed that they plan to drill 8 wells during year FY 2015-16 and 3 wells in FY 2016-17 in continuation.

After detailed deliberation, the Committee recommended the extension of validity of EC for another three years w.e.f. 14.11.2014.

42.8.3 Proposed Dahej petrochemical complex at Dahej SEZ Ltd. Village Ambheta, Taluka Vagra, District Bharuch, Gujarat by M/s ONGC Petro Additions Ltd. reg amendment in EC

MoEF&CC vide letter no J-11011/316/2006-IA II (I) dated 21.11.2007 has granted environmental clearance to M/s ONGC Petro Additions Ltd for the above mentioned project. MoEF&CC vide letter no J-11011/316/2006-IA II (I) dated 01.03.2013 has granted the extension of validity of EC. PP informed that at the time of applying for EC only generic design information available. The licensor was finalized and selected and the detailed design data was then available after the receipt of EC. Further based on the market conditions and advice of project management consultant (EIL), the project configuration (product slate) was optimized. PP has submitted the following revised optimized products list:

Details of Product Mix and Capacities				
1	2	3	4	5
Sr.No	Product	Quantity (KTPA) as per existing EC	Proposed Qty (KTPA) for EC Amendment	Remarks
Intermediate Products				
1	Ethylene	1100	1100	No change

2	Propylene	340	400	As per optimised design based on the selected Licensor's Cracker technology, propylene production is 400 kTPA. However, in initial EC it was considered as 340 kTPA based on DFR. Hence requires amendment. (340 KTPA captive consumption, 60 KTPA direct sale)
Final Products				
3	HDPE (Dedicated)	1 x 340	1 x 340	No change
4	LLDPE/HDPE(Swing)	2 x 360	2 x 360	No change
5	Polypropylene	1 x 340	1 x 340	No change
Associated/Byproducts				
6	Hydrogenated PyGas	135	164	As per optimised design based on the selected Licensor's technology.
7	CBFS	75	75	No change
8	Hydrogen	63	63	No change
9	Fuel Gas	405	405	No change
10	Butene-I	35	35	No change
11	Butadiene	95	115	As per optimised design based on the selected Licensor's technology.
12	Benzene	135	150	As per optimised design based on the selected Licensor's technology.
13	Styrene	95	No Change	Curently not planned for production.
14	Styrene Butadiene Rubber	160	No Change	Curently not planned for production.
15	C9 + fraction	Not included in existing EC	32.4	This fraction was considered to be generated along with Hydrogenated PyGas in a single stream during DFR stage. However, now it is perceived as a separate sellable by-product which is generated from Deoctanizer of PGHU unit.

16	Low Polymer Wax (Dedicated HDPE)	Not included in existing EC	8.211	This fraction is generated in the chosen Licensor's technology during termination of short chain polymer with hydrogen in polymerization reactor and subsequently separated in hexane recovery unit. Collected in flaked form from flaker unit or as polymer lump from LP Wax pit for direct sale in market.
17	C6+	Not included in existing EC	2.9304	This fraction is generated in the chosen Licensor's technology for Butene -1 unit, which is saleable in the market .

PP confirmed that all the related utilities will remain the same. PP requested to issue amendment in EC with revised product profile.

After detailed deliberation, the Committee recommended the amendment in EC for the above revised product profile.

Additional Items

42.9.1 Development Drilling of Twenty (20) wells in Dandewala & Bagitibba Mining Lease Block of 250 sq km at Village Tanot, Tehsil Ramgarh, District Jaisalmer, Rajasthan by M/s Oil India Ltd.-reg. EC

The project proponent and their consultant (M/s Asian Consulting Engineers Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded 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 projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Oil India Limited have proposed for development drilling of another 20 Wells at Dandewala & Bagitibba and Tanot Mining Lease Block of 250 sq km are in Village Tanot, Tehsil Ramgarh, District Jaisalmer in Rajasthan. Cost of project Rs. 96 Crores. ToR was approved for 10 wells. In addition, PP has added 10 more wells. This mining lease block name is Jaisal ML. Following are the details of proposed wells:

S.N.	Location	Latitude	Longitude	Size of project
1	RJBF	27°48'09.3"	70°08'34.2"	31850 m ²
2	RJBF	27°47'21.1"	70°08'42.6"	35050 m ²
3	RJBH	27°44'07.6"	70°08'31.7"	39850 m ²
4	RJBI	27°49'08.8"	70°08'54.1"	38250 m ²
5	RBJJ	27°46'08.4"	70°08'58.9"	31850 m ²
6	F-WDW	27°44'59.9"	70°08'05.3"	39850 m ²
7	RJBK	27°48'07"	70°08'00"	39850 m ²

8	RJBL	27°47'41"	70°07'05"	39850 m ²
9	RJBM	27°47'22"	70°08'05"	39850 m ²
10	RJBN	27°45'36"	70°07'56"	39850 m ²
11	RJBO	27°48'18.37"	70°08'16"	39850 m ²
12	RJBP	27°46'06.66"	70°08'17.90"	39850 m ²
13	RJBQ	27°44'41.29"	70°08'16"	39850 m ²
14	RJBR	27°43'42.76"	70°08'21.28"	39850 m ²
15	RJBS	27°40'57"	70°06'47.92"	39850 m ²
16	RJBT	27°40'34.23"	70°06'27.80"	39850 m ²
17	RJBU	27°49'37.29"	70°11'9.51"	39850 m ²
18	RJBV	27°50'50.27"	70°11'5.85"	39850 m ²
19	RJBW	27°50'51.89"	70°12'50.12"	39850 m ²
20	RJBX	27°50'18.64"	70°12'29"	39850 m ²

Depth of drilling varies from 1200 – 2200 m. Water based mud will be used. Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March to May, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (110.5 µg/m³ to 142.3 µg/m³), SO₂ (5.6 µg/m³ to 6.3 µg/m³) and NO_x (9.1 µg/m³ to 11.7 µg/m³) respectively. The resultant concentrations are within the NAAQS except PM10 due to the presence of sand dunes and occasional onset of the sand storms.

The environmental clearance was granted vide MoEF letter no. J-11011/758/2008-IA II(I) dated 13th January, 2009 for drilling at location in Tanot, Dandewala and Bagitibba Mining Lease adjacent other mining lease areas. Total expected production from well is 1.0 MMSCMD. The produced gas from the above three fields are brought to the common locations for processing at Dandewala Gas Processing Complex (DND-GPC). The processed gas are then further distributed to the consumer i.e. RRVUNL's Ramgarh Power Plant. The well fluid collection and testing facilities for Tanot field is located at Tanot GGS and similar facilities for well fluid produced from Dandewala and Bagitibba fields are available. The combined designed handling capacities of DND-GPC is 1 MMSCUMD and that of TOT-GGS is 0.4 MMSCUMD. All processed drainage is provided to the underground sump where water and condensate get separated. The condensate is then pumped to the condensate storage tank with the help of sump pump. A ground flare system of 1.0 MMSCUMD capacity is provided for normal /emergency flaring of gas. The power requirement during the site preparation will be met from DG sets. Water requirement from IGN Canal will be 25 m³/day. Wastewater generation from washings and spent mud will be 12-15 m³/day. the wastewater will be contained in HDPE lined pits and will be solar evaporate. During drilling operation, approx 150-220 m³ per well of wet drill cuttings are expected to be generated from each well depending on the type of formation cuttings and depth of drilling. These cuttings will be separated from the drilling mud using a solid-control system. These cuttings will be stored on site in HDPE lined pits and sipped into the waste pit. Blow out preventer will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Rajasthan State Pollution Control Board on 28th January, 2015. The issues were raised regarding impact on cattle, local employment, CSR, water supply, 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 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. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, methane & Non-methane HC etc.
- ii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iii. Approach road shall be made pucca to minimize generation of suspended dust.
- iv. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
- v. Total water requirement shall not exceed 25m³/day and prior permission shall be obtained from the concerned agency.
- vi. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- vii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Lucknow.
- viii. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- ix. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- x. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- xi. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- xii. The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xiii. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xiv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xv. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

- xvi. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xvii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
- xviii. All the issues raised during the Public Hearing/consultation meeting held on 28th January, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xx. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Lucknow.
- xxi. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Lucknow.
- xxii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxiii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.
- xxiv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxv. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxvi. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

42.9.2 Laying of Petroleum Product Pipeline with associated facilities from Rewari, Haryana to Kanpur, UP by M/s Hindustan Petroleum Corporation Ltd.-reg Amendment in EC

MoEF &CC vide letter no J-11011/239/2010-IA II (I) dated 19.03.2013 has granted environmental clearance to M/s HPCL for Rewari Kanpur Pipeline project.

Now, PP has informed that as per EC point no. 3.0 capacity of DG set are mentioned as 1 x 160 KVA & 1 x 100 KVA without any mention of location. DG set capacities as per application and actual installed are given below:

S .N.	Location	Capacity as per Original Application	Actual Installed Capacity
1	Rewari	1 x 160 KVA	1 x 400 KVA
2	Bharatpur	1 x 100 KVA	1 x 125 KVA
3	Mathura	1 x 100 KVA	1 x 125 KVA
4	Kanpur	1 x 150 KVA, 2 x 600 KVA	1 x 160 KVA, 1 x 400 KVA, 2 x 1000 KVA

5	SV Stations	20 KVA at each of 11 nos SV station	20 KVA at each of 8 nos. SV stations
6	IPS Station	1 x 80 KVA	1 x 40 KVA

After detailed deliberation, the Committee recommended the said proposal for the above mentioned amendment.

GENERIC TERMS OF REFERENCE (TOR) IN RESPECT OF INDUSTRY SECTOR**1. Executive Summary****2. Introduction**

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the project proponent
- iii. Importance and benefits of the project

3. Project Description

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

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.

- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

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

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

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

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

9. Corporate Environment Policy

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

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

11. Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details

along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. 'A tabular chart with index for point wise compliance of above TORs.
14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports.

The following general points shall be noted:

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

**LIST OF PARTICIPANTS OF EAC (Industry-2) IN 42nd MEETING OF EAC
(INDUSTRY) HELD ON 16-17th June, 2015**

S.N.	Name	Designation	Attendance
1	Shri M. Raman	Chairman	A
2	Shri R.K. Garg	Vice-Chairman Acting Chairman	P
3	Prof. R.C. Gupta	Member	A
4	Dr. Prem Shankar Dubey	Member	P
5	Dr. R.M. Mathur	Member	P
6	Dr. S. K. Dave	Member	P
7	Dr. B. Sengupta	Member	P
8	Shri Rajat Roy Choudhary	Member	A
9	Dr. S.D. Attri	Member	A
10.	Dr. Antony Gnanamuthu	Member	A
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjana Raghunath Raje	Member	P
MOEF Representatives			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P