MINUTES FOR 1st EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 30th November to 1st December , 2015

VENUE: Teesta 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

1.1 At the outset of first meeting of Expert Appraisal Committee (EAC) for industry-2 sector, Member Secretary welcomed newly appointed Chairman & Members and gave detailed presentation in presence of Joint Secretary, MEF&CC. The Committee was apprised about the mandate/role assigned by Ministry for consideration of Industrial project. It was informed about the sectors and activities covering under Industry-2. Joint Secretary also addressed to Committee and replied to queries raised by the Members. He requested the Committee to perform supportive role with the Ministry in protection of environment and accelerating development projects. The Chairman of the Committee subsequently in his opening remarks welcomed the Members and advised them to suggest expert opinion as per their expertise.

Time : 10: 00 - 10: 30 AM

30th November 2015

1.2.1 Expansion of Synthetic Organic Chemical Manufacturing Unit (from 250 TPM to 900 TPM) at Plot Nos. 287/1 &287/2-A, Phase-II, Gujarat Industrial Development corporation (GIDC), Vapi, Gujarat by M/s Vertellus Speciality Materials (India) Pvt. Ltd.- reg. -Environmental Clearance reg

The project proponent and their consultant (M/s Precitech Laboratory) 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 5thMeeting of the Expert Appraisal Committee (Industry) held during 31st January– 1stFebruary, 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 interstate boundary and involvement of CPA, the proposal is treated as category 'A' and appraised at Central Level.

M/s Vertellus Speciality Materials (India) Pvt. Ltd. has proposed for expansion of Synthetic Organic Chemical Manufacturing Unit (from 250 TPM to 900 TPM) at Plot Nos. 287/1 &287/2-A, Phase-II, Gujarat Industrial Development Corporation (GIDC), Vapi, Gujarat. Total plot area is 6109.17 m2(1.50 acres). It is reported that no National Park, Wildlife Sanctuary is located within 10 km radius of the project site. Damanganga River is flowing at a distance of 2.84 km. Interstate boundary is located at a distance of 1.51 km. Cost of the proposed project is Rs. 41.86 crores. The existing and the proposed products details are as below:

Name of the Products/By-Products	Exisiting (TPM)	Proposed Expansion (TPM)	Total (TPM)
Products			
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)**(by Existing Process)**	145 or 220	650	900
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)**(by New Process)**	0		
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)**(by re-slurry) (Purification of**	30	00	

crude DCDPS only)			
4-Nitro N-MethylPhthalimide (4-NPI)	75	00	00
Total	**250**	**650**	**900**
By-Products			
Purified 4 – Chlorobenzene Sulphonic Acid (CBSA) Ammonium Salts*****	60	0	60

DCDPS can be manufactured by any of the three processes (i.e. Synthetic process-Existing process, new process & re-slurry process. The process used depends on final customer requirement due to specific end process requirement. 60 TPM 4-CBSA (98% purity) will be sold & remaining 145 TPM will be sold through proper collection, storage, transportation & disposal method at TSDF.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during February, 2013 –May, 2013 and submitted baseline data indicates that ranges of concentrations of PM_{10} (52 µg/m^3 to 92 µg/m^3), SO_2 (16 µg/m^3 to 32ug/m3) and NOx (17 µg/m^3 to 37 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.2396 µg/m^3, 0.34995 µg/m^3 and 0.66297 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Stack of 30 m height will be provided to additional natural gas fired boiler (10 TPH). Additional DG set (1x 750 KVA + 1x500 KVA) will be installed. Alkali scrubber will be provided to process vents to control process emissions. Fresh water requirement from GIDC water supply will be increased from 105.4 m^3/day to 227.2 m^3/day after expansion. Effluent generation from the existing unit is 58.75 m^3/day. There will be no increase in effluent generation as excess effluent will be recycled and reused in the process for cooling tower make up. Effluent will be treated in the ETP and the effluent will be discharged through GIDC drainage to CETP, Vapi for ultimate disposal. Spent acid will be sold to actual user. CBSA & its salt, process residue/aqueous mother liquor, used carbon, distillation residue from methanol distillation will be sent to common incineration facility.

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.

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 additional gas fired boiler.

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

iii) 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.

iv) The water consumption from GIDC water supply shall not exceed 227 m^3/day.

v) Total industrial effluent generation shall not exceed 58.75 m^3/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.

vi) 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.

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) 10m width thick Green belt should be developed in and around the plant premises.

1.2.2 Manufacturing of LABSA (Linear Alkyl Benzene Sulphonic Acid) product addition project at Block no. 32, Village ZAK, Taluka Dehgam, District Gandhinagar, Gujarat by M/s Visat Detergents Pvt. Ltd.- reg. EC

The project proponent and their consultant (Pavan Envitech Consultant Pvt. Ltd., Ahmedabad) 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 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 Visat Detergents Pvt. Ltd. has proposed for setting up manufacturing of LABSA (Linear Alkyl Benzene Sulphonic Acid) product addition project at Block no. 32, Village ZAK, Taluka Dehgam, District Gandhinagar, Gujarat. Total plot area is 5463 m2 of which greenbelt will be developed in 1894 m^2. The unit is not located in an industrial area. The cost of LABSA project is Rs. 72 lakhs. The following products will be manufactured:

S.N.	Product	Existing(MTPM)	Additional (MTPM)	Total after proposed product addition
1	Detergent Powder (Non EC Product)	200	---	200
2	Detergent Cake (Non EC Product)	200	---	200
3	LABSA (EC Product)	--	500	500

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2014 – May, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (56.28 µg/m^3 to 73.55 µg/m^3), $PM_{2.5}$ (24 µg/m3 to 32.06 µg/m3), SO_2 (9.29 µg/m^3 to 12.14 ug/m3) and NOx (18.49 µg/m^3 to 21.72 µg/m^3) respectively. No utilities i.e. boiler /heater will be required for the project. DG set (125 KVA) has been installed. Additional DG set (1x 125 KVA) will be installed. Fresh water requirement from ground water will be 25 m3/day. Effluent generation will be increased from 2.0 m^3/day to 2.5 m^3/day after expansion, which is mainly cooling bleed off. Effluent from cooling bleed off will be reused in manufacturing process to achieve zero discharge. No effluent will be discharged outside the plant premises. Used oil will be sent to the authorized recycler. Spent sulphuric acid will be sent to the authorized actual users.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 9th April, 2015. No major issues were raised during meeting. The Committee noted that information sought through

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

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

i) As proposed, no utilities i.e. boiler /heater will be installed.

ii) 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.

iii) Total fresh water requirement from ground water should not exceed 25 m^3/day.

iv) Total industrial effluent generation shall not exceed 2.5 m^3/day. Effluent will be mainly cooling bleed off, which will be reused in manufacturing process to achieve zero discharge. No effluent will be discharged outside the plant premises. Domestic sewage shall be treated in STP.

v) Used oil will be sent to the authorized recycler. Spent sulphuric acid will be sent to the the authorized actual users.

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

vii) Green belt over 1894 m^2 land should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

1.2.3 Expansion of Sugar Unit (from 3500 TCD to 5500 TCD) Molasses based Distillery (30 KLPD to 45 KLPD) and Cogeneration Power Plant (from 14 MW to 30 MW) at Post Sonai, Taluka Newasa, District Ahmednagar, Maharashtra by M/s Mula SSK Ltd.- reg. EC

The project proponent and their consultant (M/s Ultra Tech) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 21stMeeting of the Expert Appraisal Committee (Industry -2) held during 30th-31stJuly and 1stAugust, 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 Mula SSK Ltd. has proposed for expansion of Sugar Unit (from 3500 TCD to 5500 TCD), Molasses based Distillery (30 KLPD to 45 KLPD) and Cogeneration Power Plant (from 14 MW to 30 MW) at Post Sonai, Taluka Newasa, District Ahmednagar, Maharashtra. Plot area is

280.14 acres of which area earmarked for greenbelt is 110 acres. It is reported that no national park/ wildlife sanctuary/ coral formation reserve is located within 10 km distance. River Mula is flowing at a distance of 17 Km. Cost of project is Rs. 283.57 Crore. Out of which ,Rs. 22 Crore and Rs. 7.9 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. Following is the configuration of the unit:

S.N.	Unit	Existing	Additional	Total after Expansion
1	Distillery	30 KLD	15 KLD	45 KLD
2	Sugar	3500 TCD	2000 TCD	5500 TCD
3	Co-generation Power Plant	16	14	30 MW

Distillery, Co-generation power plant and sugar unit will be operated for 270 days, 210 days and 180 days in a year respectively.

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 PM_{10} (51 µg/m^3 to 93 µg/m^3), $PM_{2.5}$ (22 µg/m^3 to 52 µg/m^3), SO_2 (3 µg/m^3 to 27ug/m^3) and NOx (11 µg/m^3 to 48 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.4 µg/m^3 with respect to PM. The resultant concentrations are within the NAAQS. ESP has been provided in the existing bagasse fired boiler (80 TPH). ESP alongwith adequate stack height will be provided to additional bagasse fired boiler (85 TPH) to control particulate emissions. Total fresh water requirement in the distillery, sugar unit and co-generation plant will be 309 m^3/day, 555 m^3/day and 308 m^3/day respectively after expansion. Water drawl will be from irrigation Department, Govt. of Maharashtra. Spent wash generation will be 360 m3/day. Spent wash will be treated in bio-digestor followed by MEE. Concentrated treated spentwash will be bio-composted with press mud. Effluent from sugar unit, Co-generation and condensate will be treated in the effluent treatment plant comprising biological treatment followed by tertiary treatment. PP clarified that tertiary treatment will be RO. Treated effluent will be recycled/reused for cooling tower make up, boiler feed water, process water etc. Sewage will be treated in the STP. No effluent will be discharged outside the plant premises and 'Zero effluent discharge concept will be followed. Spent wash holding tank capacity will be for 30 days. Tank shall be made with RCC. Rs. 5.25 Crore has been earmarked towards Enterprise Social Responsibility (ESR) for Education, health, women empowerment, solar light, village pond restoration, construction community toilet in the nearby villages.

The Committee also discussed the certified compliance report dated 30.06.2015 issued by the Regional Office, Bhopal. The Committee found compliance report satisfactory.

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

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

i. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to bagasse/biogas fired boiler to control particulate emissions within 50 mg/Nm^3.

ii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.

iii. Total fresh water requirement from irrigation Department, Govt. of Maharashtra shall not exceed 309 m^3/day for distillery (Molasses), 308 m^3/day for sugar unit and 555 m^3/day for cogeneration unit after expansion. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.

iv. Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation reactor. Treated spent wash will be evaporated in MEE and concentrated spent wash will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

v. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 30 days.

vi. Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit should be treated in the effluent treatment plant.

vii. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidlines.

viii. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.

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

x. 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.

xi. Bagasse/rice husk storage should be done in such a way that it does not get air borne or fly around due to wind.

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

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

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

xv. All the issues raised during the public hearing/consultation meeting held on 10th March, 2015 should be satisfactorily implemented.

xvi. As proposed, green belt over 110 acres of land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

Reconsideration for Environmental Clearance

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

The 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 addl. Information:

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

PP vide letter no. CLPL-II/MoEF& CC/EC/APR-2015 dated 30thApril, 2015 has submitted the additional Information. PP informed that Application no. 90 of 2013 related to member of PETL and Appeal No. 131 & 153 of 2013 related to permission for expansion of units which attained ZLD status. These court cases are specifically related to group of industry and not particularly to one industry. Area earmarked for greenbelt is 5.5 ha. greenbelt width will be 5 m to 10 m. In compliance of Ministry's direction, the State Government vide letter no. 3213/For III/Env/2015 dated 21.08.2015 has reported a case CFR No. 1780/2015 dated 19.08.2015 was filed by the Collector & District Magistrate, Medak before Addl. Judicial First class Magistrate at Narsapur against M/s Covalent Lab Pvt. Ltd. The Committee agree to reasonable response and found satisfactory compliance report.

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

i. Electrostatic precipitator (ESP) and the stack of adequate height shall be provided to coal fired boiler (30 TPH) and Multi cyclone dust collector followed by Bag filter with a adequate height shall be provided 10 TPH Coal fired boiler (standby) and 30m combined stack for 4 TPH & 15 K.cal/hr Thermic Fluid heater (standby) for controlling the particulate matter and effective dispersion of flue gases.

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

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

iv. Total fresh water requirement from ground water source and tanker supply shall not exceed 457 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

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

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

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

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

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

x. Solvent management shall be as follows :

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

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

xii. All the issues raised during the Public Hearing/consultation meeting held on 4th December, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

xiv. As proposed, green belt of 55871 m^2 shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

1.2.5 Expansion of Synthetic Organic Chemicals Manufacturing Unit at Block No. 82/B, Sy. No. 106, 107, 114, 1677/1 & 1677/2 ECP Road, Post Karakhadi, Taluka Padra, District Vadodara, Gujarat by M/s Ami Life Sciences Pvt. Ltd. – reg Environmental Clearance.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 32nd meeting held during 20th– 21st January, 2015 and the Committee sought following addl. Information regarding revised water balance and also committee noted that project proposal involves violation of the Environment (Protection) Act, 1986. PP clarified that total fresh water requirement will be reduced by 36 m^3/day from 121 m^3/day to 85 m^3/day. Further, PP vide letter dated 20.05.2015 has represented that they have obtained CTE & CTO for the manufacturing of new products viz. Rutin from GPCB under the change in product mix without any production increase as per circular dated 14.12.2006. As per Ministry's circular dated 14.12.2006, in case of change in product mix, changes in the quantities or number of products may be allowed without prior environmental clearance by the concerned SPCB provided such changes in the quantities of products are in the same category and are within the previously granted overall total limits. Regional Office vide letter no 5-54/2008 (Env)/362 dated 7.8.2015 has verified the claim of PP and found satisfactory. It was also reported that the work on the proposed expansion was not carried out so far.

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

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

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

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

iv. Total fresh water requirement from ground water source shall not exceed 85 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE. Low TDS effluent stream and condensate shall be treated in ETP and then sent to CETP for further treatment. Highly concentrated effluent will be sent to captive incinerator for incineration.

vi. 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.

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

viii. Incinerator shall meet the requirement of CPCB norms.

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

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

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

xii. Solvent management shall be as follows :

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

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

xiv. All the issues raised during the Public Hearing/consultation meeting held on 1stOctober, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xv. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment 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.

xvi. As proposed, green belt of 8450 m^2 shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

Lunch Break: 1:30 PM – 2.00 PM

1.3 Terms of Reference (TOR)

1.3.1 Exploratory drilling of 10 Wells at Rudrasagar, Geleki, Lakwa, Namti, Mekeypore-Santak-Nazira PML Areas in District Sivasagar, Assam by M/s ONGC-reg. TOR

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

M/s ONGC has proposed for exploratory drilling of 10 Wells at Rudrasagar, Geleki, Lakwa, Namti, Mekeypore-Santak-Nazira PML Areas in District Sivasagar, Assam. Successful completion of this project is likely to establish more commercial hydrocarbon reserves (total envisages in place accretion 19.37 MMT). Details of project are as given below:

Sl No	Proposed Location	Surface co-ordinates		Nearest Town	District	Cost	Target depth
		Latitude	Longitude				
1	RSAL	Lat: 26° 58' 37.56" N	Long: 94° 34' 52.156" E	Sivasagar (5.7 km)	Sivasagar, Assam	35.4 Crore	3350 m
2	RSAM	Lat: 26° 56' 54.44" N	Long: 94° 31' 07.15" E	Sivasagar (approx 12.0 km)	Sivasagar, Assam	40.20 Crore	3350 m
3	RSAN	Lat: 26° 56' 40.44" N	Long: 94° 32' 50.51" E	Sivasagar (appox 9.0 km)	Sivasagar, Assam	40 Crores	3350 m
4	GKBU	Lat: 26° 47' 23.87" N	Long: 94° 41' 41.86" E	Nazira (Appox 10 km)	Sivasagar, Assam	60.12 Crore	5010 m
5	GKBU	Lat: 26° 47' 46.24" N	Long: 94° 39' 03.55" E	Nazira (appox 10 km)	Sivasagar, Assam	40.80 Crore	3400 m
6	MKAE	Lat: 26° 50' 54.67" N	Long: 94° 45' 53.28" E	Nazira (appox 8.0 km)	Sivasagar, Assam	38.40 Crore	3200 m
7	MKAF	Lat: 26° 52' 32.80" N	Long: 94° 45' 35.21" E	Nazira Town (appox 4.5 km)	Sivasagar, Assam	40.80 Crore	3400 m
8	LKBC	Lat: 26° 59' 35.44" N	Long: 94° 49' 09.75" E	Lakwa town (appox 3.5 km)	Sivasagar, Assam	36.6 Crore	3050m
9	LKBD	Lat: 26° 59' 51.66" N	Long: 94° 47' 57.28" E	Lakwa town (appox 3.5 km)	Sivasagar, Assam	58.5 Crore	4875
10	KGAE	Lat: 26° 01' 18.35" N	Long: 94° 46' 51.126" E	Lakwa town (appox 7.5 km)	Sivasagar, Assam	58.8 Crore	4900

Water based mud will be used.

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

A Specific TOR:

1. Executive summary of a project.
2. Project description, project objectives and project benefits.
3. Cost of project and period of completion.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including

agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects. Topography of the project site.

5. Details of sensitive areas such as National Park, Wildlife sanctuary and any other eco-sensitive area along with map indicating distance.
6. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980, if applicable.
7. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6th January, 2011 (if applicable).
8. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
9. Does proposal involve rehabilitation and resettlement? If yes, details thereof.
10. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
11. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
12. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
13. Details of Ambient Air Quality monitoring at 8 locations for PM2.5, PM_{10}, SO_2, NOx, CO, VOCs, Methane and non-methane HC.
14. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
15. Ground and surface water quality in the vicinity of the proposed wells site.
16. Measurement of Noise levels within 1 km radius of the proposed wells.
17. Vegetation and land use; flora/fauna in the block area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation, flaring etc.
19. Potential environmental impact envisaged during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
21. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions.
22. Details on wastewater generation, treatment and utilization /discharge for produced water/ formation water, cooling waters, other wastewaters, *etc*. duringallprojectphases.
23. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radio active materials, other hazardous materials, *etc*. including its disposal options during all project phases.
24. Disposal of spent oil and lube.
25. Storage of chemicals and diesel at site. Hazardous material usage, storage and accounting.
26. Commitment for the use of water based mud (WBM) only
27. Oil spill emergency plans for recovery/ reclamation.
28. H2S emissions control.
29. Produced oil/gas handling, processing and storage/transportation.
30. Details of control of air, water and noise pollution during production phase.
31. Measures to protect ground water and shallow aquifers from contamination.
32. Whether any burn pits being utilised for well test operations.
33. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out. Blowout preventer installation.
34. Environmental management plan.
35. Total capital and recurring cost for environmental control measures.
36. Emergency preparedness plan.
37. Decommissioning and restoration plans.

38. Documentary proof of membership of common disposal facilities, if any.
39. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
40. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
41. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.

B. Additional TOR

(i). Public hearing to be conducted by SPCB and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
(ii). Details of river /drainage in the project area to be incorporated.

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 provided in Regional languages.
iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above ToRs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

1.3.2 Resin Manufacturing Unit Located at Survey No. 432, Village Amodara (Rampura), Tehsil Prantij, District SabarKantha, Gujarat by M/s. Axi Lam Pvt. Ltd.- reg. TOR

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

1.3.3 Proposed pesticide intermediates, specialty chemicals, pharmaceutical intermediates and perfumery chemical unit at Plot No. CH-11/A, Dahej-I, Dahej Industrial Estate, Taluka Vagra, District Bharuch, Gujarat by M/s V India Chemical Industries Pvt. Ltd.- reg. TOR

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

1.3.4 Expansion of Bulk Drug Manufacturing Unit (from 48.5 MTPM to 84 MTPM) at Sy. No. 637/23/A1, Village KhambhatKalamsar, Tehsil Khambhat, District Anand, Gujarat by M/s Prism 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 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 Prism Industries Ltd. has proposed for expansion of Bulk Drug Manufacturing Unit (from 48.5 MTPM to 84 MTPM) at Sy. No. 637/23/A1, Village KhambhatKalamsar, Tehsil Khambhat, District Anand, Gujarat.Total plot area is 38 acres. Cost of project is Rs. 10 crore. It is reported that no ecologically sensitive area, historical place and wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S. N.	Name Of Product	Existing Quantity (MTPM)	Proposed Quantity (MTPM)	Total Proposed Quantity (MTPM)
1.	Purification Of Spent Potassium Acetate Solution	40	- 40	0
2.	Acetone ThiosemiCarbazole	2.5	+43.5	50
3.	2 Mercapto 5-Methoxy Benzimidazole	4		
4.	Nimesulide	0		
5.	Sildenafil Citrate	0		
6.	Quinine Sulphate/ Derivatives	2	+18.0	20
7.	Lumefantrine	0		
8.	Calcium Sennoside	0		
9.	Phenyl Epherine HCl	0		
10.	Pentaprozole	0		
11.	Hyoscine Butyl Bromide/Derivatives	0	+ 4	4
12.	Colchicoside&Thiocolchicoside	0		
13.	10-Deacetyl Baccatin-III (10-Dab-III)	0		
14.	Yohimbine Hydrochloride	0		
15.	Camptothecin	0		
16.	Reserpine	0		
17.	Digoxin	0		
18.	Artemether	0		
19.	A,B - Arteether	0		
20.	Artesunate	0		
21.	Methylcobalamine	0		
22.	Nicorandil	0		
23.	R & D Products	0	+ 10	10

TOTAL	**48.5**	**+35.5**	**84.0**

Multi-cyclone followed by stack of adequate height will be provided to additional agro-waste/process agriculture waste fired thermic fluid heater and boiler to control particulate emission. However, the Committee suggested them to provide bagfilter as APC device for better removal efficiency. Additional Incinerator will be provided. Additional Alkali scrubber alongwith stack of adequate height will be provided to the reaction vessel to control process emissions viz. SO_2 and H_2S. Total fresh water requirement from ground water source will be increased from 6.4 m^3/day to 40.0 m^3/day after expansion. Wastewater generation will be increased from 4.6 m^3/day to 17.5 m^3/day after expansion. Industrial effluent generation will be 14.5 m^3/day of which quantity of process effluent is 12 m^3/day, which will be incinerated in the incinerator. Utility effluent will be treated in the ETP comprising pressure sand filter and Carbon filter. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil will be sent to the authorized recycler/re-processor. Waste residue, distillation residue and spent carbon will be sent to common incineration facility.

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

A. Specific TOR:

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

B. Additional TOR

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

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

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

1.3.5 Molasses based Distillery (30 KLPD) at Survey No. 384, 386, 389, Village Kacharewadi, Taluka Mangalwedha, Maharashtra by M/s Utopian Sugars 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 Utopian Sugars Limited has proposed for setting up of Molasses based Distillery (30 KLPD) at Survey No. 384, 386, 389, Village Kacharewadi, Taluka Mangalwedha, Maharashtra. Proposed project will be located within the existing premises of sugar unit (3500 TCD) and Cogeneration Power Plant (14.8 MW). Total plot area is 28.0 ha. Out of which area earmarked for greenbelt is 10 ha. Cost of project is Rs. 44 Crore. Out of which, Rs. 10.0 Crore and Rs. 2.5 Crore area earmarked towards capital cost and recurring cost per annum for implementation EMP.Bhima River is flowing at a distance of 11 km. It is reported that no ecological protected area is located within 10 km distance. Products namely Rectified spirit (30 KLPD)/ ENA (30 KLPD)/ Absolute alcohol (30 KLPD) will be manufactured.

Fresh water requirement from Bima River will be 300 m^3/day. Spent wash generation will be 120 m^3/day. Spent wash will be treated through bio-methanation, MEE and bio-composting. No effluent will be discharge outside the plant premises. Steam will be taken from own sugar factory. Power requirement from own Co-generation Power Plant will be 420 KWH. Yeast sludge will be sold 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:

A. Specific TOR:

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

15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. 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 in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Detailsoftheuseofsteamfromtheboiler.
20. Detailsofproposedsource-specificpollutioncontrol schemes andequipmentstomeetthenationalstandards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and pressmud.
23. Flyash management plan for coal based and bagasse and action plan
24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, TotalKjeldhalNitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO2*, NOx*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQstandards.(*-Asapplicable)

B. Additional TOR

1. Cumulative impact of existing Sugar and Co-generation Power Plant to be taken into account.
2. 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.

1.3.6 Expansion of Sugar Plant (from 4950 to 7000 TCD), Co-gen Power Plant (from 12.5 MW to 28 MW) and Molasses based Distillery unit (from 45 KLPD up to 60 KLPD) at Village & Taluka Kagal, District Kolhapur, Maharashtra by M/s Shree Chhatrapati Shahu Sahakari Sakhar Karkhana Ltd.- reg. TOR

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

M/s Shree Chhatrapati Shahu Sahakari Sakhar Karkhana Ltd. has proposed for Expansion of Sugar Plant (from 4950 to 7000 TCD), Co-gen Power Plant (from 12.5 MW to 28 MW) and Molasses based Distillery unit (from 45 KLPD up to 60 KLPD) at Village & Taluka Kagal, District Kolhapur, Maharashtra. Plot area is 140 ha. Out of which, area earmarked for greenbelt is 25 ha. Cost of expansion project is Rs. 75 Crore. Working day of sugar unit, co-generation plant and distillery will be 180 days, 180 days and 210 days respectively. Environmental clearance for existing 45 KLPD Distillery was obtained from earlstwhile MoEF vide letter no J-11011/39/2001-IA II (I) dated 11.12.2001.

As per Form-1, no ecological protected area is located within 15 km distance from the project site. Fresh water requirement from Dudhganga River for sugar unit, co-generation and distillery after expansion will be 575 m^3/day. PP informed that daily fresh water requirement for distillery will be restricted upto 5.7 KL/KL of alcohol produced. Spent wash will be treated in bio-methanation plant followed by concentration in MEE (5 stage). Concentrated spent wash will be bio-composted in composting yard. Sugar, Co-generation and Distillery effluent will treated in the ETP. MEE condensate will be treated in Condensate polishing unit. Domestic effluent will be treated in the STP. ESPs have been installed in the existing boiler (70 TPH and 60 TPH). ESP will be provided in the additional biogas/bagasse fired boiler to control particulate emission. Flyash will be sent to Brick manufacturers/bio-composting. ETP sludge will be used as manure. Yeast sludge will be used as bio-composting.

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

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses 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 and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. 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 in respect of Sugar.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and pressmud.
23. Flyash management plan for coal based and bagasse and action plan

24. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO2*, NOx*, 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)

B. Additional TOR

1. Ground water monitoring around irrigation area.
2. Certified compliance report from the Regional Office, Bhopal for implementation of environmental conditions in the existing unit to be incorporated.
3. 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.

1.3.7 Installation of Unit II - Grain Based Ethanol/RS Industrial/ENA Plant {500 KLPD (2X250 KLPD)} & Co-generation Power Plant {40 MW (2X 20 MW)} in the Existing Distillery Plant at Village Mansoorwala, Tehsil Zira, District Ferozepur, Punjab by M/s Malbros International Private Limited- reg. TOR

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

M/s Malbros International Private Limited has proposed for 7 Installation of Unit II - Grain Based Ethanol/RS Industrial/ENA Plant {500 KLPD (2X250 KLPD)} & Co-generation Power Plant {40 MW (2X 20 MW)} in the Existing Distillery Plant at Village Mansoorwala, Tehsil Zira, District Ferozepur, Punjab. It is reported that no national parks, wildlife sanctuaries, reserved forests (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No river lies with in 10 km distance. Canal is flowing at a distance of 1 km. Total plot area is 14.8 ha. Proposed unit will be installed within the existing plant premises. Cost of expansion project is Rs. 583 Crores. Out of which Rs. 58 Crore and Rs. 10 Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of environment management plan. Working day of distillery will be 350 days per annum. Following will be configuration of the project:

S.N.	Unit	Total Capacity
1	Grain based Ethanol /ENA/RS/ Industrial Alcohol Plant	500 KLPD (2 x 250 KLPD)
2	Co-generation Power Plant	40 MW (2 x 20 MW)
3	CO2 Plant	225 TPD (2 x 112.5 TPD)
4	DDG/ Cattle Feed/ Poultry Feed	300 TPD (2 x 150 TPD)

ESP will be provided to biomass fired boiler (2 x 100 TPH) to control particulate emissions. Fresh water requirement from canal water will be 4110 KLPD. Spent wash will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. No effluent will be discharged outside the plant premises and zero effluent discharge will be followed. Process condensate will be treated through UF and RO and recycled into process. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge will be followed. DDGS will be used as cattle feed. Ash will be sold to brick manufacturers. Used oil and grease will be sent to the authorized recyclers/re-processors.

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

A. Specific TOR:

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

B. Additional TOR

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

ii. Availability of gain from the market to be assessed adequately

iii. 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.

1.3.8 Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (from 312 TPA to 900.2 TPA) at Sy. No. 238, 239

& 240, Village Dhotigudem, Mandal Pochampally, District Nalgonda, Telangana by M/s Optimus Drugs Pvt. Ltd.- reg. TOR

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

M/s Optimus Drugs Pvt. Ltd. has proposed for expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (from 312 TPA to 900.2 TPA) at Sy. No. 238, 239 & 240, Village Dhotigudem, Mandal Pochampally, District Nalgonda, Telangana. Total plot area is 6.61 ha. Cost of the expansion project is Rs. 45.69 crore. Out of which Rs. 8.725 Crore and Rs. 16 crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of Environmental management plan. Forests namely Lakkaram RF (0.6 Km), Malkapuram RF (3.6 Km); Turpugudem RF (2.5 KM); Lingareddygudem RF (4.9 KM) and Choutuppal RF (4.0 KM) are located within 10 km distance. Water bodies namely small pond Dhotigudem (1.53 Km), Jiblakpalli(2.5 Km), ChinnaMusi River (5.7 Km), NagaramCheruvu (5.5 Km) and TangalapalliCheruvu (6.24 Km) are located within 10 km distance. Following are the details of products of existing and proposed expansion:

i. Products and capacities. If expansion proposal then existing products with capacities and reference to early EC.

1. EC Reference : F.No.J-11011/452/2006-IA II(I) dated 20-08-2007

Sl. No	Products	Quantity (TPA)
Bulk Drugs (Any 4 campaign products at any point of time)		
1.	Niacinamide	120
2	Itopride Hydrochloride	24
3	Rabeprazole Sodium	36
4	Clopidogrel Hydrogen Bisulfate	36
5	Duloxetine Hydrochloride	12
6	Drotaverine Hydrochloride	12
7	TamsulosinHydrocloride	18
8	Mosapride Citrate Dihydrate	12
9	Alfuzosin Hydrochloride	12
10	Omeprazole	36
11	Itraconazole	30
12	Pregablin	36
Maximum production		**227.9**
Intermediates (Any 2 campaign products at any popint of time)		
1.	(2-Chloro phenyl)-(6,7-dihydro-4H-thieno[3,2-c] pyridine-5-yl) acetic acid methyl ester	18
2	3-Cyano-5-methyl hexanoic acid ethyl ester	12
3	N-Methyl carbo bezyloxy-[(3-naphthalene-1-yl) oxy)-3-thiophene-2-yl phenyl] amine	48
4	[2-(4-Amino methyl phenoxy)ethyl] dimethyl amine	24
5.	2-[4-(3-Methoxy Propoxy)-3methyl pyridine-2yl nethylsulfanyl]-1H-Benzoimidazole	36
Maximum production		**84**
Total Production		**312**

2. Permitted (Change of product mix) products and their Capacities as per CFE dated 12-08-2013 and CFO dated 03-01-2015 issued by SPCB

Sl. No.	Product	Existing Products Quantity (kg/day)	Existing Products Quantity (TPA)

Bulk Drugs – Campaign Products			
1	Pregabalin	100.00	36.0
2	Amisulpride	50.00	18.0
3	Febuxostat	135.28	48.7
4	Tioconazole	80.00	28.8
5	Refaximin	50.00	18.0
6	Levosulpiride	300.00	108.0
7	Sertaconazole Nitrate	50.00	18.0
8	Rosuvastatin Calcium	100.00	36.0
9	Lornoxicam	30.00	10.8
10	Lacosamide	30.0	10.8
11	Lurasidone Hydrochloride	50.00	18.0
12	Linezolid	100.00	36.0
Maximum Production capacity from Bulk drugs (Any 4 products)		**633.33**	**227.9**
Intermediates – Campaign Products			
13	2-Fluoro-alpha-cyclopropyl carbonylbenzyl Bromide	100.00	36.0
14	3-({2-[94-Cyani-phnyl Amino) – Methyl] – Methyl – H – benzolimidazole – 5-arbonyl} – Pyridin-2-yl-Amino) – Propionic Acid Ethyl Ester	66.67	24.0
15	3-Bromomethyl-7-Chloro-Benzo [b] Thiophene	50.00	18.0
16	2-[[(5s)- 2-Oxo-3-[4-(3-oxo-4 morpholinyl0phenyl] – 5-oxazolidinyl] methyl] – 1H – isoindole – 1,3 (2H) – dione	133.06	47.9
17	Diethyl (1-Cyano – 3 – methylbutyl0 propanedioate	33.06	11.9
18	(+-) – 3 – (Aminomethyl) – methyl hexanoic acid	33.06	11.9
Maximum production capacity (Any 2 intermediates)		**233.33**	**83.99**
Total Production Capacity (Maximum 6 products at a time i.e., 4 Bulk Drugs + 2 Intermediates).		**866.66**	**311.99**

3. Proposed Expansion Products, their Capacity and Therapeutic Category

Sl. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
APIs – Campaign Products				
1	Pregabalin	266.7	96	Anticonvulsant
2	Linezolid	400	144	Antibiotic
3	Rosuvastatin Calcium	166.7	60	Antihyperlipidemic
4	Refaximin	166.7	60	Antibiotic
5	Lornoxicam	33.3	12	Anti-inflammatory
6	Sertaconazole Nitrate	16.7	6	Antifungal
7	Tioconazole	33.3	12	Antifungal
8	Montelukast Sodium	66.7	24	Antiasthmatic
9	Clopidogrel Bisulfate	233.3	84	Antithrombotic
10	Flubiprofen	66.7	24	Analgesic
11	Canagliflozin Hemihydrate	66.7	24	Antihyperglycemic
12	Dimethyl Fumarate	66.7	24	Anti-inflammatory
13	Sofosbuvir	266.7	96	Antiviral
14	Ledipasvir	33.3	12	Antiviral
15	Pirfenidone	33.3	12	Anti-fibrotic
16.	Atazanavir Sulfate	133.3	48	Antiretroviral
17	DarunavirEthanolate	66.7	24	Antiviral
18	Entecavir	16.7	6	Antiviral
19	Solifenacin Succinate	16.7	6	Anticholinergic
20	EletriptanHydrobromide	16.7	6	Antimigraine

Sl. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
21	Fenticonazole Nitrate	33.3	12	Antifungal
22	Prasugrel Hydrochloride	6.7	2.4	Antiplatelet
23	Abiraterone Acetate	20	7.2	Antineoplastic
24	ImatinibMesylate	16.7	6	Antineoplastic
25	Cabazitaxel	3.3	1.2	Antineoplastic
26	Gefitinib	13.3	4.8	Antineoplastic
27	Erlotinib	20	7.2	Antineoplastic
28	Dasatinib	6.7	2.4	Antineoplastic
29	Perampanel	3.3	1.2	Antiepileptic
30	Teriflunomide	6.7	2.4	Anti-multiple sclerosis agent
31	Pomalidomide	3.3	1.2	Anti-angiogenic
32	Lenalidomide	6.7	2.4	Anti-angiogenic
33	Latanoprost	8.3	3.0	Antiglaucoma
Intermediates – Campaign Products				
34	Ethyl chloro[(4-methoxyphenyl) hydrazono] acetate	16.7	6	Apixaban Intermediate
35	3-Chloro-5,6-dihydro-1-(4-nitrophenyl)-2(1H)-pyridinone	16.7	6	
36	3-Morpholin-4-yl-5,6-dihydro-1H-pyridin-2-one	16.7	6	
37	3-(4-Morpholinyl)-1-(4-nitrophenyl)-5,6-dihydro-2(1H)-pyridinone	16.7	6	
38	(3β,8ξ,9ξ,14ξ)-17-Iodoandrosta-5,16-dien-3-ol	6.7	2.4	Abiraterone Intermediate
39	3-(Diethylboryl)pyridine	33.3	12	
40	N'-(4-Pyridin-2-yl-benzyl)-hydrazine carboxylic acid butyl ester	33.3	12	Atazanavir Intermediate
41	Methoxycarbonyl-L-tert-leucine	66.7	24	
42	tert-Butyl-{(1S)-1-[(2R)-oxiran-2-yl]-2-phenyl ethyl} carbamate	100	3	
43	N,N-Dimethyl-3-(2-methylphenoxy)-3-phenyl propan-1-amine Oxalate	8.3	3	Atomoxetine Intermediate
44	Methyl-5-bromo-2-methyl-benzoate	8.3	3	Canagliflozin Intermediate
45	[(5-Bromo-2-methylphenyl) methyl]-5-(4-fluorophenyl) thiophene	16.7	6	
46	3-[(3-amino-4-methylamino-benzoyl)-pyridin-2-yl-amino]-propionic acid ethyl ester	16.7	6	Dabigatran Intermediate
47	N-(4-Cyanophenyl)-glycine	16.7	6	
48	(2S,3S)-1,2-Epoxy-3-(Boc-amino)-4-phenyl butane	33.3	12	Darunavir Intermediate
49	2-(2-Hydroxyphenyl)-4H-Benzo [e] [1,3] oxazin-4-one	66.7	24	Deferasirox Intermediate
50	(2-Butyl-5-nitrobenzofuran-3-yl)(4-hydroxy phenyl) methanone	33.3	12	Dronedarone Intermediate
51	(5-Bromo-1H-indol-3-yl)[(2R)-1-methyl pyrrolidin-2-yl] methanone	33.3	12	Eletriptan Intermediate
52	Phenyl Vinyl Sulfone	33.3	12	
53	4-[(2-Cyanopropan-2-yl)amino]-2-fluoro-N-methyl benzamide	8.3	3	Enzalutamide Intermediate
54	4-Isothiocyanato-2-(trifluoromethyl) benzonitrile	8.3	3	
55	Ethyl (4-amino-2-nitophenyl) carbamate	25	9	Ezogabine Intermediate
56	(3aR, 4S, 7R, 7aS)-4,7-methano-1H-isoindole-1,3-(2H)-dione	25	9	Lurasidone Intermediate
57	(1R,2R)-Cyclohexane-1,2-di	16.7	6	

Sl. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
	bis(methylene) dimethyl sulfonate			
58	(1R)-2-{[2-(4-Nitrophenyl)ethyl] amino}-1-phenyl ethanol Hydrochloride	100	36	Mirabegron Intermediate
59	(R)-2-[2-(4-Aminophenyl)-ethylamino]-1-phenyl ethanol Hydrochloride	33.3	12	
60	(1R)-2-{[2-(4-Nitrophenyl)ethyl] amino}-1-phenyl ethanol	33.3	12	
61	5,6,7,7a-Tetrahydrothieno[3,2-c] pyridine-2(4H)-one Hydrochloride	16.7	6	Prasugrel Intermediate
62	2-Bromo-2-(2-fluorophenyl)-1-cyclopropylethanone	16.7	6	
63	Cyclopropyl-2-fluorobenzyl ketone	16.7	6	
64	3-Isobutyl-pentanedioic acid dimethyl ester	100	36	Pregabalin Intermediate
65	2-(1-Cyano-3-Methyl-Butyl)-,1,3-Diethyl ester Propanedioic acid	233.3	84	
66	(+/-)-3-(Aminomethyl)-5-methylhexanoic acid	500	180	
67	4-Amino-3-Fluorophenol	16.7	6	Regorafenib Intermediate
68	4-(4-Aminophenyl)morpholin-3-one	66.7	24	Rivaroxaban Intermediate
69	3-Cyclopropylmethoxy-4-difluoromethoxy-benzoic acid	16.67	6	Roflumilast Intermediate
70	4-Difluoromethoxy-3-hydroxybenzaldehyde	16.7	6	
71	(+/-)-1-Phenyl-1,2,3,4-Tetrahydro isoquinoline	133.3	48	Solifenacin Intermediate
72	(S)-1-Phenyl-1,2,3,4-Tetrahydro isoquinoline	66.7	24	
73	4,6-Dichloro-5-amino-2-(propylthio) pyrimidine	16.7	6	Ticagrelor Intermediate
74	5-Methylisoxazole-4-carboxylic acid	16.7	6	Teriflunomide Intermediate
75	3-(4-Chlorobutyl)-1H-indole-5-carbonitrile	33.3	12	Vilazodone Intermediate
76	Ethyl-5-amino-1-benzofuran-2-carboxylate Hydrochloride	16.7	6	
77	5-(Piperazin-1-yl)benzofuran-2-carboxamide	33.3	12	
78	5-(1-Piperazinyl)-2-Benzofuran carboxylic acid ethyl ester Hydrochloride	33.3	12	
79	2-(2-Ethoxyphenyl)-5-methyl-7-propylimidazole [5,1 f] [1,2,4]triazin-4-(3H)-one	16.7	6	Vardenafil Intermediate
Total Production Capacity (Maximum 10 products at a time)		**2500**	**900**	
R&D activity		0.55	0.2	
Total Production Capacity (Maximum 10 products at a time out of 79 and R&D activity)		**2500.55**	**900.2**	

Multi-cyclone followed by bagfilter will be provided to additional coal fired boiler (6 TPH) to control particulate emission. Scrubber with caustic solution will be to control process emission viz. HCl and SO_2. Scrubber with water / HCl solution will be provided to control process emission viz. NH_3. Additional DG set (1000 KVA) will be installed. Water requirement from groundwater will be increased from 71.1 m^3/day to 421 m^3/day after expansion. Effluent

generation will be increased from 30.2 m3/day to 229 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Environmental clearance was obtained vide MoEF&CC letter no J-11011/452/2006-IA dated 20.08.2007 in the name of Suryakiran.

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

A. Specific TOR:

1. Details on 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. 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. Geo-hydrological study of the project area.
iii. 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.

1.4 Any other

1.4.1 Expansion of Molasses based distillery unit (100 KLPD to 160 KLPD) at Village Bishunapur, Tehsil & District Balrampur, Uttar Pradesh by M/s Balrampur Chini Mills Ltd.- reg. Amendment in existing EC

MoEF vide letter no J-11011/151/2006 IA II (I) dated 20.06.2006 has granted environmental clearance to M/s Balrampur Chini Mills Ltd. for expansion of Molasses based distillery unit (100 KLPD to 160 KLPD) at Village Bishunapur, Tehsil & District Balrampur, Uttar Pradesh. Now, PP has requested for following amendments:

(i). Increase in number of operational days of distillery plant from 270 days to 330 days.
(ii). Amendment in spent wash treatment system concentration & incineration alongwith energy recovery (6.0 MW).

PP informed that Spent wash will be concentrated in MEE and concentrated spent wash will be incinerated in slop fired boiler to achieve Zero discharge. Other effluent i.e. spent lees, condensate and utilities effluent will be treated in the Effluent Treatment Plant. Treated effluent will be used for cooling tower make up, boiler feed water and in process. No effluent will be discharge outside the plant premises. ESP will be provided to bagasse/slop fired boiler (40 TPH) to control particulate emission. Ash will be used as manure.

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

ii. Working day of distillery will be 330 days
iii. Spent wash generation shall not exceed 8 KL per KL of alcohol produced i.e. 1280 m3/day.
iv. Spent wash shall be concentrated in MEE and concentrated spent wash shall be incinerated in bagasse/slop fired boiler to achieve Zero discharge. Other effluent i.e. spent lees, condensate and utilities effluent shall be treated in the Effluent Treatment Plant comprising secondary and tertiary treatment facilities. Treated effluent shall be reused/recycled for cooling tower make up, boiler feed water and in process.
v. No effluent from distillery, sugar and cogeneration power plant shall be discharged outside the premises and Zero discharge concept shall be adopted.
vi. Bagfilter alongwith stack of adequate height shall be provided bagasse/slop fired boiler
vii. Fresh water requirement shall not exceed 10 KL per KL of alcohol produced i.e. 1600 m^3/day for distillery.

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

The Ministry has granted Environmental Clearance to the project vide letter no. J-11011/371/2007-IA II (I) dated 16.08.2007 (F/1). PP informed that the project could not be executed due to ban by PPCC on account of implementing various water consumption measures within the area. It is reported that investment of Rs.14.00 crore has so far been made against project cost of Rs. 42.0 crore at that time.

2.0 PP has applied for extension of EC after expiry of its valid period i.e. 5 years. As per the record it is noted that PP has applied for extension of EC on 30.03.2013 which was submitted after expiry of valid period of 5 year i.e. 15.08.2012. Therefore PP vide letter dated 07.10.2013 was communicated to apply afresh Environmental Clearance. Since then, PP has been representing for consideration for extension of EC within the valid period of 5 year.

3.0 PP has again requested through online for extension of EC in light of the MoEF Notification dated 29th April, 2015 wherein valid period of EC has been extended from 5 to 7 years

by taking into consideration of his earlier application dated 30.03.2013. PP also informed during the meeting that CRZ clearance is pending with the state Government.

4.0 During processing the Committee's members received a representation from Sh. K.Irisappan who apprehended for submission of wrong information by PP in form-1 for taking extension of EC. To verify this, the Committee was of the view to re-examine the matter in next EAC meeting.

1st December, 2015 (Day 2)

1.5 Environmental Clearance

1.5.1 Bulk Drug & Intermediate Manufacturing Unit at Sy. Nos. 1019, 1020/A-2 & 1021, Village Jangamaheshwarapadu, Mandal Durgi, District Guntur, Andhra Pradesh by M/s Satyadeva Organosys Pvt. Ltd.-reg EC

The project proponent and their consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 21stMeeting of the Expert Appraisal Committee (Industry) held during 30th to 31st July and 1st August, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (bulk drugs) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Satyadeva Organosys Pvt. Ltd. has proposed for setting up of Bulk Drug & Intermediate Manufacturing Unit at Sy. Nos. 1019, 1020/A-2 & 1021, Village Jangamaheshwarapadu, Mandal Durgi, District Guntur, Andhra Pradesh. Plot area is 12302.88 m^2 (3.04 acres) of which greenbelt will be developed in 4062.15m^2. Cost of project is Rs. 12.28 Crores. Reserve forests namely Kakirala RF (0.51 Km), Mutukuru RF (1.1 Km) and Bollapalle RF (6.7 Km) are located within 10 km distance. Water bodies namely Bugga Dam Reservoir , Tank near Jangamaheshwarapadu and ChandravankaVagu near Nehrunagar are located within 10 km distance. Following products will be manufactured:

S. No	Product Name	CAS Number	Therapeutic Category	Quantity In Kg/Month	Quantity In Kgs/Day
1	Ciprofloxacin Hydrochloride	86483-48-9	Anti inflammatory	5000.00	166.67
2	Domperidone	57808-66-9	Antiemetic	1000.00	33.33
3	Efavirenz	154598-52-4	Antiretroviral Agent	2000.00	66.67
4	Emtricitabine	143491-57-0	Antiretroviral Agent	3000.00	100.00
5	Fexofenadine Hydrochloride	153439-40-8	Antihistamine	3000.00	100.00
6	Fluconazole	86386-73-4	Antifungal Agent	1000.00	33.33
7	Lamivudine	134678-17-4	Anti Hepatitis Agent	2000.00	66.67
8	Lopinavir	19275-17-0	Antiretroviral Agent	1000.00	33.33
9	n-Butyl Lithium	109-72-8	Reducing Agent in Organic synthesis	20000.00	666.67
10	Omeprazole	73590-58-6	Anti ulcerants	3000.00	100.00
11	Pregabalin	148553-50-8	Neuropathic Pain Agent	2000.00	66.67
12	Ritonavir	155213-67-5	Antiretroviral Agent	1500.00	50.00
13	Sildenafil Citrate	171599-83-0	Anti erectile dysfunction Agent	3000.00	100.00
14	Telmisartan	144701-48-4	Cardiovascular Agent/	2000.00	66.67

			Antihypertensive		
15	Zidovudine	30516-87-1	Antiretroviral Agent	500.00	16.67
Total				**50000.00**	**1666.67**

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October to December, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (48.12 µg/m^3 to 61.52 µg/m^3), $PM_{2.5}$ (15.65 µg/m^3 to 22.54 µg/m^3), SO_2 (8.42 µg/m3 to 13.63ug/m3) and NOx (12.54 µg/m^3 to 18.50 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.33 µg/m^3, 3.39 µg/m^3 and 4.42 µg/m^3 with respect to PM_{10}, SO2 and NOx. The resultant concentrations are within the NAAQS. Scrubber will be provided to control process emissions viz ammonia, HCl and SO_2.Bagfilter will be provided to coal fired boiler (2 TPH & 3 TPH) to control particulate emissions. DG sets (250 KVA + 380 KVA) will be installed. Total water requirement will be 113 m3/day. Out of which fresh water requirement from ground water source will be 90 m3/day and remaining water requirement will be met from recovered water. Industrial effluent generation will be 51.64 m3/day. Total effluent generation in two phases will be 52.5 m^3/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. 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 State Pollution Control Board on 14thMay, 2015. The issues were raised regarding implementation of various measures to prevent pollution problem; anticipated impact from the proposed industry, CSR, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report

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

(i) Recheck/reanalyzing the ground water and surface water parameters.

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

1.5.2 Resin manufacturing unit at survey no. B-4/15 & 4/16, Road no. 8, Sachinudhyog Nagar, Hjiwala Industrial Estate, Village Sachin, Taluka Choryasi, District Surat, Gujarat by M/s Bro Lam Décor- 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 17th Meeting of the Expert Appraisal Committee (Industry) held during 18th to 19th March, 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 Bro Lam Décor has proposed for setting up of Resin manufacturing unit at survey no. B-4/15 & 4/16, Road no. 8, Sachinudhyog Nagar, Hjiwala Industrial Estate, Village Sachin, Taluka Choryasi, District Surat, Gujarat. Total plot area is 7230 m^2 of which area earmarked for greenbelt is 2350 m^2. Cost of resin plant is Rs. 1.0 Crore. Minhola River is flowing within 10 km distance. It

is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin	150
2	Melamine Formaldehyde Resin	200
3	Urea Formaldehyde Resin	250

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during February-April, 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (53 µg/m^3 to 77 µg/m^3), PM2.5 (30 µg/m^3 to 42.9 µg/m^3), SO_2 (10.2 µg/m^3 to 16.1 ug/m^3) and NOx (16.5 µg/m^3 to 22.5 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.5 µg/m^3, 0181 µg/m3 and 0.99 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS. Bagfilter will be provided to biomass/coal fired Thermic fluid heater and steam boiler to control particulate emissions. DG set (125 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Total water requirement from ground water source will be 32 m^3/day. Industrial effluent generation will be 3.8 m^3/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 8th May, 2015. The issues were raised regarding selection of monitoring station in villages; type of industrial unit to set up in the industrial area; precaution to be taken by the workers; disposal of flyash 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& 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 32 m^3/day and prior permission should be obtained from the CGWA/SGWA.

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

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

viii) Green belt over 2350 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 8th May, 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.

1.5.3 Drilling of one Exploratory Well at MB-OSN-2005/3 (NELP-VII BLOCK), Mumbai offshore southwest of the Mumbai High-DCS platform by M/s ONGC Ltd.- reg. EC

The project proponent and their consultant (M/s 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 44th Meeting of the Expert Appraisal Committee (Industry) held during 20th to 21st July, 2015 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 Ltd. has proposed for Drilling of one Exploratory Well at MB-OSN-2005/3 (NELP-VII BLOCK), Mumbai offshore southwest of the Mumbai High-DCS platform. The NELP-VII Block MB-OSN-2005/3 was initially allocated to consortium of M/s Essar Energy and M/s Noble Energy with 50%PI each. Now an agreement was signed by ONGC as operator with 70% PI. The cost of the project is Rs. 70.00 Crore. It is reported that there is no national park, wildlife sanctuary, biosphere reserve, tiger/elephant reserve within the 10km radius. Total block area is 1685 Km^2. Distance of proposed well from shore will be 137 nautical miles. Co-ordinates of the block MB-OSN-2005/3 are as given below:

	Longitude			Latitude		
Pt.	**Deg.**	**Min.**	**Sec.**	**Deg.**	**Min.**	**Sec.**
A	70	5	11.27	19	4	16.54
B	70	20	17	19	6	56
C	70	45	53.78	18	30	17
D	70	35	0	18	30	17
E	70	35	0	18	40	0
F	70	21	7.13	18	40	0

A	70	5	11.27	19	4	16.54

Depth of drilling will be 2500 m. WBM will be used for drilling. Water consumption will be 40 m3/ day. Wastewater generation will be 9 m^3/day. Captive Gen Set (5 Nos.) will be installed.

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

i. The 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. 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.
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 40 m^3/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 minimization plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimized 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 Trans boundary 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.

1.5.4 Expansion of pesticides manufacturing unit at Plot No. D-1 MIDC, Kurkumbh, Taluka Daund, District Pune, Maharashtra by M/s Shougun Organics Ltd.- reg. EC

M/s Shougun Organics Ltd. has proposed for Expansion of pesticides manufacturing unit at Plot No. D-1 MIDC, Kurkumbh, Taluka Daund, District Pune, Maharashtra. PP informed that unit has started operation in 2007 without obtaining environmental clearance. Therefore, the project proposal involves violation of the Environment (Protection) Act, 1986 without taking EC under Environment Impact Assessment (EIA) Notification, 2006. The project will be considered for

taking action as per Ministry's O. M no. J-11013/41/2006-IA II (I) dated 12th December, 2012 and 27th June, 2013.

Reconsideration for Environmental Clearance

1.5.5 Proposed production of granule single phosphate of capacity 12000 TPA, sulphuric acid (98.5%)- 60000 TPA alongwith CPP of 1.2 MW proposed Mouza- Mantageriya, Chakturia, Sanmaninath, PS- Kharagpur (Local), Paschim Medinipur, West Bengal by M/s Ishika Fertilizer Ltd.- reg. Reconsideration

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

1 Layout map with adequate greenbelt plan to the scale. Development of green belt should be as per CPCB guidelines.

2 Reanalyzing the Soil with respect to water holding capacity and bulk density
3 Reassessment of ESR activities with mutual consultation.

PP vide letter dated 20.08.2015 has submitted the above additional information. The Committee found information submitted by the PP are satisfactory.

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/m^3. 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) The gaseous emissions (SO_2, NOx, CO and Fluoride) and particulate matter from process stacks shall conform to the norms prescribed by the CPCB/ State Pollution Control Board (SPCB) from time to time.

iii) Stack of adequate height shall be provided to HSD fired Furnace. Bagfilter shall be provided in grinding mill.

iv) Fluoride monitoring through continuous fluoride analyzer shall be carried out in ambient air as well as stack.

v) Sulphuric acid plant shall be based on DCDA. Process emissions viz. SO2, SO3 and Acid Mist from the Sulphuric Acid Plant shall be controlled by selection of proper catalyst, mist eliminators, scrubbing system to meet the Standards prescribed by MoEF&CC/CPCB.

vi) Total fresh water requirement from ground water source shall not exceed 200 m^3/day and prior permission shall be obtained from CGWA/SGWB.

vii) As proposed, industrial effluent shall be treated in effluent treatment plant (ETP) and recycled / reused to the mixer in the SSP plant. Sewage shall be treated in the STP.

viii) No effluent shall be discharged outside the premises and 'Zero' discharge shall be ensured.

ix) On-site temporary storage of hazardous waste (Hydro-fluorosilic acid) shall be done as per the guidelines prescribed by MoEF/CPCB. Peizometric wells shall be installed to monitor the leaching of waste.

x) Sulphure sludge from sulphuric acid plant shall be sent to Single super phosphate plant as filler. Explore the possibility to send the spent catalyst to recycler for extraction

xi) Green belt over 2.92 ha 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.

xii) All the commitments made to the public during public hearing/public consultation meeting held on 23rd December, 2012 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

1.5.6 Proposed expansion of laminate & resin manufacturing unit at Diamond Harbour Road, Village kanchowki, Tehsil Bishupur, District-24 Parganas (South), West Bengal by M/s Century Plyboards (I)-reg EC

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

1.5.7 Molasses based Distillery (45 KLPD) at Gat No. 313/1, 313/2, Bhagwant Nagar, Tehsil Barsi, District Solapur, Maharashtra by M/s Indreshwar Sugar Mills Ltd.- reg. EC.

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

(i) Details of sugar unit in the vicinity and availability of molasses as this has not been provided in the EIA report. The same should be provided
(ii) Details of existing sugar unit in respect of plant configuration, air emission, water & wastewater management, solid waste management etc. should be provided with this proposal.
(iii) Material balance of bagasse and molasses.
(iv) Water balance chart with plan to recycle and reuse of wastewater.
(v) Fly ash management
(vi) CSR plan for 5 years
(vii) Green belt development plan
(viii) Confirmation regarding installation of Cogeneration Power Plant (1.8 MW).

PP vide letter dated 22.09.2015 has submitted the addl. Information. The Committee found information submitted by the PP are satisfactory.

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

i) As proposed, ESP should be provided to the bagasse/spent wash fired boiler to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

ii) Total fresh water requirement from ground water source for distillery unit shall not exceed 360 m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation process and evaporated in MEE. Concentrated spent wash shall be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

iv) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

v) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.

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

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

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

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

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

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

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

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

xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 11th March, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

Lunch Break: 1:30 to 2.00 PM

1.6 Terms of Reference (TOR)

1.6.1 Proposed Expansion Project (Total capacity 8617.8 TPA) of Synthetic Organic Chemicals, Cosmetics manufacturing unit, R&D facility (8102 TPA) and repacking products (515.8 TPA) at Sy. No. 202, 207A, 207AA, 207E, 208A, 208AA, 208E, 208EE, 209 & 217, Village Bonthapally, Tehsil Jinnaram, District Medak, Telangana by M/s Vivimed Labs Limited (Unit II)- 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 Vivimed Labs Limited has proposed for Expansion Project (Total capacity 8617.8 TPA) of Synthetic Organic Chemicals, Cosmetics manufacturing unit, R&D facility (8102 TPA) and repacking products (515.8 TPA) at Sy. No. 202, 207A, 207AA, 207E, 208A, 208AA, 208E, 208EE, 209 & 217, Village Bonthapally, Tehsil Jinnaram, District Medak, Telangana. The company has obtained EC vide letter no. J-11011/802/2007-IA II(I) dated 20.3.2008 to manufacture of bulk drug (114 TPA) (as change in product mix).

Plot area is 65154 m^2 , of which an area earmarked for greenbelt is 25581.1 m^2. Total project cost including existing facilities is Rs. 155.5 Crore. Out of this Rs. 20 Crore is capital cost for environmental pollution control measures and Rs. 26.1 Crore per annum is recurring cost (O&M). It is reported that there are no notified National Parks/ Wildlife sanctuaries within 10 Km radius of the project site. PP has submitted the location of ponds & reserve forests as per following details :

- Gummadidala erra cheruvu – 2.4 km (NW),
- Pond near Kattakindagudem – 1.2km (W),
- Ran cheruvu – 2.6 km (SW)
- Narsapur R.F (Dense Mixed Jungle) >2.5 Km (W)
- Nawabpet R.F (Fairly Dense Scrub) >9Km (NE)
- Kunkunta R.F (Dense Scrub) >8 Km (NE)
- Wailal RF (Dense Mixed Jungle) >6 km (S)
- Pottagadda RF (Dense Mixed Jungle) > 7.5 km (SW)

- Kazipally RF (Dense Scrub) > 8 km (S)
- Dundigal RF (Dense scrub) > 8 km (S)

Following products will be manufactured:

Sl. No.	Product	Quantity (Kg/day)	Quantity (TPA)
Group A (Regular)			
1	Avobenzone (AVIS)	2666.7	960
2	Chlorphenesin (Cosvat)	200	72
3	4-n-Butylresorcinol (Vivinol)	5	1.8
4	2-Ethylhexyl 4-(dimethylamino) benzoate (Padimate-O)	300	108
5	Trisodium ascorbyl-2-Phosphate (C-Vite)	200	72
6	Benzethonium Chloride (BZC)	66.7	24
7	Phenylbenzimidazole Sulfonic acid (PBSA)	166.7	60
8	1,3,5-Para Amino-2-ethylhexyl benzoate-2,4,6-triazine (Etone)	500	180
9	Piroctone Olamine (Dandoff)	666.7	240
10	Zinc Pyrithione (Dantuff-Z 48% / 38%)	8333.3	3000
11	2-Hydroxy propyl-3-trimethyl ammonium chloride Guar (Star Cat)	833.3	300
12	Silver Oxide - DTPA Complex (Viv Ag)	5000	1800
Group B (Campaign)			
13	Vivtroze-H	333.3	120
14	Tinosarb M (Vivzole-M)	1000	360
15	Tinosarb-S (Vivtriaz-S)	666.7	240
16	Pyrrolidinyl diamino pyrimidine-N-oxide (Vividine)	3.3	1.2
17	Ethyl-9-oxo-9H-thioxanthene-2-carboxylate (9-OXO)	33.3	12
18	Vintox	10	3.6
19	Menthyl Lactate (Vivfresh)	833.3	300
20	Ammonium Dinitrosalicylic acid (ADNSA)	13.3	4.8
21	2,6-Di-tert-butyl-5-hydroxybenzyl alcohol (DTBTBA)	6.7	2.4
22	Suntech	33.3	12
23	Trichlorocarbanilide (Vivilide)	333.3	120
Group C (Campaign)			
24	3-Nitro-4-(2-hydroxyethyl) amino phenol (NHEAP)	6.7	2.4
25	4-Amino N,N-Bis (2-hydroxyethyl) aniline sulfate (BHP)	100	36
26	Nitroblue (Blue 12)	8.3	3
27	1-(3,5-Dimethyl-4-aminophenyl)-1-(3,5-dimethylimino phenyl)-1-(2,6-dichlorophenyl) methane Phosphate (Jade Blue / Blue 15)	1.7	0.6
28	Methylamino dimethylamino Propylamino Propylbromide anthraquinone (BQB / Blue 16)	6.7	2.4
29	2,2'-[[4-[(2-Hydroxyethyl)amino]-3-nitrophenyl]imino] bisethanol (Blue-2)	13.3	4.8
30	2,4-Diamino phenoxyethanol Dihydrochloride (DPE HCl)	33.3	12
31	4-Hydroxyethylamino-3-nitro toluene (HNT)	3.3	1.2
32	2,4-Diamino phenoxyethanol Sulfate (DPE Sulfate)	16.7	6
33	2,4,5,6-Tetraaminopyrimidine Sulfate (TAPS)	3.3	1.2
34	Yellow-2	3.3	1.2
35	Straw Yellow	6.7	2.4
36	1-Acetoxy-2-methyl naphthalene (AMN)	3.3	1.2
37	2-Methoxymethyl-1,4-benzenediamine (MBB)	100	36
38	Madder Red	16.7	6.0
39	3-Nitro-N-(2-hydroxypropyl)-4-aminophenol (Red BN)	16.7	6.0
40	5-Nitrobenzimidazole (5NBI)	16.7	6.0
41	1-Phenyl-3-Pyrazolidone (PHN)	66.7	24
42	1-Phenyl-4-methyl-3-pyrazolidone (MPP)	66.7	24
43	4-(Hydroxymethyl)-4-methyl-1-phenyl pyrazolidin-3-one (HMP)	66.7	24
44	4,4-Dimethyl-1-phenyl pyrazolidin-3-one (DPP)	20.3	7.3

45	2-Methyl-5-hydroxyethylamino phenol (2M5HEAP)	16.7	6
46	1,2,4-Trihydroxybenzene (1,2,4 THB)	10	3.6
47	Platinum Gray	1.7	0.6
48	Volcanic Gray	3.3	1.2
49	Fountain Blue	1.7	0.6
50	Octenidine Dihydrochloride (Viv OCT)	16.7	6.0
R&D facility			
1	R&D	0.5	0.18
Total : 50 products, 22 Products at a time on Regular and campaign basis 12 products of Group A : 6817.8 TPA 5 products of Group B:1140 TPA; 5 products of Group C:144 TPA R&D : 0.18 ~ 0.2 TPA Total 8102 TPA from 22 products & R&D.		**22505**	**8102**

Multi cyclone separators and bag filters with a suitable stack height will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm^3) from the proposed coal fired boilers of 10, 5 and 3TPH and 2 nos. of 4 lac K.cal/hr coal fired Thermic fluid Heaters in addition to the existing 3 TPH coal fired Boiler. The NOx emissions from the boilers will be controlled by controlling combustion measures, which will be approached by way of low NOx burners or by air stagging in boiler. Adequate Stack hieght will be provided as per CPCB norms to the Proposed DG sets of 530 KVA, 2x630 KVA. These are in addition to the existing DG sets of 600 KVA. DG sets will be used as standby during power failure. Primary and secondary condensers to reactors and solvent distillation system with cooling water and chilled brine circulation will be carried out to condense the solvent vapor and reduce the fugitive emissions.

Ground water will be used as source of fresh water. Total 751 m^3/day of water will be used, of which fresh water requirement is 396 m^3/day and Balance 355 m^3/day reused after treatment. Waste water of 403 m^3/day will be generated after expansion. Effluent generated from industry will be segregated as HighTDS/ HighCOD, Low TDS/Low COD and treated in the ETP with MEE followed by RO filtration. The plant is based on ZLD. Existing treatment system will be enhanced to meet additional pollution load. Domestic wastewater will be treated in septic tank and overflow will pass through ETP alongwith LTDS/ LCOD effluent.

Solid/ Hazardous waste will be segregated and stored in suitable containers/ HDPE bags and place in elevated covered platform with leachate collection system before sending to authorized agencies.

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

A. Specific TOR

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*, chlorine*, HCl*, HBr*, H_2S*, HF*, *etc*., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.

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

B. Additional TOR

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

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

iii. Detailed analysis in air modelling for Ground Level Concentration near forest site to be estimated adequately.

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

1.6.2 Setting up of molasses based 60 KLPD distillery (Rectified Spirit/ Extra Neutral alcohol/ Absolute Alcohol) at Village Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District kheri, Uttar Pradesh by M/s Gobind Sugar Mills Ltd.

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 Gobind Sugar Mills Ltd. has proposed for setting up of molasses based distillery (60 KLPD) distillery (Rectified Spirit/ Extra Neutral alcohol/ Absolute Alcohol) at Village Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District kheri, Uttar Pradesh. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. As reported, river Sharda is flowing at about 5.2 km.

Total project area is 5.07 ha of which 30-35% area has been proposed for development of greenbelt. Total Cost of project is Rs. 107.38 Crore of which Rs. 33.70 Crore and Rs. 1 Crore are earmarked towards capital cost on pollution control measures and recurring cost respectively. Working days for distillery is 310 days per annum.

The project authority did not mention source of water and details about existing or nearby sugar unit. Committee noted that requirement of water i.e. 740 m3/day @ 12 KL/KL of alcohol produce is on higher side. It was suggested that fresh water requirement should be restricted within 10 KL/KL of alcohol production. About 600 m3/day of spent wash will be generated and treated through bio-methanation followed by MEE & RO system. Zero liquid discharge system will be followed. Incineration boiler having 20 TPH capacity will be installed and connected to bagfilter

with a stack height of 55 meter. Boiler ash of 37 TPD will be generated which shall 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:

A. Specific TOR

26. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
27. Number of working days of the distillery unit.
28. Details of raw materials such as molasses and their source with availability.
29. Details of the use of steam from the boiler.
30. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
31. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
32. 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).
33. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
34. Details about capacity of spent wash holding tank, material used, design consideration.
35. No. of peizometers to be proposed around spent wash holding tank and composting yard.
36. Action plan to control ground water pollution.
37. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
38. Details of bio-composting yard (if applicable).
39. Action plan to control odour pollution.
40. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
41. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
42. 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 in respect of Sugar.
43. Details of the use of steam from the boiler.
44. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
45. Collection, storage, handling and transportation of molasses,
46. Flyash management plan for coal based and bagasse and action plan
47. Details on surface/ground water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total suspended Solids, Total Coliform bacteria etc.
48. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO2*, NOx*, 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)

B. Additional TOR

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

ii. Detailed water requirement to be reassessed.

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

1.6.3 Setting up of 3x500 MT mounded LPG storage vessels & bottling capacity (60,000 TPA) at Haldia LPG plant, Village Brindavan Chak, Tehsil Durgachak, District Purba Medinipur, West Bengal by M/s HPCL- reg. TOR

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

M/s HPCL has proposed for setting up of 3x500 MT mounded LPG storage vessels & bottling capacity (60,000 TPA) at Haldia LPG plant, Village Brindavan Chak, Tehsil Durgachak, District Purba Medinipur, West Bengal. During presentation PP informed about CPA at the project location however distance is not mentioned in the documents. No major details about the project activities have been provided by PP.

Total plot area is 18 acres. Cost of project is Rs. 100 Crore. It is reported that no reserved forest/ protected forest/ Eco-sensitive area/ national park is located within 10 km distance. Hoogly river is flowing at a distance of 8 Km. DG set will be provided with appropriate stack height. Fresh water will be drawn from ground with a quantity of 10 m^3/day.

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

A. Specific TOR

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

B. Additional TOR

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

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

1.6.4 Expansion of Chlor-Alkali Plant and Thermal Power Plant at Plot No.CH-17 and Phosphoric Acid Plant, Hydrogen Peroxide Plant and New Chloromethane Plant at Plot No. 3, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat by M/s Gujarat Alkalies And Chemicals Ltd.

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. As per EIA Notification 2006 various project activities under this project are classified as per followings:

- All units producing Chlor Alkali listed at S.N. 4(d) are treated as category A due to its location outside the notified industrial area and have production capacity more than 300 TPD.
- All the Fertilizer Plants are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.
- All Synthetic Organic Chemicals Industry (Bulk Drug & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

It is noted that proposal is for variety of activities in different plots such as chlor-alkalie plant (47550 MTPM) & thermal power at Plot no. CH 17 and Phosphoric Acid Plant (3850 KLD), Hydrogen Peroxide Plant (1500 KLD) and New Chloromethane Plant (900KLD) at Plot No. 3. PP proposed for following products against the existing facility:

S. No.	Products	Existing capacity (MTPM)	Additional Proposed Capacity (MTPM)	Total capacity after expansion (MTPM)
A	Phosphoric Acid Plant			
1	Phosphoric Acid (100% P2O5 basis)	1725	2783	4508
2	Phosphoric Acid (85% H3PO4 basis)	2790	4500	7290
3	High Boiling Material	6	9.67	15.67
4	Calcium Chloride	17400	0	17400
B	Caustic Soda Plant			
1	Caustic Soda (100%) Lye/Prills/Flakes	23550	24000	47550
2	Chlorine Gas	20784	21264	42048
3	Hydrochloric acid (100% Bases)	7260	5580	12840
4	Hydrogen Gas	695.1	523	1218.1
5	Sodium Hypochlorite	1019	1019	2038

S. No.	Products	Existing capacity (MTPM)	Additional Proposed Capacity (MTPM)	Total capacity after expansion (MTPM)
6	Dilute Sulphuric acid (78-80%)	589	461	1050
7	Gypsum	780	0	780
C	Chloromethane Plant			
1	Total Chloromethanes as follows	0	18000	18000
1.1	Methylene Chloride	0	14400	14400
1.2	Chloroform	0	2700	2700
1.3	Carbon Tetra chloride	0	900	900
D	Poly Aluminum Chloride Plant			
1	Poly Aluminum Chloride (18%)	3750	0	3750
2	Poly Aluminum Chloride (30%)	1080	0	1080
E	Hydrogen Peroxide (100%)	2493	1200	3693
F	Anhydrous Aluminum Chloride Plant			
1	A.A.C (Granules/Powder)	1890	0	1890
2	Sodium hypochlorite (10-13% Cl2 basis)	755	0	755
3	Non- Ferrous Alum	6	0	6
G	Stable Bleaching Powder	1250	0	1250
H	Sodium Chlorate Plant			
1	Sodium Chlorate Solid (MT)	1860	0	1860
2	Sodium Chlorate Solution (M3)	3400	0	3400

Though the project authority gave the presentation, however, during processing it is noted that different aforesaid activities are compressed in two different plots on which separate environmental clearance should be sought as per the site condition. The Committee was of the view that Environmental Clearance needs to be applied separately for their respective operations with appropriate site layout containing process activities, utilities, Pollution control equipments and treatment, etc. At the request of PP the Committee agreed for collection of monitoring data however separate TOR shall be awarded based on submission of separate form-1 for separate plot area on web portal.

The project shall be considered internally in EAC for award of TOR after submission of separate application through online.

1.6.5 Setting up of specialty chemical, pharma intermediates, pigment & pesticide plant at plot no 73-74, GIDC Estate-Saykha, Taluka Vagra, District Bharuch, Gujarat M/s Hemani Intermediates Pvt. Ltd. (Unit-V)- 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 technical grade pesticides and pesticide specific intermediates are listed at S.N. 5(b) under category 'A' and appraised at Central level. Project also involve manufacturing of specialty chemicals and bulk drugs intermediates, which also to be appraised at Central level if the unit is located outside the notified industrial area/estate and listed at S.N. 5(f) under category 'A'.

The committee noted that the project comprises of pharmaceutical products and pesticide chemicals together at the same project site. After deliberation, the Committee was of the view that

both activity if functioning together may pose hazards to working environment and also not desirable for pharma intermediate products. Therefore, the Committee advised to go for one operation at a time and prepare the adequate feasibility report of project. PP agreed to drop the bulk drug activity.

Therefore, the Committee recommended to recast the project proposal and resubmit the project for award of TOR alongwith form-1 through online to Ministry's website.

1.6.6 Proposed synthetic organic chemical, Bulk drug & Bulk drug intermediates manufacturing unit at Plot No 193, APIIC Growth Center Hindupur, Village Thumkunta, Mandal Hindupur, District Anantapur, Andhra Pradesh by M/s Srikar Chem & Pharma India Pvt. Ltd.- reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drug & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by State Expert Appraisal Committee. However, the project is treated as 'A' category due to applicability of general condition in respect of its location less than 5 km from interstate boundary.

M/s Srikar Chem & Pharma India Pvt. Ltd. has proposed for setting up of synthetic organic chemical, Bulk drug & Bulk drug intermediates manufacturing unit at Plot No 193, APIIC Growth Center Hindupur, Village Thumkunta, Mandal Hindupur, District Anantapur, Andhra Pradesh. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve located within the distance of 10km from the project site. Penneru and Kumudvathi Rivers are flowing at a distance of 1.8 km and 7.1 km respectively from the proposed project site. Apart from this, water bodies namely Gollapuram Lake- 2.7 km, Gaudasandra Lake- 6.6 km, Basavanapalli Lake- 5.7 km, Manepali Lake- 6.8 km, Sadlapalli Lake- 6.9 km, Bychapura Lake- 8 km, Kodihalli Lake- 9.3 km are located to their respective distance.

Plot area is 3668 m^2 of which area to be cover under greenbelt is 1247 m^2. Cost of project is Rs. 6 Crore. Approximately 30 permanent and contractual employees shall be deployed. Following products will be manufactured:

S. No	Product Name	CAS Number	Production Capacities	
			Kgs/Month	Kgs/Day
Group-A				
1	Benzyl Magnesium chloride	6921-34-2	5000.00	166.67
2	Lithium Tertiary Butoxide	1907-33-1	5000.00	166.67
3	Lithium HMDS	4039-32-1	10000.00	333.33
4	Magnesium Tertiary Butoxide	32149-57-8	5000.00	166.67
5	n-Butyl Magnesium Chloride	693-04-9	5000.00	166.67
6	Potassium Tertiary Butoxide	865-47-4	5000.00	166.67
7	Sodium amide	7782-92-5	5000.00	166.67
8	Sodium HMDS	1070-89-9	10000.00	333.33
9	Sodium Tertiary Butoxide	865-48-5	5000.00	166.67
Group-A Total			**55000.00**	**1833.33**
Group-B				
1	Domperidone	57808-66-9	3500.00	116.67
2	Esomeprazole Magnesium Trihydrate	217087-09-7	4000.00	133.33
3	Lopinavir	192725-17-0	3000.00	100.00
4	Omeprazole	73590-58-6	5000.00	166.67

5	Pantoprazole sodium	138786-67-1	4500.00	150.00
Group-B Total			**20000.00**	**666.67**
Total (Worst combination of either Group-A or Group-B)			**55000.00**	**1833.33**

Coal fired boiler having capacity 2TPH and 1 TPH alongwith thermic fluid heater having capacity 2 lac K.cal will be installed. Process emissions such as ammonia will be scrubbed by using chilled water media. Emission such as Sulpher dioxide will be scrubbed by using C.S lye solution. All solvent storage tanks will be connected with vent condenser. 1 DG set having 200 KVA capacity will be installed as standby. About 600 KVA electricity will be taken from State Electricity Board.

Total fresh water requirement will be 73 m3/day of which wastewater generation is 25 m^3/day. Processed waste water will be sent directly to MEE & condensate of MEE Other industrial waste from utility & washing activities will be sent to ETP along with condensate of MEE for treatment. Treated water from ETP is reused for greenbelt development. Domestic waste water will be sent to soak pit.

ETP sludge, MEE Salt and inorganic solid waste will be stored, transported and managed for final disposal at TSDF. Distillation residue and spent catalyst/ carbon shall be sent to cement industry. Used spent oil, discarded container shall be sold to authorized recycler. In case of ash generated from coal fired boilers that will be sent to brick manufacturers.

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

A. Specific TOR

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

B. Additional TOR

1. 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.

1.6.7 Expansion Project of Active Pharmaceuticals Ingredients (APIs) and API Intermediates manufacturing unit (4680 TPA) at Sy. No. 339, Village Nallabandagudem, Mandal Kodad, District Nalgonda, Telangana by M/s Porus Laboratories Pvt. Ltd., Unit-I- reg. TOR

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

M/s Porus Laboratories Pvt. Ltd. (Unit-I) has proposed for expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates manufacturing unit (4680 TPA) at Sy. No. 339, Village Nallabandagudem, Mandal Kodad, District Nalgonda, Telangana. The project exists since 1990 for API intermediate manufacturing unit prior to EIA Notification 2006. There is no EC for this industry since manufactured intermediates.There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve located within the distance of 10km from the project site. However, there are two reserved forests namely Gandrayi Reserved Forest- 4 km ENE direction and Balusupadu Reserved Forest- 5.7 km S direction. A small stream is adjacent to project site which joins Paleru River located at a distance of 0.7 km.

Plot area is 25009 m^2 of which greenbelt will be developed in the area of 8590 m^2. Cost of project is Rs. 33.59 Crore including existing investment of Rs. 18.96 Crore. Rs. 5 Crore is earmarked towards capital investment on Pollution control measures and Rs. 8.9 Crore per annum is kept towards recurring cost. About 250 direct and indirect employments are generated out of this project. Followings are existing and proposed products.

Existing Products and their Capacities

Sl. No.	Products	Quantity (Kg/day)	Quantity (TPA)
Regular Product			
1.	N-Acetyl Sulfanilyl Chloride	3333.33	1200
Campaign Products			
2	Isobutyl Acetophenone	3000	1080
3	4-Hydrazino-N-methylbenzene methanesulfonamide Hydrochloride	20.00	7.2
4	4-Chlorobutyraldehyde Sodium bisulfite Adduct	116.66	42
5	4-Chlorobutyraldehyde Diethylacetal	66.66	24
6	4-Dimethylamino Butyraldehyde Diethylacetal	33.33	12
7	4-Hydrazino-N-methylbenzene ethanesulfonamide Hydrochloride	11.66	4.2
8	4,5,6,7-Tetrahydrothieno [3,2-C] pyridine Hydrochloride	333.33	120
Maximum production capacity for any two products i.e. one regular product and one campaign product		**6333.33**	**2280**

Proposed Products, their Capacity and Therapeutic Category

Sl. No.	Product	Quantity (Kg/Day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
Regular Product				
1	N-Acetylsulfanilyl chloride	**3333.33**	**1200**	Valsartan

				Intermediate
Campaign Products				
2	Isobutyl Acetophenone	**3000.00**	**1080**	Ibuprofen Intermediate
3	4-Hydrazino-N-methylbenzene methanesulfonamide Hydrochloride	500.00	180	Sumatriptan Succinate Intermediate
4	4-Chlorobutyraldehyde Sodium bisulfite Adduct	166.67	60	Almotriptan Intermediates
5	4-Chlorobutyraldehyde Diethylacetal	66.67	24	
6	4-Dimethylamino Butyraldehyde Diethylacetal	166.67	60	
7	4-Hydrazino-N-methylbenzene ethanesulfonamide Hydrochloride	33.33	12	Naratriptan Intermediate
8	4,5,6,7-Tetrahydrothieno [3,2-C] pyridine Hydorchloride	333.33	120	Clopidogrel Hydrogen Sulfate Intermediate
9	Sumatriptan Succinate	33.33	12	Anti-migraine
10	Ibuprofen	**3333.33**	**1200**	Antipyretic
11	Almotriptan	16.67	6	Antimigraine
12	Naratriptan	16.67	6	
13	Rizatriptan Benzoate	16.67	6	
14	Carvedilol	33.33	12	Anti-hypertensive
15	Efavirenz	33.33	12	Anti-viral
16	Quinapril Hydrochloride	16.67	6	Antihypertensive
17	Montelukast Sodium	16.67	6	Antiasthmatic
18	Pregabalin	16.67	6	Anticonvulsant
19	Irbesartan	**833.33**	**300**	Antihypertensive
20	Pramipexole Dihydrochloride	16.67	6	Anti Parkinsonian
21	Valsartan	16.67	6	Anti-hypertensive
22	Prasugrel Hydrochloride	16.67	6	
23	Tolterodine Tartrate	**833.33**	**300**	Antispasmodic
24	Omeprazole	**833.33**	**300**	Anti-ulcerative
25	Clopidogrel Hydrogen Bisulfate	16.67	6	Anti-thrombotic
26	Losartan Potassium	**833.33**	**300**	Anti-hypertensive
27	Risedronate Sodium	16.67	6	Antihypocalcemic Agent
28	Vigabatrin	40.00	14.4	Anticonvulsant
29	Lurasidone Hydrochloride	50.00	18	Anti-psychotic
Total 7 Products (i.e., 1 Regular + 6 Campaign products) out of 29 products at any point of time Production capacity will be expanded in 2 Phases: Phase-I: 3510TPA(75%) and Phase-II: 1170TPA(25%)		**13000**	**4680**	

List of By-products

Sl. No.	Name of the By-Product	Quantity (Kg/day)	Quantity (TPA)	Name of the Product
1.	Spent Sulfuric acid	10003.37	3600	N-Acetylsulfanilyl chloride
2.	Sulphanilic acid	399.84	143.9	N-Acetylsulfanilyl chloride
3.	Spent Aluminium Chloride	10166.43	3660	Isobutyl Acetophenone
4.	Hydrochloric Acid (25%)	11000	3960	Ibuprofen
5.	Aluminum Hydroxide Gel	14517	5226	Ibuprofen
6.	Chromic Sulfate Solution	6950	2502	Ibuprofen
7.	Tributyltin Chloride	808.33	291	Irbesartan

80 TPD coal fired boilers in phase-I and phase-II (1x10TPH) will be installed including existing 2.0 Lac K.cal/hr Thermic Fluid Heater**.** Additional 2 x 250KVA DG sets are proposed alongwith existing DG sets of 2x250 KVA and 180 KVA DG Sets. Total 960 KVA is the total power requirement which will be met from Telangana State Central Power Distribution Corporation (TSCPDC) Limited. Gases generated from process will be sent to Multi stage scrubber / dispersed in atmosphere/ flame arrestor to control the gaseous emissions based on the characteristics of gases.

Total 385 m^3/day (Fresh water 265 m^3/day and 120 m^3/day reused after treatment) will be used and this will be met from ground water through tankers. Wastewater so generated will be segregated as HTDS/HCOD effluent (106.5 m^3/day) and LTDS/ LCOD effluent (13.5 m^3/day) including domestic (23.5 m^3/day) wastewater. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by Ultra filtration and RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Spent chemicals and waste oil shall be sent to authorized reprocessor/ recyclers. Fly ash will be sent to brick manufacturers.

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

A. Specific TOR

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

B. Additional TOR

1. 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.

1.6.8 Setting up of grain based distillery (125 KLPD) along with 3.5 MW Co-generation Power Plant at RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran, Rajasthan by M/s Carya Chemicals And Fertilizers Pvt. Ltd.- reg. TOR

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

M/s Carya Chemicals and Fertilizers Pvt. Ltd. has proposed for setting up of Grain based Distillery (125 KLPD) along with 3.5 MW Co-generation Power Plant at RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran, Rajasthan**.** No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor falls within 10 km radius of the project site. Kuno, Tilpasi and Karai Rivers are flowing at a distance of 2 km, 2 km and 2.5 km respectively. It is reported that one Reserved Forest (Bhoyal RF, ~2.0 km in North) and 6 Protected Forests {(Sahroi PF, ~7.5 km in NW), (Jhimiya PF, ~8.0 km in West), (Dabar PF, ~5.5 km in ESE), (Somera Bhoyal PF, ~2.0 km in NE), (Nonera PF, ~3.5 km in SW) and (Bichi PF, ~7.5 km in SSW)} exit within 10 km radius study area.

Main products in the projects are ENA and IMFL. Plot area is 20 acres of which 6.4 acres area is earmarked for greenbelt. Cost of the project is Rs. 160 Crore out of this Rs. 20 Crore is earmarked for capital cost on environmental protection measures and Rs. 2 Crore per annum has been kept as recurring cost. The man power required for proposed project will be 100 persons. Distillery will be operated for 360 days in a year.

Total power requirement for proposed project will be 2.8 MW and additional DG set having capacity 1x1000 KVA & 1x500 KVA will be installed for power back-up. Coal/ husk fired boiler of 36 TPH capacity will be connected with ESP as air pollution control device at an adequate stack height. Fly ash from the boiler will be utilized in nearby brick manufacturing units.

Fresh water will be used upto1161 m3/day and sourced from ground water. The project will be based on Zero Effluent Discharge. Grain Slops (spent wash) will be taken through Centrifuge Decanters for separation of suspended solids separated as wet cake. Thin slops from the decanter centrifuge are partly recycled back to process (30- 35%) and partly taken to thin slops Evaporation Plant for concentration of remaining solids form a syrup. This syrup is also mixed into the wet cake coming out of centrifuge and forms part of cattle feed. Process condensate from MEE will be recycled back to the process for Grain dilution and cooling tower make up. 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. Effluent Treatment Plant will be installed and treated water from ETP will be recycled back to the process and remaining will be used for green belt development/plantation. Rainwater would be utilized to recharge the underground resource through scientifically designed rainwater harvesting system. The yeast sludge will be sent to the sludge drying bed or added to wet cake.

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.

B. Specific TOR:

14. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
15. Number of working days of the distillery unit.
16. Details of raw materials such as grains, their source with availability.

17. Details of the use of steam from the boiler.
18. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
19. Proposed effluent treatment system for grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
20. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
21. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
22. Action plan to control ground water pollution.
23. Details of solid waste management including management of boiler ash, yeast, etc.
24. Commitment to install dryer.
25. Action plan to control odour pollution.
26. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

iv. 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.

1.7 Any Other

1.7.1 Proposed Debottlenecking of Existing Petrochemical Complex along with Expansion of 48 MW Captive Co-generation Power Plant (CCPP) to 240 MW CCPP based on Coal / Pet coken at Khalapur Tehsil, Patalganga Manufacturing Division B1-B3 & B5, MIDC Industrial Area, district Raigarh, Maharashtra by M/s Reliance industries Limited (RIL)-reg. reconsideration of TOR

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015 and the proposal was recommended for TOR for preparation of EIA/EMP report. The matter was referred again to the Committee as per direction of Competent Authority. The Committee noted that nature of project having high potential impacts and this is first EC of the Industry. It was observed that neither industry nor industrial estate, where industry is located has obtained EC in the past. Under such circumstance, the Committee felt that public consultation may be conducted under this project. Therefore, the Committee recommended the following TOR alongwith public consultation:

A. Specific TOR:

1. Details on requirement of raw material (naphtha/gas feed stock), its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Brief description of equipment for various process (cracker, separation, polymerization etc.)
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Details on VOC emission control system from vents, stacks, fugitive emissions and

flare management, *etc*.

6. Details on proposed LDAR protocol.
7. Ambient air quality should include hydrocarbon (methane and non methane), VOC and VCM (if applicable).
8. Action plan to meet the standard prescribed under EPA for petrochemical complex.
9. Risk Assessment & Disaster Management Plan

    - Identification of hazards
    - Consequence Analysis
    - Measures for mitigation of risk.

CPP:

1) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
2) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
3) Plan for recirculation of ash pond water and its implementation shall be submitted.
4) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
5) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc. should also be furnished.
6) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
7) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
8) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.

B. Additional TOR

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. Complete scheme for Effluent treatment and its disposal plan.

3. Latest data to be collected

It was recommended that **'TORs alongwith 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.

Annexure-I

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

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

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

4. **Site Details**

   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

6. **Environmental Status**

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations

shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

7. **Impact and Environment Management Plan**

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

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

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

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

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

8. **Occupational health**

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

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

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

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

9. **Corporate Environment Policy**

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

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

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

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

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

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

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

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

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

The following general points shall be noted:

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

TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project

proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

LIST OF PARTICIPANTS OF EAC (Industry-2) IN 1st MEETING OF EAC (INDUSTRY) HELD ON 30th November – 1st December , 2015

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