**FINAL MINUTES FOR 46th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING TO BE HELD DURING 20-21st August, 2015**

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

**Time : Meeting to be held at 10: 00 AM**

**46.1** Opening Remarks of the Chairman

**Time : 10: 00 - 10: 30 AM**

**46.2** Confirmation of the Minutes of the 44th Reconstituted Expert Appraisal Committee (Industry-2) held during 20-21st July, 2015.

**46.2.1 Project proposal titled "Expansion of Petrochemical Unit at Plot No.73, 120 Wanachiwadi, Post Masur, Taluka Karad, District Satara, Maharashtra by M/s Satyam Petrochemical Ltd." was considered in the 44th EAC (I-2) meeting held during 20-21st July, 2015 at item no 4.3.10. The Committee confirmed the following corrections**:

| Sr. No. | 44th EAC Meeting MOM held on 20th– 21st July 2015 | Correction Required in the MOM |
|---|---|---|
| 1 | M/s Satyam Petrochemicals Ltd | M/s Satyam Petrochemicals |
| 2 | Plot No. 73, 120 | Plot No.120/A |
| 3 | Ethyl Acetate Quantity – 4500Kl/M | Ethyl Acetate Quantity – 4050Kl/M |
| 4 | Power generation is not Mentioned in the MOM | Existing Power Generation – 750Kw<br>Proposed Power Generation – 1500Kw<br>Total Power Generation - 2250Kw |
| 5 | Fresh Water Consumption from canal is 737 $m^3$/d | Fresh Water Consumption from canal is 810 $m^3$/d |
| 6 | Public Hearing Held on 29th Oct 2015 | Public Hearing Held on 29th Oct 2014 |

**46.2.2 Project titled "Manufacturing of Synthetic Organic Chemicals at Survey No. 1472, Village & Mandal Vinjamur, District SPSR Nellore, Andhra Pradesh by M/s Hatri Pharma Pvt. Ltd- reg EC" was considered in the 44th EAC (I-2) meeting held during 20-21st July, 2015 at item no 4.3.4. The Committee confirmed the following corrections:**

| Sr. No. | 44th EAC Meeting MOM held on 20th– 21st July 2015 | Correction Required in the MOM |
|---|---|---|
| 1 | At page No. 8, Paragraph 1, fresh water requirement mentioned as 39.55 m3/day and remaining water requirement will be met from 40 m3/day. | The total water requirement after phase II is in the order of 125.85 m3/day consisting of 85.85 m3/day fresh water and 40 m3/day of recycled water.<br><br>The fresh water requirement for Phase I is 39.55 m3/day and 46.3 m3/day for Phase II while treated wastewater reuse for Phase I is 17 m3/day and 23 m3/day for Phase II. |

## 20th August, 2015 (Day 1)

### 46.3 Environmental Clearance

#### 46.3.1 Resins manufacturing at Sy.no. 297/1 at Village Vadu, Tehsil Kadi, District Mehsana, Gujarat by M/s P-Design Laminates Studio Ltd. – reg EC.

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

M/s P-Design Laminates Studio Ltd. has proposed for setting up of Resins manufacturing at Sy.no. 297/1 at Village Vadu, Tehsil Kadi, District Mehsana, Gujarat. Total plot area is 4994 $m^2$, of which greenbelt will be developed in 1650 $m^2$. It is reported that no eco-sensitive area/ reserved forest/ wild life sanctuary is located within 10 km distance from the project site. The cost of project is Rs. 10.0 crore. Out of which Rs. 1.0Crore and Rs. 8.0 Lakh are earmarked as capital cost and recurring cost per annum for implementation EMP. Following products will be manufactured:

| S.N. | Product | Production Capacity |
|---|---|---|
| 1 | Decorative Laminates Sheets | 1,50,000 Sheets/month or (750 MT/month) |
| 2 | Industrial Laminates Sheets | 60,000 sheets/month or (720 MTPM) |
| 3 | Phenol Formaldehyde | 90 MTPM |
| 4 | Phenol Urea Formaldehyde Rasin | 275 MTPM |
| 5 | Melamine Formaldehyde Resin | 115 MTPM |
| 6 | Urea Formaldehyde Resin | 315 MTPM |

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October-December, 2014 and submitted baseline data which indicates that ranges of concentrations of $PM_{10}$ (51.1 µg/$m^3$ to 72.5 µg/$m^3$), $PM_{2.5}$ (27.4 µg/$m^3$ to 42.3 µg/$m^3$), $SO_2$ (10.8 µg/$m^3$ to 21.1ug/$m^3$) and NOx (13.3 µg/$m^3$ to 29.9 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.444 µg/$m^3$, 0.166 µg/$m^3$ and 0.126 µg/$m^3$ with respect to PM, $SO_2$ and NOx. The resultant concentrations are within the NAAQS. The Committee suggested that bag filter will be provided to sawdust/agro waste/briquettes/coal/lignite fired boiler to control particulate emissions. DG set (1x 65 KVA + 1x 200 KVA) will be installed to meet power requirement of project in case of power failure. Total fresh water requirement from ground water source will be 24.5 $m^3$/day. Industrial effluent generation will be 4.45 $m^3$/day. Industrial effluent will be treated in the ETP. Treated effluent will be evaporated. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil/spent oil will be sent to registered recyclers. Fly ash will be sent to brick manufacturing plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 20th March, 2015. The issues were raised regarding steps taken for safety of workers, disposal of ETP sludge, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

ii) Multicyclone followed by bag filter alongwith stack of adequate height should be provided to saw dust/agro waste/briquettes/coal/lignite fired boiler to control particulate emissions.

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

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

v) Total fresh water requirement from ground water source should not exceed 24.5 $m^3$/day and prior permission should be obtained from the CGWA/SGWA.

vi) Industrial effluent shall be treated in the ETP followed by evaporator to achieve zero discharge. Phenol shall be treated in the effluent. 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 1650 $m^2$ 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 20$^{th}$March, 2015 shall 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 Enterprise social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

**46.3.2 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 project proponent and their consultant (M/s MITCON Consultancy & Engineering Services Ltd.) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 19$^{th}$Meeting of the Expert Appraisal Committee (Industry) held during 28$^{th}$ to 30$^{th}$ May, 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 Indreshwar Sugar Mills Ltd. has proposed for setting up of Molasses based Distillery (45 KLPD)in the existing sugar unit at Gat No. 313/1, 313/2,Bhagwant Nagar, Tehsil Barsi, District Solapur, Maharashtra. The land acquired for the proposed distillery is 10 acres within the premises of sugar factory. Cost of project is Rs. 84 crores. Out of which, Rs. 14.3 Crore and Rs. 0.61 crore are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that there is no national park, sanctuary, elephant/tiger reserve, migratory routes/wildlife corridor within 10 km distance. Pimpalwadi dam is located at a distance of 9.5 km. Distillery plant will be operated for 330 days. Molasses for distillery will be partially available from own sugar factory and partly from Aryan Sugars Ltd., Vithalrao Shinde SS K and Audambarraoji Patil S K.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October – December, 2014 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (15.19 µg/m$^3$ to 19.20 µg/m$^3$), $SO_2$ (11.19 µg/m$^3$ to 14.80 ug/m$^3$) and $NO_2$ (13.32 µg/m$^3$ to 18.00 µg/m$^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.012 µg/m$^3$ and0.98 µg/m$^3$ with respect to PM10 and $SO_2$ . The resultant concentrations are within the NAAQS. The ESP will be provided to the boiler to contain particulate emission. Total water requirement from the ground water source for the proposed distillery unit will be 360 m$^3$/day. Spent wash will be evaporated in the MEE. Concentrated spent wash will be incinerated in the incineration boiler.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 11$^{th}$ March, 2015. The issues were raised regarding measures to be taken to control gaseous emission; greenbelt impact on agriculture field due to the proposed project, traffic congestion, health check upetc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

(i) 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).

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

### 46.3.3 Proposed manufacturing of phenol formaldehyde resin (90 MT/month) and melamine formaldehyde resin (40 MT/month) at survey no. 219& 283/p, Village Matel, Taluka Wankaner, District Morbi, Gujarat by M/s Rosewood Laminates Pvt. Ltd. – reg EC

The project proponent and their consultant (M/s Nisarg Enviro Consultants, Stay order no. C/SCA/12466/2013 dated 07/08/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 15th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 30th January, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Rosewood Laminates Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Sy. No 219/p & 283 /p, Village Matel, Tehsil Wankaner, District Rajkot, Gujarat. Total plot area is 10421 $m^2$. Cost of project is Rs. 5.0 Crore. It is reported that no eco-sensitive area is located within 10 km distance. Paneli Reserved Forest is located at distance of 7.0 Km. Total 30 workers will be employed. Following products will be manufactured :

| S.N | Products | Production Capacity (MTPM) |
|---|---|---|
| 1 | P F Resin | 90 |
| 2 | M F Resin | 40 |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March-May, 2014 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (45 µg/$m^3$ to 74 µg/$m^3$), $PM_{2.5}$ (20 µg/$m^3$ to 37 µg/$m^3$), $SO_2$ (8 µg/$m^3$ to 14 ug/$m^3$) and NOx (10 µg/$m^3$ to 21 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.0 µg/$m^3$, 15.7 µg/$m^3$ and 5.6 µg/$m^3$ with respect to PM, SO2 and NOx. The resultant concentrations are within the NAAQS. Multicyclone followed by bagfilter will be provided to imported coal fired boiler (0.5 TPH) to control particulate emissions. DG set (250 KVA) will be installed. Total water requirement will be 46.5 $m^3$/day. Out of which fresh water requirement will be 15.0 $m^3$/day and remaining water requirement will be met from 31.5 $m^3$/day. Effluent from boiler blow down and cooling tower blow down will be generated around 3.5 $m^3$/day and recycled/reused for gardening. Process effluent containing phenol about 4 to 5 % will be treated in the resin absorption with formaldehyde generation process. Treated effluent will be evaporated. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF site. Fly ash will be sent to cement plant. Waste oil/ batteries will be sent to the authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 29th April, 2015. The issues were raised regarding benefits of the proposed project to the local people, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee 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) Multicyclone followed by Bag filter along with stack of adequate height should be installed in imported coal fired boiler to control particulate emissions.

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

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

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

vi) As proposed utilities effluent will be treated in the ETP and treated effluent will be recycled/ reused for horticulture purpose. Process effluent containing phenol about 4 to 5 % shall be treated in the resin absorption with formaldehyde generation process. Treated effluent will be evaporated.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 3439.52 $m^2$ 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 29th April, 2015 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

### 46.3.4 Expansion of Synthetic Organic Chemical Manufacturing Unit (170 to 2500 MTPM) at Plot no. 1 to 6, Block no. 67-68, Village MotiNaroli, Taluka Mangrol, District Surat, Gujarat by M/s Patel Kenwood Pvt. Ltd. – reg EC .

The project proponent and their consultant (M/s Unistar Environment & Research Labs Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 11th Meeting of the Expert Appraisal Committee (Industry) held during 26th to 27thAugust, 2013 for preparation of EIA-EMP report. All the

synthetic organic chemicals industry (Resin Manufacturing) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Patel Kenwood Pvt. Ltd. have proposed for expansion of Synthetic Organic Chemical Manufacturing Unit (170 to 2500 MTPM) at Plot no. 1 to 6, Block no. 67-68, Village MotiNaroli, Taluka Mangrol, District Surat, Gujarat. Total plot area is 43151.53 $m^2$ of which greenbelt will be developed in 17787.00 $m^2$. Cost of the proposed expansion is Rs. 1210 Lakh. Out of which Rs. 40 lakhs and Rs. 37 Lakhs are earmarked towards capital cost and recurring cost per annum for implementation of EMP. River Kim is flowing at a distance of 1.35 Km. It is reported that no national park/sanctuary or ecologically sensitive area is located within 10 km distance. Following products will be manufactured:

| **S.N.** | **Name of Products** | **Production Capacity** | | | |
|---|---|---|---|---|---|
| | | **Unit** | **Existing** | **Proposed** | **Total** |
| 1 | Plain and Pre-Laminated Particle Boards | MTPM | 1125.00 | 2345.00 | 3470.00 |
| | Synthetic Organic Resin (Bonding Glue) | MTPM | 170.00 | 2330.00 | 2500.00 |
| | a. Urea Formaldehyde Resin | | | | |
| | b.Melamine Formaldehyde Resin | | | | |
| 2 | c. Paraffin Wax Emulsion | | | | |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October-December, 2013 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (55 µg/$m^3$ to 97 µg/$m^3$), $PM_{2.5}$ (12 µg/$m^3$ to 48 µg/$m^3$), $SO_2$ (15 µg/$m^3$ to 29 ug/$m^3$)and NOx (17 µg/$m^3$ to 28 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.56 µg/$m^3$, 0.43 µg/$m^3$ and 6.93 µg/$m^3$ with respect to PM, SO2 and NOx. The resultant concentrations are within the NAAQS. Bag filter alongwith adequate stack height will be provided to additional bagasse/wood fired thermic fluid heater (2 Nos.). Cyclone separator alongwith bagfilter will be provided to Pith silo (process), Hammer mill. Cyclone separator will be provided to dryer dust silo and trimming machine. Bagfilter will also be provided to sanding machine and forming. Additional DG set (125 KVA) will be installed for standby arrangement. Fresh water requirement from ground water source will be increased from 20 $m^3$/day to 50 $m^3$/day after expansion. Domestic wastewater generation will be increased from 5.5 m3/day to 9.00 m3/day after expansion. It is reported that there will be no generation of process industrial effluent. Utilities blow down will be reused for gum manufacturing. The committee suggested them to treat sewage in the sewage treatment plant. Bagasse fly ash will be sold to the brick manufacturers. PP clarified that EC for the existing unit is not required as unit was established prior to EIA notification, 2006. PP submitted the copy of NOC No. GPCB/NOC/SRT-1570 dated 3.08.2005 issued by GPCB for establishment of existing unit as a supporting document.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 5$^{th}$December, 2014. The issues were raised regarding hazardous chemicals accident, discharge of effluent into river, commercial consumption of electricity, greenbelt details, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

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

ii) Bag filter along with stack of adequate height should be installed to coal & lignite fired boiler& Thermic fluid heater to control particulate emissions. Cyclone separator alongwith bagfilter shall be provided to Pith silo (process), Hammer mill. Cyclone separator shall be provided to dryer dust silo and trimming machine. Bagfilter shall also be provided to sanding machine

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) Adequate arrangement to be provided for storage of bagasse/husk for protection against wind blow down.

vi) Total fresh water requirement from ground water source should not exceed 50 $m^3$/day and prior permission should be obtained from the CGWA/SGWA.

vii) As proposed, no process effluent will be generated. Effluent generated from Utilities shall be treated and reused for gum manufacturing. Domestic effluent shall be treated in the STP. Treated effluent shall be recycled/reused for cooling tower make up / horticulture purpose. No effluent shall be discharged outside the plant premises. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB

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

ix) Green belt should be developed in 17787.00 $m^2$ area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

xi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 5$^{th}$December, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

xii) Sufficient amount 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.

### 46.3.5 Expansion of Fertilizer Plant by adding Ammonia (2200 TPD) and Urea (3850 TPD) at Village Piprola/Kanth, Tehsil Sadar, District Shahjahanpur, Uttar Pradesh by M/s KRIBHCO Shyam Fertilizers Ltd.- reg EC.

The project proponent and their consultant (M/s EQMS India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 10th Meeting of the Expert Appraisal Committee (Industry) held during 29th to 31stJuly, 2013 for preparation of EIA-EMP report. All the Fertilizer Plants are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

M/s KRIBHCO Shyam Fertilizers Ltd( KSFL) have proposed for Expansion of Fertilizer Plant by adding Ammonia (2200 TPD) and Urea (3850 TPD) at Village Piprola/Kanth, Tehsil Sadar, District Shahjahanpur, Uttar Pradesh. Existing plant capacity is ammonia (1350 MTPD) and Urea (2250 MTPD) for which environmental clearance was obtained vide erstwhile MoEF letter no. J-11011/15/90 IA (II) dated 1st March, 1993. M/s KSFL had also obtained environmental clearance vide letter no J-11011/53/2008 IA II (I) dated 11.06.2008 for production of ammonia (1800 TPD) & Urea (3000 MTPD)and also proposed enhancement in the capacity upto ammonia 1950 MTPD & Urea 3130 TPD through debottlenecking. However, M/s KSFL has not implemented the debottlenecking scheme due to techno- economic reasons. Total existing plot area is 780.75 acres including township. Out of which, area earmarked for greenbelt is 296 acres. No additional land is required. Proposed expansion will be carried out in the existing premises. Total cost of project is Rs. 4132 Crore. It is reported that no ecological protected areas exists within 10 km radius. Existing plant has an installed capacity of 864600 MTPA (2x 1310 MTPD) of Urea and 501600 MTPA (1x 1520 MTPD) of ammonia. Following facilities will be created :

| S.N. | Plant & Facilities | Provision |
|---|---|---|
| 1. | Ammonia Plant | 2200 MTPD |
| 2. | Urea Plant | 3580 MTPD |
| 3. | NG/LNG Transportation | By GAIL Pipeline |
| 4. | Gas Metering Station | |
| 5. | Product Storage & Handling Facilities | |
| | a] Urea Silo<br>b] Empty Bag Storage<br>c] Bagging Plant | 30,000 MT<br><br>(6+2) Slate of 60 TPH each |
| 6. | Cooling Tower | |
| | | |
| | a] Ammonia Plant<br>b] Urea Plant | 24000$m^3$/hr<br>21000$m^3$/hr |
| 7. | Ammonia Storage | 5,000 MT |
| 8. | Power Generation & Supply | |
| | a] Power Generation (GTG)<br>b] Substation For receiving power from State Grid<br>c] Emergency D.G.Set | 1x25 MW (ISO)<br><br>1x2000 kVA |
| 9. | Steam Generation Facilities | |
| | HRSG (GT set) | 100 MT/hr |
| 10. | Water Supply Treatment & Distribution | |
| | a) Raw Water Supply System<br>b) DM Water Plant<br>c) Condensate Polishing Unit | From Bore Wells<br><br>(2+1)x150$m^3$/hr<br>(2+1)x200$m^3$/hr |
| 11. | Yard Piping | As per requirement |
| 12. | Transportation Facilities<br>a] Railway Siding<br>a] Locomotive | <br>To be developed.<br>1 x 1200 HP |

| | | |
|---|---|---|
| | b] Road Transport | |
| 13. | Instrument Air Facilities<br>a] Compressor (Centrifugal)<br>b] Drying Unit<br>c] Receiver | <br>(1+1)x3000 $Nm^3$/hr<br><br>(1+1)x3000 $Nm^3$/hr |
| 14. | Inter Gas Generation | 600 Nm3/hr of $N^2$. $N^2$ Liquid Storage: 30 $m^3$ vaporizer |
| 15. | Safety & Fire Fighting System including fire water ring with Hydrant System | For the proposed expansion project, existing fire water rings and other facilities shall be augmented as per requirement. |
| 16. | Effluent Treatment Plant (ETP) & Sewage Treatment Plant (STP) | |
| 17. | Auxiliary services, workshop equipment, laboratory equipment, weighbridge, fire engine, continuous monitoring system,NDT equipment, telephone & telecommunication, Public Address System, etc. | |
| 18. | General & Welfare Facilities | |
| 19. | Construction Equipment | |
| 20. | Non-plant Buildings | Existing facilities will be augmented as per requirement. |

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October–December 2013 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (51 µg/$m^3$ to 76 µg/$m^3$), $PM_{2.5}$ (30 µg/$m^3$ to 60 µg/$m^3$), $SO_2$ (4.1 µg/$m^3$ to 7.1ug/$m^3$) and $NO_2$ (8.2 µg/$m^3$ to 13.5 µg/$m^3$) and Ammonia (15 µg/$m^3$ to 27 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.23 µg/$m^3$, 7.62 µg/$m^3$ and 2.87 µg/$m^3$ with respect to SPM, NOx and $NH_3$. The resultant concentrations are within the NAAQS except PM10.The main sources of emission are reformer flue gas stacks in ammonia plant; Urea prilling tower; Power Plant (GTG/HRSG). Urea prilling tower will be a natural draft circular tower with 26 m diameter and 102 m height and designed for urea dust less than 50 mg/$Nm^3$. Fresh water requirement from ground water source will be 878 $m^3$/hr to 2000 $m^3$/hr after expansion. Industrial effluent generation will be increased from 148 m3/hr to 348 m3/hr. after expansion. Effluent will be treated in the ETP and treated effluent will be will be reused for greenbelt. Process condensate from urea plant is treated in hydrolyser and stripper system where ammonia is recovered. The treated condensate is sent to the DM plant for making boiler feed water. Ammonia steam stripper in ETP is designed to strip the incoming floor washing effluents from ammonia and Urea plants and also the upsets condensate discharged during any emergencies in ammonia and urea plant. Sewage generation will be increased from 67 m3/hr to 84 m3/hr. after expansion and treated in the sewage treatment plant. No effluent will be discharged outside the plant premises except rain season.

The solid waste generation from the ammonia plant, urea and bagging plants will remain similar in nature. There will be some increase in solid waste generation from the expansion units. The Committee suggested them that this is environmental clearance stage and details regarding hazardous wastes generation (i.e quantitative figures ) alongwith its management plan should have been provided by PP and Environmental Consultant. PP informed that energy requirement of the proposed plant will be in the range of 5.51 -5.2 Gcal/Ton. There is a provision for the installation of new 5000 MT ammonia storage tank. The Committee emphasized regarding ammonia storage that any time they should not store 5000 Ton and one tank should be kept standby.

The Committee was of the view that the subcommittee of EAC should visit the project site to assess the environmental compliance of the existing unit and any related issues to be addressed as public hearing was exempted due to the location of project within industrial area. The Committee suggested that till the site is done, the water balance to be rechecked and efforts to be made for reduction. Tie-up /agreement may be entered with farmers for use of treated effluent. The proposal was deferred till the above desired information is submitted. The above information shall be provided with the uploading of minutes on the website.

## Reconsideration for Environmental Clearance

**46.3.6 Molasses/grain based Distillery (45KLPD), Co-generation Plant (30 MW) and Captive Power Plant (1.5 MW) at S.F. No. 51, Village Makavalli, Tehsil Krishnarajpet, District Mandya, Karnataka by M/s Coromandel Sugars Ltd.- reg reconsideration of EC as per directives of NGT.**

MoEF vide letter no J-11011/565/2010-IA II (I) dated 31st December, 2012 has issued the Environmental Clearance to M/s Coromandel Sugars Ltd. Subsequently, Appeal Nos. 21 of 2013 (SZ), 56 of 2013 (SZ) and Application No. 152 of 2014 (SZ) in the matter of Shri Thamme Gowda and ors. vs UoI filed before the National Green Tribunal, Southern Zone, Chennai . *As per Hon'ble NGT order dated 12th May, 2015, MoEF to carry out a re-exercise of the appraisal within the six month period by calling for additional information and clarifications in respect of all concerns and objections even if they are minor in nature, consider the same at the time of meeting to be convened and conducted for the said purpose after giving and opportunity to the project proponent to be present at the time of that matter. The EAC is directed to consider each and every issue separately and independently and record the reasons either for rejecting or accepting the concerns and objections and also the response by the PP thereon enabling thereby to understand both the project proponent and Objectors, ensuring transparency in the process of recommending either for acceptance or for rejection of the EAC by the regulatory Authority namely the MoEF.* In light of points raised by Complainant before NGT in Appeal No. 21 of 2013 (SZ) and other cases, following issues were discussed in presence of Project Proponent and Environmental Consultant (Team Lab):

**i. Suppression of material facts and improper assessment - No. of villages falling within the radius of 10 km of the project site.**

PP informed that the updated socio economic data is submitted.

**ii. EIA report was completely silent on the pollution already being caused by the existing sugar factory.**

PP informed that the Ambient Air Quality data collected represents the dispersion of existing activity also. The data collected by third party laboratory in the recent months was presented. Ambient air quality monitoring was carried out at 3 locations during September, November, December, 2014 and February, 2015, which indicates that ranges of concentrations of $PM_{2.5}$ (10.4 µg/m$^3$ to 27.4 µg/m$^3$), $PM_{10}$ (49.8 µg/m$^3$ to 89.2 µg/m$^3$), $SO_2$ (9.11 µg/m$^3$ to 15.9 ug/m$^3$) and NOx (30.1 µg/m$^3$ to 42.8 µg/m$^3$) respectively.

**iii. The Ash generated from the industry is dumped haphazardly causing inconvenience to public.**

PP informed that ash generated from 30 MW Co-generation power plant is 529 TPM from Baggase and 65 TPM from coal. Ash will be collected in Ash silos. Ash from 140 TPH Bagasse and coal fired boiler will be sent to Brick manufacturing unit. Ash from Existing

Bagasse fired boilers 2 x 45 TPH mixed with press mud and sold as soil conditioner to farmers.

**iv. The data allegedly collected in the EIA report was contrary to the data of KSPCB. The ambient air quality (AAQ) standards as per the EIA report for the period April, 2011 to June, 2011 were well within the AAQ standards. However, the inspection reports from KSPCB for the same period indicated violation in particulate matter.**

PP informed that in some cases particulate emissions from the stacks exceeded the standards. *Existing 2 x 45 TPH Bagasse fired boilers shall be removed after commissioning of 140 TPH boiler, which is designed to meet the emissions standards.*

**v. No study done in regard to the impact of drawing water from the river on the drinking water needs of the villages and on the riparian rights of the downstream communities or on the flow of the river.**

PP informed that the Government of Karnataka permitted drawl of water from Hemavathi river and entered into an agreement on 22.03.2000 allowing drawl of 1.293 cusec (3176 KLD). He pointed out that *water drawl is less than 0.01% of total flow during lean season, and 0.0004% of total flow during peak monsoon season.* Following Water Conservation Measures are being taken:

i. Treated wastewater is reused in process , bearing cooling and cooling towers
ii. Adoption of cooling towers in place of spray pond will reduce drift loss.
iii. Condensate from spent wash evaporator reused for diluting molasses.
iv. Treated wastewater reused for ash quenching, ash conditioning and dust suppression
v. Treated wastewater reused for greenbelt development

**vi. Project proponent has suppressed the presence of forest.**

PP informed that the proposal initially depended on the toposheet (57 D/6) issued by the SOI in 1972-73, which does not reflect any forest within the impact area. The latest SOI toposheets (copyright 2011) for this area reflects a reserve forest at a distance of 8.87 km in SW direction. The referred forest, Karoti is located at a distance of 2.7 km in east direction. The state government forest consists of Eucalyptus plantation (social forest) only, and the same did not reflect in toposheet. The AQIP results reflect no impact on Matada forest located at distance of 8.87 Km in southwest direction and Karoti (BB Kaval) eucalyptus plantation located at a distance of 2.7 km in east direction.

**vii. Project proponent has suppressed the archaeological and historical places within 25 km radius of the project.**

**PP informed that the following monuments are located within 10 km distance:**

| S.No | Name of the Monument - Temples | Notified by | Distance from the project site (km) | Direction |
|---|---|---|---|---|
| 1 | Lakshminarayana | ASI | 9.29 | SE |
| 2 | Panchalingeshwara | ASI | 8.83 | NW |
| 3 | Brahmeshwara | State ASI | 7.22 | N |

**There are no Archaeological monuments within 300 m of the plant site. Ambient Air Quality Impact predictions results are as given below:**

| S.No | Name of the Monument - Temples | Distance from the project site (km) | Direction | Predicted GLC (μg /m3) | | |
|---|---|---|---|---|---|---|
| | | | | SPM | SO2 | NOX |
| 1 | Lakshminarayana | 9.29 | SE | -- | -- | -- |
| 2 | Panchalingeshwara | 8.83 | NW | -- | -- | -- |
| 3 | Brahmeshwara | 7.22 | N | -- | -- | -- |

- **According to Ancient Monuments and Archaeological Sites and Remains Act, 1958 and its amendments in 2010, 100 m from the boundary of the monument is prohibited area for construction activities. However, the industry is located more than 7 Km from the nearest monument.**

**viii. Suppression on the presence of hill/mountains.**

PP informed that Land Use and Land Cover Map and DEM of the impact area are presented in subsequent slides. Few Hillocks are observed in both SE and NE directions. The MSL of plant site is 829 m. The MSL of hillock in SE direction at a distance of 8 km is 922 m and hillock in NE direction at a distance of 9.7 km is 915 m.

The Committee deliberated on the submission of PP w.r.t. points raised by the applicant. After deliberation, the Committee sought following additional information:

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

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

**46.3.7 Expansion of Dyes and Dyes Intermediates Manufacturing Unit (2,200 MTPM to 6,000 MTPM) and Co-generation Power Plant (5 MW) at Sy. No. 804, 805, 807 to 822, 824 to 839 & 849, Village Dudhwada, Tehsil Padra, District Vadodara, Gujarat by M/s Bodal Chemicals Ltd.- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 10$^{th}$meeting held during 29$^{th}$ July, 2013 to 31$^{st}$ July, 2013and the Committee sought following additional information:-

(i) Compliance of the conditions stipulated in the existing unit.
(ii) Recommendation on proposed expansion project from GPCB.

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

PP informed that they have complied with the environmental conditions stipulated in the EC conditions but they have not shown photographs of action taken report on the non complied points observed by the Regional Office, MoEF&CC. The Committee suggested that Ministry may obtain compliance report for discussion in the Committee. The Committee noted that PP has obtained CTE for the proposed project from GPCB, which is treated as recommendation of the Pollution Control Board. The Committee discussed the point wise reply/commitment on the issues raised by the public in public hearing report.

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

**46.3.8 Sugar Plant (5000 TGD), Cogeneration Power Plant (25 MW) and Molasses based Distillery Unit 60 KLPD) at Village Turk Pimpari, Tehsil Barshi, District solapur, (Maharashtra) by M/s Indian sugar Manufacturing Company Ltd. (Unit-2)- reg EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38$^{th}$ meeting held during 20$^{th}$– 21$^{st}$ April, 2015 and the Committee sought following additional information:-

1. Layout plan of the proposed unit indicating process area, storages, utilities, greenbelt etc.
2. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
3. PM10 and PM2.5 to be monitored for 1 month in the study area.
4. Submit scheme indicating treated effluent to be used in co-generation power plant instead of fresh water. Treated effluent from sugar unit, spentlees, condensate from MEE to be recycled.

PP has submitted the above mentioned information. Point wise discussion held and found in order. 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 fired boiler (140 TPH) and coal/concentrated spent wash fired boiler (22 TPH) 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 Sina River shall not exceed 587 m3/day for distillery (Molasses), 231 m$^3$/day for sugar unit and 520 m$^3$/dayfor cogeneration unit. 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 evaporated in MEE and concentrated spent wash will be incinerated 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.

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

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

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

x. 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.

xi. 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.

xii. 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.

xiii. All the issues raised during the public hearing/consultation meeting held on 28$^{th}$ February, 2014should be satisfactorily implemented.

xiv. As proposed, green belt over 15.00 ha land shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xv. As proposed (Rs. 6.00 Crore ) should 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. Annual Action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. As proposed, villages identified for ESC are Kewad, Dhanori, Turk Pimpri, Madha, Mnaegaon, Undegaon and Chavanwadi.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015 and the Committee sought following additional information:-

(i) As per page 64 of EIA report, levels of $PM_{2.5}$ are reported in the range of 200 to 472 ug/$m^3$ whereas levels of $PM_{10}$ are reported in the range of 39.29 to 174 ug/$m^3$. Re-checking the values and the reasons for submitting wrong details in the EIA report to be provided.
(ii) Reanalyzing Non-methane
(iii) Reanalyzing water quality of Sabarmati River.

PP vide letter dated 17th July, 2015 has submitted the above mentioned addl. information. Regarding s.n. (i), pp informed that reported values being referred are not based on primary monitoring undertaken but from secondary source i.e. ambient air quality monitoring conducted by the GPCB during 2009-10. They have rechecked the cited source by their EIA Consultant and now confirm that RSPM and SPM has been inadvertently been reported as PM10 and PM 2.5, the same has been corrected in the EIA report as well. Regarding point no. (ii) and (iii), the Committee found reasonable response.

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

i. The present EC is for Exploratory Drilling only. In case Development drilling to be done in future, prior environmental clearance must be obtained from the Ministry.

ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for $PM_{10}$, $PM_{2.5}$, $SO_2$, $NO_X$, CO, methane & Non-methane HC etc.

iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.

iv. Approach road shall be made pucca to minimize generation of suspended dust.

v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.

vi. Total water requirement from ground water source shall not exceed 40 $m^3$/day and prior permission shall be obtained from the CGWA/SGWA.

vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage

system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhopal.

ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

xi. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30$^{th}$ August, 2005.

xii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

xiii. The company shall develop a contingency plan for $H_2S$ release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal $H_2S$ detectors in locations of high risk of exposure along with self containing breathing apparatus.

xiv. Blowout Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

xv. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xvi. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xvii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

xviii. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

xix. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.

xx. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.

xxi. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment and item wise sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project during drilling period.

xxii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxiii. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

xxiv. Company shall have own Environment Management Cell having qualified persons with proper background.

xxv. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

**46.3.10 Expansion of Bulk Drug Manufacturing Unit at Village KeshwanaRajpoot, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Otsuka Chemicals (India) Pvt. Ltd. – reg. EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 40$^{th}$meeting held during 18$^{th}$– 19$^{th}$May, 2015 and the Committee sought following additional information:-

(i) Crosscheck methane and non-methane hydrocarbon data in the ambient air.
(ii) Plan to install ATFD instead of centrifuge. Elaborate the existing practice for handling MEE salt.
(iii) Adequate plan for development of greenbelt as per CPCB guidelines

PP vide letter 6$^{th}$ July, 2015 has submitted the above mentioned information. Regarding installation of ATFD, PP committed to install ATFD. Regarding handling of MEE salts in the existing plant, PP informed that they had sent samples of isolated inorganic salts from MEE to RSPCB approved TSDF of M/s RamkeyGrou in December, 2008 for analysis. As per the report isolated inorganic salts are non-hazardous in nature and they recommended that this can be sent for landfilling after adjustment of pH, accordingly, they were mixing it with fly ash of boiler and were sending the same for landfilling. During hearing, the Committee stated that such inorganic salts are soluble in nature and may contaminate soil and ground water of the area. Accordingly, the Committee suggested them that such inorganic salts are treated as hazardous waste due to its leaching characteristics and disposed though TSDF site for hazardous waste.

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

i) State Pollution Control Board shall grant consent to operate after ensuring that Company has started sending their evaporated salts to TSDF instead of mixing into fly ash and disposing through open landfill.

ii) Bag filter shall be provided to the coal/pet coke 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.To control the SO2 emission, limestone powder shall be feed alongwith pet coke in furnace bed as a sulfur capturing agent.

iii) The levels of PM2.5, PM10, SO2, NOx, VOC, CO and HCl shall be monitored in ambient air.

iv) Scrubber should be provided to process vents to control process emissions viz HCl. 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.

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

vi) Total fresh water requirement from ground water source shall not exceed 800 $m^3$/day and prior permission shall be obtained from the CGWA/SGWA.

vii) Trade effluent should be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through steam stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream should be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. Clear mother liquor of stripper containing dissolved residual solids and high boiling organic solvents will be sent to incinerator. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

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

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

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

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

xii) Solvent management should be as follows :

- Reactor should be connected to chilled brine condenser system
- Reactor and solvent handling pump should have mechanical seals to prevent leakages.
- The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
- Solvents should be stored in a separate space specified with all safety measures.

- Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
- Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

xiii) As proposed, green belt over 29040 $m^2$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) Sufficient funds ( 2.5 % of project cost) shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs specially arrangement for supplying potable water to the fluoride affected nearby villages and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 24th meeting held during 29th– 30thSeptember, 2014 and the Committee sought following additional information:-

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

PP vide letter no. KSSK/mfg./71/2015-16 dated 18.04.2015 has submitted the above mentioned information. However, Committee noted that PP has not incorporated the above mentioned information in the EIA-EMP report. Fresh one month data of environmental quality was not conducted. The Committee again reiterated to submit the above additional information. The Committee noted that approach of PP and the Environmental Consultant was casual in preparation of EIA report. Therefore, Committee underrated the consultant.

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

## 46.4 Terms of Reference (TOR)

**46.4.1 Proposed molasses based distillery (45 KLPD) at Village Anandgaon Sarni, Taluka Kaij, District Beed, Maharashtra by M/s Yedeshwari Agro Products 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 Yedeshwari Agro Products Ltd. has proposed molasses based distillery (45 KLPD) at Village Anandgaon Sarni, Taluka Kaij, District Beed, Maharashtra. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. As reported, river Manjara is flowing at about 8 km. Total Cost of proposed project is Rs. 35.00 Crore. Total 56 personal will be employed for the project. Working days for distillery is 270 days.

Source of water is River Manjara. Fresh water required for proposed project will be 555$m^3$/day. Zero discharge system will be adopted by bio-methanation followed by RO. Concentrated RO reject will pass to bio composting which will be mixed with press mud that is available in sugar mill. The spent wash from distillery is collected in one day holding tank. There is not much detail given in documents provided by the PP. It is reported that about 1MW power will be required which will be sourced from the state Electricity Board. In absence of any concrete treatment scheme, the Committee suggested for treatment through MEE and RO.

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/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration.
10. No. of peizometers to be proposed around spent wash holding tank and composting yard.
11. Action plan to control ground water pollution.
12. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
13. Details of bio-composting yard (if applicable).
14. Action plan to control odour pollution.
15. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
16. 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).
17. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.

18. 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.
19. Number of working days of the sugar production unit.
20. Details of the use of steam from the boiler.
21. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
22. Collection, storage, handling and transportation of molasses,
23. Collection, storage and handling of bagasse and press mud.
24. Flyash management plan for coal based and bagasse and action plan
25. 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.
26. 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. 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. Detailed adequate treatment scheme for spent wash

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.

### 46.4.2 Expansion & Debottlenecking of Petrochemical Complex, Nagothane Manufacturing Division (NMD) at MIDC, Tehsil Roha, District Raigarh, Maharashtra by M/s Reliance Industries Limited- reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petrochemical Complexes are listed at S.N. 5(c) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Reliance industries Limited (RIL) has proposed for expansion & debottlenecking of petrochemical complex, Nagothane Manufacturing Division (NMD) at MIDC, Tehsil Roha, District Raigarh, Maharashtra by M/s Reliance Industries Limited. It is reported that no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site.The existing NMD complex is spread over 744 ha out of which 298 ha is greenbelt. The existing manpower is about 1794 and this would be used for the proposed expansion. Actual Cost of the project is reported to be Rs. 2058 crore. Environmental Clearance for the existing plant was issued by SEAC Maharashtra vide letter no. SEAC-2013/CR-/TC-1 dated 5th September, 2014. Following products and by products are now proposed:

| Products | Production (MTA) |
|---|---|

| | Existing | Proposed | Total |
|---|---|---|---|
| Ethylene | 4,00,000 | 1,80,000 | 5,80,000 |
| Propylene | 90,000 | 40,000 | 1,30,000 |
| Ethylene Glycol | 70,000 | 130,000 | 2,00,000 |
| Ethylene Oxide | 60,000 | 10,000 | 70,000 |
| LDPE | 1,20,000 | 0 | 1,20,000 |
| LLDPE/HDPE/Metallocene | 3,00,000 | 50,000 | 3,50,000 |
| Polypropylene | 1,50,000 | 0 | 1,50,000 |
| Butene-1 | 15,000 | 0 | 15,000 |
| Acetylene | 3,000 | 0 | 3,000 |
| R-PET | 16,000 | 0 | 16,000 |
| RPDC-10 | 60 | 0 | 60 |
| Alumina balls & powder | 4.8 | 0 | 4.8 |
| Ethoxylates | 1,25,000 | 0 | 1,25,000 |
| Hexene-1 | 15,000 | 5,000 | 20,000 |
| Utilities | | | |
| Power | 85 MW | 15 MW | 100 MW |
| DM Water | 340 $M^3$/hr | 60 $M^3$/hr | 400 $M^3$/hr |
| Nitrogen | 10,600 $Nm^3$/hr | 10,600 $Nm^3$/hr | 21,200 $Nm^3$/hr |

**Byproducts**

| Products | Production (MTA) | | |
|---|---|---|---|
| **By products** | **Existing** | **Proposed** | **Total** |
| Acetylene Black | 2,400 | 0 | 2,400 |
| Mixed Oil (Pyrolysis Gasoline – RARFS, Pyrolysis Fuel Oil) | 23,000 | 27000 | 50,000 |
| C4 cut | 24,000 | 6,000 | 30,000 |
| Polyethylene Glycol | 7,500 | 22,500 | 30,000 |
| Tar (GC) | 30 | 0 | 30 |
| Prepoly powder | 30 | 5 | 35 |
| Oligomer | 15,000 | 5,000 | 20,000 |
| CO2 | 40,000 | 50,000 | 90,000 |

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 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 equipments for various process (cracker, separation, polymerization etc.)
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, *etc*.
6. Details on proposed LDAR protocol.
7. Ambient air quality should include hydrocarbon (methane and non methane ), VOC and VCM (if applicable).
8. Action plan to meet the standard prescribed under EPA for petrochemical complex.
9. Risk Assessment & Disaster Management Plan
    - Identification of hazards
    - Consequence Analysis
    - Measures for mitigation of risk.

**B. Additional TOR**

1. The Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006 as project is located in the notified industrial area.
2. A Copy of certified compliance report to the environmental conditions prescribed in the existing EC. Action taken report/ detailed action plan on the partly/non-compliance conditions reported by the MoEF&CC Regional Office.
3. Complete scheme for Effluent treatment and its disposal plan.
4. Latest data to be collected

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

**46.4.3 Expansion of bulk drug (51 MTPM to 122 MTPM) at Plot No. 4-7, Survey No. 52 & 53, Village Shapar (Veraval), Tehsil Kotda Sanghani, District Rajkot, Gujarat by M/s Endoc Lifecare 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 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 Endoc Lifecare Pvt. Ltd. has proposed for expansion of bulk drug (51 MTPM to 122 MTPM) at Plot No. 4-7, Survey No. 52 & 53, Village Shapar (Veraval), Tehsil Kotda Sanghani, District Rajkot, Gujarat. Plot area is 18593.2 $m^2$. Area to be cover under greenbelt is not mentioned. It is reported that no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Cost of project is Rs. 4.5 Crores of which 0.75 crore

is earmarked for pollution control measures. The unit has obtained Environmental Clearance of existing unit vide this Ministry's letter no. J- 11011/484/2008-IA II(I) dated 30/10/2008. Following products will be manufactured.

| Sr. No. | Name of Product | Quantity in MTPM | | |
|---|---|---|---|---|
| | | Existing | Existing | Existing |
| 1. | Ornidazole | 46 | 54 | 100 |
| 2. | Fluconazole | 05 | 05 | 10 |
| 3. | Tizanidine Hydrochloride | 00 | 05 | 05 |
| 4. | Fluoxetine Hydrochloride | 00 | 05 | 05 |
| 5. | R & D Product | 00 | 02 | 02 |
| | **Total** | **51** | **71** | **122** |

In existing plant stack is attached to Boiler (1 TPH) & D. G. set (400KVA). CNG is used as fuel. After proposed expansion two boilers (2 TPH) will be added in which CNG & Agro Briquettes or coal will be used as fuel. Two more flue gas stacks will be added. Cyclone & bag filter will be used as Air Pollution Control Device. Boilers will be equipped with stacks of suitable height to control pollutants into atmosphere. Water requirement will increase from 36.9 m3/day to 87.17 m3/day of which water water generation wil be increased from 12.1 m3/day to 31.95 m3/day. Processed waste water will be directly sent to MEE & condensate of MEE. Other industrial waste water i.e. waste water 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 will be stored, transported and managed for final disposal at TSDF. Distillation residue and spent catalyst/ carbon shall be sent to common incineration facility. 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 $NH_3$*, 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.

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.

### 46.4.4 Setting up of 45KLPD Molasses Based Distillery Cum Ethanol Plant at village Gopalapuram, Alapuram Post, Taluka Pappireddipatti, District Dharmapuri, TamilNadu by M/s Subramaniya Siva Cooperative-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 Subramaniya Siva Cooperative has proposed for setting up of 45KLPD Molasses Based Distillery Cum Ethanol Plant at village Gopalapuram, Alapuram Post, Taluka Pappireddipatti, District Dharmapuri, Tamilnadu. Subramanian Siva Cooperative Sugar Mill Ltd. having 2500 TCD capacity already exists in the plant. In the proposed distillery about 51 employees will be deployed in addition to 282 workers in the existing sugar plant. Total Cost of proposed project is Rs. 90.00 Crore. Out of this Rs. 10.36 crore and Rs. 1.49 Crore are earmarked for capital and recurring cost. Total plot area is 389078 $m^2$ of which 33% of area will be developed for greenbelt. Total working day for distillery is 300. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Vaniyar River is flowing at a distance of 2.1km towards South. Kavarmalai, Palipatti and Harur Reserve Forests are located within the vicinity of 10 km. Following products will be manufactured:

| Sr No. | Product | Quantity |
|---|---|---|
| **1** | ENA | 45 KLPD |
| **2** | Impure Spirit | 2.25 KLPD |
| **By Product** | | |
| **1** | Bio compost | 41.93 MTD |
| **2** | Bio gas | 14040 $M^3$ |

Source of water is from River Vaniyar. Fresh water required for proposed project will be 641$m^3$/day. Zero discharge system will be followed by bio-methanation followed by RO. Concentrated RO reject will pass to bio composting which will be mixed with press mud that is available in sugar mill. The existing power and steam requirements of sugar unit are

being met by Power generation unit managed by TNPL. Additional power requirement will be met by installing 1.0 MW of captive power plant. For this purpose boiled using furnace oil will be installed.

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

**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/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration.
10. No. of peizometers to be proposed around spent wash holding tank and composting yard.
11. Action plan to control ground water pollution.
12. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
13. Details of bio-composting yard (if applicable).
14. Action plan to control odour pollution.
15. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
16. 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).
17. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
18. 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.
19. Number of working days of the sugar production unit.
20. Details of the use of steam from the boiler.
21. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
22. Collection, storage, handling and transportation of molasses,
23. Collection, storage and handling of bagasse and press mud.
24. Flyash management plan for coal based and bagasse and action plan
25. 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.
26. 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. Availability of molasses

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.

### 46.4.5 Manufacturing of resins (1000MTPM) at plot no. 65/A, Ankhol Patia, Kadi Road, Taluka Kadi, District Mehsana, Gujarat by M/s Cedar Decor Pvt. Ltd.-reg TOR

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

M/s Cedar Decor Pvt. Ltd. has proposed for resins manufacturing unit at plot no. 65/A, Ankhol Patia, Kadi Road, Taluka Kadi, District Mehsana, Gujarat. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Total plot area is 12542$m^2$ out of which 4042 $m^2$ (32%) of area will be developed for green belt. Total cost of project is Rs. 16 crores of which 0.75 crore is of proposed project. At present the unit is manufacturing laminated sheets 3,20,000 Nos /Month. The unit is now proposed to manufacture the following product as resin:

| No. | Name of Product | Total Quantity |
|---|---|---|
| 01 | Phenol formaldehyde resin | 1000 MT/Month |
| 02 | Urea Formaldehyde Resin | |
| 03 | Melamine Formaldehyde Resin | |

The source of power is from UGVCL. The total power requirement for existing unit is 375 KVA. Existing boiler is adequate for the proposed expansion. No additional water required in boiler. After expansion total water consumption will be 432 m3/day (Fresh – 392 $m^3$/day & treated 400m3/day). The waste water generation from domestic effluent will be 6 $m^3$/day that will be treated in Sewage Treatment Plant. The treated wastewater from STP will be partially used in cooling tower (10 m3/day ) and balanced qty will be used for plantation and Gardening (30 m3/day ). The process effluent @10 Liter/Day will be separately treated and then it will evaporated in Evaporator system.

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

**A. Specific TOR**

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

**B. Additional TOR**

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

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.

**46.4.6 Manufacturing Plant of Technical Grade Pesticides– Pesticides industry and pesticide specific intermediates (excluding formulations) at Sy. no. 11/10, 11, 12, 19, 20, 21, 10/15, 16, 17, 24, 25, 16/5, Village Begampur, Tehsil Chhachhrauli, district Yamuna Nagar, Haryana by M/s Oriyo Organics Pvt. Ltd.-reg TOR**

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

**46.4.7 Proposed 45 KLPD molasses based distillery cum ethanol plant at Village Kachirayapalayam, Taluka Chinnasalem, District Villupuram, Tamilnadu by M/s Kallakurichi-II Cooperative Sugar Mills 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 Kallakurichi-II Cooperative Sugar Mills Ltd. has proposed 45 KLPD molasses based distillery cum ethanol plant at Village Kachirayapalayam, Taluka Chinnasalem, District Villupuram, Tamilnadu. M/s Kallakurichi-II Cooperative Sugar Mills Ltd. is an existing or operating sugar mill having capacity of 2500 TCD. There is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Gomuki river and Mukta Nadi are flowing at a distance of 1.1km towards North and Mukta river 9.2 km towards NE respectively. Reserved forests namely Takarai and Parigam are at distance of 1.46 km and 8.1 km from the project site.

Total plot area is 41.25 ha, of which green belt will be developed in 33% of area. Distillery shall be operated for 300 days. About 51 employees shall be deployed for the proposed distillery in addition to existing 282 workers in sugar mill. Total Cost of proposed project is Rs. 90.00 Crore. Following products will be manufactured:

| **Sr No.** | **Product** | **Quantity** |
|---|---|---|
| **1** | ENA | 45 KLPD |
| **2** | Impure Spirit | 2.25 KLPD |
| **By Product** | | |
| **1** | Bio compost | 41.93 MTD |
| **2** | Bio gas | 14040 $M^3$ |

Total water requirement for the proposed project is 641 m3/day and will be sourced from groundwater. Zero discharge system will be followed by bio-methanation followed by RO. Concentrated RO reject will pass to bio composting which will be mixed with press mud that is available in sugar mill. The existing power and steam requirements of sugar unit are being met by Power generation unit managed by TNPL. Additional power requirement for distillery will be met by installing 1.0 MW of captive power plant. For this purpose boiled using furnace oil will be installed.

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

**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/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration.

10. No. of peizometers to be proposed around spent wash holding tank and composting yard.
11. Action plan to control ground water pollution.
12. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
13. Details of bio-composting yard (if applicable).
14. Action plan to control odour pollution.
15. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
16. 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).
17. Details on water balance including quantity of effluent generated, recycled &reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
18. 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.
19. Number of working days of the sugar production unit.
20. Details of the use of steam from the boiler.
21. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
22. Collection, storage, handling and transportation of molasses,
23. Collection, storage and handling of bagasse and press mud.
24. Flyash management plan for coal based and bagasse and action plan
25. 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.
26. 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 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 Availability of molasses for the proposed unit

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.

### 46.4.8 Expansion of sugar plant from 3500 TCD to 5000 TCD and installation of 60 KLPD distillery ,Cogeneration Plant from 15 MW to 34 MW at Village Terdal, Tehsil Jamkhandi, District Bagalkot, Karnataka by M/s Sovreign Industries 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 Sovreign Industries Ltd. has proposed for expansion of sugar plant from 3500 TCD to 5000 TCD and installation of 60 KLPD distillery ,Cogeneration Plant from 15 MW to 34 MW at Village Terdal, Tehsil Jamkhandi, District Bagalkot, Karnataka. Cost of project is not mentioned. Total plot area is 79.09 acre, of which 26.0 acre will be developed as greenbelt. As per form 1, it is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve within the distance of 10km from the project site. Krishna River is flowing at a distance of 4.95 km towards North-East from the site. PP did not indicate about the green land/ forest as shown in Topo-sheet. 25 people will be employed.

The proposed water consumption in the sugar plant including power generation is 3720$m^3$/day. Of this total requirement of 3720$m^3$/day, about 3500$m^3$/day shall be met from the cane juice of sugar plant and the balance requirement of the 220 $m^3$/day shall be drown from Krishna River. The project is based on Zero Discharge. The waste water generated after the expansion of the sugar & cogeneration plants (480 $m^3$/day) shall be concentrated & incinerated. Spentlees generated from the distillery plant (144 $m^3$/day) shall be subjected to reserve osmosis (RO) treatment. RO reject shall be concentrated & incinerated.

The proposed power requirement of the sugar & cogeneration plant is 9MW. This treatment shall be met from the cogeneration plant and around 18MW shall be exported to the grid during season. The proposed power requirement of the 60 KLD distillery plant is 1250 KW. The requirement shall be met by generating 2MW power from the incinerator boiler. Remaining 750 KW shall be exported to the grid.

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/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank 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 (if applicable).
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 press mud.
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**

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

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

### 46.4.9 Proposed expansion of Specialty chemicals from 82.8 to 15031.4 MTPM at Plot No. 408, 409, Phase-II, GIDC Estate, Vapi, District Valsad, Gujarat by M/s Ganesh Polychem Ltd. –reg TOR

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

M/s Ganesh Polychem Ltd. has proposed for expansion of Specialty chemicals from 82.8 to 15031.4 MTPM at Plot No. 408, 409, Phase-II, GIDC Estate, Vapi, District Valsad, Gujarat. The plot area after expansion will be 18986 $m^2$ of which green belt will be developed in the area of 5697Sqm. The total cost of the project is Rs. 51.0 crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve within the distance of 10 km from the plant site. Interstate Boundary

(Union territory - Daman) is located at a distance of 5 Km. Following are the existing and the proposed products to be manufactured:-

| Sr. no. | List of products | Production quantity (MT/Month) | | |
|---|---|---|---|---|
| | | Existing | After expansion | Remark |
| | Sulfone Derivatives | | | |
| 1 | DCDPS (4,4-'Dichloro Diphenyl Sulfone) And/ Or | 300 | 1300 | Either one or more than one product but total quantity not exceeds 1300 MT/Month. Maximum production capacity of DCDPS,DHDPS and DADPA will be 1000 MT/Month, 100 MT/Month And 200 MT/Month respectively. |
| 2 | DHDPS (4,4-' 'Dihydroxy Diphenyl Sulfone) And/ Or | 90 | | |
| 3 | DADPS (4,4-' 'Diamino Diphenyl Sulfone) And/ Or | 30 | | |
| 4 | Similar Sulfone Derivatives | 0 | | |
| | **Total** | **420** | **1300** | |
| | **List of by product** | | | |
| | Sodium Chloride | 82.8 | 196.1 | By products of DADPS & DHDPS |
| | Cuprous Oxide/ Hydroxide | 0 | 11.3 | By products of DADPS |
| | Dilute Sulphuric acid | 0 | 14824 | By products of DCDPS |
| | **Total** | **82.8** | **15031.4** | |

M/s. Ganesh Polychem Limited was established in the year 2003. The unit has obtained first CCA Order No. 2298 dt. 28.04.2004 for manufacturing of specialty fine chemicals from Gujarat Pollution Control Board in year 2004.

The unit have electricity from Dakshin Gujarat Vij Company Limited. The existing electricity connected load is 1000 KVA and electricity connected load due to proposed expansion will be 2500 KVA. Total electricity requirement after proposed expansion will be 3500 KVA. Presently, the unit is using 0.033 KL/hr of Furnace oil for 5 TPH boiler and 8000 SCM/day of natural gas for 8 TPH boiler as fuel. The unit is using 220 L/Hr of diesel for D.G. set of 1000 KVA. The unit has proposed one coal based boiler of 25 TPH and two D.G set of 1000 KVA of each. ESP with wet scrubber will be installed to the boiler. Coal consumption for proposed boiler will be 120 MT/day and diesel consumption for proposed two D.G set will be 450 L/hr. ETP waste & ME salt will be sent to TSDF site at Ankleshwar. Used oil and discarded container will be sold to the recycler.

The source of water is GIDC water supply system. The water requirement will be increased from 297 m3/day to 703.4 m3/day after expansion. In the existing treatment plant waste water generation is 160 m3/day which will increase to 324 m3/day after expansion. Besides domestic waste water generation will be enhancing from 169 m3/day to 342 m3/day. After recycling treated effluent with the quantity of 160 m3/day will be sent to CETP for further treatment and disposal. It is reported that additional quantity will be recycled by installing RO and MEE. Domestic waste water is proposed to be treated through septic tank/ soak pit.

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

**A. Specific TOR**

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

**B. Additional TOR**

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

ii. Recommendation of SPCB to be submitted.

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

## 46.5 <u>Any other</u>

### 46.5.1 Establishment of unit to manufacture polyester staple fibre from recycling of waste PET bottles at Village Sundran, PO Mubarakpur, Tehsil Derabassi, District SAS Nagar, Mohali, Punjab by M/s Aqua Fiber Industries – reg Clarification

M/s Aqua Fiber Industries intends for establishment of unit to manufacture polyester staple fibre from recycling of Waste PET bottles at Village Sundran, PO Mubarakpur, Tehsil Derabassi, District SAS Nagar, Mohali, Punjab. PAs informed that they have been granted Consent to Establish (CTE) by Chief Environmental Engineer – Punjab Pollution Control Board through Single Window Clearance Agency "Punjab Bureau of Investment Promotion" Chandigarh vide their letter dated 4th September 2014 with certain conditions and compliances. One of the compliances stipulated by Punjab Pollution Control Board that "the industry shall not start any construction/development at site without obtaining environment clearance as per provision of EIA Notification, 2006. Alternatively, the industry should submit

clarification from Ministry of Environment & Forest, Government of India to the effect that their manufacturing activities are not covered under EIA Notification, 2006.

PP informed that they proposed to manufacture Polyester Staple Fiber (as classified Manmade Fiber) from the waste PET bottles used for the drinking water, soft drinks, food items by recycling through the process of washing, cleaning and cutting to make PET Flakes/granules as input, as against, the Manmade fibre is manufactured from the cracking of crude oil (from the gross route level). Further they added that

a. No Cracking & Refining Process is involved.
b. No Polymerisation.
c. No Chemical Reactions.
d. It's only changing the physical appearance of the waste recycled PET Flakes (Granules) to Polyester Staple Fiber.

PP also made reference of EIA amendment Notification No. S.O.1599 (E) 25th June, 2014 , in which para (viii) item 5 (e) prescribed that manufacturing of products from polymer granules is exempted.

The Committee noted that Polyesters are made by polymerisation of Purified Terephthalic Acid (PTA) and Mono Ethylene Glycol (MEG). However, manufacturing process of polyester staple fibre from recycling of waste PET bottles does not involve synthesis and polymerization. In the recycling activity, products will be processed from recycling of waste PET bottles, which is ready polymer. This type of project will increase the collection of used PET bottles and ensure clean environment. Therefore, the Committee clarified that manufacturing polyester staple fibre from recycling of waste PET bottles does not attract the provisions of EIA Notification, 2006 and exempted from the EC process. However, other statutory clearances under the Forest (Conservation) Act, 1980, the Wildlife (Protection) Act, 1972, Air, Water Act and authorization for recyclers may be obtained, as applicable in this case as per site condition.

### 46.5.2 Proposed 60 KLPD molasses based distillery unit at village Hirepadasalagi, taluka Jamkhandi, district Bagalkot, Karnataka by M/s Jamkhandi Sugar Ltd. –reg extension of EC.

MoEF vide letter no. J-11011/300/2007 Ia II (I) dated 9th April, 2009 has issued environmental clearance to M/s Jamkhandi Sugars Ltd. for establishment of 60 KLPD molasses based distillery unit at village Hirepadasalagi, taluka Jamkhandi, district Bagalkot, Karnataka.

Now, PP vide letter dated 08.01.2014 has requested for extension of EC. PP informed that due to financial constraint, they are able complete only site clearing activities (i.e. 10 % total work) of establishment of the distillery unit. Now as the company approached the bankers for funding and they have expressed their support for funding of the project, they require extension of validity period of the EC to complete the installation process.

After detailed deliberation, the Committee recommended the extension of validity of existing environmental clearance till 08.04.2019 with following additional specific condition:

i. Bagfilter alongwith stack of adequate height should be provided to biomass/coal fired boiler to control particulate emission within 50 mg/$Nm^3$.

ii. Total fresh water requirement from River Krishna shall not exceed 600 $m^3$/day for distillery and cogeneration unit and prior permission for drawl of water shall be obtained from the Competent Authority.

iii. The spent wash from molasses based distillery shall be treated in biodigestor through biomethantion process followed by bio-compostingto achieve 'Zero' discharge. Spentlees and effluent from Utilities shall be treated and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

iv. No effluent from distillery shall be discharged outside the premises and Zero discharge concept shall be adopted.

v. 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.

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

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

**46.5.3 Setting up of 200 KLPD grain based distillery, 15 KLPD Malt Spirit, Bottling of IMFL, Country Liquor and 10 MW Co-generation power plant at Village- Rampur, District-kamrup, Assam by M/s NV Distilleries & Breweries ( North-East) Pvt. Ltd – reg extension of EC.**

MoEF vide letter no. J-11013/839/2008-IA II (I) dated 7th December, 2009 has issued environmental clearance to M/s NV Distilleries & Breweries ( North- East) Pvt. Ltd for Setting up of 200 KLPD grain based distillery, 15 KLPD Malt Spirit, Bottling of IMFL, Country Liquor and 10 MW Co-generation power plant at Village- Rampur, District-Kamrup, Assam.

PP informed that they had requested for extension of validity of EC to MoEF&CC on 18.10.2014. Subsequently, a presentation was scheduled in 28th EAC meeting held on 1st-2nd December, 2014 but due to some unavoidable circumstances they could not attend. PP informed that land has been acquired completely.

After detailed deliberation, the Committee recommended the extension of validity of existing environmental clearance till 06.12.2019 with following additional specific condition:

i. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The spentlees, condensate and utilities effluent will be treated in the ETP. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse. Online water monitoring system shall be installed for important parameters.

ii. 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.

iii. No effluent from distillery and co-generation power plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be adopted.

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

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

**21st August, 2015 (Day 2)**

## 46.6 Environmental Clearance

### 46.6.1 Expansion of Molasses based Distillery Plant (from 30 KLPD to 60 KLPD) at Survey No.290, Village SainagarRanjani, Tehsil Kallam, District Osmanabad, Maharashtra by M/s Natural Sugar & Allied industries Ltd. – reg EC.

The project proponent and their consultant (M/s Mitcon Consultancy & Engineering Services 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 35th Meeting of the Expert Appraisal Committee (Industry) held during 11th to 12th May, 2012 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Natural Sugar & Allied industries Ltd. has proposed for expansion of molasses based Distillery Plant (from 30 KLPD to 60 KLPD) at Survey No.290, Village Sainagar Ranjani, Tehsil Kallam, District Osmanabad, Maharashtra. Plant will be operated for 270 days per annum. Plot area required for proposed expansion is 14.5 acres (i.e. 58839 $m^2$). Cost of project is Rs. 21.73 Crores. Manjra River is flowing at a distance of 3.8 km.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 5 locations during March -May, 2012 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (12.8 µg/$m^3$ to 19.4 µg/$m^3$), $PM_{2.5}$ (4.1 µg/$m^3$ to 8.1 µg/$m^3$), $SO_2$ (9.1 µg/$m^3$ to 15.9ug/$m^3$) and NOx (12.2 µg/$m^3$ to 18.2 µg/$m^3$) respectively. Wet scrubber has been provided to bagasse fired boiler (30 TPH). Additional bio gas fired boiler (6 TPH) will be provided. Fresh water requirement will be increased from 300 $m^3$/day to 600 $m^3$/day after expansion. Water drawl will be from Manjra River. Spent wash will be treated through bio-methanation. Bio-methanated spent wash will be evaporated in the MEE followed by ATFD. Concentrated spent wash will be mixed with bagasse as boiler fuel. Biogas will be used as fuel for boiler. Vapour condensate will be treated in condensate polishing unit and reused in process. No effluent will be discharged outside plant premises. With respect to violation in the proposed expansion, which was noted by MEF&CC, the State Government vide letter dated 11.03.2015 has informed that MPCB has filed the RCC No. 168/2015 against M/s Natural Sugars & Allied Industries Ltd before the CJM, District Osmanabad Court.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 23rdNovember, 2012. The issues were raised regarding steps taken for conservation of ground water; local employment; additional gas fired boiler; plot area; 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 EIA-EMP report w.r.t. data collection and treatment scheme. Therefore, Committee sought following additional information:

(i) Reanalyzing of one month ambient air quality monitoring data.
(ii) As per page 116 of EIA-EMP report, effluent treatment scheme will comprise bio-methanation, MEE followed by Bio-composting. However, during presentation it was informed that Bio-methanated spent wash will be evaporated in the MEE followed by ATFD. Concentrated spent wash will be mixed with bagasse as boiler fuel. Therefore, correct, treatment scheme need to be suitably defined.
(iii) Submission of Action taken report to the non-compliance points reported in the Certified Compliance Report of the Regional Office, Bhopal.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Committee noted that data quality is poor and repeatedly consultant performance is not to the mark. Therefore, the Committee underrated the Environmental Consultant and suggested to pursue with NABET/QCI for reviewing the accreditation.

**46.6.2 Drug & Intermediate manufacturing unit at S.No. 233/E, VillageAkyaipally, Mandal Amangal, District Mahaboobnagar, Andhra Pradesh by M/s Chemcube Pharma 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 16th Meeting of the Expert Appraisal Committee (Industry) held during 20th to 21stFebruary, 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 Chemcube Pharma Pvt. Ltd. has proposed for setting up of Drug & intermediate manufacturing unit at S.No. 233/E, Akyaipally Village, Amangal Mandal, Mahaboobnagar District Andhara Pradesh. Cost of project is Rs. 10.4 Crore. Total plot area of the site is 20315.06 $m^2$ of which greenbelt will be developed in 6720 $m^2$. It is reported that no national park, sanctuary and reserve forest is located within 10 km distance. Tippareddipalli RF (5.6 kms), Kartal RF (3.5 kms), Ramnutla RF (3.2 KMs), Amangal RF (3.0 Kms) and Mudhivennu (2.4 Kms) are located within 10 km distance. Water bodies such as Tank near Ekvaipally (1.7 Km), Tank near Govindalapalli (2.9 Km), Tank near Karkalapahad (3.2 Km), VemulaCheruvu near Shettipalli (8.5 km), SurasamudramCheruvu near Amangal (8.6 Km), Tank near Kadthal (8.8 Km) are located within 10 km distance. Following products will be manufactured:

| Name of the product | CAS No's | Therapeutic Category | Quantity in MT /Month |
|---|---|---|---|
| Amlodipine Besylate | 111470-99-6 | Antihypertensive | 1.00 |
| Ciprofloxacin Hydrochloride | 85721-33-1 | Anti-infective | 2.00 |
| Diltiazem Hydrochloride | 33286-22-5 | Anti anginal | 3.50 |
| LevocetrizineDihydrochloride | 130018-87-0 | Anti Histamine | 2.00 |
| Losartan Potassium | 124750-99-8 | Antihypertensive | 2.00 |
| Naproxen | 22204-53-1 | Analgesic | 1.50 |
| Rosuvastatin Calcium | 147098-20-2 | Anti lipemic | 1.00 |
| Telmisartan | 144701-48-4 | Antihypertensive | 2.00 |
| | | **Total** | **15.00** |

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March to May, 2014 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (40.30 µg/$m^3$ to 66.5 µg/$m^3$), $PM_{2.5}$ (15.30 µg/$m^3$ to 26.30 µg/$m^3$), $SO_2$ (7.9 µg/m3 to 13.5ug/m3) and NOx (11.4 µg/$m^3$ to 19.60 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.20 µg/$m^3$, 0.57 µg/$m^3$ and 0.80 µg/$m^3$ with respect to $PM_{10}$, SO2 and NOx. The resultant concentrations are within the NAAQS.

Bagfilter will be provided to proposed coal fired boiler (3.0 TPH) to control particulate emissions. Scrubber will be provided to control process emissions viz. ammonia. Vent condensers will be installed to storage tank to prevent fugitive emissions. Primary and secondary condensers to be provided with chilled water and chilled brine circulation. Total water requirement will be 71.5 $m^3$/day. Out of which, total fresh water requirement from ground water source will be 58.20 $m^3$/day and remaining water requirement will be met from 13.30 m3/day. Effluent generation will be 30.34 $m^3$/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. Power requirement from state electricity board will be 500 KVA. Additional DG set (250 KVA + 150 KVA) will be installed. Organic solid waste will be sent to cement industries. Inorganic solid waste, 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 4$^{th}$December, 2014. Few persons have raised objections on the setting up of proposed bulk drug project. The issues were raised regarding anticipation of negative impact on human life, contamination of water course etc. In response, PP stated that the industry is going to establish ZLD system and is going to take all the measures to arrest the fugitive emissions. Scrubber will be provided to control process emissions. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. 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. $NH_3$. 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 58.20 $m^3$/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. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

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

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

ix. Solvent management shall be as follows :

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

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

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

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

xiii. As proposed, green belt of 6720 $m^2$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.

### 46.6.3 Bulk Drug Manufacturing Unit at D-27, Industrial Area, Focal point, Derabassi, District Mohali, Punjab by M/s Adley Lab.- reg EC.

The project proponent and their consultant (M/s Vardan Environet) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 14th Meeting of the Expert Appraisal Committee (Industry) held during 19th to 20th December, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (bulk drugs) located inside the notified industrial area are listed at S.N. 5(f) under Category 'B' and appraised at the State level. However, applicability of general condition due to location of project site within 5 km distance of interstate boundary (Haryana), proposal is treated as Category 'A' project.

M/s Adley Lab. has proposed for setting up of Bulk Drug Manufacturing Unit at D-27, Industrial Area, Focal point, Derabassi, District Mohali, Punjab. Total plot area is 2090 $m^2$. Out of which, greenbelt will be developed in 689.70 $m^2$. Cost of project is Rs. 6.92 crore. Out of which, Rs. 98 Lakhs and Rs. 50 Lakh are earmarked towards capital cost and recurring cost per annum for implementation of EMP. Ghaggar River and Tangri is flowing at a distance of 1.5 km. It is reported that no national park is located within 10 km distance. BirKheri protected forest, Kohaliraitam RF, Dariya RF and BirHansala protected forest are located within 10 km distance. Following products will be manufactured :

| S.No | Name of the Product | Production Capacity (Kg/Month) |
|---|---|---|
| 1 | Amifostine | 50.0 |
| 2 | Arabidol | 1000.0 |
| 3 | 5-Aza cytidine | 10.00 |
| 4 | Bendamustine | 5.00 |
| 5 | Bicalutamide | 6.00 |
| 6 | Bortezomib | 1.00 |
| 7 | Busulfan | 3.00 |
| 8 | Capecitabine | 60.00 |
| 9 | Craboplatin | 5.00 |
| 10 | Carmustine | 0.35 |
| 11 | Chlorombucil | 20.00 |
| 12 | Cisplatin | 5.00 |
| 13 | Dacarbazine | 10.00 |
| 14 | Decitabine | 30.00 |
| 15 | Decitanib | 100.0 |
| 16 | Docetaxel | 5.00 |
| 17 | Dopxitine Hydrochloride | 150.0 |
| 18 | Erlotinib | 100.0 |
| 19 | Estrarnustine | 1.00 |
| 20 | Fulvestrant | 0.90 |
| 21 | 5-Fluoro Uracil | 25.00 |
| 22 | Fludarabine Phosphate | 10.00 |
| 23 | Geftinib | 300.0 |
| 24 | Gemcitabine Hydrochloride | 200.0 |
| 25 | Imatinib Mesylate | 500.0 |
| 26 | Irinotecan Hydrochloride | 10.00 |
| 27 | Lapatinib | 20.00 |
| 28 | Lenaudomide | 20.00 |
| 29 | Letrazole | 60.00 |
| 30 | Lomustine | 10.00 |
| 31 | Melphalan | 50.00 |
| 32 | 6-Mercaptapurine | 100.00 |
| 33 | Methorexate | 50.00 |

| | | |
|---|---|---|
| 34 | Nilotilnib | 60.00 |
| 35 | Oxalipaltin | 24.00 |
| 36 | Paclitaxel | 1.00 |
| 37 | Premetrexed di Sodium | 105.00 |
| 38 | Procarbazine | 50.00 |
| 39 | Sorafenib | 500.00 |
| 40 | Sunitinib | 25.00 |
| 41 | Temozolomide | 50.00 |
| 42 | Topotican Hydrochloride | 40.00 |
| 43 | Zoldronic Acid | 60.00 |
| **Total** | | **3832.25** |

At a time, 3-4 products will be manufactured.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during pre-monsoon season and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (50.3 µg/$m^3$ to 75.8 µg/$m^3$), $PM_{2.5}$ (30.2 µg/$m^3$to 44.2µg/$m^3$), $SO_2$ (7.3 µg/m3 to 15.0ug/m3) and $NO_2$ (23.2 µg/$m^3$ to 35.9 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.58 µg/$m^3$, 9.98 µg/$m^3$ and 12.55 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 emission viz. HCl. Adequate stack height will be provided to HSD fired boiler. Total water requirement will be 29.84 m3/day. Out of which fresh water requirement from municipal supply will 16.54 m3/day and remaining water requirement will be met from recycled/treated effluent. Effluent generation will be 19.36 m3/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Power requirement will be 524 KVA. DG set of 250 KVA will be installed for emergency purpose. ETP sludge/ MEE salt will be sent to NimbuaDeraBassi TSDF. Waste oil will be sent to authorized recyclers.

The Committee pointed out handling and management of toxic material within the plant, which was not provided in the EIA report and presentation. The Company subsequently submitted detailed report in respect of toxic material managment.

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. The gaseous emissions from HSD fired boiler shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

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

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

iv. Total fresh water requirement from municipal water supply shall not exceed 16.54 $m^3$/day. No ground water shall be used for industrial purpose.

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. 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.

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

viii. All the precaution shall be taken during handling, storage and transportation of Phosgen gas.

ix. Solvent management shall be as follows :

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

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

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

xii. As proposed, green belt of 689.70 $m^2$ 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.

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

The project proponent and their consultant (M/s Ace Engineers and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 28th Meeting of the Expert Appraisal Committee (Industry-2) held during 1stto 2ndDecember, 2014 for preparation of EIA-EMP report. Non Molasses based Distillery Units (60 KLPD and above) are listed at S.N. 5(g) (ii) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised at the Central level.

M/s BCL Industries and Infrastructure Ltd. has proposed for expansion of Grain Based Distillery from 100 KLPD to 200 KLPD and Cogeneration Power Plant (from 5 MW to 10 MW) at Village Machchana and Sangat Kalan, Tehsil and District Bathinda, Punjab. Total plot area is 141600 m2 of which greenbelt will be developed in 89000 m2. Cost of project is Rs. 45.10 crore. Out of which, Rs. 7.35 Crore and Rs. 2.75 Crore are earmarked towards capital cost and recurring cost per annum. It is reported that no eco-sensitive area such as national park/wildlife sanctuary/biosphere reserves/ reserve forest is located within 10 km distance. Distillery unit will be operated for 330 days in a year. Phase wise daily production of products and by-products from the distillery plant is given below:

| **S.N.** | **Product** | **Unit** | **Existing capacity** | **Proposed additional capacity** | **Total** |
|---|---|---|---|---|---|
| 1 | ENA/RS | KL | 100 | 100 | 200 |
| 2 | Byproducts | | | | |
| i | CO2 | MT | 80 | 80 | 160 |
| ii | Fusel Oil | MT | 1 | 1 | 2 |
| iii | DDGS | MT | 50 | 50 | 100 |
| iv | Corn Oil (in case of maize used as raw material) | MT | 5 | 5 | 10 |

Phase wise daily production of IMFL/country liquor from the bottling plant is given below:

| S.N. | Item | Unit | Existing capacity | Proposed Additional Capacity | Total |
|---|---|---|---|---|---|
| 1 | IMFL/Country Liquor | Cases | 8000 | 8000 | 16000 |

Ambient air quality monitoring was carried out at 7 locations during November, 2014–January, 2015 and submitted data indicates as $PM_{2.5}$ (21– 30ug/$m^3$), $PM_{10}$ (20 – 60ug/$m^3$), $SO_2$ (5.4 – 14.2ug/$m^3$) and NOx (9.3-28.9ug/$m^3$). Predicted value of ground level concentration is estimated as SPM (8 ug/$m^3$) and $SO_2$ (3.5 ug/$m^3$). The resultant concentrations are within the NAAQS. ESP will be provided to additional biomass/coal fired boiler (35 TPH) to control particulate emission within 50 mg/$m^3$. DG set (100 KVA) will be installed as back up power supply. Fresh water requirement from canal water will be increased from 675 m3/day to 1350 m3/day after expansion. Spent wash generation will be 575 m3/day. spent lees generation will be 150 m3/day and MEE condensate will be 395 m3/day from the proposed expansion. Out of total generation of 545 m3/day of condensate generation, 495 m3/day will be directly reused in the liquefaction process. The remaining 50 m3/day would be sent to ETP for treatment. Spent wash from grain based distillery will be

passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. Fly ash will be used for brick manufacturing. Spent oil/waste oil will be sent to authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Punjab State Pollution Control Board on 20$^{th}$March, 2015. The issues were raised regarding supply of canal water to villagers, local employment, raw water requirement, disposal of fly ash, etc. The Committee was satisfied and found reasonable response from the PP.

The Committee also discussed the compliance status report dated 29$^{th}$ April, 2014 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Northern regional office, Chandigarh. Regional Office has made observation non-compliance points on the following:

i. The environment statement for the year 2012-2013 is yet to be submitted.

ii. The constitution of environment management cell indicating the name of Officers, the designations, their qualifications, duties assigned and the activities of the Environment Management Cell during last one year is yet to be submitted.

iii. The insurance policy under the Public Liability Insurance Act, 1991 is yet to be procured.

iv. Non compliance of Insurance Policy under the Public Liability Insurance Act, 1991

v. Non compliance on physical and financial progress about CSR activities.

vi. Uploading of six monthly reports is yet to be done.

Besides above, non compliance has also noted w.r.t. fugitive emissions control measures, mixing of process effluent with storm water and passing through guard pond, fly ash management etc.

The Committee deferred the proposal till compliance report on the non-complied point with supporting documents alongwith photographs are submitted.

**46.6.5 Expansion of existing pesticide unit ( 3525 MT/Y to 9325 MT/Y) at Gat no. 367, Village Rasegaon, Tehsil Dindori, District Nashik, Maharashtra by M/s Spectrum Ether Ltd. – reg EC.**

The project proponent and their consultant (M/s En-Vision Enviro Engineers Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 36$^{th}$ Meeting of the Expert Appraisal Committee (Industry-2) held during 11$^{th}$ to 12$^{th}$ June, 2012 for preparation of EIA-EMP report. All the Pesticides plants are listed at S.N. 5(b) under Category 'A' and appraised at the Central level.

M/s Spectrum Ethers Ltd. have proposed for expansion of existing pesticide unit ( 3525 MT/Y to 9325 MT/Y) at Gat no. 367, Village Rasegaon, Tehsil Dindori, District Nashik, Maharashtra. Total plot area is 1,49,788 m$^2$. Out of which, area earmarked for greenbelt development is 60,000 m$^2$. Total cost of expansion project is Rs. 40 crores, of which Rs. 7.0 Crore and Rs. 0.58 Crore are earmarked towards capital cost and recurring cost per

annum. Water body namely Nalegaon dam (2.5 km) is located within 10 km distance. It is reported that no forest land, National Park, Protected forest, Biosphere, Wild life sanctuary, etc. is located within 10 km. Following products will be manufactured:

**List of Products (Capacity MTPY)**

| # | **Product** | **Present Capacity(MT)** | **Proposed Capacity (MT)** |
|---|---|---|---|
| 1 | T. Phorate | 2200 | 2200 |
| 2 | T. Profenophos (including DETCL & BCP) | 500 | 2200 |
| 3 | T. Glyphosate | 100 | 150 |
| 4 | T. Propiconazole (including DICAP, 1,2,4 Triazole, 1,2,PentaneDiol) | 100 | 500 |
| 5 | T. Terbufos | 100 | 300 |
| 6 | T. Ethion | 150 | 150 |
| 7 | T. Acetamaprid | 100 | 50 |
| 8 | Pretilachlor | 100 | 150 |
| 9 | Atrazine (weedicide) | 100 | 500 |
| 10 | T. Temephos | 25 | 25 |
| 11 | Thiomethoxam | 25 | 25 |
| 12 | Fipronail Tech | 25 | 100 |
| 13 | T. Acephate (including DMPAT) | 0 | 250 |
| 14 | m phenoxybenzaldehyde | 0 | 50 |
| 15 | T. Hexaconazole | 0 | 100 |
| 16 | T. Chlorpyrifos (including Na-TCP) | 0 | 100 |
| 17 | Cypermethrin | 0 | 50 |
| 18 | Deltamethrin | 0 | 50 |
| 19 | T. Tebuconazole | 0 | 100 |
| 20 | T. Metalaxyl | 0 | 25 |
| 21 | T. Thiocloprid | 0 | 50 |
| 22 | Tricyclozole | 0 | 75 |
| 23 | Mancozeb | 0 | 100 |
| 24 | Indoxycarb Tech | 0 | 50 |
| 25 | Ethyl Acetate | 0 | 50 |
| 26 | T. Triclopyr | 0 | 50 |
| 27 | DDVP (including CMAC) | 0 | 50 |
| 28 | T. Pendamethalin | 0 | 500 |
| 29 | Anilophos | 0 | 20 |
| 30 | Phenthoate | 0 | 25 |
| 31 | T. Oxyflorofen | 0 | 25 |
| 32 | Azoxystrobin | 0 | 30 |
| 33 | Metribuzin | 0 | 500 |
| 34 | PMIDA | 0 | 25 |
| 35 | TCAC | 0 | 25 |
| 36 | Triazophos | 0 | 1000 |
| 37 | Bifenthrin | 0 | 100 |
| 38 | Buprofezin | 0 | 100 |
| 39 | Thiodicarb | 0 | 100 |
| 40 | Difenconazole | 0 | 50 |
| | **TOTAL PRODUCTION** | **3525** | **10000*** |

**List of By-products (Quantity in MTPY)**

| S. No. | Particulars | Existing | For 5800 MTPY | For 8000 MTPY | For 10000 MTPY | Use |
|---|---|---|---|---|---|---|
| 1 | NaHS soln. (100 %) | 303 | 303 | 325 | 410 | Reducing agent used in tannery industry |
| 2 | NaBr/KBr Soln. (100%) | 133 | 38.01 | 355.5 | 430.5 | Send for Bromine recovery |
| 3 | HBr soln. (100% basis) | | 337.5 | 737 | 898.5 | Send for Bromine recovery |
| 4 | 30% HCl soln. | 11 | 11 | 20.75 | 23.75 | Sale or Captive consumption |
| 5 | 25% $NH_3$ soln. | - | 112.5 | 125.5 | 152.5 | Send for Ammonia recovery |
| 6 | 20% $Na_2SO_3$ soln. | - | 1622.5 | 1295.5 | 1622.5 | Used in Pulp & Paper, Photographic Chemical Industry |
| 7 | $NH_4Cl$ soln. | - | 665 | 775 | 965 | Used in fertilizer, Textile & Printing |
| 8 | NaOCl soln. | - | 1412.5 | 1195 | 1457.5 | Sale or Captive consumption |
| 9 | TMABr Soln. (50%) | 495 | 545 | 775.75 | 910.85 | Send for Bromine recovery |

Multiple products will be produced simultaneously so as to meet seasonal demand without crossing 5800 MT/year in 1st phase, 8000 MT/year in 2nd and 10,000 MT per Year in 3rd phase.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March-May, 2013 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (39 µg/$m^3$ to 85 µg/$m^3$), $PM_{2.5}$ (21 µg/$m^3$ to 64 µg/$m^3$), $SO_2$ (9.00 µg/$m^3$ to 28.00 ug/$m^3$) and NOx (18 µg/$m^3$ to 40 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.0 µg/$m^3$ and 0.00018 µg/m3 with respect to SPM and SO2. The resultant concentrations are within the NAAQS. Multicyclone alongwith stack height of 36 m has been provided to coal/bagasse fired boiler. The Committee suggested them to provide bagfilter for better efficiency of particulate matter removal. Scrubber will be provided to control process emissions viz. HCl, HBr, NH3, $H_2S$ $Cl_2$ and $SO_2$. Fresh water requirement from Alandi dam will be increased from 502.8 $m^3$/day to 935 $m^3$/day after expansion. Effluent will be segregated into High COD/TDS and Low COD/TDS effluent streams. High COD/TDS effluent stream will be evaporated in MEE. Condensate and Low COD/TDS effluent stream will be treated in the ETP comprising activated sludge process. The Committee suggested them to put RO as tertiary treatment. RO rejects should be sent to MEE. Treated effluent will be recycled/reused for cooling tower make up. Process waste, distillation residue, date expired and off specification pesticides will be sent to incineration at CHWTSDF. ETP waste will be disposed to TSDF site at CHWTSDF. Used oil will be sent to CPCB authorized re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 1st July, 2014. The issues were raised regarding accidental effluent discharge and affected about twelve villages; contamination in the ground water; social work, tree plantation, smell and nuisance from the factory; etc. The Committee was of the view that PP should submit pointwise reply to issues raised during public hearing.

The Committee also discussed the compliance status report dated 11th June, 2015 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. It is reported that no online/continuous monitoring system has been provided. Monitoring report should be submitted regularly and uploaded on the website. Leak detector for HCl, $Br_2$ and HBr are to be installed. No action plan and charter has been prepared in the CREP activity. Details year wise program and fund allocation is to be submitted by the PA. Uploading of the reports is to be ensured. The Committee suggested them to submit ATR to the non-complied points alongwith supporting documents such photographs etc.

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

(i) Action plan to install dedicated incinerator for odorous gas.
(ii) Existing effluent treatment scheme to be submitted.
(iii) Wastewater characteristic of ETP at inlet and outlet.
(iv) Present mode of disposal of treated effluent and hazardous waste.
(v) Air dispersion modeling should be done for winter season.
(vi) Action plan to install bagfilter instead multicyclone dust collector in the coal/biomass fired boiler.
(vii) Action Taken Report (ATR) on the non-complied points observed by the Regional Office.
(viii) Quantitative Risk assessment report for solvent storage.
(ix) Point-wise replies to issues raised during public hearing.

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

## Reconsideration for Environmental Clearance

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015. Since there are several non compliance points, the Committee after deliberation was of the view that status of compliance report/ response to be submitted first.

PP vide letter dated 17th August, 2015 has submitted fresh report w.r.t. the above addl. Information.

Observation 1: All the tanks of old ETP have to be upgraded and have to be above the ground.

PP informed that that the old ETP has been up-graded and fitted with enhanced efficiency & energy saving surface aeration equipment.

Observation 2: The water body which is adjacent to the ETP but outside the premises spread over 4 to 5 acres shows distinct signs of deterioration and there is reason to believe that his degradation is due to leakage/over flow of effluents

from the Unit as there are no other industries near it. Leakages and overflow of effluents have to be controlled.

PP informed that as submitted in our response earlier, the water body is a rain fed kunta (tank). They are taking all necessary precautions to contain spillages appropriately and ensuring that there are no discharges to kunta.

Observation 3: The effluent in ETP tanks should not be stored up to the brim PP informed that two feet gap is maintained from the top in all the wastewater storage tanks.

Observation 4: The solids are to be collected from the ATFD in closed manner and taken to the storage area.

PP informed that they made provision to ATFD by way of filter cloth to arrest free falling of solids from ATFD from height and that there is no dust emanation.

Observation 5: The permission from State Ground Water Department for the operating bore wells is to be obtained and intimated to this office.

PP informed that they have obtained necessary permission. But copy of formal letter issued by the CGWA is yet to be submitted.

Observation 6: The use of Methylene Di Chloride is to be minimized.

PP informed that the use of Methylene Di Chloride in manufacturing processes is due to synthesis compulsions as there is no alternative to MDC in manufacturing of some of the products. Use of MDC is optimized through R&D efforts and use of MDS is minimal and to the requirement only.

Observation 7: The water consumption should not go beyond the permitted limits as stipulated by the Pollution Control Board.

PP informed that they are complying with the direction and details of water consumption are being submitted to PCB regularly.

Observation 8: No additional effluents should be generated, at present as both High TDS and Low TDS treatment systems are used to the full capacity.

PP informed that they are complying with the direction and details of wastewater generation, treatment and reuse are being submitted to PCB regularly.

Observation 9: The ZLD unit biological treatment system is not working to the design standards. The DO levels and MLVSS of the unit have to be continuously checked/monitored.

PP informed that they are complying with the condition and maintaining daily log sheets and registers. Consent to operate has been obtained from SPCB.

Observation 10: There is a need for employing experience people for operating all the Units of ZLD.

PP informed that earlier, they have submitted details of personnel engaged for wastewater treatment with their qualifications, experience, etc. Same is being continued till date.

Observation 11: The maximum GLC points are to be marked on the ground and the AAQ is to be monitored at these points in consultation with PCB.

PP informed they would abide by the direction of MoEF & CC and in consultation with PCB for conducting AAQ monitored at identified locations as part of post-monitoring programme.

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. Copy of existing permission for drawl of ground water from CGWB/SGWB should be submitted to the Regional Office, Bangalore.

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

iii. Scrubber shall be provided to control process emissions viz. HCl. 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. Effort shall be made to tap Butane that is emitted from the process.

iv. 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. Odor management plan shall be implemented.

v. Total fresh water requirement from ground water source shall not exceed 886 $m^3$/day and prior permission shall be obtained from the CGWA/SGWA.

vi. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD 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.

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 21st January, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xiii. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment 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 24.5 acre 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.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015 and the Committee sought following additional information and documents:

(i) Total plot area of the project site. Layout map indicating existing greenbelt and proposed greenbelt with different colour and details (in ha./$m^2$).
(ii) Number of existing trees to be cut.
(iii) List of items in plant configuration indicating new and old to be utilized.
(iv) Proper justification for presence of Benzen and ammonia in the baseline data of AAQM. If required, it should be reanalyzed.
(v) Reduce wastewater generation by adopting 3 R's (Reduce, Recycle, Reuse) concept. Plan and efforts made in this regard to be provided.
(vi) Explore the possibilities for not discharging the treated effluent into the river. A plan accordingly to be prepared with respect to field condition. In case no option is available, then water modeling study using different season hydraulic data, considering various scenarios, to be carried out.
(vii) At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment 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.

PP has submitted the above mentioned addl. Information and the same was discussed and found satisfactory.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the State Pollution Control Board on 11th March, 2015. The issues were raised regarding local employment, laying of road from Sanjay Gandhi Nagar to Laximpuram, CSR activities 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 recommended the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

(i) The gaseous emissions ($SO_2$, NOx, $NH_3$, HC and Urea dust) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.

(ii) Adequate stack height shall be provided to Ammonia plant reformer, Heat recovery steam generator (HRSG), NG/ RLNG fired gas turbine and Prilling Tower. Low NOx burners shall be provided to control NOx emissions.

(iii) In Urea Plant, particulate emissions shall not exceed 50mg/$Nm^3$. Monitoring of Prilling Tower shall be carried out as per CPCB guidelines.

(iv) As proposed, Plant shall be designed for specific energy consumption of 5.0 Gcal/MT of urea.

(v) Fresh water requirement from Yellampali Barrage should not exceed 30500 $m^3$/day and prior permission shall be obtained from Competent Authority and a copy submitted to the Ministry's Regional Office at Bangalore. Efforts shall be made to bring down the water consumption upto 6 $m^3$/ MT urea production.

(vi) Industrial wastewater shall be treated in the ETP. As proposed, Urea plant process condensate shall be treated in a deep hydrolyser followed by stripping. Ammonia plant process condensate (APC) shall be stripped with steam followed by activated carbon and demineralization. Treated condensate shall be recycled/reused in the process. Utilities wastewater shall be treated in the ETP and treated effluent shall be recycled/ reused. Treated effluent shall also be monitored for the parameters namely ammonical nitrogen, Nitrate, Fluoride, pH etc.

(vii) The treated effluent (not more than 250 m3/hr) shall be discharged into the River Godavari after conforming to the standards prescribed for the effluent discharge and after obtaining permission from the State Pollution Control Board/CPCB. Treated effluent shall be passed through guard pond/holding pond before discharging outside the plant premises and automatic monitoring system for flow, and relevant pollutants (i.e. pH, ammonical nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system. No process effluent shall be discharged in and around the project site. Sewage shall be treated in STP.

(viii) Regular monitoring of ground water by installing peizometric wells around the guard pond and sludge disposal sites shall periodically be done and report submitted to the Bangalore Regional Office of the Ministry, CPCB and SPCB.

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

(x) Spent catalysts and used oil shall be sold to authorised recyclers/re-processors only.

(xi) The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).

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

(xiii) As proposed, green belt over 46 hectares 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) Sufficient funds 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.

(xvi) Remote operated valve placed on $NH_3$ line to avoid leakage/equipment check should be performed to ensure that remote operated valve (ROV) is all time is functional.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015 and the Committee sought following additional information and documents:

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

PP vide letter dated 05.05.2015 has submitted the above mentioned addl. information.

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

i. EC is recommended for oil production capacity (55000 BOPD), Gas production capacity (300 MMSCD and Produced Water (140000 BWPOD)

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 95 $m^3$/day and prior permission shall be obtained from the Competent Authority for the drawl of water. During drilling stage, water based mud shall be used and for certain critical hole sections, synthetic oil based mud 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 30$^{th}$ 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. As proposed, produced water alongwith gas and oil from MB wells are transported through subsea pipeline to Panna Central Facilties (PPA) and treated alongwith rest of the water that is produced from all the Panna/Mukta wells. The treated produced water is dumped overboard at PP after ensuring the concentration level of oil and grease in water is within the specified limits.

ix. 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. Standards 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.

x. 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.

xi. 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 30$^{th}$ August, 2005. Different types of wastes shall be kept segregated.

xii. 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.

xiii. 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.

xiv. A waste minimization plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimised equipment maintenance schedules.

xv. 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.

xvi. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MOEF/CPCB authorized recyclers/re-processors only.

xvii. 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.

xviii. 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.

xix. 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.

xx. 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.

xxi. 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.

xxii. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.

xxiii. 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.

xxiv. 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.

xxv. 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 Bhopal.

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.

**46.6.9 Manufacturing of Resins & Adhesives at Plot No. 788/1, 40 Shed Area, GIDC Estate Vapi, Taluka Paradi, District Valsad, Gujarat by M/s Setco Chemicals (I) Pvt. Ltd. - reg EC**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 38th meeting held during 20th – 21st April, 2015 and the Committee sought following additional information and documents:

i) To conduct one month monitoring for ambient air quality.

ii) Reasons for getting high value of PM10 during ambient air quality monitoring.

iii) Layout map indicating process area, storage area, utilities area and greenbelt.

iv) Treatment scheme of effluent w.r.t. phenol. Use of condensate to be elaborated.

v) Types of solid waste generation and its disposal scheme.

vi) Recalculation of emission load.

PP vide letter dated 01.08.2015 has submitted the above mentioned addl. information. The same has been discussed and found satisfactory.

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

i. Adequate stack height shall be provided to gas fired thermic fluid heater.

ii. Wet scrubber shall be provided to control process emissions.

iii. All necessary precaution shall be taken for handling, storage and transportation of Isocynate and styrene.

iv. Total water requirement from GIDC water supply should not exceed 8.2 $m^3$/day and prior permission should be obtained from the Competent authority.

v. As proposed, industrial effluent should be treated in ETP comprising primary, secondary and tertiary treatment facility namely RO. RO rejects shall be evaporated in MEE. Treated effluent from RO and MEE condensate shall be reused/recycled for cooling tower make up/gardening purpose. Domestic sewage should be treated in separate STP.

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

vii. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.

viii. As proposed, greenbelt should be developed at least 1700 $m^2$ area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.

ix. All the recommendations made in the risk assessment report should be satisfactorily implemented.

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

**46.6.10 Grain based Distillery (90 KLPD) alongwith Cogeneration Power Plant (4 MW) at Khasara No. 212, Plot No. 2, Besides, NH 34, Village Paschim Mateshpur District Uttar Dinajpur, West Bengal by M/s Tantia Agrochemicals Pvt. Ltd. – reg. EC.**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 30th meeting held during 22nd – 23rd December, 2014 and the Committee sought following additional information and documents:

i) Collect baseline data in respect of AAQM, Water Quality of surface water and ground water and Noise level for one month.
ii) Submit background data of AAQM.
iii) Market survey of availability of grain.
iv) legible copy of public hearing proceedings to be submitted.
v) Quantify steam requirement for MEE.
vi) Treatment scheme for Spentlees and MEE condensate.
vii) Water balance chart.
viii) Layout plan for proposed greenbelt.

PP vide letter dated 01.08.2015 has submitted the above mentioned addl. information. The committee discussed above additional points and found satisfactory. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal Pollution Control Board on 23.07.2014. The issues were raised regarding local employment, measures to be taken for controlling water pollution and odour problem etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the EIA-EMP report 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. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.

ii. ESP alongwith stack of adequate height shall be provided to husk fired boiler to control particulate emission within 50mg/$Nm^3$.

iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.

iv. Total fresh water requirement from ground water source/ surface water supply shall not exceed 864 $m^3$/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

v. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.

vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.

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

viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring shall be carried out for parameters required for drinking water purposes.

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

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

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. 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.

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

xiv. As proposed, Green belt of 12500 $m^2$ should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area,

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

xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 23.07.2014 shall be satisfactorily implemented.

xvi. At least 2.5 % of the total cost of the project should 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 Bhubaneswar. As informed, activities to be emphasized on sanitation, education and medical facilities of the area. Implementation of such program shall be ensured accordingly in a time bound manner.

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

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held during 16th– 17th June, 2015 and the Committee sought following additional information and documents:

i) Incorporate solvent steam stripper before MEE and ATFD after MEE in the ETP scheme. Submit revised effluent treatment scheme.

ii) Revised solid waste management plan including generation quantity and its management plan

PP vide letter dated 23.06.2015 has submitted the above mentioned addl. information. PP informed that MEE residue (200 KG/ day), MEE salt from RO rejects (380 Kg), Organic residue from solvent recovery (277 Kg), Spent Carbon (13 kg) and Incineration Ash (10 Kg/ day will be generated.

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. HBr, HCl and $NH_3$. 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 150 $m^3$/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. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

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

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

ix. Solvent management shall be as follows :

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

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

xi. Adequate funds (2.5% of total 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 prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner.

xii. As proposed, green belt of 10824 $m^2$ 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.

## 46.7 Terms of Reference (TOR)

### 46.7.1 Proposed setting up of distillery of 45 KLPD at Pavansootnagar Village AnandgaonSarni, Taluka Kaij, District Beed, Maharashtra by M/s. Yedeshwari Agro Products Ltd. – reg TOR

The project proposal is repeated and already considered on first day of the meeting.

### 46.7.2 Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit (637.6 TPA) Sy. nos. Parts of 878, 880, 891, 892, 893, 894, 895, 897, 898, 899, 900, 902, 903, 904 at Village Mekaguda, Mandal Kothur, District Mahaboobnagar, Telangana State by M/s. NATCO Pharma Limited– Chemical Division – reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All 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. NATCO Pharma Limited has proposed for expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit (from 115.5 TPA to 637.6 TPA) Sy. nos. Parts of 878, 880, 891, 892, 893, 894, 895, 897, 898, 899, 900, 902, 903, 904 at Village Mekaguda, Mandal Kothur, District Mahaboobnagar, Telangana. Plot area is 34.17 ha. Cost of expansion project is Rs. 166 Crore. Out of which Rs. 32 Crore and Rs. 26 Crore are earmarked towards capital cost and recurring cost per annum for implementation of EMP. Mysura Kammahanam RF is located at a distance of 5 km. Waterbodies namely Duskal Cheruvu (2.4 Km, SW) and small ponds (100m NW & 400m NE) are located within 10 km distance. Permitted manufacturing capacity issued by the SPCB dated 07-02-2014 is115.5 TPA. Following products will be manufactured:

| Sl. No. | Product | Quantity (Kg/day) | Quantity (TPA) | Therapeutic Category / Intermediate to the product |
|---|---|---|---|---|
| **Group A** | | | | |
| 1 | Alendronate | 100.00 | 36 | Antiosteoporotic Agent |
| 2 | Citalopram Hydrobromide | 100.00 | 36 | Antidepressant |
| 3 | Chloroquine Phosphate | 170.00 | 61.2 | Antimalarial Agent |
| 4 | Clozapine | 100.00 | 36 | Antipsychotic |
| 5 | Deferasirox | 10.00 | 3.6 | Chelating agent |
| 6 | ErlotinibHCl | 35.00 | 12.6 | Antineoplastic |
| 7 | Escitalopram Oxalate | 17.00 | 6.12 | Antidepressant |
| 8 | Geftinib | 35.00 | 12.6 | Antineoplastic |
| 9 | Glatiramer Acetate | 7.00 | 2.52 | Immuno suppressive |
| 10 | Ibandronate Sodium | 35.00 | 12.6 | Treatment of Osteoporosis |
| 11 | ImatinibMesylate | 70.00 | 25.2 | Antineoplastic |
| 12 | LapatinibDitosylate Monohydrate | 17.00 | 6.12 | Antineoplastic |
| 13 | Macitentan | 17.00 | 6.12 | Antihypertensive |
| 14 | OndansetronHCl | 35.00 | 12.6 | Antiemetic |
| 15 | Sertraline HCl | 100.00 | 36 | Antidepressant |
| 16 | Sofosbuvir | 70.00 | 25.2 | Antiviral |

| | | | | |
|---|---|---|---|---|
| **Group B** | | | | |
| 17 | ACDMQ | 70.00 | 25.2 | Terazosin Intermediate |
| 18 | Armodafinil | 17.00 | 6.12 | Analeptic |
| 19 | Benzyloxy aniline HCl | 70.00 | 25.2 | Commercial Intermediate |
| 20 | Bosentan Monohydrate | 35.00 | 12.6 | Antihypertensive |
| 21 | Dimethyl Fumarate | 170.00 | 61.2 | Anti-Inflammatory |
| 22 | Lansoprazole | 70.00 | 25.2 | Antiulcer |
| 23 | Lanthanum Carbonate Dihydrate | 70.00 | 25.2 | Anti-hyper phosphatemia |
| 24 | L-Biopterin | 4.00 | 1.44 | Drug Intermediate |
| 25 | Ledipasvir | 17.00 | 6.12 | Hepatitis – C |
| 26 | Minodronic Acid Hydrate | 17.00 | 6.12 | Treatment of Osteoporosis |
| 27 | Omeprazole | 100.00 | 36 | Antiulcer |
| 28 | Pantoprazole Sodium | 70.00 | 25.2 | Antiulcer |
| 29 | Pazopanib Hydrochloride | 35.00 | 12.6 | Antineoplastic |
| 30 | SorafenibTosylate | 35.00 | 12.6 | Antineoplastic |
| 31 | Sumatriptan Succinate | 17.00 | 6.12 | Anti-migraine |
| **Group C** | | | | |
| 32 | (1S, 2S, 3R, 5S)-Pinanedilol-L-Phenylalanine-L-leucineboronate Hydrochloride | 2.00 | 0.72 | Bortezomib Intermediate |
| 33 | 5-fluoro2-oxindole | 5.00 | 1.8 | Sunitinib Intermediate |
| 34 | Ambrisentan | 4.00 | 1.44 | Antihypertensive |
| 35 | AmifostineTrihydrate | 4.00 | 1.44 | Anti-Cancer |
| 36 | Anastrozole | 4.00 | 1.44 | Antineoplastic |
| 37 | Apixaban | 4.00 | 1.44 | Anticoagulant |
| 38 | Argatroban | 2.00 | 0.72 | Anticoagulant |
| 39 | BCC / NRC-2694-A | 35.00 | 12.6 | Anti-Cancer |
| 40 | Carfilzomib-Acid Intermediate [(2S)-2-[[4-Methyl-2-[[(2S)-2-[(2-morpholinoacetyl) amino]-4-phenyl-butanoyl]amino]pentanoyl]amino]-3-phenyl-propanoic acid] | 2.00 | 0.72 | CarfilzomibAcid Intermediate |
| 41 | Dasatinib | 10.00 | 3.6 | Antineoplastic |
| 42 | Entecavir Monohydrate | 2.00 | 0.72 | Antiviral |
| 43 | Ethyl-4-[5-(Bis(2-Hydroxyethyl)amino)-1-Methyl-1H-benzo[d]imidazol-2-yl]Butanoate (Intermediate of BendamustineHCl) | 10.00 | 3.6 | Bendamustine Intermediate |
| 44 | Fingolimod intermediate [N-[3-Hydroxy-1,1-bis-Hydroxymethyl-3-(4-octyl-phenyl)-propyl]-acetamide] | 4.00 | 1.44 | Fingolimod Intermediate |
| 45 | GranisetronHCl | 4.00 | 1.44 | Antiemetic |
| 46 | Letrozole | 4.00 | 1.44 | Antineoplastic |
| 47 | Liraglutide Acetate | 0.33 | 0.118 | Antidiabetic |
| 48 | N-(2-(diethylamino)ethyl)-5-formyl-2,4-dimethyl-1H-pyrrole-3-carboxamide (Intermediate of Sunitinib Malate) | 10.00 | 3.6 | Sunitinib Intermediate |
| 49 | Nilotinib Hydrochloride Hydrate | 2.00 | 0.72 | Antineoplastic |
| 50 | NRC/AN/019 | 4.00 | 1.44 | Anti-Cancer |
| 51 | Plerixafor | 0.33 | 0.118 | Hematopoietic |
| 52 | Pomalidomide | 4.00 | 1.44 | Anti-neoplastic |

| | | | | |
|---|---|---|---|---|
| 53 | Ponatinib | 10.00 | 3.6 | Anti-Leukemia |
| 54 | Regorafenib | 7.00 | 2.52 | Anti-angiogenic |
| 55 | Rizatriptan Benzoate | 4.00 | 1.44 | Antimigraine |
| 56 | SalmeterolXinafoate | 4.00 | 1.44 | Bronchodilator |
| 57 | Sapropterin.2HCl | 4.00 | 1.44 | Phenylalaninemia |
| 58 | Teriflunomide | 4.00 | 1.44 | Anti-multiple Sclerosis agent |
| 59 | Tigecycline | 4.00 | 1.44 | Antibiotic |
| 60 | TRB / D-5 1,1-Dimethylethyl(S)-4-formyl-2,2-dimethyl-3-oxazolidine-carboxylate (TRB / D-5) | 4.00 | 1.44 | Trabectdine Intermediate |
| 61 | TRB / TMR Ethyl-2-bromo-2-(6-(methoxymethoxy)-7-methylbenzo [D][1,3]dioxol-4-yl)acetate (TRB / TMR) | 4.00 | 1.44 | Trabectdine Intermediate |
| 62 | TRB-5 / LT-VIII (S)-1-Hydroxy-3-(3-hydroxy-4-methoxy-5-methylphenyl) propan-2-aminium chloride (TRB-5 / LT-VIII) | 4.00 | 1.44 | Trabectdine Intermediate |
| 63 | Tri HexyphenidylHCl | 4.00 | 1.44 | Antiparkinsonian |
| 64 | Zoledronic acid | 2.00 | 0.72 | Calcium regulator |
| 65 | Zolmitriptan | 4.00 | 1.44 | Antimigraine |
| 66 | Schiff's Base | 666.67 | 240 | Drug Intermediate |
| Subtotal [any 15 Products ( 5 from each group) on Campaign basis products out of 66 products] | | 1761.11 | 634 | |
| **R&D facility** | | | | |
| 1 | R&D (Lab, Kilo & Pilot) | 10 | 3.6 | |
| **Total any 15 Products ( 5 from each group) On Campaign products out of total 66 products at any Point of time & R&D** | | **1771.11** | **637.6** | |

Scrubber will be provided to control process emissions viz. $SO_2$, $NH_3$, HCl, Dimethylamine, Cl2, monomethylamine and HBr. Methane will be diffused with flame arrestor. Multicyclone separate followed by bagfilter will be provided to coal fired boiler (1x10 TPH, 1x 6 TPH and 1x 4 TPH). DG set (1 x 1250 KVA + 1x 1010 KVA + 1 x 1000 KVA + 1x 320 KVA) will be installed. Proper solvent recovery management will be made for effective recovery. Total water requirement will be increased from 268.9 m3/day to 1125 m3/day after expansion. Out of which, fresh water requirement from ground water source will be 763 m3/day and remaining water requirement will be met from recycled water. Industrial waste of about 150 kg/hr will be used as fuel in the CFE permitted 1 TPH steam generation from Waste to Energy Pyrolysis gasification system. This is in addition to the existing Incinerator of 125 kg/hr waste. Venturi & Packed scrubber with 30m height stack is connected to the incinerator.

Wastewater generation will be increased from 84.97 $m^3$/day to 410 $m^3$/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS 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. Fly ash will be sent to brick manufacturers EC for the existing unit was obtained vide MoEF's letter no J-11011/181/2015 IA II (I) dated 6th July, 2005.

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

**B. Additional TOR**

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

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

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

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

The project authorities and their consultant (Hubert Enviro Care Systems Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petroleum products and petrochemical based processing such as production of carbon black located outside the industrial area are listed at S.N. 5(e) under category 'A' and appraised by Expert Appraisal Committee (I). All coal tar processing units are listed at S.N. 4 (b) under Category 'B'. Considering project integrated in nature, proposal is treated as category 'A' project.

M/s. Himadri Chemicals and Industries Ltd. has proposed for expansion of existing production facility at Plot No 1280, 1281, 1283, 1378, 1478, 1480, 1481, 1482, 1500-1502, 1506-1508, 1510, 1516, 1517, 1529, Khatian No 749, 750, 751, 753, JL No 103, Mahistikry Village, Haripal Taluk, Hooghly District, West Bengal. Plot area is 142393 $m^2$ and for the proposed expansion there is no additional land requirement. Out of which area earmarked for greenbelt is 42005.935 $m^2$. It is reported that there are no notified National Parks/ Wildlife sanctuaries within 10 Km radius of the project site. Ghiya River (wet weather canal) is located at a distance of 1.4 Km and DVC canal at 4.3 Km located on the southern side of the site respectively. Following products will be manufactured:

| S.N. | Product | Existing | After Expansion |
|---|---|---|---|
| 1 | Carbon Black | 10,000.33 MT/Month | 15,000 MT/Month |
| 2 | Coal tar Pitch | 15,587.5 MT/Month | 25, 000 MT/Month |
| 3 | Naphthelene | 1,833.33 MT/Month | 4,000 MT/Month |
| 4 | Sulphonated Nephthalene Formaldehyde | 4,166.67 MT/mont | 7,500 MT/Month |
| 5 | Poly Carbon Ether | -- | 2,500 MT/Month |
| 6 | Heavy and light Cresote oil | 9,412.5 MT / Month | 21,000 MT/Month |
| 7 | Tail Gas Carbon Black) | 47100 NM3/month (for 5833 TPM of Carbon Black Manufacture) | 10,23,00,000NM3/Month (for 15000 TPM of Carbon Black Manufacture |
| | Tail Gas | 3,12,52,500 NM3/Month (for 4167 TPM of Carbon Black Manufacture) | |

Water requirement from the ground water source will be increased from 1748 m3/day to 2681 m3/day after expansion.

The total in-house power requirement after expansion project is 7.5 MW/Hr which will be met through existing captive power plant of (12 + 8 ) i.e. 20 MW located in carbon black division of M/s Himadri Chemicals & Industries Ltd. DGs of 4 x725 KVA , 1x365 KVA & 1x1010 KVA are used as back up. Another 8 MW/hr power plant has been included in the expansion proposal.

The Committee noted that a court case no. 77/2014/PB/1EZ against the project is pending in the NGT, wherein the Honble Court has directed the Company to obtain the environmental clearance for the existing carbon black unit. In this regard, the Committee was of the view that under these circumstances the proposal is treated for the post facto Environmental Clearance. The Committee further added so as whether it is to be considered as a case of violation before considering the environmental clearance.

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

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

M/s. R L Finechem Pvt. Ltd. has proposed for establishment of Active Pharmaceutical Ingredients (APIs) manufacturing industry with R & D activity at Plot No. 27-29, KIADB Industrial Area, Tehsil and District Gouribidanoor, Karnataka. Plot area is 24290 m2 (6 acres). Cost of project is Rs. 33.2 crore. It is reported that no areas protected under international convention, national or local legislation for their ecological, landscape, cultural or other related value. Water bodies i.e. Gollapuram lake (3.5 km), Thumakunta Lake and Yerrahalli lake (2.5 km) are located within 10 km distance. Narasimha Deverabetta RF is located at a distance of 15 km. Following products will be manufactured:

| S.N. | APIs | Production capacity | |
|---|---|---|---|
| | | (Kg/month) | (Kg/annum) |
| 1 | Amtriptyline hydrochloride | 10,000 | 1,20,000 |
| 2 | Imipramine HCl/Desipramine HCl | 1,150 | 13,800 |
| 3 | Cyproheptadine HCl | 700 | 8,400 |
| 4 | Pitofenone HCl | 700 | 8,400 |
| 5 | Pyrimethamine | 600 | 7,200 |
| 6 | Cyclobenzaprine HCl | 1,150 | 13,800 |
| 7 | Clomipramine HCl | 600 | 7,200 |
| 8 | Chlorpromazine HCl | 1,500 | 18,000 |
| 9 | Doxylamine Succinate | 1,400 | 16,800 |
| 10 | Orphenadrine Citrate/ HCl | 4,000 | 48,000 |
| 11 | Trimipramine Maleate/ Mesylate | 500 | 6,000 |
| 12 | Flupentixol HCl | 40 | 480 |
| 13 | Melitracen HCl | 300 | 3,600 |
| 14 | Carbinoxamine Maleate | 700 | 8,400 |
| 15 | Opipramol HCl | 400 | 4,800 |
| 16 | Sulfadoxine | 2,400 | 28,800 |
| 17 | Doxepin HCl | 280 | 3,360 |
| 18 | Nitrazepam | 240 | 2,880 |
| 19 | Dothiepin HCl | 1,200 | 14,400 |
| 20 | Bromazepam | 60 | 720 |
| 21 | Flunarazine HCl | 430 | 5,160 |
| 22 | Cinnarazine | 2,500 | 30,000 |
| 23 | Clonazepam | 130 | 1,560 |
| 24 | Lorazepam | 130 | 1,560 |
| 25 | Duloxetine HCl | 300 | 3,600 |
| 26 | Dapoxetine HCl | 50 | 600 |
| 27 | Desvenlafaxine HCl | 400 | 4,800 |
| 28 | Trihexyphenadyl HCl | 300 | 3,600 |
| 29 | Tramadol HCl | 2,500 | 30,000 |
| 30 | Sulfamethoxy Pyrazine HCl | 500 | 6,000 |
| 31 | Alimemazine Tartarate | 200 | 2,400 |
| 32 | Alprazolam | 110 | 1,320 |
| 33 | Diazepam | 120 | 1,440 |
| 34 | Buclazine HCl | 400 | 4,800 |
| 35 | Meclazine HCl | 400 | 4,800 |
| 36 | Carbamezapine | 2000 | 24,000 |

| | | | |
|---|---|---|---|
| | **Total** | **38,390** | **4,60,680** |

*PP informed that 10 products will be manufactured at a time.*

Scrubber will be provided to control process emissions. Mechanical dust collector will be provided to briquette fired boiler and thermic fluid heater to control particulate emission. Fresh water requirement from ground water source will be 103 $m^3$/day. Total effluent generation will be 72.955 $m^3$/day and treated in the ETP with MEE followed by RO filtration. Waste oil generation from DG set will be disposed off through authorized recyclers. Residue from solvent recovery plant will be disposed through cement industries for co-incineration. Inorganic salt will be sent to TSDF for landfill site. PP informed that EC for industrial estate has been granted to KIADB. However, it was noted that EC of Industrial area has been granted for Chikkballapura but Project proposal is located in the Gourbidannor District, which is different. Therefore, public hearing can not be exempted.

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

**A. Specific TOR**

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

**B. Additional TOR**

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.

**46.7.5 Resin Manufacturing Unit located at Survey No.: 432, Village Amodara (Rampura), Taluka Prantij, District Sabarkantha, Gujarat by M/s. Axi Lam Pvt. Ltd. – reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I). Proposed project can not be treated as small scale unit due to formaldehyde storage capacity is greater than 5 MT and water consumption greater than 25 KL per day.

M/s. Axi Lam Pvt. Ltd. has proposed for setting up of resin Manufacturing Unit located at Survey No. 432, Village Amodara (Rampura), Taluka Prantij, District Sabarkantha, Gujarat. The plot area is 11613 $m^2$ of which area earmarked for greenbelt is 3400 $m^2$. The total cost of the project is Rs. 1 crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve is located within the distance of 15km from the proposed site. Following is the list of proposed products to be manufactured:

| S.No | Product List | Capacity | |
|---|---|---|---|
| 1 | Phenol Formaldehyde Resin | 800 MT/Month | Alternate Production 2200 MT/Month |
| 2 | Melamine Formaldehyde Resin | 700 MT/Month | |
| 3 | Urea Formaldehyde Resin | 700 MT/Month | |
| 4 | Laminated Sheets | 3,00,000 Nos./ Month | |

Bagfilter and scrubber will be provided to boiler/thermic fluid heater if lignite will be used. Otherwise bagfilter will be provided if coal /briquettes. The Committee suggested the give specific fuel, which will be used during manufacturing. DG set ( 250 KVA) will be installed. Fresh water requirement from ground water source will be 43 $m^3$/day. Wastewater generation will be 24 $m^3$/day and treated in the ETP followed by evaporator. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. Evaporation residue will be sent to TSDF facility. Used oil will be sent to registered recyclers.

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

**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. Treatment of Phenol in the wastewater.
6) Action plan for odour control to be submitted.
7) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9) Action plan for utilization of MEE/dryers salts.

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

**B. Additional TOR**

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

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

### 46.7.6 Expansion of Specialty Chemicals Manufacturing Unit at Plot No.E-7 & E-8, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s Balaji Amines Ltd. – reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by SEIAA. However, due to applicability of the general condition i.e. location of project fall within 5 km of the boundary of 'Great India Bustard Sanctuary', proposal is treated as category 'A' and appraised by Central Government.

M/s Balaji Amines Ltd. has proposed for Expansion of Specialty Chemicals Manufacturing Unit at Plot No.E-7 & E-8, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra. Plot area is 16 ha. of which area earmarked for greenbelt is 1 ha. Cost of expansion project is Rs. 49 Crore. The boundary of GIB sanctuary is located at a distance of 1.8 km from the project site. Following products will be manufactured:

| Sr. No. | Product | Existing Products Capacity (MT / Month) | Proposed Products Capacity MT / Month | Total after expansion ( MT/ Month) |
|---|---|---|---|---|
| **1** | Mono Methyl Amine (MMA) | 928.8 | **--** | **928.8** |
| **2** | Di Methyl Amine (DMA) | 2066.4 | **--** | **2066.4** |
| **3** | Tri Methyl Amine (TMA) | 144 | **432** | **576** |
| **4** | Di Methyl Amine Hydrochloride (DMA HCl) | 1092 | **1092** | **2184** |
| **5** | N-Methyl-2-Pyrrolidone (NMP) | 1005 | **1008** | **2013** |
| **6** | 2-Pyrrolidone (2P) | 1005 | **--** | **1005** |
| **7** | N-Ethyl Pyrrolidone (NEP) | 1005 | **--** | **1005** |
| **8** | Di Methyl Formide (DMF) | 2160 | **840** | **3000** |
| **9** | Gama Butyro Lactone (GBA) | 1005 | **1008** | **2013** |
| **10** | Methyl Di Ethanol amine (MDEA) | 1035 | **--** | **1035** |

| | | | | |
|---|---|---|---|---|
| **11** | Poly Vinyl Pyrrolidone/ PVP Iodine (PVP/PVP Iodine) | 201 | **--** | **201** |
| **12** | Mono Ethyl Amine (MEA) | 100.8 | **--** | **100.8** |
| **13** | Di Ethyl Amine (DEA) | 298.8 | **--** | **298.8** |
| **14** | Tri Ethyl Amine (TEA) | 601.2 | **--** | **601.2** |
| **15** | Morpholine (MOR) | -- | **1080** | **1080** |
| **16** | Aceto Nitrile (ACN) | -- | **1440** | **1440** |
| **17** | Di Methyl Carbonate (DMC) | -- | **1660** | **1660** |
| **18** | Budesonide (BD) | -- | **1.5** | **1.5** |
| **19** | Betamethasone & Its Salts (BM) | -- | **1.5** | **1.5** |
| **20** | Ciclesonide (CN) | -- | **1.5** | **1.5** |
| **21** | Flumethasone &Its Salts (FM) | -- | **0.525** | **0.525** |
| **22** | Fluticasone & Its Salts (FC) | -- | **0.5** | **0.5** |
| **23** | Beclamethasone Dipropionate (BMD) | -- | **0.5** | **0.5** |
| **24** | 16-Alpha Hydroxy Prednesolone (16-AHP) | -- | **0.5** | **0.5** |
| **25** | Mometasone Furuote (MF) | -- | **0.5** | **0.5** |
| **26** | Propylene Glycol (PG) | -- | **1656** | **1656** |
| **27** | Mono IsoPropyl Amine (MIPA) | -- | **504** | **504** |
| **28** | Propylene Carbonate (PC) | -- | **432** | **432** |
| By Products | | | | |
| **1** | Higher Amines | 111.9 | **117.12** | **229.02** |
| **2** | Methyl Tri Ethanol Amine | 57.6 | **--** | **57.6** |
| **3** | Calcium Hydroxide | 262.8 | | **262.8** |
| **4** | Tetra Hydro Furan | -- | **86.4** | **86.4** |
| **5** | Hydrogen | -- | **51.84** | **51.84** |
| **6** | Spent Caustic Solution (20%) | -- | **576** | **576** |
| **7** | Sulphur | -- | **5.76** | **5.76** |

Bagfilter will be provided to additional coal boiler and THF to control particulate emissions. Total water requirement will be increased from 753 $m^3$/day to 1747 $m^3$/day after expansion. Out of which fresh water requirement from MIDC water supply will be increased from 603 $m^3$/day to 1402.2 $m^3$/day after expansion. Effluent generation will be increased from 252 $m^3$/day to 463.7 $m^3$/day after expansion. Industrial effluent will be treated in the ETP comprising RO and MEE. Treated effluent will be recycled for boiler feed & cooling makeup. Fly ash will be sent to brick manufacturing. EC for the existing unit was obtained vide MoEF&CC letter no. J-11011/1228/2007 IA II (I) dated 09.04.2008.

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) Work zone monitoring arrangements for hazardous chemicals.
3) Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
4) Action plan for odour control to be submitted.
5) A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
6) Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
7) Action plan for utilization of MEE/dryers salts.

8) Material Safety Data Sheet for all the Chemicals are being used/will be used.
9) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
10) Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
11) Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
12) Arrangements for ensuring health and safety of workers engaged in handling of toxic Details of process emissions from the proposed unit and its arrangement to control.
13) Ambient air quality data should include VOC, etc.,

**B. Additional TOR**

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

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.

**46.7.7 Installation of Scheme under Energy Saving Project (ESP project) at Tehsil Aonla, District Bareilly, Uttar Pradesh by M/s IFFCO Ltd. – reg TOR.**

The committee noted that proposal does not contain details of existing plant configuration and proposed modifications to be carried out. The information regarding existing water requirement, energy requirement, waste water management, solid waste management is incomplete. Although there is no increase in product but they are changing few units which involve amendment to the existing EC. The Committee observed that proposal is premature and therefore, it is deferred for consideration after submission of the revised complete proposal.

**46.7.8 Installation of GT-HRSG and other schemes under ESP project at Tehsil Phulpur District Allahabad, Uttar Pradesh by M/s IFFCO Ltd. – reg TOR.**

The committee noted that proposal does not contain details of existing plant configuration and proposed modifications to be carried out. The information regarding existing water requirement, energy requirement, waste water management, solid waste management is incomplete. Although there is no increase in product but they are changing few units which involve amendment to the existing EC. The Committee observed that proposal is premature and therefore, it is deferred for consideration after submission of the revised complete proposal.

**46.7.9 Capacity Enhancement by Modernizing the Existing Grain Based Distillery (from 100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village: Shyampur, Tehsil: Behror, District: Alwar (Rajasthan) by M/s Globus Sprit Ltd. – reg TOR**

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

M/s Globus Sprit Ltd. has proposed for capacity Enhancement by Modernizing the Existing Grain Based Distillery (from 100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village: Shyampur, Tehsil: Behror, District: Alwar (Rajasthan).

Plot area is 7.276 ha. of which area earmarked for greenbelt is 2.4 ha. Cost of project is Rs. 10 Crore. Out of which Rs. 3 Crores and Rs. 50 Lakh per annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that no national park, wild life sanctuary, biosphere reserve, tiger/ elephant reserve, wildlife corridor is located within 10 km distance. Baroud Reserved forest is located within 10 km distance. Sota River (1.0 Km ) and Sahibi River (6.0 Km) are located at a distance 1.0 km and 6.0 km distance respectively. Total no. of working days will be increased from 330 days/annum to 350 days per annum. ESP alongwith stack height has been provided to rice husk fired boiler (1x 14 TPH & 1x 25 TPH). Total water requirement from ground water source will be 552 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 and recycled into process. DDGS will be used as cattle feed. Fly ash will be used for brick manufacturing and cement manufacturing. Further PP has requested for exemption of public hearing due to following grounds:

(i) The Capacity enhancement will be done by modernization/debottlenecking and is only about 25 % of the present operation capacity i.e. 100 to 125 KLPD.

(ii) Process improvement in fermentation to achieve higher alcohol concentration and higher efficiency.

(iii) Vapour integration plant with the dryer will be installed for recycling of water due to which there will be no increase in fresh water consumption after the proposed capacity enhancement.

(iv) No additional water requirement.

(v) No additional land is required for the proposed capacity enhancement.

(vi) Out of the plant area, 2.4 ha. area has already been developed under greenbelt/plantation.

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/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Use previous one year already collected baseline data alongwith one month fresh baseline data.

**B. Additional TOR**

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

2. Collection of one month monitoring data

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

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

**46.7.10 Development of Refrigerated LPG(Propane/Butane) Import, Storage, Bottling and Bulk distribution facilities at Haldia Dock Complex, Haldia Tehsil Kharagpur – I, District East Medinipur, West Bengal by M/s BPCL – 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), Proposal is treated as Category 'A' project and appraised at Central Level.

M/s BPCL has proposed for setting up of Development of Refrigerated LPG(Propane/Butane) Import, Storage, Bottling and Bulk distribution facilities at Haldia Dock Complex, Haldia Tehsil Kharagpur – I, District East Medinipur, West Bengal. Total plot area is 45 acres. Cost of project is Rs. 694.15 Lakh. It is reported that no reserved forest/ protected forest/ Eco-sensitive area/ national park is located within 10 km distance. PP

informed that the the proposed LPG terminal does not fall within CRZ. A small portion of pipeline length at HOJ-3 falls in CRZ-III, CRZ-IVB ( Jetty) and CRZ IB ( jetty). Following facilities will be created at Jetty and project site:

| S.N. | Facility to be created at Jetty | Description |
|---|---|---|
| 1. | Marine Unloading arms 2 Nos. for Propane & Butane | |
| 2. | Manifold at Jetty | 18 in. piping , valves & meters |
| 3. | Skid Mounted Air Compressor cum Dryer | Type: Vert., Cylindrical ID: 1360 mm & Ht: 1500 mm |
| 4 | Manifold near jetty Provision for putting up Booster pumps in future in a plot near Jetty | |
| 5 | Unloading Pipelines | Insulated LTCS PIPES -18" SCH 30(A333 Gr. 6) x 2 no. Length= 8.0 km approx. |

**Facilities at Project Site**

| S.N. | Facility | Description |
|---|---|---|
| 1 | Refrigerated Storage Tanks | 2 Nos. for Propane & Butane of capacity 15000 MT each |
| 2 | Propane/Butane /LPG Storage Bullet | 4 Nos. 0f 350 MT Capacity of Mounded Bullet |
| 3 | Flash Compressor (2+1) Capacity: | Suction Flow : 7528 m 3 /hr (18.0 Te/hr) each |
| 4 | Boil Off Compressor (2+1) Capacity: | Suction Flow : 841 m 3 /hr (2.0 Te/hr) each |
| 5 | Flare Unit Type: | Molecular Seal, Derrick<br>No. of Pilot Burner: 3<br>Total Elevation: 50m<br>Tip Dia.: 16” |

**Facilities at Dispatch Section**

| S.N. | Facility | Description |
|---|---|---|
| 1 | Bottling Capacity | 1no. 24 /72 Point carousel plant + Provision for 1no. 24 point carousel plant in future |
| 2 | Bulk Loading Facility | 1 x 8 bay gantry + Provision for 1x 8 bay gantry in future |

**Offsite & Utility Facilities**

| S.N. | Facility | Description |
|---|---|---|
| 1. | Cooling Tower | 2 Cell Induced Draft Fan, Cap.: 1000 m3/hr |
| 2 | Mercaptan Dosing System Considered | |
| 3 | Nitrogen Storage System Considered | |
| 4 | Flare System Considered | |
| 5 | Fire Fighting System Considered | |
| 6 | Water | 200 KL per day |
| 7 | Electricity | 9834 KVA |

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.
(ii) SCZMA recommendation in respect of CRZ .

It was recommended that **'TORs' along 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.

## 46.8 Any Other

### 46.8.1 Expansion project of single super phosphate (1,81,000 to 3,15,000 TPA) and 300,000 TPA converted in Granular SSP), NPK ( 60, 000 TPA) and Additional Boronated SSP ( 25 000 TPA ) and LABA ( 20,000 TPA ) of M/s Rama Phosphate Ltd., at Plot no. 4807/11, Jhamakotra Road, village Umra, Tehsil Girwa, district Udaipur, Rajasthan- amendment in EC

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

## 46.9 Additional Item

46.9.1 **Expansion of strategic crude oil storage facility in underground rock caverns from 1MMT at Vishakapatnam in Andhra Pradesh By M/s Indian Strategic Petroleum Resources Ltd. (ISPRL)- Amendment in EC.**

MoEF vide letter no J-11011/3/2006 IA II (I) dated 22nd September, 2006 has issued environmental clearance to M/s Indian Strategic Petroleum Reserves Ltd. for Expansion of strategic crude oil storage facility in underground rock caverns from 1MMT at Vishakapatnam in Andhra Pradesh with the following specific conditions:

*"(i) Ambient air quality for SO2 NOx, HCs, CO and secondary air pollutants (Aldehydes, Oxidants) shall be regularly monitored at requisite numbers of ambient air quality monitoring stations in consultation with APPCB at and around the proposed site based on occurrence of maximum ground level concentration and down wind direction of wind i.e. maximum impact zone.*

*(viii) As mentioned in the REIA/EMP, 50 m green belt shall be developed along the boundary of the Industry to mitigate the effects of fugitive emissions all around the plant in consultation with DFO as per CPCB guidelines*."

PP vide letter no. ISPRL/VZ/RPA/4 dated 11th March, 2015 has informed that during the detailed engineering, it was observed that the secondary air pollutants ( Aldehydes, Oxidants) are not being generated. Accordingly the above AAQMS facilties were provided for monitoring only SO2, NOx, HCs, CO. Accordingly, they requested for amendment in the conditions. Regarding greenbelt, PP informed that

- Due to rocky steep terrain the possibility of developing green belt is – limited only to the west side of our plot. The above area is already enriched with natural vegetation. Green belt is being developed in the 14 acres of land available within the compound wall.
- The Eastern side of the boundary is having rocky steep terrain therefore developing the green belt of width 50 m along the eastern and northern side of the boundary wall is not feasible in the present terrain.
- In view of the above and as a commitment to meet the requirement, Green belt is being developed in the available 14 acres area.
- Considering the above, EC committee is requested to accord the approval for developing green belt in the 14 acres area as explained above.

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

*"(i) Ambient air quality for SO2 NOx, HCs, CO shall be regularly monitored at requisite numbers of ambient air quality monitoring stations in consultation with APPCB at and around the proposed site based on occurrence of maximum ground level concentration and down wind direction of wind i.e. maximum impact zone.*

*(viii) Green belt shall be developed in 14 acre land as well as along the boundary of the unit except eastern and northern side of the plot to mitigate the effects of fugitive emissions all around the plant in consultation with DFO as per CPCB guidelines*."

### 46.9.2 Proposed bulk drug intermediates (APIs) manufacturing unit of 30 kg/month capacity at HSIIDC Barhi part 2, Tehsil Ganaur, District Sonipat by M/s Royal Enterprises- reg EC.

The project proponent and their consultant (M/s Ultra Tech. Environmental Consultancy & Laboratory) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 42nd Meeting of the Expert Appraisal Committee (Industry) held during 16th to 17th June, 2015 for preparation of EIA-EMP report. All the synthetic organic chemicals located inside the notified industrial area are listed at S.N. 5(f) under Category 'B' and appraised at State level. However, absence of SEIAA in Haryana, proposal is treated as category 'A' and appraised at Central level.

M/s Royal Enterprises has proposed for setting up of Greenfield Facility of Manufacturing Plant for Mehtylcobalamin (b12) at Plot No. 555, HSIIDC Barhi part 2, Tehsil Ganaur, District Sonepat, Haryana. Cost of project is Rs. 1.55 Crore. Plot area is 1800 $m^2$. River Yamuna is flowing at a distance of 9.2 km. Interstate Boundary ( UP) is located at a distance of 8.78 km distance. It is reported that no national park/wildlife sanctuary/reserve forest is located within 10 km distance. Following products will be manufactured:

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

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during 20th May, 2015 to 20th June, 2015 and submitted baseline data which indicates that ranges of concentrations of $PM_{10}$ (70 µg/$m^3$ to 132 µg/$m^3$), $PM_{2.5}$ (46 µg/$m^3$ to 79 µg/$m^3$), $SO_2$ (11 µg/$m^3$ to 19ug/$m^3$), NOx (22 µg/$m^3$ to 39 µg/$m^3$) and CO (710-1294 ug/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0043 µg/$m^3$ with respect to $SO_2$. The resultant concentrations are within the NAAQS. Scrubber will be provided to control process emissions viz. $SO_2$. DG set (60 KVA) will be installed. Chilled brine of -10$^OC$ will be circulated in condensers to condense the solvent vapours. Transfer of solvents to be done through pumps instead of manual handling. Vent condenser to be provided on all storage tanks. Water requirement from HSIDC water supply will be 1 $m^3$/day. Effluent generation will be 0.3 $m^3$/day. Effluent will be treated in the ETP and send to CETP (maintained by HSIDC Govt. Organization). Fuel consumption i.e. HSD used 50 lit/day. one DG set ( 60 KVA) will be installed. Hazardous waste will be sent to TSDF.

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, 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. Scrubber shall be provided to control process emissions viz. $SO_2$. 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.

ii. 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.

iii. Total fresh water requirement from HSIDC water supply shall not exceed 1 $m^3$/day. No ground water shall be used.

iv. Total industrial effluent generation shall not exceed 0.3 $m^3$/day. Effluent shall be treated in ETP and treated effluent shall be sent to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the SPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent from ETP shall be monitored regularly. Treated effluent should be passed through guard pond.

v. 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.

vi. 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.

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

**46.9.3 Exploratory Drilling of 4 wells of M/s ONGC in NELP-VIII Block, VN-ONN-2009/3, Son Valley, Vindhyan, M.P Frontier Basin- Reg TOR**

The project proponent and their consultant (M/s Senes Consultants India Pvt. Ltd.) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 18th Meeting of the Expert Appraisal Committee (Industry) held during 28th to 30th April, 2014 for preparation of EIA-EMP report. All the Offshore and Onshore oil and gas exploration, development and production projects are listed at S.N. 1(b) under Category 'A' and appraised at the Central level.

M/s ONGC has proposed for exploratory drilling of 4 wells in NELP-VIII Block, VN-ONN-2009/3, Son Valley, Vindhyan, MP. M/s ONGC is awarded by Govt. of India an exploration block VN-ONN-2009/3 Son Valley, Vindyan Basin in Damoh District of Madhya

Pradesh. ONGC has signed production sharing contract with Govt. of India on 30th June, 2010. For the proposed block, Petroleum Exploration License (PEL) was granted on 12.10.2011 for a total period of 7 years. The VN/ONN/2009/3 of Block area of 1250 Km2 is located in the two districts of Madhya Pradesh, Namely Damoh and Chhatarpur. It is reported that no forest land and any protected notified ecological sensitive area is located within 10 km distance of drilling site. However, the Panna National Park is located at 17 km distance from the proposed drilling site and Nauradehi Wildlife Sanctuary is located at 42 km distance from the proposed drilling. Depth of well will be 2800 m. Cost of project is Rs. 160 Crore. Estimated land required per drill site is approximately 3 ha including site required for construction of approach road.

Coordinates of all the four wells are given below and the locations of the wells at within block:

| **Well Name** | **Coordinate** | **Village** | **Tehsil** | **District** | **Nature of Location** |
|---|---|---|---|---|---|
| R- HAT-A | 24°05'12.85"N<br>79°33'43.07"E | Luhari | PAtera | Damoh | Final |
| R- HAT-B | 24°07'42.52"N<br>79°37'09.11"E | Hatta | Hatta | Damoh | Tentative |
| R- HAT-C | 24°01'46.54"N<br>79°28'35.77"E | Mankora | Patharia | Damoh | Tentative |
| R- Hat-D | 24°01'43.12"N<br>79°38'50.00"E | Majhguwan Patol | Patera | Damoh | Tentative |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during January, 201 –March, 2015 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (70 µg/$m^3$ to 107.7 µg/$m^3$), $PM_{2.5}$ (32.5 µg/m3 to 42 µg/m3), $SO_2$ (11.3 µg/$m^3$ to 15.8 ug/m3) and NOx (20.6 µg/$m^3$ to 25.9 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.086 µg/$m^3$ and 0.099 µg/m3 with respect to PM and NOx. The resultant concentrations are within the NAAQS. DG set (2 x 1250 KVA) will be installed.

Water based mud will be used. Fresh water requirement from ground water source will be 25 m3/day drilling wastewater generation will be 8 m3/day. Wastewater will be treated in the ETP to ensure conformation to the CPCB onshore oil and gas extraction industry effluent. The quantity of drill cuttings will be 200 $m^3$. The Quantity of wastewater produced will be about 2-3 m3/day. The rig will be provided with solid handling system comprising shale. Quantity of drilling fluid will be generated around 1000 $m^3$. Quantity of cuttings generation will be 2-3 m3/day. Quantity of drilling waste will be 600 $m^3$/day. The waste residual muds and drill cuttings which contain clay, sand, etc will be disposed into the waste pit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the MP Pollution Control Board on 30$^{th}$ May, 2015. The issues were raised regarding benefits of the project, local employment, pollution control measures, impact on environment, 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 based on the documents furnished and presentation made recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

i. The present EC is for Exploratory Drilling only. In case Development drilling is to be done in future, prior environmental clearance must be obtained from the Ministry.

ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for $PM_{10}$, $PM_{2.5}$, $SO_2$, $NO_X$, CO, methane & Non-methane HC etc.

iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.

iv. Approach road shall be made pucca to minimize generation of suspended dust.

v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.

vi. Total water requirement shall not exceed 25 $m^3$/day and prior permission shall be obtained from the concerned agency.

vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhubaneswar.

ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

xi. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

xii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

xiii. The company shall develop a contingency plan for $H_2S$ release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be

provided with personal $H_2S$ detectors in locations of high risk of exposure along with self containing breathing apparatus.

xiv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

xv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

xvi. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xvii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

xx. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.

xxi. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.

xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.

xxiii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.

xxiv. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

xxvi. Company shall have own Environment Management Cell having qualified persons with proper background.

xxvii. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

**46.9.4 Development Drilling of 66 Wells in 7ML/NELP Block Onshore in District Cuddalore, Nagapattinam, Tiruvarur and Tanjavar, Tamil Nadu by M/s ONGC Ltd.- reg. EC**

The Committee noted that TOR was granted for development drilling of 66 wells in 7 ML/NELP in four districts namely Cuddalore, Nagapattinam, Tiruvarur and Tanjavar . However, Public hearings were conducted for development drilling of 25 wells in three districts namely, Nagapattinam, Tanjavur and Thiruvarur. The Committee desired information regarding difference in figures of wells and Districts. The Committee also sought clear picture of proposed drill of wells visa a vis districts. Due to paucity of time, the Committee deferred the matter for next meeting.

**46.9.5 Expansion of Industrial Chemicals at Village Behra, Tehsil DeraBassi, Bhra-Gulabpur Road, District Mohali, Punjab by M/s Punjab Acids-Chem Pvt. Ltd.– correction reg.**

Proposal was considered in the 32nd Reconstituted EAC (industry-2) Meeting held during 20th-21st January, 2015 and the Committee recommended the proposal for environmental clearance. EC was granted on 26.03.2015. The Committee noted that due to typographic error, the capacity (Ton per annum) is typed in place of Ton per day. Therefore the Committee recommended that Ton per annum may be read as Ton per day.

**46.9.6 Modifications in Process facilities of Gas and Condensate processing at Hazira Plant,Village Bhatpore, Tehsil Chorasi, District Surat, Gujarat by M/s ONGC Ltd. - reg amendment in TOR .**

Proposal was considered in the 40th Reconstituted EAC(industry-2) Meeting held on 19th May,2015 whereby the Committee exempted the preparation of EIA-EMP report along with public hearing under section 7 (ii) of the EIA Notification, 2006. Proposal was involved following modifications:

<table>
<tr><th><u>Product</u></th><th><u>Existing Capacity</u></th><th><u>Proposed capacity</u></th></tr>
<tr><td>Natural gas</td><td>46.9 MMSCMD + 1 train standby of 5.6 MMSCMD</td><td>No Change</td></tr>
<tr><td>Sulphur</td><td>23,100 TPA</td><td>No Change</td></tr>
<tr><td colspan="3"><u>VAP PRODUCTION CAPACITIES</u></td></tr>
<tr><td>LPG</td><td>5,00,000 TPA</td><td rowspan="5">NO CHANGE IN “TOTAL VAP”<br>Note : Due to input condensate composition change, Individual VAP product quantities will get realigned within overall Capacity of 19 lakh TPA.<br>VAP denotes Value added products i.e. a mix of LPG, Naptha, SKO, ATF, HSD & Heavy Cut.</td></tr>
<tr><td>Naptha</td><td>12,00,000 TPA</td></tr>
<tr><td>SKO / ATF</td><td>1,76,500 TPA</td></tr>
<tr><td>HSD</td><td>15,000 TPA</td></tr>
<tr><td>Heavy Cut</td><td>Nil</td></tr>
<tr><td><u>TOTAL VAP</u></td><td>18,91,500 TPA SAY 19 LAKH TPA</td><td>19 LAKH TPA</td></tr>
</table>

Now, PP has requested to incorporate the setting up of 51 MW CCCPP proposal in the existing TOR.

After detailed deliberation, the Committee recommended the proposal for amendment in the existing TOR.

## Site Visit Report

**Subject : Molasses based Distillery (40 KLPD) alongwith Cogeneration Power Plant (1.75 MW) at Village Behedki Saidabad, Post Iqbalpur, District Haridwar, Uttarakhand by M/s Lakshmi Sugar Mills Co.Ltd.--Site Visit regarding.**

As per recommendations of the Reconstituted Expert Appraisal Committee (Industry) in its 28th Meeting held during 1st– 2nd December, 2014, a sub-committee comprising Members, EAC and representatives of MoEF&CC will visit the above mentioned projects to assess the existing environmental scenario.

Site visit was made by the Sub-Committee on 11.07.2015 and following officials were present:

(A) From M/s Lakshmi Sugar Mill Co. Ltd.

1. Sh. Jasvinder Singh, Director

(B) From EAC:

1 Prof. C.S. Dubey
2 Dr. R.M. Mathur

(C) From MoEF
1. Shri Lalit Bokolia, Addl. Director
2. Shri A N Singh, Jt. Director

**Background of the project**:-

Visit was performed in context of TORs applied for setting up of new unit -Distillery of 40 KLPD along with power generation of 1.75MW. Main reason of the site visit was to observe the proposed site along with its surrounding area. Proposed Site for new unit - Distillery is around half kilometer away from the existing Sugar Mill and bisected by the Highway. The new unit - Distillery (40KLPD) will have consumption of all the molasses produced from the sugar mill to make various alcohol products (especially ethanol).

**Description of sugar unit :-**
Existing sugar manufacturing unit is located half km away from the proposed distillery site. The total capacity of the sugar plant is 4500 TPD. The performance of the sugar mill in last 6 seasons is as given in table as below;

| SEASON | YEAR (2008-09) | YEAR (2009-10) | YEAR (20010-11) | YEAR (2011-12) | YEAR (2012-13) |
|---|---|---|---|---|---|
| CRUSHING CAPACITY (MT) | 4500 | 4500 | 4500 | 4500 | 4500 |
| CANE CRUSHED (LAKH MT) | 4.22 | 5.39 | 4.33 | 4.27 | 4.65 |
| SUGAR PRODUCED (LAKH MT) | 38768 | 60285 | 40789 | 37879 | 43206 |

| | | | | | |
|---|---|---|---|---|---|
| **SUGAR RECOVERY (%)** | 9.17 | 9.61 | 9.40 | 8.83 | 9.25 |
| **MOLASSES PRODUCTION (MT)** | 20784.1 | 27084.6 | 21349.9 | 21191.1 | 22961.8 |

The sugar unit consist of various section namely Mill house, Clarification and boiling house-Boiling and curing house. Within campus of the sugar unit, one bagasse based Power house was established in 2013 having capacity of 20 MW. For control of air pollution they have installed electrostatic precipitator and have a stack height of 73 m.

Effluent treatment plant based on activated sludge process has been provided for treatment of effluent generated from sugar unit. Treated effluent is being used for gardening and greenbelt development.

**Observations**

- In the proposed site it was noted that it is around half km away from the existing sugar unit and being used for agriculture purpose. Total plot area is 24.25 acre which is divided into two parts and bisected by the Village Road. There is a school namely student's academy at a distance of 300m approx from the back side of the site.
- River Solani is flowing at a distance of 7.22 km, which ultimately meets with the River Ganga at a distance of 38.2 km from the project site.
- Sufficient land is available for setting up of distillery unit within existing sugar plant.

**Conclusion:**

In view of the proximity of proposed site to the educational institution, the sub-committee recommended that Project Authority may explore the possibility of setting up of Distillery unit within the existing sugar unit as this site is away from the public. This will also reduce the burden of transportation of raw materials and management of utilities as well as treatment of spent wash.

The EAC (I-2) discussed the site visit report of sub-Committee and agreed to the recommendation to explore the possibility of setting up of Distillery unit within the existing sugar unit.

********

Annexure-I

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

**1. Executive Summary**

**2. Introduction**

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

**3. Project Description**

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

**4. Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

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

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

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

**6. Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

**7. Impact and Environment Management Plan**

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

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

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

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

**8. Occupational health**

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

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

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

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

**9. Corporate Environment Policy**

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

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

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

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

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

**11.** Enterprise Social Commitment (ESC)

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

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

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

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

**The following general points shall be noted:**

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

submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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

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