

**MINUTES OF 13<sup>th</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 26<sup>th</sup> to 27 September , 2016**

**VENUE:** Narmada , Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi - 110003.

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

**13.1** Opening Remarks of the Chairman

**Time : 10: 00 - 10: 15 AM**

**13.2** Confirmation of the Minutes of the 12<sup>th</sup> Expert Appraisal Committee (Industry-2) held during 23-24<sup>th</sup> August, 2016.

**26<sup>th</sup>September , 2016 (Day 1)**

**1<sup>st</sup> Session: Time: 10.15 AM**

**13.3 Environmental Clearance**

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

The project proponent and their consultant (M/s AscensoEniro Pvt.Ltd ) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 42<sup>nd</sup>Meeting of the Expert Appraisal Committee (Industry -2) held during 16<sup>th</sup>– 17<sup>th</sup>June, 2015 respectively for preparation of EIA-EMP report. All Molasses based distilleries are listed at S.No. 5g(i) as per EIA notification 2006 and appraised at central level

M/s. Balrampur Chini Mills Ltd has proposed for expansion of molasses based distillery (from 60 to 100 KLPD)alongwith Co-generation power plant (from 1 MW to 6.76 MW) at Villages Babhanikhas and Sadarakpur, Tehsil Mankapur, District Gonda, U.P. Total plot area is 44 acre, of which, area earmarked for greenbelt is 14.50 acre. No additional land is required. Cost of project is Rs. 72 Crores. Out of which, Rs 43.70 Crores and Rs 1Crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of environmental protection measures. It is reported that no eco-sensitive area is located within 10 km distance. Two reserve forests are located within 10 Km radius of the project site. Bisuhi River is flowing at distance of 6.01 Km and majreti Pond is at 2.18 Km distance.Following will be plant configuration and production capacity:

| <b>S.N.</b> | <b>Units</b>                                   | <b>Existing</b> | <b>Proposed Additional</b> | <b>Total Capacity after expansion</b> |
|-------------|--|-----------------|----------------------------|---------------------------------------|
| 1           | Distillery plant (Rectified Spirit / ENA / AA) | 60 KLPD         | 40 KLPD                    | 100 KLPD                              |
| 2           | Cogeneration Power Plant                       | 1 MW            | 5.76 MW                    | 6.76 MW                               |

|               |  |  |  |
|---------------|--|--|--|
| (Electricity) |  |  |  |
|---------------|--|--|--|

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 – December, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (71.1 µg/m<sup>3</sup> to 83.95 µg/m<sup>3</sup>), PM<sub>2.5</sub> (40.45 µg/m<sup>3</sup> to 43.65µg/m<sup>3</sup>), SO<sub>2</sub> (7.85µg/m<sup>3</sup> to 14.6ug/m<sup>3</sup>) and NOx (12.6 µg/m<sup>3</sup> to 18.4µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.50 µg/m<sup>3</sup> and 1.77 µg/m<sup>3</sup> with respect to PM<sub>10</sub> and SO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Bagfilter alongwith stack of adequate height will be provided to additional bagasse/slop fired boiler (45 TPH) to control particulate emission. Fresh water requirement from ground water source will be increased from 600 m<sup>3</sup>/day to 1000 m<sup>3</sup>/day. Spent wash(800 m<sup>3</sup>/day) will be treated in Multi effect evaporator (MEE). Concentrated spentwash will be burnt in the incineration boiler. Process condensate, spent lees and effluent from floor washing will be treated in condensate polishing unit( having secondary ETP followed by RO).Treated effluent will recycled/reused as make-up water in cooling tower and floor washing. PP clarified that effluent treatment plant of the existing distillery will be scrapped and switched over to the new proposed scheme i.e evaporation followed by incineration after installation. No effluent will be discharged outside the plant premises and 'Zero' liquid discharge norms will be followed. STP will be provided for domestic waste. Ash from boiler will be sold to brick manufactures/dispose as per MoEF&CC notification.

The Committee noted that PP has obtained environmental clearance on 27<sup>th</sup> February, 2004 for establishment of molasses based distillery (60 KLD). RO Lucknow vide letter no IV/ENV/UP/IND-64/1666/04/1453 dated 02.03.2016 has submitted the copy of certified compliance report to the environmental conditions prescribed in the existing EC. Compliance report was found satisfactory.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Uttar Pradesh Pollution Control Board on 13<sup>th</sup> April, 2016. The concerns were raised regarding water Pollution control measures, air Pollution Control measures and deforestation of area etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. Manpower requirement will be 80 nos. after the expansion.

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

After detailed deliberations, the Committee, on the basis of the 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 bagasse/slope 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) Total fresh water requirement after expansion project from ground water shall not exceed 1000 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated in MEE

followed by incineration boiler. Effluent from spentlees, utilities effluent and evaporator Condensate shall be treated in Condensate Polishing Unit ( Secondary ETP followed by RO) and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

- iv) As proposed existing effluent treatment plant of the existing distillery shall be scrapped and switched over to the new proposed scheme i.e evaporation followed by incineration after installation.
- v) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- vi) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- viii) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC, CPCB and SPCB.
- ix) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and SPCB.
- x) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xi) Boiler ash from distillery as well as sugar plant 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. Proper ash management for its end use to drawn and consent to be obtained accordingly.
- xii) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xiii) 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.
- xiv) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

- xv) As proposed, green belt over 14.50 acre of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xvi) All the commitments made during the Public Hearing/Public Consultation meeting held on 13<sup>th</sup> April, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner. Besides, water supply, toilet facility and solar lighting, one rain water harvesting pond, etc shall be created in nearby villages as committed.

**13.3.2 Setting up of Molasses based distillery (100 KLPD) and CPP (5MW) at Survey Nos. 96/5A, 96/5B, 96/5C, 96/3A/2, 98/1B/3, 98/1B/4 & 98/1B/5 of Yadravi Village, Taluku Raibag, Belagavi District, Karnataka by M/s. Hermes Distillery Private Limited.- reg EC.**

The project proponent and their consultant (M/s Mantras Green Resources Ltd. ) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 20<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry -2) held during 23rd– 24th June, 2014 respectively for preparation of EIA-EMP report. All Molasses based distilleries are listed at S.No. 5g(i) under category 'A' as per EIA notification 2006 and appraised at central level.

M/s. Hermes Distillery Private Limited has proposed for setting up of molasses based distillery (100 KLPD) and CPP (5MW) at Survey Nos. 96/5A, 96/5B, 96/5C, 96/3A/2, 98/1B/3, 98/1B/4 & 98/1B/5 of Yadravi Village, Taluku Raibag, Belagavi District, Karnataka. Proposed project will be installed in the existing premises. Existing unit is engaged for manufacturing of Extra Neutral Alcohol (ENA) of 100 KLD by redistillation of rectified spirit brought from outside and IMFL bottling plant of 86.4 KLD alongwith power plant 8 MW hr. This is a backwards integration project. Following is the details of existing and proposed expansion:

| S.N. | Existing   | Capacity after proposed expansion  |
|------|--|--|
| 1    | Manufacturing Extra Neutral Alcohol ( ENA) of 100 KLD by redistillation of rectified spirit brought from outside.<br><br>IMFL Bottling Plant of 86.4 KLD power plant of 8 MW hr. | RS from molasses based distillery - 100 KLD;<br>ENA from RS-100 KLD;<br>Ethanol from RS-100 KLD<br><br>86.4 KLD<br>Power Plant of 8 MW hr<br>Power from spent wash incineration – 5 MW hr. |

Details of the existing and proposed facilities are as given below:

| S.N. | Description   | Existing | Additional Proposed |
|------|---|----------|---------------------|
| 1.   | 100 KL Redistillation Plant                         | Yes      |                     |
| 2.   | Steam Boiler 60TPH                                  | Yes      |                     |
| 3.   | Power Plant 8MW                                     | Yes      |                     |
| 4.   | Cooling Tower For Co-Gen - 900m <sup>3</sup> /hr    | Yes      |                     |
| 5.   | WTP – 400 m <sup>3</sup> /hr                        | Yes      |                     |
| 6.   | Weigh Bridge 2x 80 MT                               | Yes      |                     |
| 7.   | Spirit Storage- 1 crore Litre                       | Yes      |                     |
| 8.   | Bottling Plant- 10000 cases/day                     | Yes      |                     |
| 9.   | Molasses Storage Tanks 3 Nos.- 30000 MT             | No       | Yes                 |
| 10.  | Fermentation reactor- Equivalent to 100 KL/day      | No       | Yes                 |
| 11.  | Cooling Tower for process- Equivalent to 100 KL/day | No       | Yes                 |
| 12.  | Water storage tank- 8000 m <sup>3</sup>             | Yes      |                     |
| 13.  | 5 days Spent wash storage                           | No       | Yes                 |
| 14.  | MEE- 4+1 (F.F + F.E)                                | No       | Yes                 |
| 15.  | Incineration Boiler- 35 TPH                         | No       | Yes                 |
| 16.  | Godown – 70,000 Cases                               | Yes      |                     |
| 17.  | Condensate Polishing Unit with RO                   | No       | Yes                 |
| 18.  | Sewage Treatment plant – 16 m <sup>3</sup> /day     | No       | Yes                 |
| 19.  | Power generation Plant 5 MW                         | No       | Yes                 |

Total existing plot area is 17.84 acre, of which, area earmarked for greenbelt is 14.50 acre. Cost of project is Rs. 153 Crores. Out of which Rs 20 crores and Rs. 1.96 Crore per annum earmarked towards capital cost and recurring cost per annum for implementation of EMP. Employment potential would be 153. It is reported that there are no wildlife sanctuaries, national parks, elephant /tiger reserves within 10 kms radius of the study area. Saundatti RF and Shivajipark RF are present within 10 Km radius of the project site. Krishna River is flowing at distance of 3.7 Km

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (48.6 µg/m<sup>3</sup> to 53 µg/m<sup>3</sup>), PM<sub>2.5</sub> (21.8 µg/m<sup>3</sup> to 26 µg/m<sup>3</sup>), SO<sub>2</sub> (7.8 µg/m<sup>3</sup> to 9.60ug/m<sup>3</sup>) and NO<sub>x</sub> (9.5 µg/m<sup>3</sup> to 11.40 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.137 µg/m<sup>3</sup>, 9.19 µg/m<sup>3</sup> and 3.41 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

ESP along with stack of 45 m height will be provided to coal/slop fired boiler of 35 TPH. Total water requirement will be 1313 m<sup>3</sup>/day of which, fresh water requirement from Krishna River will be 703 m<sup>3</sup>/day and remaining water requirement (440 m<sup>3</sup>/day) will be met from treated effluent of condensate. Spent wash (800 m<sup>3</sup>/day) will be treated in Multi effect evaporator (MEE). Concentrated spent wash will be burnt in the incineration boiler. Condensate and spentlees will be treated in the Condensate Polishing Unit. Ash generation

from incineration boiler will be disposed to farmers for soil conditioning. The Committee suggested them that ash from coal fired boiler shall be sent to the cement plant.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 20<sup>th</sup> January, 2016. The concerns were raised regarding local employment, waste management, air pollution control measures, soil quality, agricultural yield etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) ESP alongwith stack of adequate height shall be provided to coal/slop fired boiler of 35 TPH to control particulate emission within 50mg/Nm<sup>3</sup>.
- ii) Total fresh water requirement from Krishna River shall not exceed 703 m<sup>3</sup>/day. No groundwater shall be extracted.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in MEE followed by incineration boiler. Effluent from spentlees, utilities effluent and evaporator Condensate shall be treated in Condensate Polishing Unit ( Secondary ETP followed by RO) and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- iv) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC, CPCB and SPCB.
- viii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and spent wash tank shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office and SPCB.
- xviii) coal storage shall be done in such a way that it does not get air borne or fly around due to wind.

- xix) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. coal ash shall be stored separately and sent to cement manufacturing unit.
- xx) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xxi) 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.
- xxii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xxiii) As proposed, green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 20<sup>th</sup> January, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner. Besides, water supply, toilet facility and solar lighting, one rain water harvesting pond, etc shall be created in nearby villages.

**13.3.3 Bulk Drugs Manufacturing Unit ( 60 MTPM) at Plot No. 1-16, Survey No. 137/1, Village Padawala, Taluka Kotda Sangani, District Rajkot, Gujarat by M/s SNJ Labs Pvt. Ltd. reg EC.**

The project proponent and their consultant (M/s San Envirotech Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 40<sup>th</sup> Meeting of the Reconstituted Expert Appraisal Committee (Industry) (EAC I) held during 18<sup>th</sup>-19<sup>th</sup> May, 2015 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Dye Industries) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' as per EIA notification 2006 and appraised at Central Level.

M/s SNJ Labs Pvt. Ltd. has proposed for setting up of bulk drugs manufacturing unit ( 60 MTPM) at Plot No. 1-16, Survey No. 137/1, Village Padawala, Taluka Kotda Sangani, District Rajkot, Gujarat. Total plot area is 16,794 m<sup>2</sup> of which, greenbelt will be developed in 5,550 m<sup>2</sup>. The project cost will be Rs. 14 crore, out of which Rs 1.5 Crore will be earmarked

towards pollution control measures and Rs 30 Lakhs as recurring cost of EMP Per annum. Following products will be manufactured:

| S.N. | Product   | Quantity(MT/Month) |
|------|---|--------------------|
| 1.   | Iron Sucrose                                      | 10                 |
| 2.   | Iron (III) Carboxy<br>-maltose complex            | 5                  |
| 3.   | Iron (III) Citrate                                | 5                  |
| 4.   | Iron (III) Dextran                                |                    |
| 5.   | Iron (III) Gluconate (Sodium Ferric<br>Gluconate) | 5                  |
| 6.   | Ca-Salt of Alpha Keto Leucine                     | 5                  |
| 7.   | Ca-Salt of Alpha Keto Isoleucine                  | 5                  |
| 8.   | Ca-Salt of Alpha Keto Valine                      | 5                  |
| 9.   | Ca-Salt of Alpha Keto Methionine                  | 5                  |
| 10.  | Ca-Salt of Alpha Keto Phenyl Alanine              | 5                  |
| 11.  | Turbinafine Hydrochloride                         | 5                  |
|      | <b>Total</b>                                      | <b>60</b>          |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (56.9 µg/m<sup>3</sup> to 90.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26.4 µg/m<sup>3</sup> to 48.6 µg/m<sup>3</sup>), SO<sub>2</sub> (21.8 µg/m<sup>3</sup> to 38.3 µg/m<sup>3</sup>) and NO<sub>2</sub> (23.3 µg/m<sup>3</sup> to 38.7 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.324 µg/m<sup>3</sup>, 0.332 µg/m<sup>3</sup> and 0.417 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Cyclone separator followed by bagfilter will be provided to boiler. The Committee suggested them to use biomass briquette as a fuel instead of coal. Total water requirement will be 58.5 m<sup>3</sup>/day. Out of which fresh water requirement from ground water source will be 39 m<sup>3</sup>/day and remaining water requirement (19.5 m<sup>3</sup>/day) will be met from recycled/treated effluent. Effluent generation will be 20.8 m<sup>3</sup>/day. Effluent will be treated in the ETP followed by RO. RO rejects will be evaporated in the MEE. No effluent will be discharged outside the plant premises. Distillation residue and evaporation salt will be sent to landfill. Used lubricating oil will be sent to authorized recycler/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat State Pollution Control Board on 24<sup>th</sup> June, 2016. The issues were raised regarding process emissions, quantity of waste generation, about ZLD, environmental damage etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. Cyclone separator followed by bagfilter alongwith stack of adequate height shall be provided to biomass fired boiler to control particulate matter emission within 50mg/Nm<sup>3</sup>.



- ii. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits stipulated by GPCB.
- iv. Total water requirement from underground shall not exceed 39 m<sup>3</sup>/day and permission from CGWA/SGWA to be obtained.
- v. Effluent generation shall not exceed 20.8 m<sup>3</sup>/day. As proposed, effluent shall be treated in the ETP followed by RO. RO rejects shall be concentrated in the MEE. Treated effluent will be recycled/reused in the process and used for greenbelt. No effluent should be discharged outside the premises and Zero Liquid Discharge should be maintained. Domestic sewage should be treated in STP. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- vi. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules, 2008 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.
- vii. As proposed, greenbelt should be developed at least in the area 5550 m<sup>2</sup> 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.
- viii. All the recommendations made in the risk assessment report should be satisfactorily implemented.
- ix. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal.
- x. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

**13.3.4 Proposed specialty chemical & pesticide plant at plot no. E-362, GIDC Dahej - i, Taluka: Vagra, dist. Bharuch, Gujarat by M/s. Hemani intermediates pvt. Ltd. (unit-iv) reg EC.**

Proposal was considered by EAC (Industry-2) in its meeting held during 20<sup>th</sup> – 21<sup>st</sup> July, 2015 and the Committee deferred the proposal for want of information. PP vide letter dated 10<sup>th</sup> September, 2016 has submitted the addl. Information.

On examination, it was noted that GPCB vide letter no. GPCB/BRCH-B/CTE-256/ID-44626/368882 dated 7<sup>th</sup> September, 2016 has recommended the project for manufacturing capacity of 900 MTPM against the proposal for 12900 MTPM. Therefore, the Committee suggested them to revised your EIA report for the manufacturing capacity 900 MTPM and

submit through online portal for consideration. Presentation shall be given on revised proposal.

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

**13.3.5 Setting up of a Drug manufacturing unit (Unit-III) at Sy. No.s 1058 & 1059, Village Machanpally, Mandal Bommalramaram, District Nalgonda, Andhra Pradesh by M/s S.M. Labs Ltd. reg EC.**

The project proponent and their consultant (M/s Rightsource Industrial Solution 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 19<sup>th</sup> Meeting of the Reconstituted Expert Appraisal Committee (Industry) (EAC I) held during 28<sup>th</sup>-30<sup>th</sup> May, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Dye Industries) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central Level.

M/s S.M. Labs Ltd. has proposed for setting up of a drug manufacturing unit (Unit-III) at Sy. No.s 1058 & 1059, Village Machanpally, Mandal Bommalramaram, District Nalgonda, A.P. Total plot area is 30,068 m<sup>2</sup> of which greenbelt will be developed in 17864.94 m<sup>2</sup>. Cost of the project will be Rs. 12.98 crore. Out of which, Rs. 2.0 Crore and Rs 16.5 lakh per annum are earmarked toward capital cost and recurring cost per annum for implementation of EMP. It is reported that no eco-sensitive area is located within 10 km distance. Reserved forests namely Naginenipalli RF - 5.2 KMs(SSW) Kondamadugu RF - 6.4 KMs (SSW) Parvathipuram forest block - 7.7 KMs(SW) China lakshmipuram RF- 9.2 KMs (NNW) Mallapur RF - 9.6 KMs(NNE) Venkatapuram RF-9.7 KMs(NE) are located within 10 km distance. Waterbodies namely, Shamirpetvagu - 1.0 KMs (WSW) Maryalacheruvu - 1.8 KMs(NW) Kottacheruvu - 6.5 KMs (NNW) Jainpaliicheruvu - 7.0 KMs(NNW) Jagayyacheruvu - 7.3 KMs(NNW) Bibinagarcheruvu - 9.8 KMs(NNW) are located within 10 km distance. Following products will be manufactured:

| S.N. | Product                         | Quantity(kg/Month) | Quantity ( Kg/day) |
|------|---------------------------------|--------------------|--------------------|
| 1    | 5-Cyano Pthali                  | 10000              | 333.33             |
| 2    | Atorvastain Calcium             | 2000               | 66.67              |
| 3    | Escitalopram Oxalate            | 2000               | 66.67              |
| 4    | Lamivudine                      | 2000               | 66.67              |
| 5    | Lansoprazo                      | 3000               | 100.00             |
| 6    | Levocetirizine Di Hydrochloride | 2000               | 66.67              |
| 7    | Losartan Potassium              | 3000               | 100                |
| 8    | Metformin Hydrochloride         | 20000              | 666.67             |
| 9    | Sildenafil Citrate              | 2000               | 66.67              |
| 10   | Zidovudin                       | 2000               | 66.67              |
|      | <b>Total</b>                    | 48000              | 1600.00            |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2014 to December 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (40.38 µg/m<sup>3</sup> to 62.52 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14.22 µg/m<sup>3</sup> to 22.60 µg/m<sup>3</sup>), SO<sub>2</sub> (7.90 µg/m<sup>3</sup> to 14.52 µg/m<sup>3</sup>), NO<sub>2</sub> (12.62µg/m<sup>3</sup> to 18.65

$\mu\text{g}/\text{m}^3$ ) and CO (0.11  $\text{mg}/\text{M}^3$  to 0.54  $\text{mg}/\text{M}^3$ ) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.93  $\mu\text{g}/\text{m}^3$ , 3.96  $\mu\text{g}/\text{m}^3$  and 5.31  $\mu\text{g}/\text{m}^3$  with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Bagfilter along with stack height of 30 m will be provided to coal fired boiler. Scrubber will be provided to control process emissions viz. HCl, ammonia and SO<sub>2</sub>. The Committee suggested them to use one coal based boiler and other should be solar based concentrator to reduce the carbon foot print of the industrial unit. Total water requirement will be 128.56  $\text{m}^3/\text{day}$ . Out of which fresh water requirement from ground water source will be 93.87  $\text{m}^3/\text{day}$  and remaining water requirement (34.69  $\text{m}^3/\text{day}$ ) will be met from treated effluent/recycled water. Wastewater generation will be 65.33  $\text{m}^3/\text{day}$ . 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. Domestic wastewater will be disposed through soak pit followed by septic tank. Inorganic waste, MEE salt and ETP sludge will be sent to TSDF. Organic waste, spent carbon and solvent distillation residue will be sent to cement industries. Used oil will be authorized recycler/re-processors. Coal ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 25<sup>th</sup> May, 2016. The issues were raised regarding emissions standard, local employment, industrial pollution and effect on crops 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 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 and the stack of adequate height shall be provided to coal fired boiler.
- ii. Scrubber shall be provided to control process emissions viz. HCl, ammonia and SO<sub>2</sub>. 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 93.87  $\text{m}^3/\text{day}$  and prior permission shall be obtained from the CGWA/SGWA.
- v. Industrial effluent generation shall not exceed 65.33  $\text{m}^3/\text{day}$ . Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

- vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- x. Solvent management shall be as follows :
  - Reactor shall be connected to chilled brine condenser system
  - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - Solvents shall be stored in a separate space specified with all safety measures.
  - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xii. All the issues raised during the Public Hearing/consultation meeting held on 25<sup>th</sup> May, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xiii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. As suggested, major component of ESR should be on creating check dams for water supply to farmers or drinking purposes and pond to be developed for recharge to groundwater. Five year plan with projected physical and financial progress should be submitted within 1 month to concerned district collector from the date of issue of EC.
- xiv. As proposed, green belt of 17864.94 m<sup>2</sup> 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.

**Lunch Break: 1:30 PM – 2.00 PM**

**2<sup>nd</sup> Session: Time: 2.00 PM**

**Reconsideration of EC**

**13.3.6 Molasses based distillery unit (30KLPD) at Mahesh Nagar, Ujana, Taluka Ahmedpur, District Latur, Maharashtra by M/s Siddhi Sugar & Allied Industries Ltd. – reg EC.**

Proposal was considered by EAC ( Industry-2) in its meeting held during 11<sup>th</sup> to 12<sup>th</sup> February, 2016 and the Committee desired following information :

- i. Details of environmental sensitivity including water bodies within 10 km distance to be defined with topo-sheet as per scale.
- ii. Water quality monitoring of river to done for drinking water parameters.
- iii. Baseline water quality monitoring of ground water around the bio-composting site to reanalyzed.
- iv. Detailed plan w.r.t. 5% of projects cost towards CSR activities to be worked out for next 5 years.

PP has submitted the addl. information. River manyar is flowing at a distance of 3.0 km. Artificial ponds/tanks and Limboti dam are located within 10 km distance. Wadarwadi is the nearest habitation, which is situated at a distance of 1 km. Funds earmarked for ESR activity are Rs. 1.95 Crore. Activities identified are Medical and health facilities; Education; Water supply and conservation activity etc. Committee suggested them that restoration of village ponds should be priority and incorporated in the plan.

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. Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to additional bagasse fired boiler to control particulate emissions within 50 mg/Nm<sup>3</sup>.
- 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 Manar (Manyad) river shall not exceed 300 m<sup>3</sup>/day. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- iv. Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated in bio-methanation reactor. Treated spent wash will be evaporated in MEE and concentrated spent wash will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and

recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.

- v. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 30 days.
- vi. As proposed, no effluent distillery should be discharged outside the premises and Zero discharge shall be achieved.
- vii. Company shall ensure the quality and marketability of bio-compost produced by distilleries by standard labelling such as 'AGMARK'.
- 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, BOD, 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 21<sup>st</sup> February, 2015 should be satisfactorily implemented.
- xiv. As proposed, green belt over 33% of total 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. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

**13.3.7 Expansion of Sugar Cane Crushing Capacity (10,000 TCD to 20,000 TCD), Co-generation Power Plant (from 44 MW to 75 MW) & Molasses based Distillery (from 75 KLPD to 200 KLPD) at Village UgarKhurd, Taluka Athani, District Belgaum, Karnataka by M/s The Ugar Sugar Works Ltd.**

Proposal was considered by EAC (Industry-2) in its meeting held during 11<sup>th</sup> to 12<sup>th</sup> February, 2016 and the Committee desired following information:

- i. Commitment for installation of ESP/Bagfilter in the existing bagasse fired boilers instead of wet scrubber
- ii. Reduce fresh water requirement of each units and give unit wise break up with detailed plan.
- iii. Plan for recycling and reuse of treated effluent and MEE condensate.
- iv. Measures suggested to control dust pollution.
- v. Detailed plan for Enterprise Social Commitment (ESC) activities with 5% of project cost spread over 5 years.
- vi. Detailed green belt development plan
- vii. Point-wise action plan and action taken status alongwith photographs of non complied points of EC conditions reported by the Regional Office.

PP vide letter no Env./2016-17/3158 dated 5<sup>th</sup> July, 2016 has submitted addl. information. PP committed that the existing wet scrubber will be replaced by new ESP for stacks namely, MYS 1736- 50 TPH and MR 8597 & 8598 60 TPH – 2 Nos. Regarding fresh water consumption, it was informed that total fresh water requirement will be reduced from 8160 m<sup>3</sup>/day to 5021 m<sup>3</sup>/day after expansion. The Committee suggested them that quantity of water should be kept separate for industrial unit and village water supply. Water supply should be kept around 3921 m<sup>3</sup>/day for sugar factory, Cogeneration and Distillery units. For village water supply, quantity should be 1100 m<sup>3</sup>/day. Treated effluent and MEE condensate should be recycle/reuse for cooling tower make-up etc. PP informed that following measures will be taken to reduce dust pollution:

- 1) Bagasse transfer points of conveying system will be fully covered with skirt plates and scrapping system and also providing proper box up of transfer points.
- 2) Construction of tar road around cane/bagasse transport area to avoid dust formation.
- 3) Water spraying around the factory parking area.

Area earmarked for greenbelt is 40.44 ha. The Committee suggested them atleast 10 m to 20 m wide greenbelt should be provided. Regarding treated water quality of sugar effluent, the Committee suggested them to treat the sugar effluent upto 30 mg/l BOD and accordingly upgrade the existing ETP of Sugar plant. No effluent should be discharged outside the plant premises. RCC spent wash lagoon should be provided for collection of spent wash. Non RCC spent wash storage tank should be used for spent wash storage.

The Committee deliberated on the ATR /compliance report to the non complied points. PP has submitted action taken report on the non complied points reported by the

RO. In the action taken report, PP confirms that ETP storage tanks are made impervious by laying LDPE sheet and Shahabad tiles. Platform of stack has been repaired. The spilled oil is removed and area is cleaned. Clarifier is now cleaned. Housekeeping has been improved. Oil and grease trap is now in working condition and also confirms that open well water is not contaminated. The Committee review the action taken report and found that the response given by the project proponent is adequate.

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 committed, the existing wet scrubber shall be replaced by new ESP in the existing bagasse fired boiler stacks namely, MYS 1736- 50 TPH and MR 8597 &8598 60 TPH – 2 Nos to control particulate emissions within 50 mg/Nm<sup>3</sup>.
- ii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iii. Proper traffic management plan to be drawn and submitted to concerned Regional Office of MEF&CC. SPCB should give the CTO upon satisfactory traffic management plan with adequate measures of air pollution due to traffic overload.
- iv. Total fresh water requirement from River shall not exceed 3921 m<sup>3</sup>/day for sugar unit, Co-generation power plant and Distillery units. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- v. Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from proposed molasses based distillery will be concentrated in MEE and mixed with bagasses and burnt as fuel in boiler to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. Sewage shall be treated in the STP. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- vi. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days. Company shall switchover from existing spent wash lagoon to impervious RCC lagoon with HDPE lining within one year of grant of EC.
- vii. Effluent from sugar unit should be treated in the effluent treatment plant with adequate treatment with standard of 30 mg/l of BOD. Existing ETP shall be upgraded to achieve the standard of BOD 30 mg/l.
- viii. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.
- ix. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.



- x. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- xi. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- xii. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.
- xiii. Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.
- xiv. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xv. All the issues raised during the public hearing/consultation meeting held on 19th September, 2014 should be satisfactorily implemented.
- xvi. As proposed, green belt over 33% of plot area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xvii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

**13.3.8 Expansion of resins at block no. 1834/P1 & P2, ChikhliVandsa Road, Opposite KhodiyarQuary, Taluka Chikhali, District Navasari, Gujarat by M/s Windson Chemical Pvt. Ltd.**

Proposal was considered by EAC (Industry-2) in its meeting held during 30<sup>th</sup> March to 2<sup>nd</sup> April 2016 and the Committee desired following information:

- i. To submit action taken report on the non-complied points.
- ii. To submit the revised water balance plan and reduce the fresh water consumption

PP has submitted the above addl. information. During discussion on non-complied points, PP informed that it is their mistake to calculate low wastewater

generation in the previous EIA report. Now they have corrected the quantity of wastewater generation in the EIA for the proposed expansion project. Air pollution control device has been installed. The Committee noted that information supplied regarding hazardous waste management display board and CSR is not conforming to the requirements and PP did not implement properly. Therefore, it was decided to take the view of the Regional Office on the Action Taken Report furnished by the PP on non complied points.

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

**13.3.9 Expansion of Sugar plant (from 5000 TCD to 7500 TCD) and expansion of molasses/cane juice based Distillery Plant (from 60 KLPD to 75 KLPD) and existing Grain based (60 KLPD) at Villages Chikkonahalli & Hurugalawadi, KoppaHubli, District Mandya, Karnataka by M/s NSL Sugar Limited.**

Proposal was considered by EAC (Industry-2) in its meeting held on 28<sup>th</sup> June 2016 and the Committee desired following information:

- i. Detailed execution schedule plan for the existing distillery (grain based) and proposed molasses based distillery.
- ii. Revised water requirement for sugar unit, distillery unit and cogeneration power plant.
- iii. Water conservation methods to reduce water requirement.
- iv. Scheme for treatment of spent wash. Quantity of spent wash to be used for incineration mode and bio-composting mode.

PP vide letter dated 27.7.2016 has submitted above information. PP informed that after implementation of the proposed project, water requirement of sugar unit will be reduced from 1385 m<sup>3</sup>/day to 750 m<sup>3</sup>/day; Water requirement for Cogeneration Power Plant (1413 m<sup>3</sup>/day) will remain same. Water requirement for distillery will be 750 m<sup>3</sup>/day for molasses otherwise 600 m<sup>3</sup>/day for grain/ cane juice based. Spentwash will be treated in bio-digester. Treated spentwash will be concentrated in MEE. Concentrated treated spent wash (72 KLPD ; 25 Brix) will be sent for bio-composting. Remaining concentrated spent wash (40 KLPD ; 40 Brix) will be sent to Rotary Dryer/spray dryer, which will be mixed with bagasse and dried in rotary drier to use as fuel in the existing incineration boiler.

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. Distillery Unit shall be based on ( Molasses/cane Juice 75 KLPD) and Grain based (60 KLPD) and production of the plant shall not exceed the maximum capacity defined i.e. never exceed 135 KLPD.
- ii. As proposed, the existing 100 TPH co-gen boiler will be upgraded to 110 TPH. High efficiency Electrostatic Precipitator will be provided for bringing down PM emission to less than 50 mg/Nm<sup>3</sup>.

- iii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iv. Total fresh water requirement from Shimsha River shall not exceed 750 m<sup>3</sup>/day for sugar unit, 1413 m<sup>3</sup>/day for Co-generation power plant and 1080 m<sup>3</sup>/day for Distillery units after expansion. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- v. Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. As proposed, spent wash of molasses will be treated in bio-digester. Treated spent wash will be concentrated in MEE. Concentrated treated spent wash (72 KLPD ; 25 Brix) will be sent for bio-composting. Remaining concentrated spent wash (40 KLPD ; 40 Brix) will be sent to Rotary Dryer/spray dryer, which will be mixed with bagasse and dried in rotary drier to use as fuel in the existing incineration boiler to achieve 'Zero' discharge. Effluent from sugar, spent lees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. Sewage shall be treated in the STP. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- vi. Spent wash generation from grain based distillery shall not exceed 6 KI/KI of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. The condensate, spent lees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vii. 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. Company shall switchover from existing spent wash lagoon to impervious RCC lagoon with HDPE lining within one year of grant of EC.
- viii. Effluent from sugar unit should be treated in the effluent treatment plant with adequate treatment with standard of 30 mg/l of BOD. Existing ETP shall be upgraded to achieve the standard of BOD 30 mg/l.
- ix. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.
- x. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- xi. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and bio-compost yard should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- xii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.

- xiii. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.
- xiv. Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.
- xv. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xvi. All the issues raised during the public hearing/consultation meeting should be satisfactorily implemented.
- xvii. As proposed, green belt over 33% of plot area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xviii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

**13.3.10 Expansion of Bulk Drugs Manufacturing Unit (from 8.925 MTPA to 62.10 MTPM) at Sy. No. 542, 538, 539, Village Chollair, Mandal Yadagirigutta, District Nalgonda, Telangana by M/s Sanrog Laboratories Pvt. Ltd.**

Proposal was considered by EAC (Industry-2) in its meeting held on 28<sup>th</sup> June 2016 and the Committee desired following information:

- i. Effort shall be made to explore the use of surface water instead of ground water.
- ii. Water conservation measures to be adopted.
- iii. Commitment to use air cooled condenser instead of water cooling tower.
- iv. Revised water balance to be submitted.

PP has submitted the addl. information. Total water requirement has been reduced from 208 m<sup>3</sup>/day to 179 m<sup>3</sup>/day. Out of which, fresh water requirement will be 123.56 m<sup>3</sup>/day and remaining water requirement i.e. 55.44 m<sup>3</sup>/day will be met from the recycled water. The water requirement will be met from ground water source. Industry has proposed for ground water recharging in nearby Marrigudem Village open land, which is 2.2 km away from Industry site. It is proposed to construct good storm water channels to divert water from upstream side of open land which is 366 Mt-372 Mt at Mean Sea Level. The Committee suggested them to adopt air cooled condenser instead of water cooling

tower. Effluent generation has been reduced from 100 m<sup>3</sup>/day to 88 m<sup>3</sup>/day after re-estimation.

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

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21<sup>st</sup> July, 2010 and amended time to time shall be followed by the unit.
- ii) Bag filter 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/APPCB guidelines.
- iii) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubber with caustic lye media solution shall be provided to process vents to control SO<sub>2</sub>. 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.
- iv) Solvent management shall be carried out as follows :
  - i. Reactor shall be connected to chilled brine condenser system
  - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - iv. Solvents shall be stored in a separate space specified with all safety measures.
  - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- v) Total fresh water requirement from ground water source shall not exceed 123.56 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- vi) Effluent generation shall not exceed 88 m<sup>3</sup>/day. 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.
- vii) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- ix) Air cooled condenser shall be used instead of cooling tower make up.

- x) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xi) 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.
- xii) 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 APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xiv) 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.
- xv) The company shall undertake following waste minimization measures :-
  - a. Metering and control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapour recovery system.
  - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- xvi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- xvii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xviii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xix) All the commitment made regarding issues raised during the Public Hearing/consultation meeting shall be satisfactorily implemented.
- xx) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

**13.3.11 Greenfield project of Chlor-Alkali plant of 600 MTD (2x300 MTD) and Captive Power Plant of 32 MW at Khasra no. 15/11, 12,13, 18/3, 19,20, 17/7/2, 12/2, 13, 14, 15, 17, 18/1, 24/2, 25/1, Village Landha, Tehsil Saha and District Ambala, Haryana by M/s Shree Ganesh Fats (P) Ltd- reg EC.**

Proposal was considered by EAC (Industry-2) in its meeting held on 28<sup>th</sup> April 2016 and the Committee desired following information:

- i. Viability of project w.r.t. environmental angle.
- ii. To assess the impact on groundwater due its excessive extraction, a groundwater modeling study to be conducted by reputed institution covering long term impact to groundwater and base flow of the river. Measures to be taken for sustainability of groundwater.
- iii. Commitment to use of biomass/rice husk in boiler in place of coal
- iv. Risk analysis and management in handling of toxic material including Cl<sub>2</sub>

PP has submitted the above additional information. PP informed that the site is located 1 Km away from the residential areas. Permission has been obtained from CGWA. Ground water recharge will be done as per CGWA conditions. All the effluent will be treated in the ETP followed by MEE and RO. The treated effluent will be completely recycled and reused with the process resulting in Zero Liquid Discharge. ESP will be provided to the boiler to control particulate emission. Caustic scrubber and water scrubber will be provided. Greenbelt will be developed in 20,659.1 m<sup>2</sup>. In the background of CGWA clearance vide letter no. 21-4(671)/NWR/CGWA/2015-81 dated 15<sup>th</sup> January, 2016 for ground water upto 1344 m<sup>3</sup>/day, the Committee suggested them to carry out rain water harvesting nearby the project site also. It was also suggested them to monitor the ground water profile seasonal basis by the Government Institute/ Agency and also ensure the sufficient ground water recharge is carried out. The Committee suggested them to use biomass as fuel for boiler.

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

- i) Manufacturing process of chlor alkali shall be based on membrane cell technology.
- i) ESP shall be provided to the biomass fired boiler 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 process vents to control process emissions viz. HCl and Cl<sub>2</sub>. 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) A proper Leak Detection and Repair (LDAR) Program shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- iv) Continuous monitoring system for chlorine and HCl shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.
- v) Proper hood alongwith suction facility and scrubbing arrangement should be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided alongwith automatic start of the scrubbing system.
- vi) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- vii) The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the MPCB. The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, Cl<sub>2</sub>, HCl, and CO in ambient air and emissions from the stacks shall be monitored and/ displayed at a convenient location near the main gate of the company and at important public places.
- viii) Total fresh water requirement from ground water source shall not exceed 1344 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA. Measures shall be made to reduce the fresh water requirement by adopting 3 R's (Reduce, Reuse and Recycle) concept.
- ix) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water. As proposed, sufficient rainwater harvesting shall be carry out nearby the project area.
- x) Company shall monitor the ground water profile seasonal basis by appointing the Government Institute/ or reputed independent Agency and also ensure the sufficient ground water recharge is carried out. Report shall be submitted to the Regional Office of MoEFF&CC on annual basis regularly.
- xi) Industrial wastewater generation shall not exceed 389 m<sup>3</sup>/day. Effluent shall be treated in ETP followed by RO. Treated water shall be recycled/reused within the factory premises. RO rejects shall be evaporated in MEE. Domestic wastewater should be treated in STP. Water quality of treated effluent shall be monitored regularly. No effluent shall be discharged outside the premises and 'Zero' effluent discharge shall be followed.
- xii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xiii) The company shall undertake following waste minimization measures :-



- a. Metering and control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapour recovery system.
  - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- xiv) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
  - xv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
  - xvi) Green belt shall be developed at least in 20659.1 m<sup>2</sup> 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. Thick greenbelt with suitable plant species shall be developed around the proposed unit to mitigate the odour problem. Selection of plant species shall be as per the CPCB guidelines.
  - xvii) All the commitments made during the Public Hearing / Public Consultation meeting held on 15<sup>th</sup> June, 2015 shall be satisfactorily implemented and adequate budget provision should be made accordingly.
  - xviii) At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program should be ensured accordingly in a time bound manner.

#### **13.4 Terms of Reference (TOR)**

##### **13.4.1 Revamp of DHDT Unit and New FCC GDS Unit and SRU Block for MS quality upgradation & increased BS VI Diesel Production at CPCL's existing facility at Village Manali, district Thiruvallur, Tamil Nadu by M/s Chennai Petroleum Corporation Limited - reg TOR.**

During presentation PP informed that Ministry has already awarded the TOR within existing premises to M/s Chennai Petroleum Corporation Ltd. vide letter no J-11011/42/2016- IA II (I) dated 31<sup>st</sup> March 2016 for DHDS revamp to increase the capacity from 1.80 MMTPA to 2.34 MMTPA.

Now PP has applied for another TOR for Revamp of DHDT Unit and New FCC GDS Unit and SRU Block for MS quality upgradation & increased BS VI Diesel Production). The committee noted that both activities are being undertaken within the same premises and

therefore, Committee suggested to club this activities together for assessment of cumulative Environmental impact. The Committee suggested PP to seek amendment of existing TOR rather to have separate TOR. PP agreed to the suggestion and proposed for for amendment by adding the following features ;

Revamp of DHDT ( Diesel Hydro treating )- Existing 1.8 MMTPA to 2.4 MMTPA

- Feed/Reaction section
- Stripping and drying section
- Naptha Stablizer section

New FCC GDS – 0.6 MMTPA

- Selective hydrogenation section (SHU)
- Splitter section
- Selective HDS section -2 stage HDS scheme

SRU ( Sulphur Recovery unit) – 200 TPD

- Sulphur recovery unit
- Amine Treating unit
- Sour water stripping unit

After detailed deliberation the committee recommended for amendment of TOR issued on 31.03.2016 with same conditions prescribed in it.

#### **13.4.2 Exploratory Drilling of additional 18(Eighteen) locations in the onshore NELP- VI Block KG-ONN 2004/1 at East Godavari district in Andhra Pradesh by M/s Oil India Limited- reg. TOR**

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

M/s Oil India Ltd has proposed for Exploratory Drilling of additional 18(Eighteen) locations in the onshore NELP- VI Block KG-ONN 2004/1 at East Godavari district in Andhra Pradesh. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. During drilling phase about 30 personnel will be employed under the proposed project. Earlier Environmental Clearance to M/s IOCL has been issued vide letter no. J-11011/618/2010-IA II(I) dated 11<sup>th</sup> July 2012 for exploratory drilling of ( 6 wells) at East Godavari District of A.P and public hearing conducted on 19<sup>th</sup> January 2011.

Following are the locations of 18 proposed wells:-

| S. No. | Proposed location | Co-ordinates       |                              |
|--------|-------------------|--------------------|------------------------------|
|        |                   | Latitude           | Longitude                    |
| 1.     | Loc-14(i)         | 16: 39' 30.6299"   | 82 <sup>0</sup> 06' 31.0711" |
| 2.     | Loc-14(ii)        | 16: 39' 31.4870"   | 82 <sup>0</sup> 07' 28.5614" |
| 3.     | Loc-15(i)         | 16: 41' 11.0432"   | 82 <sup>0</sup> 11' 22.4716" |
| 4.     | Loc-15(ii)        | 16: 40' 39.9623"   | 82 <sup>0</sup> 09' 33.3706" |
| 5.     | Loc-17(i)         | 16: 40' 04.0884"   | 82 <sup>0</sup> 07' 07.0332" |
| 6.     | Loc-17(ii)        | 16: 39' 58.1837"   | 82 <sup>0</sup> 05' 37.3515" |
| 7.     | Loc-19(i)         | 16: 43' 20.0356"   | 82 <sup>0</sup> 04' 57.0341" |
| 8.     | Loc-19(ii)        | 16: 43' 07.7160"   | 82 <sup>0</sup> 04' 30.7863" |
| 9.     | Loc-19(iii)       | 16: 43' 20.5056" " | 82 <sup>0</sup> 05' 58.4416" |
| 10.    | Loc-24            | 16: 39' 44.3998"   | 82 <sup>0</sup> 09' 21.1218" |
| 11.    | Loc-24(i)         | 16: 39' 25.2447"   | 82 <sup>0</sup> 08' 52.3113" |
| 12.    | Loc-24(ii)        | 16: 39' 24.4706"   | 82 <sup>0</sup> 09' 48.3640" |
| 13.    | Loc-22            | 16: 44' 49.9742"   | 82 <sup>0</sup> 08' 08.9246" |
| 14.    | Loc-22(i)         | 16: 44' 36.7861"   | 82 <sup>0</sup> 08' 43.3971" |
| 15.    | Loc-22(ii)        | 16: 44' 26.9660"   | 82 <sup>0</sup> 07' 58.6324" |
| 16.    | Loc-23            | 16: 42' 39.7502"   | 82 <sup>0</sup> 13' 20.1951" |
| 17.    | Loc-23(i)         | 16: 42' 00.9029"   | 82 <sup>0</sup> 13' 00.5453" |
| 18.    | Loc-23(ii)        | 16: 41' 32.2435"   | 82 <sup>0</sup> 12' 40.8615" |

Total project cost is Rs. 710 crore. The power requirement of the drilling rig will be met by using the six DG sets with a diesel consumption of about 6 Kl/day which will be connected with stack of appropriate height. The daily water consumption will be 25 m<sup>3</sup>/day for drilling of each well of which 15 m<sup>3</sup>/d will be used for mud preparation and 10 m<sup>3</sup>/d will be used for domestic purposes. Water based mud will be used for drilling operations.

During drilling operations, approximately 500 tonnes and 2500-3000 m<sup>3</sup> of drill cuttings and waste residual muds per well will be generated depending on the type of formation and depth of drilling. Drill cuttings will be stored in impervious pits within the drilling site.

During presentation committee noted that in Form -1 PP mentioned that no any environmental sensitivity involved within 15 Km from Proposed project location boundary but in presentation PP mentioned that Reserved forest, Wildlife sanctuary and sea shore are located within 15 Km distance from the project site. Committee suggests to submit revised Form 1 and also clarified that no forest land and Eco-sensitive area will involved for drilling activity. PP requested to exempt public hearing as Public hearing was done on 19.01.2011. The Committee agreed for exemption of public hearing as per para 7(ii) of EIA, Notification, 2006.

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

#### A. Standard TOR

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.
6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6<sup>th</sup> January, 2011 ( if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NO<sub>x</sub> and background levels of hydrocarbons and VOCs.
12. Details on estimation and computation of air emissions (such as nitrogen oxides\*, sulphur oxides\*, carbon monoxide\*, hydrocarbons\*, VOCs\*, etc.) resulting from flaring, DG sets, combustion, etc. during all project phases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.
19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followe
26. Handling of spent oils and oil from well test operations.
27. H<sub>2</sub>S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.

29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
32. Total capital and recurring cost for environmental pollution control measures.

## **B. Additional TOR**

- i. Public hearing is exempted as per para 7 (ii) of EIA, Notification, 2006.
- ii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report
- iii. Authenticate the drilling locations and its distance from the Wildlife Warden.
- iv. Proper location map to be submitted.

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.

### **13.4.3 Setting up of 50 TPD Formaldehyde and 50 TPD Resins at Palasbari Industrial Estate- 1, Mirza Palasbari Road, P.O. Palasbari, District South Kamrup, Assam by M/s Century Adhesive (A Division of Century Plyboards (I) Ltd.)- reg. TOR.**

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

M/s Century Adhesive (A Division of Century Plyboards (I) Ltd.) has proposed for setting up of 50 TPD Formaldehyde and 50 TPD Resins at Palasbari Industrial Estate- 1, Mirza Palasbari Road, P.O. Palasbari, District South Kamrup, Assam. Project involves following environment sensitivities within 15 km from the project location:-

- Brahmaputra River- 1.25 KMs
- Kulsi River- 11.0 KMs
- Deepor Beel- 9.5 KMs
- Maliyata Reserved Forest - 2.5 KMs
- Rani Reserved Forest - 9.0 KMs
- Garbhanga Reserved Forest - 12.5 KMs
- Jiran Reserved Forest - 9.5 KMs
- Jarasil Reserved Forest - 12.0 KMs
- Kawasing Reserved Forest - 14.0 KMs
- Sanpara Reserved Forest - 7.0 KMs.

Total plot area is 9000 m<sup>2</sup> of which greenbelt will be developed in the area of 3000 m<sup>2</sup> (33%). Cost of the proposed project is Rs.10 crore, capital cost for the environment protection is Rs 75 Lacs. The proposed Project has an employment potential of 20. Followings products will be manufactured;

| S. No. | Name of the product              | Capacity (MTPA) |
|--------|----------------------------------|-----------------|
| 1.     | Formaldehyde                     | 15000           |
| 2.     | Phenol Formaldehyde Resin        | 9200            |
| 3.     | Melamine Formaldehyde Resin      | 1200            |
| 4.     | Melamine Urea Formaldehyde Resin | 4600            |

Total power requirement will be 200 KW which will be sourced from ASEB. DG set of adequate capacity will be installed as stand by. D.G set will be attached with 3.6 m stack height. The plant will require a boiler of 600 Kg/hr for generation of steam for heating in the process. Thermic Fluid will be capitalized from nearby plywood manufacturing unit. Total water requirement will be 40 KLD which will be sourced from bore well. No industrial waste water is generated, Domestic waste generated will be sent to septic tank followed by soak pit. HDPE bags of melamine and caustic will be sold to authorized vendors. Used oil & grease will be sent to the authorized vendors. In absence of authenticated documents of the area identified as Notified Industrial zone, the Committee recommended for public hearing.

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

**A. Specific TOR:**

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, 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 to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. Adequate treatment scheme to be provided.

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

#### **13.4.4 Exploratory drilling of three wells at districts of Badarpur and Cachar District, Assam by M/s ONGC. reg TOR.**

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

M/s ONGC has proposed for Exploratory drilling of three wells at districts of Badarpur and Cachar District, Assam. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Barak River is flowing at distance from the wells location namely BPAA, BPAB and WHRAA are 300 m, 2.5 Km and 5 km respectively.

Following are the locations of three wells:-

| S. No. | Proposed location | Co-ordinates              |                           |
|--------|-------------------|---------------------------|---------------------------|
|        |                   | Latitude                  | Longitude                 |
| 1      | BPAA              | 24 <sup>0</sup> 52’25.00” | 92 <sup>0</sup> 35’45.94” |
| 2      | BPAB              | 24 <sup>0</sup> 51’11.22” | 92 <sup>0</sup> 35’16.06” |
| 3      | WHRAA             | 24 <sup>0</sup> 56’28.48” | 92 <sup>0</sup> 33’47.97” |

Total project cost is 120 crore. The area required for drilling location would be 1.8 Ha. The power requirement will be met from 6 DG sets. HSD will be used @ of about 06 m<sup>3</sup>/day. DG sets will be attached with adequate stack height. The daily fresh water consumption will be 25 m<sup>3</sup>/d, of which 15m<sup>3</sup>/d will be used for mud preparation and 10 m<sup>3</sup>/d will be used for domestic purposes. Water based mud will be used for drilling. 3 Nos. waste pits will be made of 15000m<sup>3</sup> capacity. Drill cuttings of underground rocks and solids in water based mud used for drilling will be stored in impervious pits within the drilling site. PP proposed that waste oil / sent oil will be recycled through approved recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry’s web site) for preparation of EIA-EMP report:

#### **A. Standard TOR**

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.

6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6<sup>th</sup> January, 2011 ( if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NOx and background levels of hydrocarbons and VOCs.
12. Details on estimation and computation of air emissions (such as nitrogen oxides\*, sulphur oxides\*, carbon monoxide\*, hydrocarbons\*, VOCs\*, etc.) resulting from flaring, DG sets, combustion, etc. during all project phases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.
19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followed.
26. Handling of spent oils and oil from well test operations.
27. H<sub>2</sub>S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
32. Total capital and recurring cost for environmental pollution control measures.

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

#### **13.4.5 Expansion of existing ethylene capacity along with new product diversification at Tehsil Sutahata – I, Haldia, district East Medinipur, West Bengal by M/s Haldia Petrochemicals Limited, Haldia – reg TOR.**

The project authorities and their Consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Petro-chemical complexes (Industries based on processing of petroleum etc.) are listed at S.N. 5(c) and all Petrochemical based processing (processes other than cracking & reformation) located outside the notified industrial area/estate are listed at S.N. 5(e) under category 'A' but due to applicability of general conditions as project location fall in Critically polluted areas appraised by Expert Appraisal Committee (I).

Ministry has earlier issued EC vide Letter no. J-11011/176/2007-IA II (I) dated 28<sup>th</sup> June, 2007.

M/s Haldia Petrochemicals Limited has proposed for expansion of existing ethylene capacity along with new product diversification at Tehsil Sutahata – I, Haldia, district East Medinipur, West Bengal. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site while Hooghly River is flowing at a distance of 1.5 km and Haldi river is flowing at a distance of 7 km from the project site. The project location fall under CPA which is now kept under abeyance.

Total plot area is 453 ha land required for the project is 30.63 ha which will be made available within existing industrial area, out of which greenbelt area is 103 ha. Total Cost of project is Rs. 4310 Crores. About 100-150 people will be employed under this project during operation phase. Following existing and proposed products will be manufactured:

| <b>Plant</b>                         | <b>Existing Capacity</b> |
|--------------------------------------|--------------------------|
| Naptha Cracker Unit                  | 7,00,000 (TPA)           |
| Butadiene Extraction Unit            | 1,01,000 (TPA)           |
| Benzene Extraction Unit              | 1,32,000 (TPA)           |
| Pyrolysis Gasline Hydrogenation Unit | 5,20,000 (Feed Basis)    |
| C <sub>4</sub> Hydrogenation Unit    | 1,13,000 (TPA)           |
| High Density Polyethylene            | 3,34,000 (TPA)           |
| Linear Low Density Polyethylene      | 3,86,000 (TPA)           |
| Polypropylene                        | 3,41,000 (TPA)           |
| Ethylene Capacity                    | 700 (KTA)                |
| MS Capacity (BS VI)                  | 332                      |

| <b>Units</b>   | <b>Proposed Expansion (Capacity in KTA)</b> |
|--|---|
| Ethylene capacity expansion  | 70  |
| Butene-1 and MTBE  | 30.2  |
| MS capacity expansion and quality up-gradation (Including Py-Gas Hydrotreatment) | 332   |

|                                  |                                    |
|----------------------------------|------------------------------------|
| Phenol & Acetone                 | 200                                |
| Polybutylene Terephthalate       | 70                                 |
| Vinyl Acetate Ethylene           | 60                                 |
| HDPE Train-3                     | 160                                |
| Captive Cogeneration power plant | 1x 35 MW CSTG + 3x 120 TPH Boilers |
| Storage tank and spheres         |                                    |

It is reported that power requirement will be increased from 85 MW to 116 MW. To meet the additional demand of power of proposed project a CSTG will be installed of 35 MW capacity and 3 nos Coal fired boiler of 120 TPH capacity will be provided. RCC stack of 140 m height along with ESP will be provided for the proposed project.

Existing water requirement is 34, 605 m<sup>3</sup>/d and additional water requirement is 10,000 m<sup>3</sup>/d which will be sourced from Hoogly river by Haldia development Authority. For liquid effluents a Waste Water Treatment Plant of capacity 4,090 m<sup>3</sup>/d is in operation and can handle both Industrial Waste and domestic waste.

ETP sludge will be incinerated in Captive incinerator. Fly ash will be sold to Cement Manufacturers. Used /waste Oil will be sold to registered recycler.

#### **A. Standard TOR**

1. Details on requirement of raw material (naphtha/gas feedstock), its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Details on requirement of auxiliary chemicals, solvents, catalysts, reactors and utilities to support the unit processes.
4. Brief description of equipments for various process ( cracker, separation, polymerization etc)
5. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
6. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, etc.
7. Details on proposed LDAR protocol.
8. Ambient air quality should include hydrocarbon ( methane and non methane ), VOC and VCM (if applicable).
9. Action plan to meet the standard prescribed under EPA for petrochemical complex.
10. Risk Assessment & Disaster Management Plan
  - Identification of hazards
  - Consequence Analysis
  - Measures for mitigation of risk.

#### **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. Action taken w.r.t. action plan drawn by CPCB and SPCB in reference to critically polluted area to be submitted.

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

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

#### **13.4.6 Capacity expansion of Existing Ramanmandi-Bahadurgarh Petroleum Products Pipeline (RBPL) passing through states of Haryana and Punjab by M/s HPCL.-reg TOR.**

The project proponent 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) for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) which are passing through any national parks/sanctuaries/coral reefs/ecologically sensitive areas, such projects attract the EIA notification, 2006. PP reported that the project does not pass any environmental specified sensitivity. However, due to condition stipulated in existing EC i.e. any further modification/change needs approval from central Govt. . Hence this proposed project will come under S.N. 6 (a) under category 'A' and appraised at Central level.

Ministry has issued EC earlier vide letter no. J-11011/581/2008-IA II (I) dated 29<sup>th</sup> April, 2009 for transporting MS, SKO, HSD, ATF liquid petroleum products from JV Refinery HMEI at Ramanmandi..

M/s HPCL has proposed for capacity expansion of Existing Ramanmandi-Bahadurgarh Petroleum Products Pipeline (RBPL) passing through states of Haryana and Punjab. As per Form-1, no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km radius around project site. Proposed project cost is Rs. 230 crores. Total land requirement will be 12 acres for construction of IPS at Barwala. No additional land will be required at Ramanmandi. Following are the existing and proposed facilities:

| <b>S. NO.</b> | <b>Unit/ Features</b>        | <b>Existing</b>                        | <b>Proposed</b>                            |
|---------------|------------------------------|--|--|
| 1             | Diameter & Length of PL      | 18" OD, 243 Km                         | No change                                  |
| 2             | Capacity                     | 4.71 MMTPA                             | 8.0 MMTPA                                  |
| 3             | Products                     | MS, HSD, SKO, SSKO, ATF & Naphtha      | No change                                  |
| 4             | Dispatch Station             | Ramanmandi                             | Installation of New Pumps                  |
| 5             | Receiving Stations           | Bahadurgarh                            | No change                                  |
| 6             | Intermediate Pumping Station | NIL                                    | 1 no. at existing ch. 122 at SV-4, Barwala |
| 7             | SV Stations                  | 6 nos.                                 | No additional SV                           |
| 8             | PL Route (Districts)         | 8 (Punjab: Bhatinda & mansa) (Haryana: | No Change                                  |

|  |  |   |  |
|--|--|---|--|
|  |  | Sirsa, Fatehabad,<br>Hisar, Jind, Rohtak,<br>jhajjar) |  |
|--|--|---|--|

Underground Sump tank will be installed for Storage purposes of 2X20 KL for MS/HSD/SKO. DG set of 400 KVA will be used as stand by. Fresh water requirement will be 10 m<sup>3</sup>/day during construction phase and 5 m<sup>3</sup>/day during operation phase. Fresh water will be met through tankers.

PP requested to use the data monitored data carried out during March to May 2016. PP also requested for exemption in Public hearing. At the request of PP, the Committee exempted the public hearing as per para 7 (ii) of EIA, Notification, 2006 in the background that proposed line has already been laid and does not pass through any eco sensitive zone/wildlife sanctuary.

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

**A. Specific TOR:**

1. Justification of the project
2. Route map indicating project location
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Recommendation of SCZMA /CRZ clearance for the proposed pipeline.
8. Present land use based on satellite imagery for the study area of 10 km radius.
9. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
10. Process Description along with Process Flow Diagram.
11. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
12. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
13. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
14. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
15. At total of 30 locations, ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HC, VOC for one season (Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
16. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
17. At about 10 locations, water monitoring will be conducted including surface & ground water for one season (Non Monsoon)

18. At 15 locations, Soil sample analysis within the study area for one season (Non Monsoon).
19. At 30 locations, noise Monitoring will be taken up for one season (Non Monsoon)
20. Demography & socio-economics of the study area.
21. Ecological features (terrestrial & Aquatic) of the study area for one season (Non Monsoon)
22. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
23. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
24. Details of proposed preventive measures for leakages and accident.
25. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.
26. Corrosion Management of Pipeline
27. Details of proper restoration of land after laying the pipelines.
28. Details of proposed Occupational Health Surveillance program for the employees and other labor
29. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.

## **B. Additional TOR**

- I. Public hearing is exempted as per para 7(ii) of EIA, Notification, 2006.
- II. Use of monitoring data collected from March- May 2016 for preparation of EIA-EMP report.

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

### **13.4.7 Expansion of Molasses Based Distillery (from 60 KLPD to 75 KLPD), Sugar Mill (from 7500 TCD to 9000 TCD) & Co-Generation Power Plant from 30 MW to 32 MW within the existing plant premises by modernization & efficiency improvement at Village Asurle-Porle, Tehsil Panhala, District Kolhapur, Maharashtra by M/s Shri Datta Sakhar Karkhana (A Unit of Dalmia Bharat Sugar & Industries Ltd.)- reg TOR.**

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

Ministry has earlier issued EC vide letter no. J-11011/277/2013-IA II (I) dated 4th February, 2015 for 60 KLPD distillery, 7500 TCD Sugar and 30 MW Co-generation power plant. Public hearing was conducted on 30th July, 2014.

M/s Shri Datta Sakhar Karkhana (A Unit of Dalmia Bharat Sugar & Industries Ltd.) has proposed for expansion of Molasses Based Distillery (from 60 KLPD to 75 KLPD), Sugar Mill (from 7500 TCD to 9000 TCD) & Co-Generation Power Plant from 30 MW to 32 MW within the existing plant premises by modernization & efficiency improvement at Village Asurle-Porle, Tehsil Panhala, District Kolhapur, Maharashtra. Kasari River is flowing at a distance of

2.5 Km & Panchganga River is flowing at a distance of 5.5 km in SE direction from project site. Total 9 Reserved / Protected forests are Porle RF, Rakshi PF, Waghave PF, Pohale PF, Giroli PF, Sadake PF, Jakhale PF, Kotoli PF and Manpadali PF.

Total plot area is 86 Acres, of which 28.5 of the area has already been developed as greenbelt. Proposed expansion will be done in existing plant premises hence no additional land will be required. The plant is located adjacent to existing sugar mill. Capital Cost of project is Rs. 60 Crores. Cost earmarked for Environmental Protection Measure and recurring cost /annum will be Rs. 5 crores and Rs. 1 crore/ annum respectively. The proposed project has an employment potential of 37. Followings products will be manufactured:

| S. No. | Unit                     | Existing Capacity | Proposed Expansion capacity    | Total Capacity after Expansion | Total no. of working days |
|--------|--------------------------|-------------------|--------------------------------|--------------------------------|---------------------------|
| 1      | Distillery (ENA/RS/AA)   | 60 KLPD           | 15 KLPD                        | 75 KLPD                        | 330                       |
| 2      | Sugar Mill               | 7500 TCD          | 1500 TCD                       | 9000 TCD                       | 160                       |
| 3      | Cogeneration Power Plant | 30.0 MW           | 2.0 MW (incidental generation) | 32.0 MW                        | 330                       |

Existing power requirement is 11 MW and additional 1MW will be required for proposed expansion which will be sourced from Co-generation Power plant. D.G set will be used as stand by. Total existing steam requirement is 194 TPH which will be met from existing 2 Baggase/ coal fired boilers of capacity 120 TPH, 80 TPH and 22 TPH Boiler. No additional Steam requirement for the proposed expansion.

Existing water requirement is 1250 m<sup>3</sup>/day sourced from Kasari river. No additional water will be required for proposed project. Spent wash will be treated in existing treatment facility i.e. MEE followed by incineration. Domestic wastewater will be treated in existing STP. Plant is based on ZLD. Bagasse will be used as fuel for power generation in Co-gen Power Plant. ETP Sludge will be used as manure. Ash will be sent to brick manufacturers / cement manufacturing. Press Mud will be given to the farmers as manure.

PP requested for exemption in public hearing as Public hearing was conducted earlier on 30<sup>th</sup> July, 2014. The committee agreed for exemption in public hearing and also due to 25% enhancement in production capacity without increase in significant pollution load.

However, After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I ( refer Ministry's website) 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)

#### Sugar

15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
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.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and pressmud.
23. Flyash management plan for coal based and bagasse and action plan
24. Details on 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, PM 2.5, SO<sub>2</sub>\*, NO<sub>x</sub>\*, 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 is exempted as per para 7 (ii) of EIA, Notification, 2006.
- ii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012

issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report

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

#### **13.4.8 Laying of 535 km of Pipeline (18") from Haldia to Barauni with associated facilities passing through Bihar, Jharkhand and West Bengal by M/s IOCL- reg TOR.**

The project proponent 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) for preparation of EIA-EMP report. All Oil & Gas Transportation Pipeline (crude and refinery/petrochemical products) passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas are listed at S.N. 6 (a) under category 'A' and appraised at Central level.

M/s IOCL has proposed for Laying of 535 km of Pipeline (18") from Haldia to Barauni with associated facilities passing through Bihar, Jharkhand and. As per Form-1, the pipeline would cross eco-sensitive zone of Ballavpur and Ramnabagan Wild life sanctuaries in state of West Bengal. The project involve following major features:

|                          |                                  |
|--------------------------|----------------------------------|
| Pipeline specifications: | 18"ODx0.281"WT, API 5L-X70 Grade |
| Capacity                 | 4.6 MTPA                         |
| Project Cost             | Rs. 1038 crore                   |
| Originating T-Point      | Haldia in west Bengal            |
| Terminal                 | Barauni in Bihar                 |

The proposal of laying the proposed branch pipeline system would broadly involve the following activities.

- Laying of 535 km, 18" OD from proposed new mainline pump station at PHBPL, Haldia to the existing terminal station at HBPL, Barauni.
- Replacement of 2 booster pumps (1+1) at existing booster station at HBPL, Haldia
- Installation of 3 Mainline Pumping units (MLPUs) (2 operating + 1 standby) at new pump station at HBCPL, Haldia.
- Laying of about 10 km, 18" OD pipe from existing pump station at HBPL, Haldia to proposed new mainline pump station at HBCPL, Haldia.
- Hookup with existing marketing terminal at Jasidih.
- Station facilities modifications at Barauni to accommodate increased throughput requirement.
- In Stage-II Scrapper station at Bolpur will be converted into pumping station by installing 3 MLPU along with associated facilit



The proposed product pipeline project traverses through 5 Districts of west Bengal (267 km), 2 Districts of Jharkhand (120 km) and 5 Districts of Bihar (148 km). Pipeline will pass through number of river, canal, road, forest areas and eco-sensitive zone.

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

#### **A. Specific TOR:**

1. Justification of the project
2. Route map indicating project location
3. Details of land to be acquired. Details of projects vis-à-vis ESAs and approvals thereof.
4. Project location along with map of 1 km area (500 meters on either side of the pipeline from centerline) and site details providing various industries, surface water bodies, forests etc.
5. Analysis of alternative sites and Technology.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Recommendation of SCZMA /CRZ clearance for the proposed pipeline.
8. Present land use based on satellite imagery for the study area of 10 km radius.
9. Details of applications filed for forest clearance to be obtained for the project for the forest land involved in the project along with details of the compensatory afforestation.
10. Process Description along with Process Flow Diagram.
11. Details of water consumption and source of water supply, waste water generation, treatment and effluent disposal.
12. Detailed solid & Hazardous waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
13. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
14. Site-specific micro-meteorological data for temperature, relative humidity, hourly wind speed and direction and rainfall for one season at one location.
15. At total of 30 locations, ambient air quality monitoring within the study area of 500 m along the pipeline route and around the pumping station and delivery station for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HC, VOC for one season (Non Monsoon) taking into account the pre-dominant wind direction at the representative locations covering population zone and sensitive receptors including reserved forests.
16. Determination of atmospheric inversion level and assessment of ground level concentration of pollutants. Air quality modelling for proposed project.
17. At about 10 locations, water monitoring will be conducted including surface & ground water for one season (Non Monsoon)
18. At 15 locations, Soil sample analysis within the study area for one season (Non Monsoon).
19. At 30 locations, noise Monitoring will be taken up for one season (Non Monsoon)
20. Demography & socio-economics of the study area.
21. Ecological features (terrestrial & Aquatic) of the study area for one season (Non Monsoon)
22. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
23. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
24. Details of proposed preventive measures for leakages and accident.
25. Risk assessment including Hazard identification, Consequence Analysis, Risk Assessment and preparation of Disaster Management Plan as per Regulations.

26. Corrosion Management of Pipeline
27. Details of proper restoration of land after laying the pipelines.
28. Details of proposed Occupational Health Surveillance program for the employees and other labor
29. Detailed Environment management Plan (EMP) with specific reference to Energy conservation and natural resource conservation, details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure will be provided.
30. Public hearing to be conducted in 12 districts through which the pipeline passes. Point wise comments/reply to the issues raised during Public Hearing / Public Consultation.

## **B. Additional TOR**

- I. Public hearing to be conducted in 12 districts 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. Detail w.r.t. pumping station, marketing storage facility if any at all along the route and rivers, canal, forest land etc. involved in the project.
- III. Permission to be obtained from forest department wherever applicable and copy to be submitted at the submission of EIA- EMP report.
- IV. Detailed route map of pipeline to be submitted.

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

### **13.4.9 Setting up of a Distillery 30 KLPD (Molasses based) & 1.0 MW co gen power, within existing sugar premises of IPL Sugar Unit at P.O. Rohana Mill, Block Charthawal Tehsil- Muzaffarnagar , District Muzaffarnagar, Uttar Pradesh by M/s Indian Potash Limited (Distillery Unit). – 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 Indian Potash Limited has proposed for setting up of a Distillery 30 KLPD (Molasses based) & 1.0 MW co gen power, within existing sugar premises of IPL Sugar Unit at P.O. Rohana Mill,Block Charthawal Tehsil- Muzaffarnagar ,District Muzaffarnagar, Uttar Pradesh. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Kali river is flowing at a distance of 2.5 Km from the project site.

Total plot area is 8.1 Acres, of which 33% of the area has already been developed as greenbelt. Capital Cost of project is Rs. 61 Crores. Distillery will be operated 300days in a year. Followings will be manufactured:

| <b>S. No.</b> | <b>Unit</b>              | <b>Capacity</b> |
|---------------|--------------------------|-----------------|
| 1             | Distillery (ENA/RS/AA)   | 30 KLPD         |
| 2             | Cogeneration Power Plant | 1.0 MW          |

Total power requirement is 800 KWH which is sourced from Co-generation Power plant of 1 MW and D.G set will be used as standby. Slop/ Bagasse fired Boiler of 12 TPH capacity will be installed. Bag Filter will be used to control particulate pollution and connected with 55 m stack height Total fresh water requirement will be 320 m<sup>3</sup>/day which will be sourced from Rohana Minor Canal. Spent wash generated will be 238 KLD will be first concentrated in MEE and MEE residue will be incinerated in slop fired boiler of capacity 12 TPH. Other effluent will be treated in secondary effluent treatment plant. Domestic wastewater will be treated in separate soak pit and septic tank.

Fly Ash and fermented Sludge will be used as manure.

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

#### **A. Specific TOR**

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

#### **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.

### 13.5 Any Other

#### 13.5.1 Expansion of Bulk Drugs & Intermediate manufacturing unit (Unit-II) ( from 108 to 300 TPA) of M/s Guna Sai Life Science (P) Ltd at Sy no. 464 & 465 village D. Nagarm, Mandal Choutppal, District Nalgonda, A.P. – reg amendment in TOR.

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

#### 13.5.2 Proposed Active Pharmaceutical Ingredients and formulations manufacturing unit ( total capacity - 40 MTPA) at plot 81 A, SIPCOT-1, Industrial Area, village Zuzuwadi, Taluk Hosur, Krishnagiri district, Tamil Nadu by M/s Quest Healthcare Pvt.- reg Amendment in TOR.

Ministry had issued TOR to M/s Quest Healthcare Pvt. Ltd. vide letter No. J-11011/36/2013-IA II (I) dated 25<sup>th</sup> April, 2013 for Proposed Active Pharmaceutical Ingredients and formulations manufacturing unit ( total capacity -40 MTPA) at plot 81 A, SIPCOT-1, Industrial Area, village Zuzuwadi, Taluk Hosur, Krishnagiri district, Tamil Nadu.

Now PP has requested for amendment of existing TOR and as wells as extension of validity of TOR

2. PP sought the amendment as per the followings:

| S. No. | As per TOR granted' |                | Amendment Sought  |                |
|--------|---------------------|----------------|---|----------------|
|        | Product             | Capacity (TPM) | Product   | Capacity (TPM) |
| 1      | Doripenem           | 1.0            | Mineral Salts of Gluconate, Citrate, Lactate. Lactobionate, Fumerate, Orotate, Pidolate, Aspartate, Ascorbate, Glubionate, and other mineral salts. | 1500           |
| 2      | Ertapenem           | 3.0            | Perazindimaleate  | 9              |
| 3      | Faropenem           | 1.0            | GlyceroPhosphates   | 30             |
| 4      | Imipenem            | 4.5            | CarbasalateCalcium  | 9              |
| 5      | Cilastatin          | 4.5            | Iron Sucrose  | 36             |
| 6      | Meropenem           | 24.0           | TMS (Tiemonium methyl sulphate)   | 18             |
| 7      | Panipenem           | 1.0            | Alendronate sodium  | 15             |
| 8      | Sulopenem           | 1.0            | Beta Glycero Phosphate  | 11.9           |
| 9      |                     |                | Phenrocoumon  | 3              |

|    |              |             |                     |             |
|----|--------------|-------------|---------------------|-------------|
| 10 |              |             | Strontium ranelate  | 6           |
| 11 |              |             | Calcium D saccarate | 18          |
| 12 |              |             | Calcium Dobesylate  | 15          |
| 13 |              |             | Ethamslate          | 6           |
| 14 |              |             | Benfotiaine         | 18          |
| 15 |              |             | Tolperisone HCl     | 9           |
| 16 |              |             | Dobutamine Hcl      | 6           |
|    |              |             | Calcium Folate      | 0.1         |
|    | <b>Total</b> | <b>40.0</b> | <b>Total</b>        | <b>1710</b> |

Following are the additional features for the proposed amendment. :

1. Total fresh water requirement will be 145 m<sup>3</sup>/day in place of 192 m<sup>3</sup>/day and will be met from same source.
2. Power requirement will be 1.2 MW in place of 4000 KVA.
3. PP proposes 4 DG set of 380 KVA and 2 DG set of 180 KVA.
4. 15 TPD Briquettes/ Agro waste boiler will be used.

3. PP has applied the application of extension on 26.02.2016 i.e. within 3 years of validity period of TOR.

Additionally, PP informed that due to the market conditions and financial setback they had not continued the project. PP has now planned to execute the project with different type of products.

After detailed deliberations, the committee recommended for the aforesaid amendment in exiting TOR and agreed for extension of validity of TOR up to 24.04.2017.

**13.5.3 Expansion of Synthetics Filaments Yarns (i.e, Partially Oriented Yarn, Polyester Filament Yarn,(POY) Textured Yarn and Twisted Yarn ) ( from 45 MTD to 300 MT/Day) at Survey no.255/1/16 & 255/1/17P, B/h IPCA Labs, Industrial Zone, Village- Athal, Naroli, U.T. of Dadra and Nagar Haveli by M/s Geelon Industries Pvt. Ltd.- reg. amendment in TOR.**

Ministry had issued TOR with Public hearing to M/s Geelon Industries Pvt. Ltd. vide letter No. J-11011/286/2015-IA II (I) dated 5th March, 2016 for Expansion of Synthetics Filaments Yarns (i.e, Partially Oriented Yarn, Polyester Filament Yarn,(POY) Textured Yarn and Twisted Yarn ) ( from 45 MTD to 300 MT/Day) at Survey no.255/1/16 & 255/1/17P, B/h IPCA Labs, Industrial Zone, Village- Athal, Naroli, U.T. of Dadra and Nagar Haveli.

Now the PP has requested to exempt public hearing given in TOR dated 05.03.2016.

During discussion, the Committee advised PP to submit authenticated documents w.r.t. proper gazette notification issued by the concerned Authority for consideration of proposal in Ministry. It was also advised that matter may be taken up by Ministry itself.

After detailed deliberations, the committee deferred the project for submission of aforesaid documents.

**13.5.4 Expansion of bulk drug at Sy.no. 238 (part) and 239, Dhotigudem village, Pochampally Mandal, Nalgonda District, Telangana by M/s M/s. Chemic Life Sciences (P) Ltd. amendment in ToR.**

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

**13.5.5 Integrated Sugar Complex of 5000 TCD Sugar Plant, 33.5 MW Cogeneration Plant and 120 KLPD Ethyl Alcohol (RS/ENA/Ethanol) at Village Gangapur&Siranahalli, Taluka Mundargi, District Gadag, Karnataka by M/s Vijaynagar Sugar Pvt. Ltd. – reg. Amendment in EC.**

The Committee deliberated on the additional information provided by the PP. During discussion, the Committee noted that Regional Office vide letter dated 28<sup>th</sup> April, 2010 has made some deficiencies and observations related to consent to operate, dust collector, monitoring ambient noise, dedicated environmental cell and six monthly compliance report. PP confirmed that these points vide letter dated 28<sup>th</sup> June, 2010 have been complied. The committee discussed on treatment process and issues raised for adopting dual treatment scheme. While discussion on the cost-benefit of the proposed system, the committee noted that the proposed scheme i.e. direct bio-composting without reduction of BOD/COD load will going to save the cost of treatment by compromising with foolproof treatment system. Therefore, the committee took considered view and recommended the following dual treatment route as per the CPCB guidelines for treating the spent wash:

- i. Spent wash (200 m<sup>3</sup>/day) shall be treated in bio-digester followed by bio-composting.
- ii. Spent wash (450 m<sup>3</sup>/day) shall be concentrated in MEE and concentrated spent wash shall be incinerated in the Incineration boiler.

The Committee stipulated following additional conditions:

- i. Quantity of spent wash to be treated shall be measured through Online flow meter.
- ii. Bio-composting shall be done for 270 days only.
- iii. Bio-composting yard shall be designed as per CPCB guidelines.
- iv. Company shall ensure the quality and marketability of bio-compost produced by distilleries by standard labeling such as 'AGMARK'. Permission shall be obtained from the Agriculture department before sale of the compost to farmer.
- v. Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC and SPCB. As proposed, process area shall be monitored through WEB Camera
- vi. The system shall be interlocked with the pollution control equipments. In case of non functioning of the treatment system, the process plant shall be automatically stopped. The plant shall be restarted after rectification in the treatment system.

- vii. Compliance report to be submitted regularly to the Regional Office of MEF&CC and CPCB.

**27<sup>th</sup> September, 2016 (Day 2)**

**1<sup>st</sup> Session: Time: 10:00 AM**

### **13.6 Environmental Clearance**

#### **13.6.1 Setting up of Synthetic Organic Resins at Survey no. 793, Village Susvav, taluka Halvad, district Morbi, Gujarat by M/s Parikshit Decor Pvt Ltd. – reg EC.**

The project proponent and their consultant (M/s T.R Associates.) 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 2<sup>nd</sup> Expert Appraisal Committee (Industry-2) held during 16<sup>th</sup>-17<sup>th</sup> December, 2015 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Dye Industries) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central Level.

M/s Parikshit Decor Pvt Ltd. has proposed for setting up of Synthetic Organic Resins manufacturing unit at Survey no. 793, Village Susvav, Taluka Halvad, District Morbi, Gujarat. Total plot area is 18,514 m<sup>2</sup> of which greenbelt will be developed in 6009 m<sup>2</sup>. The project cost will be Rs. 1.01 crore out of which Rs35 Lakhs has been earmarked towards Environment Protection. Following products will be manufactured:

| <b>S.no</b> | <b>Product</b>              | <b>Quantity(MT/Month)</b> |
|-------------|-----------------------------|---------------------------|
| 1           | Phenol Formaldehyde Resin   | 500                       |
| 2           | Melamine Formaldehyde Resin | 300                       |
| 3           | Urea Formaldehyde Resin     | 300                       |
| 4           | Laminated Sheets            | 2,00,000                  |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (60 µg/m<sup>3</sup> to 81.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24.6 µg/m<sup>3</sup> to 36.1 µg/m<sup>3</sup>), SO<sub>2</sub> (5.9 µg/m<sup>3</sup> to 17.3 µg/m<sup>3</sup>) and NO<sub>2</sub> (6.8 µg/m<sup>3</sup> to 19.8 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the 'maximum incremental GLCs after the proposed project would be 7 µg/m<sup>3</sup>, 0.40 µg/m<sup>3</sup> and 2 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Cyclone Separator followed by bagfilter alongwith stack height of 30 m will be provided to coal/briquette fired boiler(4 TPH) and Thermic fluid Heater(15 Lac Kcal/hr). Total fresh water requirement from ground water source will be 50 m<sup>3</sup>/day. A total of 14 m<sup>3</sup>/day of industrial wastewater will be generated and treated in the ETP based on chemical oxidation treatment. Treated effluent will be evaporated in steam / thermic fluid based on evaporation system followed by condenser. Condensate water from condenser will be reused in process. Dried sludge will be stored in bags and ultimately disposed of at TSDF site. Sewage will be treated in the STP.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 28<sup>th</sup> June, 2016. The issues were raised regarding emissions standard, local employment, industrial pollution and effect on crops 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/briquette fired boiler & Thermic fluid heater to control particulate emissions.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 50 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- vi) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- viii) Green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 28<sup>th</sup> June, 2016 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner. ESR plan shall be



implanted at village Susan for implementation of rain water harvesting scheme along with other items.

**13.6.2 Field Development for Setting up of Surface Facilities, Group Gathering Station (GSS), Development Drilling and Interconnecting Pipeline between wells for 'Kathalchari Field Development Block AA-ONN-2002/1 at Tehsil Birganj, Malbasa, Chelangag, Nutan Bazar in district Gomti and Tehsils Belonia, Kalasi, Lakshmi Charra, Purbapllak, Dakshin Hichachhra, Ghuratoll, Birchandra Nagar, Manu Bankul, Gjuratoll, and Manu in district Belonia, Tripura by M/s Jubillant Oil & Gas Pvt. Ltd.- reg EC.**

The project proponent and their consultant (M/s Senes Consultants India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of Reference (TORs) awarded during the 13<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 18<sup>th</sup>-20<sup>th</sup> November, 2013 for preparation of EIA-EMP report. All exploratory drilling operations of oil and gas are listed at S.N. 1(b) under category 'A' and appraised at Central Level.

M/s Jubillant Oil & Gas Pvt. Ltd. has proposed for field development for setting up of Surface Facilities, Group Gathering Station (GSS), Development Drilling and Interconnecting Pipeline between wells for 'Kathalchari Field Development Block AA-ONN-2002/1 at Tehsil Birganj, Malbasa, Chelangag, Nutan Bazar in district Gomti and Tehsils Belonia, Kalasi, Lakshmi Charra, Purbapllak, Dakshin Hichachhra, Ghuratoll, Birchandra Nagar, Manu Bankul, Gjuratoll, and Manu in District Belonia, Tripura. The present project is 249 Sq Km of developmental area carved out from the existing Tripura Block AA-ONN-2002/1 of a total area of 1260 Sq Km.

PP informed that TOR was issued for 11 development wells. Now, PP has proposed to drop out 7 wells of subsequent phase from the present proposal due to :

- i. Uncertainty on the location of wells as analysis of data is yet to be completed.
- ii. Forest land to be applied for forest clearance cannot be estimated.

Now, PP has requested to process the case for initial phase i.e. development drilling of 4 wells, gas gathering station (GGS) & pipeline connecting wells to GGS. Out of which, two wells are the part of exploratory drilling, in which, gas was discovered. These wells are Kathalchari-1 well and Matabari well. Two new wells i.e. KL-Dev-1 ( Dev-37 B) ( with 2 alternatives and KL- Dev-2 (with 1 alternative) have been proposed. However, only one location for each new well will be selected from alternatives for drilling after completion of Geological & Geo-physical studies. Forest land is involved in the two proposed new wells. Depth of wells will be 3500 m. Gas production has been estimated to 20 MMSCFD. Total plot area earmarked for the group gathering station is 4.8 ha. 20 Km -4 inches connecting pipeline from wells to GGS will be installed. Condensate oil generation will be 5 barrels/day. Produced water generation will be 102 m<sup>3</sup>/day. Cost of project is Rs. 272 Crore.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 10 locations during summer season, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (68.50 µg/m<sup>3</sup> to 93.50 µg/m<sup>3</sup>), PM<sub>2.5</sub> (34.67 µg/m<sup>3</sup> to 57.50 µg/m<sup>3</sup>), SO<sub>2</sub> (6.11 µg/m<sup>3</sup> to 9.03 µg/m<sup>3</sup>) and NO<sub>2</sub> (31.99 µg/m<sup>3</sup> to 44.16 µg/m<sup>3</sup>) and MHC (16.4 ppm to 24.1 ppm). AAQ modeling study for

point source emissions indicates that the 'maximum incremental GLCs after the proposed project would be 1.433 $\mu\text{g}/\text{m}^3$  and 44.14  $\mu\text{g}/\text{m}^3$  with respect to PM and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Drilling and wash wastewater (16.8 m<sup>3</sup>/day/well) will be generated and treated in an ETP to ensure conformance to the CPCB onshore oil and gas extraction industry effluent standards. Produced water will be treated in the ETP. The Committee suggested them to reinject the treated produced water as per CPCB guidelines after getting approval from CGWA. Drill cuttings generation will be 750-850 m<sup>3</sup>/well. Drill cuttings will be disposed off in a well designed pit lines with impervious liner located on site as per S No. 72 C 1.a schedule –I standards for emission or discharge of Environmental Pollutants from oil drilling and gas extraction industry of CPCB as modified in 2005. Acid and lead batteries will be recycled through authorized vendors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Tripura State Pollution Control Board on 29<sup>th</sup> December, 2015 for south Tripura. The concerns were raised on earthquake, soil fertility and local employment etc.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Tripura State Pollution Control Board on 31<sup>st</sup> December, 2015 for Gomati District. The concerns were raised regarding impact on ground & surface water; impact on rubber and pineapple plants; demand for civic amenities such as school and market etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the Committee sought following additional information:

- i. As per EIA report, PP has not finalized the location of two wells out of four wells to be drilled. Therefore, coordinates of all the four wells to be firmed up and furnished.
- ii. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social responsibility based need of surrounding villages and item-wise details along with time bound action plan should be prepared

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

### **13.6.3 Development of Jharia CBM Block at Tehsil Baghmara-Cum-Katras in district Dhanbad and Tehsil Chandankiyari in districts Bokaro and Dhanbad Jharkhand by M/s ONGC.reg EC**

The project proponent and their consultant (M/s Senes Consultants India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 9<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 10<sup>th</sup>-11<sup>th</sup> June, 2013 for preparation of EIA-EMP report. All the projects related to offshore and onshore Oil and

Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC has proposed for Development of Jharia CBM Block at Tehsil Baghmara-Cum-Katras in district Dhanbad and Tehsil Chandankiyari in district Bokaro, Jharkhand. The Jharia CBM Block of Oil and Natural Gas Corporation Limited (ONGC) Block covers 84.55 sq. km area is located in Bokaro and Dhanbad district of Jharkhand. This particular block was awarded for exploration by the Ministry of Petroleum & Natural Gas (MoP& NG) to ONGC on nomination basis in January 2002. ONGC is the operator of the Block, while CIL has a participative interest of 26%. ONGC has completed Phase I (Exploration Phase) & initiated Phase II activities (Pilot Assessment, Market Survey & Commitment Phase).

Environmental clearance (EC) for this Phase II projects was obtained from MoEF & CC vide letter no. J- 11011/287/2006-IA II (I) dated July11, 2007. Presently ONGC as part of its Phase III development program plans to drill an additional 77 nos. development and production wells, installation of 5 Gas Collecting Stations (GCS) and laying of inter-connecting and transportation pipeline network for CBM gas production, collection & transportation and sale. Approximately 209 acre of land would be required for 77 development well and 5 GCS facilities in the Block. Presently 33 acre and 9148.95 sq. ft. of land is available with ONGC. For remaining land required for the project purpose, identification is in the process. Total project cost will be 1136 Crores. Cost for implementation of EMP will be 3.63 Crore. The drilling of wells is expected to be up to a depth of 1200 meters. It is reported that no national park / wildlife sanctuary / biosphere reserves are located within 10 km radius of the Block. It is also reported that all the proposed activities will be undertaken outside the forest area, primarily in agricultural lands. Water based mud to be used in drilling.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 10 locations during May to June, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (32 µg/m<sup>3</sup> to 95 µg/m<sup>3</sup>), SO<sub>2</sub> (4.30 µg/m<sup>3</sup> to 10.37 µg/m<sup>3</sup>) and NO<sub>2</sub> (16.02 µg/m<sup>3</sup> to 37.41 µg/m<sup>3</sup>) and MHC (0.75 ppm to 2.44 ppm). AAQ modeling study for point source emissions indicates that the 'maximum incremental GLCs after the proposed project would be 1.28 µg/m<sup>3</sup> and 29.2 µg/m<sup>3</sup> with respect to PM and NO<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). DG Sets of 350 KVA capacity will be used for drilling purposes. It is estimated that per month 36 KL of diesel will be required during drilling phase

Approximately 800 m<sup>3</sup> of water per well (approximately 1200m depth) will be used for drilling of a well. Water requirement will be met from ground water source. Average 3-5 m<sup>3</sup> of water will be consumed per day for operational purpose. 5m<sup>3</sup>/day/well of CBM produced water will be generated during dewatering operation. Approximately 4.8 m<sup>3</sup>/day of domestic waste water will be generated from onsite sanitation facility.

Standard Land Rig or Mobile Land Rig with standard water based drilling fluid treatment system will be used for drilling. Drill cuttings generated will be collected and separated using a solid control system and temporarily stored on-site in HDPE lined pits. These cuttings will be disposed onsite in an impervious pit (10m X 10m X 1.25m) provided with HDPE liners in conformance to the CPCB guidelines. Drilling and wash wastewater generated will also be stored at an onsite HDPE lined pit.

The total quantity of Produced Water (385 m<sup>3</sup>/day) will be treated through Pre-treatment system which will remove Suspended Solids (SS) to less than 10 mg/l. The treatment system will consist of Pressure Sand Filters, Activated Carbon Filters, Micron

Cartridge Filters to remove sediment and Suspended Solids at various stages. After Pre-treatment, the water will be passed through Multi-stage RO system (Low Pressure and High Pressure) to bring the TDS level of the treated water below 2100 mg/l. High pressure pumps will boost the pressure of the water and then fed to the RO System. RO permeate shall be collected in permeate storage pits from where it can be transferred to end use or for discharge. Total quantity of 308 m<sup>3</sup> will be treated water with TDS levels below 2100 mg/l. The RO reject of 77 m<sup>3</sup> (20% of 385 m<sup>3</sup>) having TDS of about 29,000 mg/l will be generated after Multi-stage RO Treatment. ONGC will consider following two options for disposal of RO rejects:

**Option-I:** Option shall be explored to use the Reject water for dust sprinkling in the nearby Opencast Coal Mines.

**Option-II:** In case, Coal Mines are not available in the vicinity of the operational area, this reject amount will be brought in to evaporation tank and evaporated. In that case the evaporation will be fitted with HDPE liner.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Jharkhand Pollution Control Board on 31st August 2015 and 4th September 2015. The issues were raised regarding land and crop compensation, pollution due to generation of produced water due to CBM development activities, soil contamination, road and land restoration, impact on ground water, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee deliberated on the certified compliance letter dated 14.12.2015 issued by the MoEF&CC Regional Office at Ranchi. Following observations have been made:

- i) It was stated that well JH#1, JH#1A, JH# 2, JH#3, JH#4, was drilled on the basis of consent from Jharkhand Pollution Control Board which are not a part of Environment Clearance.
- ii) Date of spudding of Drilling of wells JH#5 and JH#6 were 12.07.2006 and 25.02.2007 respectively which was before the grant of environment clearance i.e 11.07.2007.
- iii) The compliance status of stipulated environment clearance conditions and the monitored data is to be uploaded on the company's website. It requires immediate attention.

After detailed deliberation, the Committee deferred the project for want of following information;

- (i) to submit action taken report on the above mentioned non-compliance points
- (ii) and to reanalyse the groundwater and surface water for drinking water parameter including DO, BOD, COD.

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

**13.6.4 Setting up of 3x500 MT mounded LPG storage vessels & bottling capacity ( 60000 TPA) at Haldia LPG plant, village BrindavanChak, Tehsil Durgachak, District Purba Medinipur, West Bengal by M/s HPCL.- reg EC.**

The project proponent and their consultant (M/s SV Enviro Labs & Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded during the 1<sup>st</sup> Reconstituted Expert Appraisal Committee (Industry) held during 30<sup>th</sup> November, 2016- 1<sup>st</sup> December, 2015 for preparation of EIA-EMP report.

All the Isolated Storage & Handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) activities is listed at 6(b) of the Schedule of EIA Notification, 2006 under category 'B' and appraised at State level. However, due to applicability of General Condition i.e. location of project in CPA (Haldia), the proposal is treated as Category 'A' project and appraised at Central Level.

M/s HPCL has proposed for setting up of 3x500 MT mounded LPG storage vessels & bottling capacity ( 60,000 MTPA) at Haldia LPG plant, village BrindavanChak, Tehsil Durgachak, District Purba Medinipur, West Bengal. Plot area is 18 acres of which, area earmarked for greenbelt is 6 acres. Cost of project is Rs. 100 Crore. Out of which, Rs. 1 Crore and Rs. 25 lakhs per annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP. It is reported that no national park/wildlife sanctuary/bio-sphere reserve is located within 10 km distance. Hooglyriver is flowing at a distance 2.5 km. PP clarified that no pipeline laying work is involved in this project.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 to February 2016 and submitted baseline data indicates that ranges of concentrations of PM10 (47.2 µg/m<sup>3</sup> to 88.4 µg/m<sup>3</sup>), PM2.5 (22.8 µg/m<sup>3</sup> to 44.9 µg/m<sup>3</sup>), SO<sub>2</sub> (12.7 µg/m<sup>3</sup> to 23.8 µg/m<sup>3</sup>) and NO<sub>2</sub> (17.4 µg/m<sup>3</sup> to 32.6 µg/m<sup>3</sup>). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Fresh water requirement from ground water source will be 10 m<sup>3</sup>/day. Effluent generation will be 2 m<sup>3</sup>/day and treated in the ETP. Treated effluent will be reused for cylinder washing. Domestic effluent generation will be 3.2 m<sup>3</sup>/day. The Committee suggested them to treat the sewage in the micro STP.DG set ( 1x 750 KVA + 1x 125 KVA) will be installed as standby arrangement. Waste oil from DG set will be sent to authorized re-processor/ recycler.

After deliberations, the Committee sought the following additional information:

- (i) Onsite and Offsite Disaster Management Plan to be submitted.
- (ii) Detailed plan under ESR to be drawn at the cost of 2.5% of project cost for local development.

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

**13.6.5 Manufacturing of resins (1000MTPM) at plot no. 65/A, Ankhhol Patia, Kadi Road, Taluka Kadi, District Mehsana, Gujarat by M/s Cedar Decor Pvt. Ltd. reg EC.**

The project proponent and their consultant (M/s Bhagwati Enviro care 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 46<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 20<sup>th</sup>-21<sup>st</sup> August, 2015 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central Level.

M/s Cedar Decor Pvt. Ltd has proposed for expansion of Manufacturing of Chemical unit at plot no. 65/p, Ankhola Patia, Kadi Road, Taluka Kadi, District Mehsana, Gujarat. Total plot area is 12542 m<sup>2</sup> of which, greenbelt will be developed in 4200 m<sup>2</sup>. After expansion total project cost will be 16.0 Crores. Total capital and recurring cost towards Environmental protection Measures per annum will be 70.0 lacs & 35.12 lacs respectively. Following products will be manufactured:

| S.no | Product                     | Existing Quantity   | Proposed Quantity | Total quantity  |
|------|-----------------------------|---|-------------------|---|
| 1.   | Laminated Sheets            | 3,20,000 Nos/Month  | --                | 3,20,000 Nos/Month  |
| 2.   | Resin                       | For production of laminated sheets @ 80000 Nos. /Month (As a Captive consumption) | --                | For production of laminated sheets @ 80000 Nos. /Month (As a Captive consumption) |
| 3.   | Phenol Formaldehyde Resin   | --  | 1000 MT/Month     | 1000 MT/Month   |
| 4.   | Urea Formaldehyde Resin     |   |                   |   |
| 5.   | Melamine Formaldehyde Resin |   |                   |   |

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (63.66 µg/m<sup>3</sup> to 78.82 µg/m<sup>3</sup>), PM<sub>2.5</sub> (27.53 µg/m<sup>3</sup> to 40.79 µg/m<sup>3</sup>), SO<sub>2</sub> (8.26 µg/m<sup>3</sup> to 25.79 µg/m<sup>3</sup>) and NO<sub>2</sub> (12.18 µg/m<sup>3</sup> to 40.99 µg/m<sup>3</sup>) AAQ modeling study for point source emissions indicates that the 'maximum incremental GLCs after the proposed project would be 1.57 µg/m<sup>3</sup>, 2.44 µg/m<sup>3</sup> and 1.72 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Multi-cyclone separator has been provided to waste wood/biomass/lignite and coal fired boiler. The Committee suggested them to install bagfilter in the boilers/thermic fluid heater to control particulate emissions. Scrubber will be provided to Phenol Formaldehyde and melamine formaldehyde impregnators to control process emissions. Stack of adequate height will be provided to DG set ( 1 x 375 KVA). Total water requirement will be increased from 400 m<sup>3</sup>/day to 432 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement from ground water source will be 392 m<sup>3</sup>/day and remaining water requirement ( 40 m<sup>3</sup>/day) will be met from treated

effluent/recycled water. Effluent generation will be increased from 39.5 m<sup>3</sup>/day to 50.0 m<sup>3</sup>/day after expansion. Effluent will be treated in the ETP. Treated effluent will be recycled/reused. The Committee suggested them to reduce the boiler water as seems to be in higher side.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 31<sup>st</sup> May, 2016. The issues were raised regarding local employment, accreditation certificate of environmental consultant etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberations, the Committee sought the following additional information:

- (i) Revised water balance with recycle and reuse to reduce fresh water requirement by adopting 3 Rs method to be submitted. Recheck the boiler water requirement.
- (ii) Enterprise Social Commitment (ESC) (@ 5% of project cost) based on local needs to be drawn alongwith action plan with financial and physical breakup/details.
- (iii) Rain water harvesting to be done.

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

#### **Lunch Break: 1:30 to 2.00 PM**

#### **2<sup>nd</sup> Session: Time: 2.00 PM**

#### **Reconsideration of EC**

#### **13.6.6 Proposal for modification of existing Tarapur EPS and connection of additional wells to the same EPS to enhance the production in CB-ON-2 Tarapur Block, Dist. Anand, Gujarat by M/s Gujarat State Petroleum Corporation Ltd. (GSPC).**

Proposal was considered by EAC (Industry-2) in its meeting held during 25<sup>th</sup> – 26<sup>th</sup> February, 2016 and the Committee recommended that PP should submit action taken report alongwith photographs on the non-complied points to the Regional Office, Bhopal.

In response, PP has submitted ATR on non complied points to the Regional Office. Regional Office vide letter no. 5-252/2009 (Env)/ 505 dated 19.05.2016 has submitted the comments on the ATR submitted by the PP. However, it was noted that one of the non-compliance point i.e. “during the visit that existing EPS was upgraded to cater the need of additional 12 wells for which TOR was issued by the Ministry” was not clarified by the PP in their ATR. Therefore, in this context the Committee was of the view to refer the matter to the Ministry for taking necessary action as the case observed to be violation.

#### **13.6.7 Expansion of Irugur storage installation at Ravathur PO, Irugur village, Taluka Sulur, District Coimbatore, Tamilnadu by M/s Bharat Petroleum Corporation-reg EC.**

Proposal was considered by EAC (Industry-2) in its meeting held on 27<sup>th</sup> – 28<sup>th</sup> April, 2016 and the Committee sought following additional information:

1. Certified compliance report of the existing EC duly inspected by MoEF&CC's respective Regional Office
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost.

The Committee deliberated on the certified compliance report dated 24.08.2016 issued by the Regional Office (South Eastern Zone). PP has complied with all the conditions stipulated in the EC letter no J-11012/11/96-IA II (I) dated 17.06.1997. The Committee found satisfactory compliance report. BPCL has allocated 2.05 crore for ESR activities. The Committee suggested to invest for road network as proposed.

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) Adequate buffer zone around the oil tankages, as may be required as per OISD or other statutory requirements.
- ii) Regular online monitoring of VOC and HC in the work zone area in the plant premises should be carried and data be submitted to Ministry's Regional Office at Bhopal, CPCB and State Pollution Control Board.
- iii) Total fresh water requirement from ground water source shall not exceed 5.0 m<sup>3</sup>/day and prior permission should be obtained from the concerned Authority.
- iv) The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted and ensured that monitoring parameters shall not exceed the prescribed standards.
- v) The oil draw off shall be treated in the ETP . The treated effluent will be used for gardening/horticulture purpose. Oily sludge will be disposed off through approved TSDF facilities. No effluent shall be discharged outside the premises. The domestic wastewater shall be treated in the existing Sewage Treatment Plant (STP) and the treated water is being used for plantation development.
- vi) Storm water should pass through efficient oil and grease catchers to trap leaked oil and grease.
- vii) Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. shall be followed. Company should ensure no oil spillage occur during loading / unloading of petroleum products.



- viii) The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 and its subsequent amendments.
- ix) Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.
- x) The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xi) All storage tanks shall be provided with design features based on applicable OISD standards.
- xii) Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.
- xiii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.
- xiv) Bottom oil sludge shall be handled, stored and disposed as per CPCB/ MoEF guidelines.
- xv) Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xvi) At least 10 meter wide thick green belt shall be developed on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xvii) The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- xviii) All the recommendations mentioned in the EMP/DMP shall be implemented.
- xix) All the commitment made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented. Adequate budgetary provision to be kept for implementation.
- xx) Under ESC, sufficient budgetary provision ( 2.5% of project cost) shall be made for health improvement, education, water and electricity supply etc. in and around the project. Emphasise should be given for road improvement as per the emerging issue of public hearing.

**13.6.8 Euro-IV HSD Project along with Installation of LPG Mounded Bullet and Facility upgradation of Existing LPG Bottling Plant & Complete at Bokakhat Tehsil, Goaghat District, Assam by M/s Numaligarh refinery Limited**

Proposal was considered by EAC (Industry-2) in its 9<sup>th</sup> meeting held on 16<sup>th</sup> – 17<sup>th</sup> June, 2016 and the Committee sought following additional information:

- (i) Ambient Air quality modeling study for additional air pollution load to be worked out properly with value of incremental ground level concentration.
- (ii) Is there any impact of air pollution due to proposed activity on the Kaziranga National Park?
- (iii) Revised water balance chart properly.
- (iv) To clarify so as whether additional wastewater load will be taken by the existing ETP.
- (v) Whether present proposal is based on ZLD and provide details of final discharge of treated effluent.
- (vi) Quantity of solid waste generated from the refinery alongwith disposal plan.

PP has submitted the above addl. information. Emission rate for SO<sub>2</sub> and NO<sub>x</sub> has been estimated to be 3 Kg/hr. and 7 Kg/hr. respectively. Accordingly, predicted GLC for SO<sub>2</sub> is 2.3 µg/m<sup>3</sup>. Predicted GLC for NO<sub>x</sub> is 5.3 µg/m<sup>3</sup>. It is reported that Kaziranga National Park is around 22 km from the Numaligarh Refinery. Maximum GLC for SO<sub>2</sub> and NO<sub>x</sub> from the proposed DHT project at Kaziranga National Park was observed to be 0.2 µg/m<sup>3</sup> and 0.5 µg/m<sup>3</sup> respectively. Total fresh water requirement from Dhansiri River will be 688 m<sup>3</sup>/hr. for refinery and township. Total effluent generation from the refinery after DHT project will be 130 m<sup>3</sup>/hr. Effluent will be treated in the ETP. Treated effluent from ETP and STP will be used for cooling tower make up and fire water. No effluent will be discharged outside the plant premises.

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. M/s NRL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18<sup>th</sup> March, 2008.
- ii. Continuous on-line stack monitoring for SO<sub>2</sub>, NO<sub>x</sub> and CO of all the stacks shall be carried out. Low NO<sub>x</sub> burners shall be installed.
- iii. The process emissions [SO<sub>2</sub>, NO<sub>x</sub>, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.

- iv. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
- v. SO<sub>2</sub> emissions after expansion from the plant shall not exceed 256 kg/hr and further efforts shall be made for reduction of SO<sub>2</sub> load through use of low sulphur fuel. Sulphur recovery unit with tail gas treating facilities having 99.9 % efficiency shall be provided.
- vi. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- vii. Ambient air quality monitoring stations, [PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, H<sub>2</sub>S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs and trend analysis w.r.t past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.
- viii. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure /silencer shall be installed wherever noise levels exceed the limit.
- ix. Fresh water requirement from Dhansiri River shall not exceed 688 m<sup>3</sup>/hr after expansion and prior permission shall be obtained from the competent authority. Industrial effluent generation will be 130 m<sup>3</sup>/hr and treated in the Effluent Treatment Plant. Treated effluent shall be fully reused/recycled as make-up water for raw water cooling towers. Domestic sewage shall be treated in sewage treatment plant (STP).
- x. No effluent shall be discharged outside the plant premises and 'Zero' effluent discharge concept shall be followed.
- xi. Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.
- xii. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.
- xiii. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.

- xiv. Oily sludge shall be disposed off into Coker. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB.
- xv. The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.
- xvi. The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Shillong. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
- xvii. Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.
- xviii. Acoustic enclosure /silencer shall be installed wherever it is possible.
- xix. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xx. The company should make the arrangement for protection of possible fire and explosion hazards during construction and operation phase. To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.
- xxi. The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xxii. Thick greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.
- xxiii. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xxiv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.

**13.6.9 Proposed Integrated Fertilizer Plant [Ammonia Plant (2x2200MTPD), Urea Plant (2x3850MTPD), Nitric Acid Plant (2x400MTPD), Ammonia Nitrate Plant (2x500 MTPD), Power Plant (2x67.5MW)] at Jayanthipuram Village , Jaggayyapet Mandal Krishna District, Andhra Pradesh by VBC Fertilizers & Chemicals Ltd.**

Proposal was considered by EAC (Industry-2) in its 8<sup>th</sup> meeting held on 26<sup>th</sup>– 27<sup>th</sup> May, 2016 and the Committee sought following additional information:

- (i) To clarify whether granular urea plant or urea pilling system will be installed. Provide details of the plant alongwith environmental management system.
- (ii) plan to use Natural Gas in place of coal in the boiler
- (iii) Unit wise air pollution control device to be submitted.
- (iv) To rework on revised water balance chart indicating water intake, loss and effluent generation.
- (v) Details of effluent generation from various sections and its treatment. Give calculation details for treated effluent will be utilized for greenbelt development.
- (vi) Enterprise Social Commitment (ESC) ( 2.5% of project cost) based on local needs to be drawn alongwith action plan with financial and physical breakup/details .
- (vii) Issues raised during public hearing and commitments made by the project proponent in the form of tabular chart with financial budget for complying with the commitments made.
- (viii) to draw Onsite-offsite emergency plan

PP has submitted the above addl. information. PP confirmed that granulation plant will be installed to prill urea. The dried urea prills will be coated with neem oil. Air pollution Control device such as (i) Granulator dust scrubbers; (ii) Ammonia in the air from coolers, roll crushers, vibrating screens, bucket elevators, belt conveyors etc will be removed in another scrubber. PP committed that natural gas will be used as fuel in place of coal. It was also informed that low NOx burners & stripper will be installed in Ammonia Plant. Wet scrubber will be installed in the Urea plant. Selective catalytic reduction will be installed in the Nitric Acid Plant. Scrubber will be installed in the ammonium nitrate plant. As per revised water balance, total fresh water requirement is 2215 m<sup>3</sup>/hr. However, the Committee restricted the fresh water requirement upto 1915 m<sup>3</sup>/hr. Effluent generation will be 410 m<sup>3</sup>/hr and treated in the ETP. Sewage will be treated in the STP. PP informed that Rs 67.5 Crores has been earmarked towards Enterprise Social Commitment for various identified works. The Committee also discussed the public hearing issues and commitment made by VBC.

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<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, 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 granulation. Low NOx burners shall be provided to control NOx emissions.
- (iii) As proposed, exhaust air from the granulator shall be passed through scrubber and conform to the norms prescribed by the CPCB/SPCB from time to time.
- (iv) As proposed, Plant shall be designed for specific energy consumption of 5.0 Gcal/MT of urea.
- (v) Fresh water requirement from Krishna & paleru river should not exceed 1915 m<sup>3</sup>/hr. and prior permission shall be obtained from Competent Authority and a copy submitted to the Ministry's Regional Office at Bangalore.
- (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) Proper distribution network to be drawn with consultation of irrigation department for use of treated water in agricultural field.
- (viii) The treated effluent (not more than 470 m<sup>3</sup>/hr) shall be discharged into the stream 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.
- (ix) 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.
- (x) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for fire fighting facilities in case of emergency.
- (xi) Spent catalysts and used oil shall be sold to authorised recyclers/re-processors only.
- (xii) The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- (xiii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- (xiv) As proposed, green belt over 122.53 Acres 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.

- (xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 15th October, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- (xvi) Rs 67.5 Crores shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- (xvii) Remote operated valve placed on NH<sub>3</sub> line to avoid leakage/equipment check should be performed to ensure that remote operated valve (ROV) is all time is functional.

**13.6.10 Expansion of Sugar unit capacity from 7500TCD to 12000TCD at Hupari, Tehsil Hatkanangle, district Kolhapur , Maharashtra by M/s. Jawahar Shetkari Sahkari Sakhar Karkhana Ltd. – reg EC.**

Proposal was considered by EAC (Industry-2) in its 6<sup>th</sup> meeting held on 30<sup>th</sup> March to 2<sup>nd</sup> April 2016 and the Committee sought following additional information:

- i. Reanalysing of one month base line data in respect of AAQM, Noise and water quality.
- ii. Submission of Certified compliance report to the condition stipulated in the existing environmental clearance.
- iii. Commitment for maintaining ETP effluent upto BOD level 30 mg/l.
- iv. Point wise replies by the project proponent on the issues raised during public hearing.

PP has submitted the above mentioned additional information. The Committee deliberated on the certified compliance report letter no EC-41/RON/2016-NGP/691 dated 21<sup>st</sup> July, 2016 issued by the Regional Office, West Central Zone of MoEF&CC. It was noted that most of the conditions have been complied. The Committee was satisfied with the report. .

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

- i. ESP/Bagfilter shall be provided to the bagasse fired boiler (20 TPH; 75 TPH and 90 TPH) to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. No wet scrubber shall be used. Existing boiler (55 TPH) will be converted into 75 TPH boiler.

- 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 Doodhganga River shall not exceed 600 m<sup>3</sup>/day for sugar unit and Co-generation power plant. 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. Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.
- v. Effluent from sugar unit should be treated in the effluent treatment plant with adequate treatment with standard of 30 mg/l of BOD. Existing ETP shall be upgraded to achieve the standard of BOD 30 mg/l.
- vi. As proposed, no effluent from sugar plant should be discharged outside the premises and Zero discharge shall be achieved.
- vii. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- viii. 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.
- ix. 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.
- x. 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.
- xi. All the issues raised during the public hearing/consultation meeting held on 10<sup>th</sup> July, 2015 should be satisfactorily implemented.
- xii. As proposed, green belt over 33% of plot area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Nagpur. Implementation of such program should be ensured accordingly in a time bound manner.



**13.6.11 Expansion of synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at plot no. 1088 (8), Village Manjusar, Tehsil Savli, District Vadodara, Gujarat by M/s Universal Ester Ltd.**

Proposal was considered by EAC (Industry-2) in its 8<sup>th</sup> meeting held on 30<sup>th</sup> March to 2<sup>nd</sup> April 2016 and the Committee sought following additional information:

- i. Characteristics of process effluent to be worked out and based on this adequate treatment scheme to be drawn. There is need to check whether biological treatment is required or not?
- ii. Values reported from ambient air quality monitoring report seem to be inconsistent e.g. CO is reported to be BDL, which seems to be incorrect. Therefore, One month ambient air quality monitoring shall be carried for all the parameters.
- iii. Commitment for installing bagfilter to biomass fired boiler to control particulate emissions.
- iv. Reanalysed the surface and ground water quality monitoring.

PP has submitted the above mentioned additional information. PP informed that characteristics of the generated wastewater in the range of pH 6.5-8.5; SS 300-500 mg/l; COD - 500-600mg/l; BOD 150-250 mg/l and Oil & Grease-<10 mg/l. Effluent will be treated in the ETP and treated effluent will be evaporated to achieve zero liquid discharge. Condensate will be used as cooling tower make up. PP confirmed that they will not discharge effluent to the CETP. Due to evaporation, fresh water requirement will be reduced from 37.2 m<sup>3</sup>/day to 29.5 m<sup>3</sup>/day. Bagfilter will be provided to bagasse fired boiler to control particulate emissions.

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:

- ii) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21<sup>st</sup> July, 2010 and amended time to time shall be followed by the unit.
- iii) Bagfilter alongwith adequate stack height shall be provided to bagasse fired Thermic Fluid Heaterto control particulate matter.
- iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. Odour management plan shall be implemented.
- v) Solvent management shall be carried out as follows :

- i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
  - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - iv. Solvents shall be stored in a separate space specified with all safety measures.
  - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- vi) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
  - vii) Total fresh water requirement from ground water source shall not exceed 29.5 m<sup>3</sup>/day.
  - viii) Total effluent generation shall not exceed 12.2 m<sup>3</sup>/day and treated in the ETP. Treated effluent will be evaporated. Condensate shall be recycled/reused. No process effluent shall be discharged in and around the project site.
  - ix) No effluent will be discharged outside the plant premises.
  - x) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
  - xi) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
  - xii) 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 GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.
  - xiii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
  - xiv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
  - xv)** 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.

### 13.7 Terms of Reference (TOR)

#### 13.7.1 Setting up of 45 KLPD distillery at Satling Nagar, At.:Ruddewadi, Post: Dudhani, Taluka Akkalkot, District Solapur by M/s Mathoshri Laxmi Sugar & Co-generation Industries Ltd.- reg TOR

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

M/s Mathoshri Laxmi Sugar & Co-generation Industries Ltd. has proposed for Setting up of 45 KLPD distillery at Satling Nagar, At.:Ruddewadi, Post: Dudhani, Taluka: Akkalkot, District Solapur. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Total plot area is 4,44,971 m<sup>2</sup>, out of which area to be covered under distillery unit is 61,200 m<sup>2</sup>. Proposed green belt area will be 89088.5 m<sup>2</sup>. The plant is located adjacent to existing sugar mill. Capital Cost of project is Rs. 68.50 Crores. The proposed project has an employment potential of 37. Followings products will be manufactured:

| S.No. | Product  | Quantity                   |
|-------|--|----------------------------|
| 1     | Rectified Spirit (RS)/ Extra Neural Alcohol (ENA)/ Ethanol | 45 KLPD                    |
| 2     | Impure Sprit   | 2.5 KLPD                   |
|       | <b>By-product</b>  |                            |
| 1     | Compost  | 145 MT/D                   |
| 2     | Biogas   | 28,800 M <sup>3</sup> /Day |

The power required for distillery operation and construction work would be taken from D.G. set and T.G. set. In the proposed project, the steam for the distillery operation will be taken from existing bagasse fired co-gen boilers of 50 TPH and 30 TPH capacity.

Total fresh water requirement will be 220 KLPD which will be sourced from Sangolgi Bk. Bandhara .Spent wash so generated would be treated in Biomethanation plant followed by concentration in MEE. Further, the concentrated spent wash will be sent for bio-composting along with press mud, boiler ash and yeast sludge. MEE condensate, spent lees, cooling blow down, lab and washing shall be treated to Distillery CPU. Domestic wastewater will be treated in STP.

Yeast Sludge and CPU Sludge will be consumed during spent wash composting process.

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

#### **A. Specific TOR:**

- 1 List of existing distillery units in the study area along with their capacity and sourcing of raw material.
- 2 Number of working days of the distillery unit.
- 3 Details of raw materials such as molasses and their source with availability.
- 4 Details of the use of steam from the boiler.
- 5 Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
- 6 Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
- 7 Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
- 8 Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
- 9 Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
- 10 Action plan to control ground water pollution.
- 11 Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
- 12 Action plan to control odour pollution.
- 13 Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
- 14 Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
- 15 Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
- 16 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.
- 17 Number of working days of the sugar production unit.

#### **B. Additional TOR**

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

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

#### **13.7.2 Installation of 80TPH CBFC Pet coke Boiler utilizing Pet Coke generated in delayed coker unit at district Kamrup, Gwahati, Assam by M/s IOCL- 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 Petroleum refining industry are

listed at S.N. 4(a) under category 'A' as per EIA Notification 2006 and appraised by Expert Appraisal Committee (I).

M/s IOCL has proposed for installation of 80TPH CBFC Pet coke Boiler utilizing Pet Coke generated in delayed coker unit at district Kamrup, Gwahati, Assam. PP did not mention the environmental sensitivity involved within 15 km of the proposed project in the form 1. During presentation PP informed that Amchung Wildlife Sanctuary is situated within 10 km of the project site. River Brahmaputra is flowing at a distance of 2 km from the project site.

Existing Area of Guwahati Refinery is 3.04 Acres, PP did not mention the information related to existing green belt. Cost of the proposed project is Rs 132.48 crore. Gwahati Refinery Thermal Power station consists of the following boilers:

| S. No. | Boiler   | Capacity | Yr. of commissioning |
|--------|----------|----------|----------------------|
| 1      | Boiler-3 | 20       | 1962-64              |
| 2      | Boiler-4 | 20       | 1962-64              |
| 3      | Boiler-5 | 40       | 1994                 |
| 4      | Boiler-6 | 50       | 2004                 |
| 5      | Boiler-7 | 50       | 2004                 |

Out of these boilers PP want to replace the two boilers (Boiler-3 and Boiler-4) as these boilers have been in operation since past 50 years. Total water requirement for the proposed project is 135 m<sup>3</sup>/hr and will be met from the existing facilities. Wastewater from the boiler blowdown, pet coke yard suppression system and leaching water will be treated in existing ETP. The pet coke requirement will be 10 TPH. ESP will be provided with adequate stack height. Flys ash shall be sold to nearby cement factory. Oily wastewater will be treated in existing ETP.

During presentation, PP requested for exemption of public hearing. The Committee noted that proposed activity is only replacement of boiler without increase in production capacity. Therefore, the Committee exempted the public hearing as per para 7(ii) of EIA, Notification, 2006.

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

#### A. Specific TOR:

1. Complete process flow diagram describing each unit, its capacity along-with material and energy balance.
2. Details of intermediate product, their storages and final products to be manufactured.
3. Sulphur balance giving input from crude, refinery fuel ( if used) and any other outside fuel and output in various products and emissions.
4. Details of proposed source-specific pollution control schemes and equipment to meet the national standards for petroleum refinery.
5. Details of emissions from all the stacks including volumetric flow rate.
6. Details on availability of raw materials (crude oil, natural gas, chemicals, etc.), its source and storage at the plant.

7. Details on mode of transportation of crude and products.
8. Details of storage capacity of crude and products.
9. Ambient air quality data should include hydrocarbon ( methane and non-methane), VOC, Ni & V etc.
10. Efforts to minimize water consumption, effluent discharge and to maintain quality of receiving water body.
11. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.
12. Storm water management plan.
13. Estimation SO<sub>2</sub> and NO<sub>x</sub> emissions load.
14. Details of VOC recovery devices in the storage tanks.
15. Oily sludge management plan.
16. Risk Assessment & Disaster Management Plan
  - i. Identification of hazards
  - ii. Consequence Analysis
  - iii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
  - iv. Arrangement for fire protection and control.

## **B. Additional TOR**

- i. Public hearing exempted as per para 7(ii) of EIA, Notification, 2006
- ii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report
- iii. A copy of letter seeking permission from NBWL to be submitted for Amchung Wildlife Sanctuary
- iv. Detailed plan for fly ash management as per CPCB guidelines to be included in EIA-EMP report.
- v. Firm contract to be made with cement factories for use of fly ash.

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

### **13.7.3 Expansion of Exploratory drilling by adding three wells (KHBN, MUAB & DOAA) in NELP-III Block AA-ONN-2001/1, A& AA Basin at district Dhalai and North Tripura by M/s ONGC.- reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to offshore

and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC has proposed for expansion of Exploratory drilling by adding three wells (KHBN, MUAB & DOAA) in NELP-III Block AA-ONN-2001/1, A& AA Basin at district Dhalai and North Tripura. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Following are the drilling locations:

| S. No. | Proposed location | Co-ordinates               |                            |
|--------|-------------------|----------------------------|----------------------------|
|        |                   | Latitude                   | Longitude                  |
| 1      | KHBN              | 24 <sup>0</sup> 15'22.35"  | 92 <sup>0</sup> 11'09.81"  |
| 2      | MUAB              | 24 <sup>0</sup> 07'49.60"  | 92 <sup>0</sup> 00'54.03"  |
| 3      | DOAA              | 24 <sup>0</sup> 05'18.407" | 91 <sup>0</sup> 47'37.206" |

Total project cost is Rs. 180 crore. The area required for each drilling operation will be 1.96 Ha. The power requirement will be met by six diesel Generator sets with a diesel consumption of about 06 m<sup>3</sup>/day of HSD and attached with stack of appropriate height.

Fresh water requirement will be 25 m<sup>3</sup>/day for drilling operation for each well, of which 15m<sup>3</sup>/day will be used for mud preparation and 10m<sup>3</sup>/day will be used for domestic purposes. Fresh water will be sourced by nearby source. Three waste pit of 15000 m<sup>3</sup> capacity will be made.

Drill cuttings of underground rocks and solids in water based mud used for drilling will be stored in impervious pits within the drilling site. Waste oil/ spent oil will be sent for recycling through approved recyclers.

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

#### **A. Standard TOR**

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Cost of project and period of completion.
5. Employment to be generated.
6. Distance from coast line.
7. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
8. Recommendation of SCZMA/CRZ clearance as per CRZ Notification dated 6<sup>th</sup> January, 2011 (if applicable).
9. Details on support infrastructure and vessel in the study area.
10. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
11. Details on establishment of baseline on the air quality of the areas immediately affected by the exploratory drilling and also particularly with reference to hydrogen sulphide, sulphur dioxide, NOx and background levels of hydrocarbons and VOCs.

12. Details on estimation and computation of air emissions (such as nitrogen oxides\*, sulphur oxides\*, carbon monoxide\*, hydrocarbons\*, VOCs\*, etc.) resulting from flaring, DG sets, combustion, etc. during all project phases
13. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content in the water sample and sediments sample.
14. Fisheries study w.r.t. benthos and marine organic material and coastal fisheries.
15. Source of fresh water. Detailed water balance, waste water generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case of project site closed to the coast.
17. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
18. Procedure for preventing spills and spill contingency plans.
19. Procedure for treatment and disposal of produced water.
20. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
21. Details on solid waste management for drill cuttings, drilling mud and oil sludge, produced sand, radioactive materials, other hazardous materials, etc. including its handling and disposal options during all project phases.
22. Storage of chemicals on site.
23. Commitment for the use of water based mud (WBM) and synthetic oil based mud in special case.
24. Details of blowout preventer Installation.
25. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices will be followe
26. Handling of spent oils and oil from well test operations.
27. H<sub>2</sub>S emissions control plans, if required.
28. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
29. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
30. Documentary proof for membership of common disposal facilities, if required.
31. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
32. Total capital and recurring cost for environmental pollution control measures.

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



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

#### 13.7.4 Proposed expansion of syenthetic organic chemicals and pesticide intermediates at Plot No. S/163, G.I.D.C. Dahej-I, Tal. Vagra, Dist. Bharuch, Gujarat by M/s Organic Industries 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 inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to production of technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Organic Industries Pvt. Ltd has proposed for expansion of synthetic organic chemicals and pesticide intermediates at Plot No. S/163, G.I.D.C. Dahej-I, Tal. Vagra, Dist. Bharuch, Gujarat. As per form- 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Narmada estuary is situated at a distance of 3.5 Km away from project site.

Existing Plot area is 1,71,579 m<sup>2</sup>, of which greenbelt will be developed in the area of 57,000 m<sup>2</sup>. Cost of the proposed project is Rs 12.95 crore. Capital cost toward environment protection measures will be Rs 2.5 crore. PP did not mention the employment potential of the proposed project. Followings are the details of existing and proposed products:

| SR. NO.                    | PRODUCT NAME                                     | EXISTING CAPACITY (MT/Annum) | ADDITIONAL PROPOSED CAPACITY (MT/Annum) | TOTAL PROPOSED CAPACITY (MT/Annum) |
|----------------------------|--|------------------------------|---|------------------------------------|
| <b>Plant-01 (Existing)</b> |  |                              |   |                                    |
| 1                          | Potassium Permanganate                           | 8400                         | -                                       | 8400                               |
| 2                          | Boric Acid Technical (All Grades)                | 24000                        | -                                       | 24000                              |
| 3                          | Borax Decahydrate (All Grades)                   | 8400                         | -                                       | 8400                               |
| 4                          | Di-Sodium Octaborate Tetrahydrate                | 1200                         | -                                       | 1200                               |
| <b>Plant-02 (Existing)</b> |  |                              |   |                                    |
| 5                          | Herbal Products by Herbal Extracts (Water Based) | 1020                         | -                                       | 1020                               |
|                            | i. Aswagandha – Withania Somanifera              |                              |   |                                    |
|                            | ii. Brami – Bacopa Monnieri                      |                              |   |                                    |
|                            | iii. Andhrographis Pariculata – Kalmegh          |                              |   |                                    |
|                            | iv. Asphalt – Shilajit                           |                              |   |                                    |
|                            | v. Azartica Indica – Neem                        |                              |   |                                    |
|                            | vi. Asparagus Racemogus – Shatavari              |                              |   |                                    |
|                            | vii. Boswillia Serrata – Salaji Guggal           |                              |   |                                    |
|                            | viii. Commiphora Mukal – Guggal                  |                              |   |                                    |
|                            | ix. Garcinia Combogia                            |                              |   |                                    |
|                            | x. Glycyrliza Glabra – Mulethi                   |                              |   |                                    |
|                            | xi. Gymnema Sylvester – Gurmar                   |                              |   |                                    |
|                            | xii. Lagastrolmia Splciosa – Karela              |                              |   |                                    |

|   |  |       |       |       |
|---|--|-------|-------|-------|
|   | xiii. Momordica Pureins – Kaunch   |       |       |       |
|   | xiv. Mucana Pureins – kaunch   |       |       |       |
|   | xv. Ocimum Santium – Tulsi   |       |       |       |
|   | xvi. Terminalia Arjuna – Arjuna  |       |       |       |
|   | xvii. Tribulus Terrestris - Gokharu  |       |       |       |
| <b>Plant-03 (Existing)</b>  |  |       |       |       |
| 6   | Roasted Bentonite Granules   | 9000  | -     | 9000  |
| 7   | Soil Conditioner   | 28800 | -     | 28800 |
| 8   | Plant Growth Regulator   | 120   | -     | 120   |
| 9   | NPK Mixed Granulated Fertilizer  | 6000  | -     | 6000  |
| <b>Plant-02-A (Proposed)</b>  |  |       |       |       |
| 10  | Herbal Products by Herbal Extract (Solvent based)                                      | -     | 1020  | 1020  |
| <b>Plant-04-A (Proposed) - ETHOXILATES &amp; PROPOXYLATES and there condensates</b> |  |       |       |       |
| 11  | Ethylene Oxide / Propylene Oxide Condensate<br>- Direct Sale<br>- Internal Consumption | --    | 4000  | 4000  |
| 12  | Anionic Surfactants  | --    | 1000  | 1000  |
| 13  | Cationic Surfactants   | --    | 1000  | 1000  |
| 14  | Blended Surfactants (using Intermediates)  | --    | 2000  | 2000  |
| 15  | Powder Surfactants   | --    | 1000  | 1000  |
| <b>Plant-04-B (Proposed)</b>  |  |       |       |       |
| 16  | Sulphocuecinated Products  | -     | 250   | 250   |
| 17  | Phosphatised Products  | -     | 100   | 100   |
| <b>Plant-04-C (Proposed)</b>  |  |       |       |       |
| 18  | Alkonol Amines (Methyl Diethanol Amines)   | -     | 10000 | 10000 |
| <b>Plant-04-D (Proposed)</b>  |  |       |       |       |
| 19  | Single Compound  |       | 1200  | 1200  |
| 20  | Double Compound  |       |       |       |
| 21  | CBS (50%, 60% & 70%)   |       |       |       |
| <b>Plant-05 (Proposed)</b>  |  |       |       |       |
| 22  | Di-Ethyl-Phthalate   | -     | 2400  | 2400  |
| 23  | Di-Methyl – Phthalate  | -     | 2400  | 2400  |
| 24  | Di-Methyl – Sulphate   | -     | 5400  | 5400  |
| 25  | Di-Methyl - Aniline  | -     | 2400  | 2400  |
| 26  | Di-Ethyl-Aniline   | -     | 960   | 960   |
| 27  | N-Ethyl-Aniline  | -     | 1440  | 1440  |
| 28  | Ethyl – Benzyl Aniline   | -     | 1200  | 1200  |
| 29  | Di-Ethyl-Ether   | -     | 1200  | 1200  |
| <b>Plant-06 (Proposed)</b>  |  |       |       |       |
| 30  | Sodium Saccharine  | -     | 350   | 350   |
| 31  | Lasamide   | -     | 350   | 350   |
| 32  | 3,3' DINITRODIPHENYL SULFONE   | -     | 350   | 350   |
| <b>Plant-07 (Proposed) – Pesticide Intermediates</b>                                |  |       |       |       |
| 33  | 2- Chloro 6- Nitro Benzonitrile  | -     | 300   | 300   |
| 34  | 4 - Amino Dimethyl Pyridine  | -     |       |       |
| 35  | 4-Amino-2,5-dimethylphenol   | -     |       |       |
| 36  | 4-Chloro-2,6-dimethylbromobenzene (CLDMBB)   | -     |       |       |

|  |              |               |               |                 |
|--|--------------|---------------|---------------|-----------------|
|  | <b>TOTAL</b> | <b>86,940</b> | <b>40,320</b> | <b>1,27,260</b> |
|--|--------------|---------------|---------------|-----------------|

### List of By-Products

| <b>By-Products</b>  | <b>Existing Quantity</b>              | <b>Proposed Quantity</b>             | <b>Total Quantity</b>                 |
|---|---------------------------------------|--------------------------------------|---------------------------------------|
| Manganese -Silicon  | 5460 MT/Year i.e.<br>455 MT/Month     | --                                   | 5460 MT/Year i.e.<br>455 MT/Month     |
| Gypsum  | 288000 MT/Year i.e.<br>24000 MT/Month | --                                   | 288000 MT/Year i.e.<br>24000 MT/Month |
| Calcium Sulphate sludge generated during the production of CABS 70% | --                                    | 1200 MT/Year i.e.<br>100 MT/Month    | 1200 MT/Year i.e.<br>100 MT/Month     |
| Dil. H2SO4  | --                                    | 2727<br>MT/Year i.e.<br>227 MT/Month | 2727<br>MT/Year i.e.<br>227 MT/Month  |
| Sodium Phthalate  | --                                    | 65<br>MT/Year i.e.<br>5.4 MT/Month   | 65<br>MT/Year i.e.<br>5.4 MT/Month    |
| Poly  | --                                    | 375<br>MT/Year i.e.<br>32 MT/Month   | 375<br>MT/Year i.e.<br>32 MT/Month    |
| Liquor Ammonia  | --                                    | 300<br>MT/Year i.e.<br>25 MT/Month   | 300<br>MT/Year i.e.<br>25 MT/Month    |
| Ammonium Chloride   | --                                    | 600<br>MT/Year i.e.<br>50 MT/Month   | 600<br>MT/Year i.e.<br>50 MT/Month    |
| Cuprous Chloride  | --                                    | 185<br>MT/Year i.e.<br>15.4 MT/Month | 185<br>MT/Year i.e.<br>15.4 MT/Month  |

Total power requirement will be increased from 1300 KVA to 4500 KVA and sourced from DGVCL. Existing unit has D G Set of 125 KVA capacity and additionally D G Set of 1500 KVA capacity will be installed under proposed expansion. Existing unit has one coal fired boiler of 100 MT/day and attached to Dust Collector followed by Bag filter with 31 m stack height and Two Thermic fluid heater connected with Cyclone Separator followed by Bag Filter with 11 m stack height. Two coal fired boilers (Boiler-1 and Boiler-2) will be installed. Boiler-1 capacity will be 100 MT/Day capacity attached with dust Collector followed by Bag filter with 31 m stack height. Boiler-2 capacity will be 7 MT/Hr and will be connected to Multi Cyclone Separator followed by Bag filter. Additionally one Thermic Fluid Heater will be installed and connected with Cyclone Separator followed by Bag Filter to control particulate emission.

Total fresh water requirement for the proposed project will be 526 m<sup>3</sup>/day which will be sourced from GIDC, Dahej water supply. Against which 193 m<sup>3</sup>/day wastewater will be generated. The High COD & High TDS effluent will be treated in proposed effluent treatment plant consisting of primary treatment, MEE and Secondary & Tertiary Treatment & send it to plant for reuse purpose. The Low COD effluent will be treated in proposed effluent treatment plant consisting of primary and secondary treatment & dispose it to GIDC Drain.

Distillation residue will be sent to cement industries for co-processing. ETP sludge and Resin from softening plant DM plant will be sent to TSDF site. Used oil will be sent to authorize vendors. Fly ash will be sold to brick manufacturer.

After deliberation, due to absence of authenticated documents, the Committee sought following additional information:

- i. Copy of Existing EC if any and or Copy of Consent to Establishment to be submitted.
- ii. Disposal of solid waste since establishment.
- iii. Clarify full details of existing and proposed product.

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.

**13.7.5 Proposed pesticide intermediates and Specialty Chemicals Plot No. 274/3/1, GIDC Estate, Pandesara, Dist. Surat, Gujarat by M/s. Aceto Chem Pvt. Ltd. (Unit-II)- reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to production of technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Aceto Chem Pvt. Ltd. has proposed for Expansion of pesticide chemicals Plot No. 274/3/1, GIDC Estate, Pandesara, Dist. Surat, Gujarat. As per form 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance.

Total plot area is 2700 m<sup>2</sup>, of which greenbelt will be developed in the area of 540 m<sup>2</sup>. Cost of the proposed expansion project is Rs 5 Crore. Cost earmarked toward environment protection measures will be Rs. 0.5 Crore. Followings are the details of existing and proposed products:

| S. No | Product name   | Production |          |
|-------|--|------------|----------|
|       |  | Existing   | Proposed |
| 1     | Nyrosyl Sulphuric Acid (from Sulfur)   | 132.08     | 132.08   |
| 2     | Nyrosyl Sulphuric Acid (from Sodium Thio Sulphate Solution and Spent Acid (H <sub>2</sub> SO <sub>4</sub> )) | 468        | 468      |
| 3.1   | 4-Methoxy Acetophenone   | 0          | 60       |
| 3.2   | 4-Methyl Acetophenone  |            |          |
| 4.1   | Diethyl Ketone   | 0          | 100      |
| 4.2   | Methyl Propyl Ketone   |            |          |
| 4.3   | Dipropyl Ketone  |            |          |
| 4.4   | Propiophenone  |            |          |
| 5     | Alpha Nitro Napthalene   | 0          | 100      |
| 6     | Alpha Napthylamine   | 0          | 165      |
| 7     | Phenyl Alpha Napthylamine (PANA)   | 0          | 90       |
| 8     | Epichlorohydrin Based  | 0          | 116      |

|    |                           |               |                |
|----|---------------------------|---------------|----------------|
|    | Polyamide resin           |               |                |
| 9  | 3,5-Dichloroaniline       | 0             | 50             |
| 10 | Bis-(2-Chloroethyl)-amine | 0             | 30             |
|    | <b>Total</b>              | <b>600.08</b> | <b>1311.08</b> |

| <b>By Products</b> |                 |         |         |
|--------------------|-----------------|---------|---------|
| 1                  | Sulphur         | 50.74   | 50.74   |
| 2                  | Sodium Sulphate | 242.728 | 242.728 |
| 3                  | Di Ethyl Ketone | NIL     | 79      |
| 4                  | Acetic Acid     | NIL     | 30.5    |

Total power requirement for the plant after proposed expansion will be 90 HP which will be sourced from DGVCL. Existing unit has one Natural gas fired Thermo pack unit of 600 U capacity, which is attached with 12 m stack height and a DG set of 250 KVA connected with 7 m stack height. Under proposed expansion a DG set of 365 KVA will be installed in which Diesel will be used as a fuel and 7 m stack height will be provided. During presentation PP informed that existing DG set of 250 KVA will be replaced by 365 KVA DG set.

Used oil and discarded containers / barrels / liners/ Carboys/bags will be sent to registered recycler. ETP Sludge will be sent to TSDF site for secured Land Filling. Catalyst will be given back to manufacturer for regeneration.

#### **A. Standard 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<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, etc., (\* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action

plan for handling & safety system to be incorporated.

14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
15. Commitment that no banned pesticides will be manufactured.

**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. Zero Liquid Discharge system to be adopted.
- iii. Natural gas to be issued.

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

**13.7.6 BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units & New Catalyst Manufacturing Unit at Panipat Refinery BY M/s IOCL – reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s IOCL has proposed for BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units & New Catalyst Manufacturing Unit at Panipat Refinery. As per form 1, there are no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance from the project site.

Total plot area is 102.5 Ha (253 Acre) of which greenbelt has already been developed in the area of 55 Ha. Cost of the proposed project is Rs 2745.15 Crores. Followings are the existing and proposed facilities:

| <b>SN</b> | <b>Facilities</b>  | <b>Existing Capacity</b> | <b>New Capacity</b>                  | <b>Remarks</b> |
|-----------|--|--------------------------|--------------------------------------|----------------|
| 1         | Diesel Hydro De-Sulphurisation (DHDS)                          | 700 kTA                  | <b>1000 kTA</b>                      | Revamp         |
| 2         | Prime-G  | 370 kTA                  | <b>445 kTA</b>                       | Revamp         |
| 3         | Diesel Hydro-Treater (DHDT)                                    |                          | <b>2200 kTA</b>                      | New            |
| 4         | Hydrogen Generation Unit                                       |                          | <b>44 kTA</b> of hydrogen production | New            |
| 5         | Tertiary Amyl Methyl Ether                                     |                          | <b>33 kTA</b>                        | New            |
| 6         | OCTAMAX  |                          | <b>115 kTA</b>                       | New            |
| 7         | Sulphur Recovery Unit (SRU) with Tail Gas Treating Unit (TGTU) |                          | <b>225 T/Day</b> Sulphur production  | New            |

|    |                                       |         |            |        |
|----|---------------------------------------|---------|------------|--------|
| 8  | Amine Regeneration Unit (ARU)         |         | 188.9 T/hr | New    |
|    | Sour Water Stripper (SWS)             |         | 56.7 T/hr  | New    |
| 9  | DHDT feed tank                        |         | 20,000 KL  | New    |
| 10 | Para Xylene Unit                      | 363 kTA | 460 kTA    | Revamp |
| 11 | Purified Terephthalic Acid Unit (PTA) | 553 kTA | 700 kTA    | Revamp |

PP has also proposed for expansion of petrochemical unit. The committee deliberated on the project and concluded that petrochemical is separate entity with different premises and in the past, TOR has been issued to the Petrochemical complexes separately. Therefore, the Committee recommended for TOR to Refinery complexes only for BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units . PP agreed to the suggestion and will apply separate Tor for petrochemical expansion.

Further at the request of PP, the Committee exempted the public hearing as per para 7(ii) of EIA, Notification, 2006 in the background of producing cleaner fuel out of the project.

One Intermittent Feed storage tank for new DHDT of 20,000 m<sup>3</sup> capacity will be made with Floating Roof. New DHDT unit feed pumps will be installed.

Power requirement will be 28 MW and will be met through existing captive power plant. Fresh water source is Munak Regulator on Western Yamuna Canal for Panipat Refinery & Petrochemical Complex. Present water consumption is within the allocated water of 83000 KLD. No additional water will be required for the proposed expansion. Wastewater from proposed projects will be treated in the existing ETP.

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

#### **A. Specific TOR**

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

concerned/regulated environmental parameters. Also, include treatment details such as primary (physico- chemical), secondary (biological) and tertiary (activated carbon filters) treatment systems.

12. Storm water management plan.
13. Estimation SO<sub>2</sub> and NO<sub>x</sub> emissions load.
14. Details on flaring system.
15. Details of VOC recovery devices in the storage tanks.
16. Arrangement for spill management.
17. Oily sludge management plan.
18. Risk Assessment & Disaster Management Plan
  - v. Identification of hazards
  - vi. Consequence Analysis
  - vii. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
  - viii. Arrangement for fire protection and control.

## **B. Additional TOR**

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

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

### **13.7.7 Proposed expansion of carbon black (10950 TPM to 15750 TPM ) and co-generation power plant (22 mw to 30 mw) in existing premises at survey no. 47, village: Mokha, taluka Mundra, district kutchh1, Gujarat by M/s. Phillips carbon black ltd.- reg TOR {( J-11011/195/2016- IA II(I)) (IA/GJ/IND2/58103/2016)}**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to Petrochemical complexes are listed in para 5(c) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

Ministry has issued Environmental Clearance vide F. No. J-11011/544/2009-IA II (I) dated 4<sup>th</sup> October, 2010 for Expansion of production capacity of Hard Carbon Black (225 TPD to 365 TPD) and Co-generation Power plant (16 to 22 MW) at village Koka, Taluka Mundra, District kutchh, Gujarat.

M/s Phillips carbon black ltd has proposed for expansion of carbon black (10950 TPM to 15750 TPM ) and co-generation power plant (22 mw to 30 mw) in existing premises at survey no. 47, village: Mokha, taluka Mundra, district kutchh1, Gujarat. As per form 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Coastal water is 10.8 Km away from project site. In the Form 1 PP mentioned this project as a new project in place of expansion.

Total plot area is 291456 m<sup>2</sup> out of which area earmarked for green belt area is 119210 m<sup>2</sup>. Cost of the proposed project is Rs 210 crore. Followings are the list of existing and proposed products:



| S. No | Product name                       | Existing Capacity | Additional capacity                     | Total capacity                          |
|-------|------------------------------------|-------------------|---|---|
| 1     | Carbon black                       | 10950 TPM         | Phase-i: 2400 TPM<br>Phase-ii: 2400 TPM | Phase-i:13350 TPM<br>Phase-ii:15750 TPM |
| 2     | Cogeneration power(waste gas base) | 22 MW             | Phase-i: 2 MW<br>Phase-ii: 6 MW         | Phase-i:24MW<br>Phaseii:30MW            |

Power requirement will be increased from 7 MW to 9.5 MW, which will be sourced from own CPP. After Proposed Expansion fuel requirement will be 40 m<sup>3</sup>/month and 6 m<sup>3</sup>/month for LDO and HSD respectively. Process stack will be attached to Bag filter and 50 m stack height.

Total fresh water requirement will be increased from 1200 m<sup>3</sup>/day to 1691 m<sup>3</sup>/day and will be sourced from GWIL water supply. Against which waste water generation will be increased from 311 m<sup>3</sup>/day to 391 m<sup>3</sup>/day. Wastewater will be treated in ETP and recycled back. Domestic waste water will be disposed through septic tank and soak pit. PP confirms that plant will be based on ZLD.

Used oil, discarded drum, electronic waste and Plastic waste will be sent to GPCB approved recycler. Chemical Sludge, Spent acid from batteries, used batteries and spent ion exchange resin will be sent to TSDF.

#### A. Specific TOR

1. Details on requirement of raw material (naphtha/gas feedstock), its source of supply and storage at the plant.
2. Complete process flow diagram for all products with material balance.
3. Brief description of equipments for various process ( cracker, separation, polymerization etc)
4. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
5. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, *etc.*
6. Details on proposed LDAR protocol.
7. Ambient air quality should include hydrocarbon ( methane and non methane ), VOC and VCM (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**

- 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 Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report
- III. Detailed plan for water recycling and reuse to be drawn.
- IV. Detailed ESR plan shall be drawn out of the issues arising from public hearing.

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

### **13.7.8 Modernization of Bulk Drug Unit at Sy No. 52, 134, 138, 139, 140, 159, 160 to 168, 168/1, 183 & 184 of Chippada village and 1 to 4, 6, 45 & 46 and additional survey number 107, 158, 168, to 172 of Chippada and Annavaram Villages, Annavaram Taluka, Bheemunipatnam Mandal, Visakhapatnam District, Andhra Pradesh by M/s. Divi's Laboratories Limited (Unit - 2) – reg TOR.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to synthetic organic chemicals located outside the industrial estate are listed in para 5(f) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

As per form 1 project has following environmental sensitivities:-

- i) Anaman reserve forest
- ii) Gillman field reserve forest
- iii) Gosthani river – 2 Km
- iv) Bay of Bengal – 1.5 Km

Ministry has issued Environmental Clearance vide J-11011/54/2002-IA II dated 23<sup>rd</sup> December 2002 for manufacturing of Bulk drug unit. Public hearing was held on 20<sup>th</sup> February 2002. Subsequently, MEF&CC had issued another EC for product mix change vide letter No. J-11011/418/2006-IA II (I) dated 10<sup>th</sup> October, 2007. Public hearing was exempted at that time.

At the first instance, PP had applied for amendment in their existing EC for addition of new land to relocate 7 blocks. The proposal was considered in 11<sup>th</sup> EAC meeting held during 23-24<sup>th</sup> July 2016. During presentation the committee noted that the shifting of 7 blocks at additional new land (73 acres) will be considered as change in configuration of project with different layout plan and hence it is change in scope of existing EC. Therefore, the Committee did not agree with proposal of amendment and suggested the PP to apply afresh TOR application through online.

Divi's Laboratories Limited Unit-2 is proposing modernization of its unit by adding 108.59 acres of land to its existing 387 Acres of land for decongestion of the production area by shifting non production activities to new area proposed. During the proposed modernization there will not be any change in production capacity, number of products, water consumption, wastewater generation, pollution loads, etc

The existing production capacity of the Bulk Drug and Intermediates are 17197 kg/day and the number of production is 88. The cost of the proposed modernization is Rs.100 Crores. The proposed modernization plant is adjacent to road connecting NH5 (Vizag to Kolkatt) to Annavaram village. The nearest railway station is Vizianagaram (21 km) in the NW. The nearest airport is Visakhapatnam airport (35 km) in SW.

Product list of existing EC are as follow:

| S.NO | Product Name        | Quantity (MTPA) |  | S.No | Product Name                                 | Quantity (MTPA) |
|------|---------------------|-----------------|--|------|--|-----------------|
| 1    | DL Naproxen         | 1800            |  | 26   | Moon   | 2               |
|      | Naproxen            | 500             |  | 27   | Triprolidine                                 | 3               |
|      | Sodium Naproxen     | 600             |  | 28   | Sitamaquine (Silvar Star)                    | 1               |
| 2    | Sigma               | 100             |  |      | Jupiter                                      | 1               |
|      | ISA                 | 180             |  |      | Gold start                                   | 1               |
|      | ISB                 | 180             |  | 29   | Lamotrizine                                  | 20              |
| 3    | Atipa               | 240             |  | 30   | (R)-N-Benzyloxy carbonyl aspartic acid (PWS) | 20              |
|      |                     |                 |  |      |  |                 |
| 4    | Impala              | 50              |  | 31   | Atorvastatin                                 | 15              |
|      | BAH                 | 150             |  | 32   | Repaglinide                                  | 0.02            |
|      | 3-HAP               | 240             |  | 33   | Risperidone                                  | 0.02            |
| 5    | F Moc               | 120             |  | 34   | TDZ  | 20              |
|      | N Osu               | 120             |  | 35   | Seratralin                                   | 50              |
|      | F Moc Osu           | 120             |  | 36   | DCAM   | 10              |
| 6    | Key                 | 150             |  | 37   | Decaquinat                                   | 50              |
| 7    | Verapamil HCl       | 150             |  | 38   | RAM (NEUTRA)                                 | 0               |
| 8    | BIC                 | 60              |  |      | a  | AXN             |
| 9    | Ondansetron         | 6               |  |      | i. Echo                                      | 75              |
|      |                     |                 |  |      | ii. Dial                                     | 50              |
|      |                     |                 |  | b    | Canthazantin                                 | 5               |
| 10   | Zidovudine          | 12              |  | c    | Lycopine                                     | 1               |
| 11   | Parksetjne          | 15              |  | d    | Betacarotine                                 | 5               |
| 12   | Simvastatine        | 18              |  | e    | Ascorbyl Palmitate                           | 30              |
| 13   | Bupropion HCl       | 47              |  | 39   | Valaciclovir                                 | 80              |
| 14   | Lansoprazole        | 12              |  | 40   | SB462795                                     | 1               |
| 15   | BOC-GLY-GLY-GLYGLY- | 50              |  | 41   | SB266934                                     | 10              |

|    |  |     |  |    |                          |
|----|--|-----|--|----|--------------------------|
|    | Ome  |     |  |    |                          |
| 16 | Similar peptides and Nucleotides up to 18 chain links. |     |  | 43 | Carvedilol 10            |
| 17 | CPX  | 50  |  | 43 | Autovaquine (IvaxNew) 36 |
| 18 | DAX  |     |  | 44 | Sumatriptan (New) 10     |
| 19 | Candesartan  | 10  |  | 45 | Lamivudine (New) 50      |
| 20 | 5-0-DMT Thymidine                                      | 40  |  | 46 | MGH 100                  |
| 21 | Deoxy Adenosine  |     |  | 47 | CME 80                   |
| 22 | Carbidopa  | 24  |  | 48 | Davincy 35               |
| 23 | Levodopa   | 50  |  |    | 6,025.04                 |
| 24 | Gabapentin   | 120 |  |    |                          |
| 25 | Fexofinadine   | 30  |  |    |                          |

Existing plot area is 387 Acres. Additional 108.59 Acres area will be adding for proposed for decongestion of the production area by shifting production activities to new proposed area. Cost of the proposed project is Rs 100 crore. There will not be any change in products, production capacity, water consumption, wastewater generation and pollution load.

After modernization the total water required and wastewater generation will not have any change and the source of water is meet from Gosthani River as mentioned in the EC and CFE As per existing EC, the total water requirement is 1495 m<sup>3</sup>/day which will be met from Irrigation and CAD department, Govt. of Andhara Pradesh. The wastewater generation will be 1477 m<sup>3</sup>/day.

The industry shall segregate the effluent into high TDS, high COD, low TDS and other streams at source and these streams shall be treated as the requirement and part of the treated water reused and excess meeting marine discharged standards will be disposed into the sea.

The power required before and after modernization is 30 MVA is taken from APTransco, for emergency requirements DG sets are used ( 6x1250 KVA; 6x1500 KVA; 2x320 KVA; 2x125 KVA; 2x1000 KVA; 1x62.5KVA; 1x10 KVA).

PP requested for exemption of public hearing due to mainiting the same production capacity as given in existing EC. The Committee noted that there is no increase in pollution load and it is a case of orientation of exiting EC. No additional water requirement, fuel etc. Therefore, the Committee recommended for exemption in public hearing as per para 7(ii) of EIA, Notification, 2006.

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

#### **A. Specific TOR:**

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, 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 exempted as per pra7(ii) of EIA, Notification 2006.
- II. Proper layout plan to be drawn for all the units in new and exiting land.
- III. Distance wise list of all Environmental sensitivity involved within 15 km area to be submitted.

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

### **13.8 Any Other**

#### **13.8.1 Drilling of 11 wells & setting up of EPS in BB-ONN-2002/03 block at District Mahesana, Ahmedabad by M/s Gujarat State Petroleum Corporation Ltd.- reg. amendment in TOR**

Ministry had issued TOR to M/s Gujarat State Petroleum Corporation Ltd. vide letter No. J-11011/278/2015-IA II (I) dated 5<sup>th</sup> March, 2016 for Drilling of 11 wells & setting up of EPS in BB-ONN-2002/03 block at District Mahesana and Ahmedabad.

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

| <b>S. No.</b> | <b>TOR Point no.</b> | <b>Points in Issued TOR</b>       | <b>Amendment Sought</b> |
|---------------|----------------------|-----------------------------------|-------------------------|
| 1             | 6                    | Approval for Forest land from the | Remove this TOR, as PP  |

|   |       |   |  |
|---|-------|---|--|
|   |       | State/ Central Govt. under Forest Conservation Act, 1980 as project involves forest land.   | confirms that project fall outside the eco-sensitive zone of THOL wildlife sanctuary and submitted the copy of final notification dated 9 <sup>th</sup> February, 2015 issued for THOL wildlife sanctuary.                       |
| 2 | B. i. | Public hearing for the project 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.             | Exemption in Public hearing as the same has been conducted for the other projects at Garodiya village of Sanand Taluka of Ahmedabad district on 30.12.2015 and Jhaloda village of Kadi Taluka of Mehsana district on 05.12.2015. |
| 3 | B.ii  | A separate chapter on status of compliance of Environmental conditions granted by State/Centre to be provided. As per circular dated 30 <sup>th</sup> May, 2012 issued by MOEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report. | Remove this additional TOR, as PP confirms that this is a new project.   |
| 4 | 4     | Block name in the TOR is BB-ONN-2002/03 whereas GSPC block name is CB-ONN-2002/03   | Change of Block name from BB-ONN-2002/03 to CB-ONN-2002/03   |

After detailed deliberations, the committee recommended for amendment specified at para 1, 3, and 4 above. However, with respect to point no.2 i.e. exemption in public hearing, the Committee did not agree and suggested PP to go for public hearing as this project is different village . .

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

Ministry had issued Environmental Clearance to M/s Balrampur Chini Mills Ltd. vide letter No. J-11011/151/2006-IA II (I) dated 20<sup>th</sup> June, 2006 for Expansion of Molasses based distillery unit (100 KLPD to 160 KLPD) at Village Bishunapur, Tehsil & District Balrampur, Uttar Pradesh. Subsequently the industry was granted the amendments vide letter no dated 21<sup>st</sup> December, 2015 wherein the following condition was given at para 3 sub para v :

“ Bag filter along with stack of adequate height shall be provided to bagasses/ slop fired boiler”

Now the PP has requested for amendment in the aforesaid condition with following condition :

“Electro static precipitator along with stack of adequate height shall be provided to bagasses/slop fired boiler”

After detailed deliberations, while considering the merits of proposed technology, the committee recommended for the proposed amendment in the existing EC.

**13.8.3 Exploratory drilling of 30 wells in PEL/ML Blocks of South Assam Shelf Block (Golaghat, Jorhat, Nagaon, Morigaon, North Cachar, Darrang and Sonitpur Districts) at District Jorhat Assam By M/s ONGC Limited – Extension of EC.**

Ministry had issued Environmental Clearance to M/s ONGC Limited vide letter No. J-11011/147/2008.-IA.II(I) dated 24<sup>th</sup> June, 2009 for Exploratory drilling of 30 wells in PEL/ML Blocks of South Assam Shelf Block (Golaghat, Jorhat, Nagaon, Morigaon, North Cachar, Darrang and Sonitpur Districts) at District Jorhat Assam.

PP has applied through online for extension of validity of Environmental Clearance on 16.06.2016. PP informed that out of 30 locations for which EC was granted, 17 locations have already been drilled. Remaining 13 locations will be taken up for drilling immediately after completion of LAQ process. In view of the above context PP has requested to grant extension of EC for a period of three years.

The Committee took the reference of amendment Notification dated 29th April 2015 of EIA, Notification of 2006 wherein validity of EC has been extended from 5 to 7 years. The PP has applied within the validity period of 7 years,

After deliberation, the Committee recommended for extension of validity of exiting EC upto 23.06.2019.

**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 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
    - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. **Site Details**
  - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.



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

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

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

6. **Environmental Status**

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

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

## **7. Impact and Environment Management Plan**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

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

## 8. Occupational health

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

## 9. Corporate Environment Policy

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

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

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

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

TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the

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

**LIST OF PARTICIPANTS OF EAC (Industry-2) IN 13<sup>th</sup> MEETING OF EAC (INDUSTRY-2)  
HELD ON 26-27<sup>th</sup> SEPTEMBER, 2016**

| S.N                                 | Name                                 | Designation                           | Attendance                            |
|-------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|
| 1                                   | <u>Dr. J. P. Gupta</u>               | Chairman                              | P                                     |
| 2                                   | <u>Sh. R. K. Singh</u>               | Member                                | P                                     |
| 3                                   | <u>Dr. Ahmed Kamal</u>               | Member                                | P                                     |
| 4                                   | <u>Prof. J.R. Mudakavi</u>           | Member                                | P                                     |
| 5                                   | <u>Dr. Ajay Gairola</u>              | Member                                | Ab – on both day                      |
| 6                                   | <u>Dr. N. Nandini</u>                | Member                                | Ab – on both day                      |
| 7                                   | <u>Prof. (Dr.) H.R. V Reddy</u>      | Member                                | Ab – on both day                      |
| 8                                   | <u>Dr. Shashank Shekhar</u>          | Member                                | P- 1st day<br>Ab- 2 <sup>nd</sup> day |
| 9                                   | <u>Ms. Saloni Goel</u>               | Member                                | P                                     |
| 10.                                 | <u>Shri Suhas RamchandraPharande</u> | Member                                | P                                     |
| 11.                                 | <u>Shri G. C. Pati</u>               | Member                                | Ab- on both day                       |
| 12                                  | <u>Dr. Sanjay Bist</u>               | Member                                | P- 1st day<br>Ab- 2 <sup>nd</sup> day |
| 13                                  | <u>Sh. Paritosh Kumar, CPCB</u>      | Member                                | P                                     |
| 14                                  | <u>Sh. Y.V. Rami Reddy</u>           | Member                                | P                                     |
| <b>MOEF &amp;CC Representatives</b> |                                      |                                       |                                       |
| 15                                  | Shri Lalit Bokolia                   | Additional Director & MS Industry-(2) | P                                     |
| 16.                                 | Shri A.N. Singh, JD                  | MEF&CC                                | P                                     |
| 17                                  | Dr. Saurabh Upadhyay, Sc-B           | MEF&CC                                | P                                     |