

**MINUTES FOR 28<sup>th</sup> RECONSTITUTED EXPERT APPRAISAL COMMITTEE**  
**(INDUSTRY-2) HELD DURING 1<sup>st</sup>-2<sup>nd</sup> DECEMBER , 2014**

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

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

**28.1** Opening Remarks of the Chairman

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

**28.2** Confirmation of the Minutes of the 26<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry-2) held during 29<sup>th</sup> – 30<sup>th</sup> October, 2014.

**28.3 Environmental Clearance**

**28.3.1 Molasses based Distillery (45 KLPD) at Village Nimbali (BK), Tehsil Indi, District Bijapur, Karnataka by M/s M. S Patil Sugars Ltd.- reg. EC**

The project proponent and their consultant (Goldfinch Engineering Systems Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of Reference (TORs) awarded during the 6<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 5<sup>th</sup> - 7<sup>th</sup> March, 2013 for preparation of EIA-EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

TOR was issued by the Industry Sector for setting up of molasses based distillery. TOR was also issued by the Thermal Sector of MoEF vide letter no. J-13012/46/2012-IA II (T) dated 30<sup>th</sup> January, 2013 for installation of 25 MW Co-generation Power Plant. But EIA report was prepared for integrated unit i.e. sugar 5000 TCD, Distillery (45 KLPD) and Cogen Power Plant (25 MW). As per EIA Report, PP has already obtained environmental clearance for 5000 TCD Sugar and 19 MW power generation obtained from the State Environment Impact Assessment Authority, Karnataka. However, as per TOR compliance report, they informed that this is a new unit and certified compliance report of the existing EC was not submitted. Following units will be installed:

S.N.	Unit	Capacity
1	Sugar	5000 TCD
2	Molasses based Distillery 300 days per annum	45 KLPD
3	Cogeneration Power Plant	25.00 MW 17.42 MW ( Exportable Power, Season 180 days) 22.43 MW ( Exportable Power, Off season 150 days)

Total plot area is 110 acre of which greenbelt will be developed in 33 acre of land. Total cost of project is Rs. 319 Crore. Water body (Hosur Halla) is located at a distance of 4.0 Km. It is reported that no wildlife sanctuaries and national park are located within 10 km distance.

Ambient air quality monitoring was carried out at 5 locations during March, 2013 –May, 2013 and submitted data indicates as PM<sub>2.5</sub> (8.3– 19.4 ug/m<sup>3</sup>), PM<sub>10</sub> (50.5–72.8 ug/m<sup>3</sup>), SO<sub>2</sub> (7.0 – 19.25 ug/m<sup>3</sup>) and NO<sub>x</sub> (10-20.6 ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed project is SPM (13.01 ug/m<sup>3</sup>) and NO<sub>x</sub> ( 4.33 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. ESP alongwith stack of adequate height will be provided to bagasse fired boiler (110 TPH). Total fresh water requirement from Bhima River will be 1538 m<sup>3</sup>/day. Spent wash generation will be 450 m<sup>3</sup>/day and treatment scheme comprises bio-methanation followed by concentration in MEE and bio-composting to achieve zero discharge. Effluent from sugar and cogen power plant will be treated in the effluent treatment plant. Treated effluent will be used for horticulture purpose. However, Committee suggested them to explore the possibility for conserving water by recycling the treatment effluent in the process. Lined composting yard of 5.00 acres will be constructed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 31.08.2013. The issues were raised regarding local employment, non-commissioning of existing sugar unit, irrigation canal to be made operational 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 desired following additional information:

- i. Confirmation of existing EC issued for sugar unit and cogeneration power plant. Whether these unit/facilities are implemented or not?
- ii. Different figures /concentration of pollutants have been indicated in EIA report. Similarly, values of plot areas are given to be different. Followings are noted in report and during presentation:
  - At page 10 of EIA Report, predicted GLC is mentioned as PM<sub>10</sub> (1.56 ug/m<sup>3</sup>), SO<sub>2</sub> (3.30 ug/m<sup>3</sup>) and Oxides of Nitrogen (12.52 ug/m<sup>3</sup>). Whereas at page 59 of EIA report, GLC of NO<sub>x</sub> and SPM is calculated as 4.33 ug/m<sup>3</sup> and 13.01 ug/m<sup>3</sup>.
  - At page 12 of EIA report, plot area is mentioned as 97 acre while at page 3, land required is mentioned as 110 acre.
  - As per TOR presentation, distillery plant will be operated for 270 days. Whereas EIA report is prepared for 300 days per annum distillery operation. But in presentation, calculation for bio-composting has been carried out based on 270 days.
  - As per TOR presentation, spent wash treatment scheme comprises bio-methanation followed by concentration in MEE and burning in incineration boiler to achieve zero discharge. Whereas, as per page 8 of EIA report, spent wash treatment scheme suggested bio-methanation followed by concentration in MEE and bio-composting to achieve zero discharge. Reasons for change in the effluent treatment process.

Therefore, One month data for ambient air quality monitoring to be carried out and treatment methods of wastewater to be defined clearly as per the TOR . Revised EIA-EMP report to be submitted with point wise compliance of conditions prescribed in the TOR.

- iii. Further ESR plan along with details of its expenditures (year wise) to be provided with revised EIA report.

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

### **28.3.2 Expansion of Integrated Sugar and distillery Complex at Village Hullati & Alloli, Taluk Haliyal, District Uttaru Kannada, Karnataka by M/s EID Parry (India) Ltd. - Reg. EC**

The project proponent and their consultant (Pioneer Enviro Laboratories & Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 6<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 5<sup>th</sup> March, 2013- 7<sup>th</sup> March, 2013 for preparation of EIA-EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level. TOR was issued in the name of M/s Parrys Sugar Industries Ltd. MoEF& CC vide letter no J-11011/336/2012 IA II (I) dated 8<sup>th</sup> October, 2014 has transferred the TOR in the name of M/s EID Parry (India) Ltd.

M/s EID Parry (India) Ltd. has proposed for expansion of Integrated Sugar Complex at Village Hullati & Alloli, Taluk Haliyal, District Uttaru Kannada, Karnataka. Total plot area of the existing plant is 226 acres and proposed expansion will be taken up in the existing plant premises only. Greenbelt will be developed in 85 acres of land. Total cost of project is Rs. 125 Crore. It is reported that no national parks/wild life sanctuaries are located within 10 km distance. A few reserve forests are located within 10 km distance. Tattihala River is flowing at a distance of 2.2 Km. Few unnamed reserved forests are located within the 10 km distance from the plant site. Following are the details of the existing and proposed unit:

S.N.	Unit	Number of working days	Capacity		
			Existing	Expansion	Total
1	Sugar	180 days	4800 TCD	1200 TCD	6000 TCD
2	Co-generation Power Plant		24 MW	10 MW	34 MW
3	Distillery	300 days	45 KLPD	45 KLPD	90 KLPD
4	Power from Incineration Boiler	300 days ( based on bagasse availability)	---	3 MW	3 MW

Molasses (48600 Tons) will be available from own unit. Additional molasses required will be sourced from the sister concern unit at Ram Durg, Karnataka (32,400 TPA) and remaining from other sugar plants in the area. The bagasse generated from the own unit will be adequate for operating Co-generation plant for about 200 days.

Ambient air quality monitoring was carried out at 6 locations during October, 2013 – December, 2013 and submitted data indicates as PM<sub>2.5</sub> (16.5– 32.5 ug/m<sup>3</sup>), PM<sub>10</sub> (24.1–49.6 ug/m<sup>3</sup>), SO<sub>2</sub> (8.8 – 13.9 ug/m<sup>3</sup>) and NO<sub>x</sub> (9.4-18.7 ug/m<sup>3</sup>). Predicted value of ground level

concentration due to proposed expansion project is PM10 (0.8 ug/m<sup>3</sup>), SO<sub>2</sub> (12.0 ug/m<sup>3</sup>) and NO<sub>x</sub> (7.9 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. Boiler (120 TPH) and Boiler (10 TPH) exist in the existing premises. ESP alongwith stack of adequate height will be provided to bagasse fired boiler (45 TPH). Bagfilter alongwith stack of adequate height will be provided to spentwash fired boiler (10 TPH). Total water requirement will be increased from 3157 m<sup>3</sup>/day to 4316 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement after expansion will be 3161 m<sup>3</sup>/day and requirement will be met from Kali River. Wastewater generation from sugar unit will be increased from 480 m<sup>3</sup>/day to 592 m<sup>3</sup>/day after expansion. Effluent from Co-gen power plant will be increased from 305 m<sup>3</sup>/day to 407 m<sup>3</sup>/day after expansion. Existing ETP is designed for hydraulic load of 1000 m<sup>3</sup>/day. After the expansion the total quantity with condensate from MEEs will be 1300 m<sup>3</sup>/day. Therefore, PP proposes to augment the ETP capacity upto 1600 m<sup>3</sup>/day. Spent wash of distillery will be concentrated in MEE and concentrated spent wash will be incinerated in incineration boiler to achieve zero discharge. Incineration boiler will run with auxiliary fuel of coal. Fly ash from Bagasse will be used as manure in agriculture lands. Ash from concentrated spent wash will be given to group fertilizer unit.

The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Southern regional office, Bangalore. It is reported that the project authorities adopting continuous fermentation technology. Spentwash generation is about 8 KL/KL of alcohol produced. The spent wash is evaporated in MEE. The condensate from evaporator is being sent to ETP and then after treatment it is used for irrigation purpose in their own land. ESP has been provided to existing bagasse fired boiler (120 TPH). Stack emission is being monitored by third party. It was observed that the greenbelt development work is inadequate and needs improvement. Apart from greenbelt development, the Committee found compliance report satisfactory. The Committee advised them to prepare years-wise greenbelt development plan and submit to the Regional Office. Each year achievement also be submitted to the Regional Office.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 23<sup>rd</sup> May, 2014 under the chairmanship of District Commissioner/District Magistrate. The issues were raised regarding CSR, smell nuisance, effluent management, to pay good price for sugarcane, village development activity etc. In response, PP informed that the Company is running the Anganwadi Center in the Haliyal mainly for the children of labour class and also provided basic infrastructure for the said centre. As regard to dust emission and smell nuisance, PP informed that dust nuisance is not from the emissions from industry and it is not fly ash but it is particle spread out from sugar cane farm. Regarding smell nuisance, PP informed that necessary additional measures will be taken to mitigate the dust nuisance and smell nuisance by investing wherever it is required. However, they are complying with the norms such spent wash treatment consisting of concentration followed by incineration, proper storage of spent wash in closed vessels, greenbelt is developed. Regarding employment, pp informed that 80 % of the employees are from local villages and for expansion project priority will be given to the locals for employment. 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) ESP alongwith stack of adequate height will be provided to bagasse fired boiler (45 TPH). Bagfilter alongwith stack of adequate height will be provided to spentwash fired boiler (10 TPH) to control particulate emissions within 50 mg/Nm<sup>3</sup>. 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.
- ii) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iii) Total fresh water requirement from Kali River for distillery and sugar alongwith cogeneration shall not exceed 3161 m<sup>3</sup>/day. Prior permission for the drawl of 3161 m<sup>3</sup>/day water shall be obtained from the Competent Authority.
- iv) Spent wash generation from molasses shall not exceed 8 Kl/Kl of alcohol produced (i.e. 720 m<sup>3</sup>/day). The spent wash from molasses based distillery will be concentrated in MEE and concentrated spent wash will be incinerated in incineration boiler to achieve zero discharge. Condensate water and treated spentlees will be reused as dilution water for fermentation, cooling tower and boiler make up.
- v) Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed i.e. 600 m<sup>3</sup>/day. Effluent from sugar unit shall be treated in the effluent treatment plant (ETP). Water quality of treated effluent shall be monitored regularly. In any case, no wastewater/treated effluent shall be discharged into river/natural stream. Domestic effluent shall be treated in treatment plant.
- vi) Spent wash shall be stored in impervious lagoon with HDPE lining as per CPCB guidelines and shall be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon shall be for 5 days.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and MPCB.
- viii) As proposed, no effluent from sugar, distillery and co-generation power plant shall be discharged outside the premises and Zero effluent discharge concept shall be followed.
- ix) Baggase storage should be done in such a way that it does not get air borne or fly around due to wind. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.

- xi) Risk Assessment shall be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the Ministry and its Regional Office at Bhopal within six months.
- xii) 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.
- xiii) Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv) Green belt shall be developed in 85 acres of land out of total land of 226 acres 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. Unit shall prepare years-wise greenbelt development plan to achieve target of 85 acres greenbelt and submit to the Regional Office. Each year achievement also be submitted to the Regional Office.
- xv) 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 medical records of each employee should be maintained separately.
- xvi) All the commitments made during the Public Hearing / Public Consultation meeting held on 23<sup>rd</sup> May, 2014 should be satisfactorily implemented and adequate budget provision should be made accordingly.
- xvii) At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.
- xviii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

**28.3.3 Expansion of Sugar Unit (from 3300 TCD to 6500 TCD), Cogeneration Power Plant (from 15 MW to 38 MW) and inclusion of Molasses based Distillery (60 KLPD) at Ambalika Nagar, A/P Jagdamba Factory, Taluka Katjat, District Ahmednagar, Maharashtra by M/s Shri Ambalika Sugar Pvt. Ltd.– reg. EC**

The project proponent and their consultant (Ultratech Environmental Consultancy & Laboratory) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References

(TORs) awarded during the 19<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup>-30<sup>th</sup> May, 2014 for preparation of EIA-EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Shri Ambalika Sugar Pvt. Ltd. has proposed for expansion of Sugar Unit ( from 3300 TCD to 6500 TCD), Cogeneration Power Plant ( from 15 MW to 38 MW) and inclusion of Molasses based Distillery (60 KLPD) at Ambalika Nagar, A/P Jagdamba Factory, Taluka Katjat, District Ahmednagar, Maharashtra. Existing plot area is 300 acre, of which greenbelt will be developed in 110 acres of land. Cost of project has been revised from Rs. 283.7 Crore (at TOR stage) to Rs. 348.93 Crore. River Bhima is flowing at a distance of 6.6 Km. It is reported that no wildlife sanctuary/national park is located within 10 Km distance. Following are the details of existing ad expansion project:

S.N.	Production Unit	No of working days in a year	Existing	Additional Capacity	Total
1	Sugar Unit	180 days	3300 TCD	4200 TCD	7500 TCD
2	Cogeneration Power Unit	270 days	15 MW	23 MW	38 MW
3	Distillery	300 days	--	60 KLPD	60 KLPD

Molasses (60750 TPA) will be obtained from captive source and remaining (11250 TPA) will be sourced from nearby sugar industries (without associated distillery).

Ambient air quality monitoring was carried out at 9 locations during March, 2014 –May, 2014 and submitted data indicates as PM10 (60.12–64.8 ug/m<sup>3</sup>), PM2.5 (40.32–48.7 ug/m<sup>3</sup>), SO<sub>2</sub> (30.36 – 40.09 ug/m<sup>3</sup>) and NO<sub>x</sub> (33.4-38.4 ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed project is SPM (0.9 ug/m<sup>3</sup>) and SO<sub>2</sub> (4.6 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. ESP alongwith stack of adequate height will be provided to biomass/agro-residue/coal fired boiler (1x90 + 1x110 TPH). ESP alongwith stack of adequate height will be provided to concentrated spent wash fired boiler (28 TPH). DG set (2x 1000 KVA + 1x 250 KVA) will be installed. Rs. 49.05 Crores and Rs. 9.24 crores per annum are earmarked for Capital cost recurring cost for pollution control measures. Fresh water requirement for sugar and cogen power plant after expansion will be 1180 m<sup>3</sup>/day. PP informed that fresh water requirement for distillery will be 959 m<sup>3</sup>/day. However, the Committee suggested that distillery water consumption shall be based on 10 KI per KL alcohol production. Effluent (1040 m<sup>3</sup>/day) from sugar and cogen will be treated in ETP. Sober, moderate effluent and condensate water will be treated in the treatment scheme comprises equalization, anaerobic treatment, aerobic treatment and tertiary treatment etc. Spent wash will be concentrated in MEE and concentrated spent wash will incinerated in incineration boiler to achieve zero discharge. PP informed that Rs 9.0 Crore amounts have been allocated under ESR. PP informed that fifteen meter wide greenbelt will be done at entire boundary. One row of trees on both sided of internal roads with canopy will be provided.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 2<sup>nd</sup> September, 2014 under the chairmanship of Additional District Magistrate. The issues were raised regarding disposal of wastewater, local employment, disposal of solid waste, water conservation, air pollution control measures etc. regarding spent wash treatment, PP informed that spent wash generated from distillery will be concentrated in MEE and concentrated spent wash will be burned in incineration boiler. Regarding local employment, PP informed that in future Company will retain 85 % of people from the local area. The existing employees are given training as per requirement. 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) ESP alongwith stack of adequate height shall be provided to bagasse fired boilers to control particulate emissions within  $50 \text{ mg/Nm}^3$ . 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.
- ii) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iii) Total fresh water requirement from river for distillery and sugar alongwith cogeneration shall not exceed  $1780 \text{ m}^3/\text{day}$ . Prior permission for the drawl of water shall be obtained from the Competent Authority.
- iv) Spent wash generation from molasses shall not exceed 8 KI/KI of alcohol produced (i.e.  $480 \text{ m}^3/\text{day}$ ). The spent wash from molasses based distillery should be concentrated in MEE and concentrated spent wash shall be incinerated in incineration boiler to achieve zero discharge. Condensate water and treated spentlees will be treated in ETP and treated effluent shall be reused as dilution water for fermentation, cooling tower and boiler make up.
- v) Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit shall be treated in the effluent treatment plant (ETP). Water quality of treated effluent shall be monitored regularly. In any case, no wastewater/treated effluent shall be discharged into river/natural stream. Domestic effluent shall be treated in treatment plant.
- vi) Spent wash shall be stored in impervious lagoon with HDPE lining as per CPCB guidelines and shall be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon shall be for 5 days.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and MPCB.
- viii) As proposed, no effluent from sugar, distillery and co-generation power plant shall be discharged outside the premises and Zero effluent discharge concept shall be followed.
- ix) Baggase storage should be done in such a way that it does not get air borne or fly around due to wind. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided.

- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.
- xi) Risk Assessment shall be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the Ministry and its Regional Office at Bhopal within six months.
- xii) 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.
- xiii) Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv) Green belt should be developed in 110 acres out of 300 acres to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO.
- xv) All the commitments made during the Public Hearing / Public Consultation meeting held on 2<sup>nd</sup> September, 2014 should be satisfactorily implemented and adequate budget provision should be made accordingly.
- xvi) 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.

**28.3.4 Proposed setting up of EPS at M#1 and (2) setting up of EPS M1A1 in CB-ONN-2002/03 (Sanand Miroli Block) at Ahmedabad District, Gujarat by M/s Gujarat State Petroleum Corporation Ltd –reg. EC**

The project proponent and their Consultant (Detox Corporation 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 6<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 5<sup>th</sup> – 7<sup>th</sup> March, 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 Gujarat State Petroleum Corporation Ltd have proposed to set up surface protection facilities – two nos. in CB ONN-2002/02 Sanand Miroli block, Ahmedabad District, Gujarat. The block falls in Ahmedabad, Mehsana and Gandhinagar districts of Gujarat. Total area of the block is 285 sq.km. Major area of the block falls in Ahmedabad district. GSPC

has obtained the Environmental Clearance for drilling of total 17 wells in CB ONN-2002/03 block vide MoEF letter No. J-11011/1046/2007-IAII (I) dated 7.2.2008. Public Hearing for the block was conducted on 4.12.2007 at Ahmedabad. Cost of project is Rs. 1.3 Crore. The total land acquired for M1 is 19418.3 sq. m and for M1A1 is 22585 sq.m. Out of which greenbelt will be developed in 6408.39 m<sup>2</sup> and 7453.05 m<sup>2</sup> respectively.

Out of 17 drilled wells, M/s GSPC has proposed two surface facilities falls in (M 1 and M1 A1) in Dholka Taluka of Ahmedabad district. The details of these two surface facilities are as below. No Forest land is involved. It is reported that no National Park, Wildlife Sanctuary within 5 km radius of the project site. Water body (Lake) is located at a distance of 0.70 Km. Details of surface facilities are as given below:

S. N	Facility name	Latitude/Longitude	Survey No	Location	Area	Production
1.	M1:SURFACE PRODUCTION FACILITY – 19418 sq.m.	Latitude : 22°45'38.30" N Longitude : 72°30'35.20" E	832, 833, 835, 836,832.	Ambliya ra	Ahmedabad	Crude oil: 2-4 SCM/day, Water: 0.5-2 SCM/day and Associated Gas: 100-150 SCM/day
2.	M1 A1 :SURFACE PRODUCTION FACILITY - 22585 sq.m	Latitude : 22°45'27.78" N Longitude : 72°30'44.34" E	827, 828, 829, 830P, 833, 832.	Ambliya ra	Ahmedabad	Crude oil: 2-4 SCM/day, Water: 1-3 SCM/day and Associated Gas: 120-200 SCM/day

The PP informed the Committee that ambient air quality monitoring was carried out at 11 locations during 15<sup>th</sup> May, 2013 – 15<sup>th</sup> June, 2013 and submitted data indicates PM<sub>2.5</sub> (12-57 ug/m<sup>3</sup>), PM<sub>10</sub> (75-106 ug/m<sup>3</sup>), SO<sub>2</sub> (3.17-13.02 ug/m<sup>3</sup>) and NO<sub>x</sub> (5.15-15.64 ug/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.277 µg/m<sup>3</sup>, 0.459 µg/m<sup>3</sup> and 2.089 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS except particulate matter. The higher side concentration was observed due to urbanization in the area and major construction activities in the vicinity. Water consumption from tanker supply/ground water will be 5.4 m<sup>3</sup>/day. Effluent generation from EPS M # 1 and EPS M1 # A1 will be 2.05 m<sup>3</sup>/day and 3.05 m<sup>3</sup>/day. Out of which produce water generation will be 2 m<sup>3</sup>/day and 3 m<sup>3</sup>/day respectively and sent to CETP for final treatment. Used oil, oily sludge and oily cotton waste will be generated will be stored in closed container in isolated area. Oily cotton waste and oily sludge will be handed over to registered recyclers.

The power requirement will be met through Gujarat Electricity Board. D.G sets of 63.5 KVA each will be used in the M 1 and M1A1 production facility as a standby arrangement.

The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's Western regional office, Bhopal. It is reported that compensation amount was paid to the owners from whom land was acquired as per Central / State Government norms. The Compensation is paid as per the policy on National Resettlement and Rehabilitation Rules, 2007. Impervious lining pit are provided for collecting drill cuttings & wastewater and were disposed off as per the order. However, details of generation & disposal were not submitted for all the wells. The characteristics of waste were analysed as claimed but results were not submitted. Disposal of ETP waste of 16.395 tonne and soil mixed with oil of 1.620 tonne were disposed at TSDF on 7.4.11 and 12.12.13 respectively. The only details of disposal of oily waste dated 24.03.2009 were submitted. In response PP informed that the data will be submitted to the Regional Office. Regional Office noticed that oil was being collected from two wells and necessary facilities were maintained. About 46.5 m<sup>3</sup> and 3.5 m<sup>3</sup> of oil (called as test production) were dispatched from well M1 and M1A1 respectively in January 2014. It was informed during the visit that oil is produced due to high pressure in the well. In response, PP informed that to establish production rate sustainability, it required to test wells occasion which was in progress during the site visit. Commercial production will be carried out only after getting proper permission from MoEF. Committee suggested to submit the same in writing to the MoEF & CC.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Gujarat Pollution Control Board on 20<sup>th</sup> December, 2013 for Ahmedabad District. The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the AP Pollution Control Board on 13<sup>th</sup> March, 2014 for West Godavari District. The issues raised were regarding land acquisition, land restoration, fire, safety, supply of drinking water etc., which have been 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) VOC shall be monitored in the ambient air.
- ii) 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.
- iii) Total fresh water requirement from tanker supply shall not exceed 5.4 m<sup>3</sup>/day.
- iv) Produced water shall be sent to CETP after meeting the standards prescribed by the SPCB. No process effluent should be discharged in and around the project site.
- v) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vi) Sufficient greenbelt shall be developed along the boundary of the project premises.

**28.3.5 Exploratory Drilling (3 wells) of M/s Oil & Natural Gas Corporation Ltd. (ONGCL) in Bengal Onshore Block WB-ONN-2005/2, West Bengal under NELP VIII – reg. EC.**

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) awarded during the 27<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 21<sup>st</sup>-22<sup>nd</sup> September, 2011 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. Extension of validity of TOR for another one year was recommended in the 14<sup>th</sup> EAC meeting held during 18<sup>th</sup> – 20<sup>th</sup> November, 2013.

M/s Oil & Natural Gas Corporation Ltd have proposed for the Exploratory Drilling (3 wells) in Bengal Onshore Block WB-ONN-2005/3, West Bengal under NELP-VII. 3 wells will be drilled. Under the New Exploration Licensing Policy (NELP) of Government of India, M/s ONGCL has been awarded an exploration (onshore) Block WB-ONN-2005/3 in Bengal Basin, West Bengal for exploration of hydro carbons and spread over Hooghly, Howrah, Bankura and Burdwan Districts. The block lies in Hugli, Bankura and Midnapur districts in West Bengal. Block area is 4001 Km<sup>2</sup>. Target depth of drilling varies from 2000 m to 2300 m. Total cost of the project is Rs.90 Crores for all the 3 wells proposed. Co-ordinates of the Block: WB-ONN-2005/3 are as follows:

Point	Longitude			Latitude		
	Deg	Min	Sec	Deg	Min	Sec
A	87	35	0	23	14	0
B	87	45	0	23	14	0
C	87	45	0	23	20	0
D	88	10	0	23	20	0
E	88	10	0	22	42	0
F	87	35	0	22	42	0
A	87	35	0	23	14	0

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during December, 2012-February, 2013 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (52 µg/m<sup>3</sup> to 92 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18 µg/m<sup>3</sup> to 30 µg/m<sup>3</sup>), SO<sub>x</sub> (4 µg/m<sup>3</sup> to 8 µg/m<sup>3</sup>) and NO<sub>x</sub> (5 µg/m<sup>3</sup> to 10 µg/m<sup>3</sup>) respectively. The resultant concentrations are within the National Ambient Quality Monitoring Standards (NAAQM) set by CPCB.

Emission will be generated for D.G. sets (4x 380 KVA). Stack of adequate height will be provided. Water requirement will be 15-20 m<sup>3</sup>/day transported from nearby source, through contractor. Wastewater generated from drilling cuttings will be 3 m<sup>3</sup>/day. Effluent will be treated in the Effluent Treatment Plant (ETP). Treated waste water will be recycled. Drilling fluid will be recycled. Drill cuttings (150-200 MT) will be generated. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30<sup>th</sup> August, 2005. Used oil will be sent to authorised recyclers. HSD (250 LPH) will be used as fuel in rig and D.G. sets during drilling period. DG sets (4 x 1250 KVA) will be installed. Blow out prevention techniques will be part of drilling rig unit. Blow out preventers

(BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 17<sup>th</sup> July, 2014 for Bankura District and 23<sup>rd</sup> July, 2014 for Hugli District. The issues raised were regarding process of land acquisition, payment of the compensation, Development of local schools & health centre, compensation amount for different category of land producing two crops, restoration process of land, CSR for women development programme etc. The Committee was satisfied with the response of the PP. However, it was noted that copy of public hearing reports are enclosed with the EIA- EMP report. The Committee suggested the same may be incorporated the EIA-EMP report may be submitted to the MoEF&CC.

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

- i. The present EC is for Exploratory Drilling only. In case Development drilling to be done in future, prior environmental clearance must be obtained from the Ministry.
- ii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, methane & Non-methane HC etc.
- iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iv. Approach road shall be made pucca to minimize generation of suspended dust.
- v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
- vi. Total water requirement shall not exceed 20m<sup>3</sup>/day and prior permission shall be obtained from the concerned agency.
- vii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- viii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhubaneswar.
- ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- x. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

- xi. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- xii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- xiii. The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xiv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xv. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xvi. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xvii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
- xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xx. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xxi. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhubaneswar.
- xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhubaneswar.
- xxiii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxiv. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.
- xxv. A social audit shall be carried out for the whole operation area with the help of reputed institute like Madras Institute of Social Science etc.
- xxvi. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxvii. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxviii. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection.

One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.

### **Reconsideration for Environmental Clearance**

#### **28.3.6 Expansion of existing Sugar Plant (6500 TCD with 22.5 MW CPP) by setting up Distillery Plant (60 KLPD) at Parts of Survey Nos. 125 to 134, 325 to 328, Village Kundargi, Taluka Bilagi, District Bagalkot, Karnataka by M/s GEM Sugar Ltd – reg. EC**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 18<sup>th</sup> meeting held during 28<sup>th</sup> - 30<sup>th</sup> April, 2014 for grant of Environmental Clearance. As per the minutes of the meeting, the Committee had sought the following documents from the proponent for reconsideration of the proposal:

- 1 Copy of environmental clearance of the existing Sugar unit and Cogeneration power plant to be submitted (reasons, if not obtained).
- 2 Copy of Consent to establish issued by the SPCB for the existing unit.
- 3 Valid consent to operate issued by the SPCB for the existing unit.

Project proponent vide letter dated 15<sup>th</sup> October, 2014 has submitted the above mentioned information. A copy of environmental clearance letter no. FEE55 ECO 2000 dated 15.07.2000 issued by the Government of Karnataka for Sugar unit (2500 TCD) & 12 MWhr. A copy of environmental clearance letter no. FEE55 ECO 2000 dated 22.09.2000, issued by the Government of Karnataka for expansion of Sugar unit (from 2500 TCD to 4000 TCD) has been submitted. A copy of consent to establish letter no KSPCB/CFE/GEM Sugar/DEO-6/98/194 dated 3/10/98 issued by KASPCB for sugar (2500 TCD) and Cogeneration power plant (12 MW) has been submitted. A copy of consent to establish letter no KSPCB/CFE/GEM Sugar/DEO-6/AEO-2/2000-01/184 dated 25/07/2000 issued by KASPCB for Cogeneration power plant (from 12 MW to 22.5 MW) has been submitted. PP informed that existing unit was established prior to EIA Notification, 2006. A copy of CTE letter no. KSPCB/CFE-NEIA/GSL/2006-2007/73 dated 3/06/2006 for expansion of sugar unit (from 4000 TCD to 6000 TCD) has been submitted. KSPCB vide letter dated 28.06.2006 has issued amendment for sugar unit (6500 TCD). Copy of consent to operate letter dated 2.12.2013 issued by KSPCB , which was valid upto 30.06.2014 has been submitted. The Committee also deliberated upon the compliance status of environmental conditions stipulated in the consent to operate.

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

- i) Distillery unit shall be based on Molasses based only and no Grain based distillery unit shall be operated. Distillery shall be operated for 300 days.
- ii) Bagfilter along with stack of adequate height shall be provided to bagasse/spent wash slops/imported coal fired boilers (22TPH) to control particulate emissions within 50 mg/Nm<sup>3</sup>.

- iii) Total fresh water requirement from River Ghataprabha shall not exceed 643m<sup>3</sup>/day for distillery and CPP and prior permission shall be obtained from the Competent Authority.
- iv) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated in incineration boiler to achieve 'Zero' discharge. Evaporator Condensate shall be treated and recycled/reused in process. Spentlees will be treated in RO and RO permeate will be recycled back in the process. RO rejects shall be treated in ETP of Sugar unit. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- v) Spent wash shall be stored in impervious pucca 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 and co-generation power plant shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- viii) 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 Bangalore and KSPCB.
- ix) Bagasse/biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- x) 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. Bagasse ash and coal ash shall be stored separately.
- xi) 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.
- xii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xiii) Dedicated parking facility for loading and unloading of 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.

- xiv) 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.
- xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 29<sup>th</sup> October, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi) 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.

**28.3.7 Expansion of Grain Based Distillery (134 KLPD to 500 KLPD) at Plot No.169 & 170, Village Udumpularpur, Mandal Nandyal, District Kurnool, Andhra Pradesh by M/s SPY Agro Industries Pvt. Ltd. (J-11011/339/2011-IAII(I) – reg. EC**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 16<sup>th</sup> meeting held during 20<sup>th</sup> – 21<sup>st</sup> February, 2014 for grant of Environmental Clearance and the Committee recommended the proposal for environmental clearance. In the mean time, MoEF has issued clarification vide OM No. J-11013/36/2014-IA-I dated 16<sup>th</sup> May, 2014, individual units may be exempted from public hearing in cases where the industrial areas/estates have obtained prior environmental clearance under EIA Notification, 2006 as provided for under 7 (c) of the schedule. Further, MoEF&CC directed the PP to conduct public hearing. Accordingly, public hearing was conducted by APPCB on 08.10.2014 for the proposed expansion of grain based distillery unit from 135 KLPD Distillery to 500 KLPD alongwith installation of 16.5 MW Co-generation Power Plant. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting. The issues were raised regarding CSR activities carried out by the PP, pollution due to existing unit, greenbelt etc. In response, PP informed that the major source of smell nuisance from their industry is from the existing ETP based on biomethanation and the wet cake storage area. They clarified that they will dismantle the existing ETP and proposed to install MEE , RO system and dryers from drying wet cake. They had already developed greenbelt in the industry and upgraded the co-generation power plant. They also assured that employment opportunities will be given to the local villagers based on qualification. 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 proposal for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Distillery unit should be based on Grain based only and no Molasses based distillery unit should be operated.

- ii. ESP shall be provided coal/rice husk fired boiler (3 x 50 TPH) to emission 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 so as to avoid fugitive emissions.
- iv. Total fresh water requirement from River Kundu should not exceed 5442 m<sup>3</sup>/day for distillery and cogeneration unit.
- v. Water consumption should be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi. Spent wash generation should not exceed 6 KI/KI of alcohol. After expansion, entire Spent wash of 500 KLPD distillery should be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. Spentlees, effluent from utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vii. As proposed no spent wash storage lagoon will be provided.
- viii. No effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge should be adopted.
- ix. 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.
- x. No storage of wet cake should be done at site. An additional dryer should be installed so that at any time wet cake is not sold then wet cake should be converted into dry cake by operating additional dryer.
- xi. Coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- xii. 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 along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- 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 commitments made during the Public Hearing / Public Consultation meeting held on 08.10.2014 should be satisfactorily implemented and adequate budget provision should be made accordingly.
- xvi. As proposed, 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.
- xvii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise social responsibility based on public hearing issues 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.
- xviii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

### **28.3.8 Chemical manufacturing Unit of M/s Flow Tech Chemicals Pvt. Ltd. at PACL Campus, Naya Nangal, Dist. Ropar, Punjab (EC)**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 19<sup>th</sup> meeting held during 28<sup>th</sup> -30<sup>th</sup> May 2014 and the Committee sought an authenticated map of the shortest (aerial) distance of the project from Nangal Wetland and with a clarification from PCCF (WL), Govt. of Punjab whether it is a Ramsar Site/eco-sensitive area/WL Sanctuary for record of the Ministry before according EC.

PP vide letter dated 09.09.2014 has submitted a copy of survey map showing the aerial distance of the Nagal wet land from the project site which is approximately 5 Km. List of Ramsar sites in India and the only nearest Ramsar Site is Ropar which is approximately 40 km from the proposed site. The same was verified by the Regional Office of MoEF. They also added that the State Government of Punjab has intended to declare nangal wetland as wildlife sanctuary but final notification to declare it as Wildlife sanctuary is yet to be issued by the State Government. The Committee clarified that national parks and sanctuaries are well defined and notified/mapped under Forest (Cons.) Act, Wildlife (Protection) Act. However, nangal wetland is not yet notified as wildlife sanctuary. M/s Flowtech Chemicals Pvt. Ltd. has proposed to establish unit within the campus of M/s Punjab Alkali Chemical Limited Campus and obtain chlorine through pipeline from M/s Punjab Alkali. Chlorine alarm system will be installed for early warning on action of chlorine control. No chlorine will be stored in the plant premises. Stringent safety precaution will be followed. The Committee after deliberation was of the view that impact of proposal at the distance of 5 Km is insignificant.

After detailed deliberations, the Committee, based on the EIA-EMP Report recommended the project for EC and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- ii) Chlorine shall be supplied through pipeline. Chlorine alarm system shall be installed for early warning on action of chlorine control. No chlorine shall be stored in the plant premises. An adequate safety and Risk Assessment Plan for use of Chlorine shall be prepared based on which an On-site and Off-site Emergency Preparedness and Disaster Management Plan shall be prepared and implemented.
- iii) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.
- iv) Total fresh water requirement from ground water source shall not exceed 90 m<sup>3</sup>/day and prior permission shall be obtained from the competent Authorities.
- v) Effluent from utilities shall be treated in ETP and recycled and reused within plant premises. No effluent shall be discharged outside the plant premises.
- vi) 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.
- vii) Alarm for chlorine leakage if any in the liquid chlorine storage area is provided along with automatic start of the scrubbing system.
- viii) 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.
- ix) All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 3<sup>rd</sup> April, 2013 shall be satisfactorily implemented.
- x) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.

## 28.4 Terms of Reference (TOR)

### 28.4.1 Expansion of Refinery capacity from 7.5 MMTPA to 8.0 MMTPA by revamping CDU-I (from 3.3 to 3.8 MMTPA) & revamping VDU-I (from 1.5 to 1.7 MMTPA) at Haldia Refinery, District Medinipur, West Bengal by M/s Indian Oil Corporation Limited- regarding 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 report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s Indian Oil Corporation Limited has proposed for expansion of Refinery capacity from 7.5 MMTPA to 8.0 MMTPA by revamping CDU-I (from 3.3 to 3.8 MMTPA) & revamping VDU-I (from 1.5 to 1.7 MMTPA) at Haldia Refinery, District Medinipur, West Bengal. IOCL Haldia Refinery is a 7.5 MMTPA nameplate capacity refinery, processing approx. 65-70% High sulfur crudes (mainly middle-east origin) and balance Low sulfur crudes (mainly Malaysian & African origin). The refinery is a Fuels + Lubes Refinery, producing all grades of fuels (SKO, ATF, MS, HSD etc) as well as API Gr-I/II/III Lube oil Base Stocks (70N, 150N, 500N, HN, BN/BP etc), apart from producing SRN & Furnace Oils and Bitumen. As per original configuration, the refinery is bound to produce substantial quantity of Furnace Oil (very low value compared to crude and middle distillates) from bottom of the barrel (i.e. Vacuum residue). Hence, Distillate Yield Improvement Project (DYIP) has been proposed, wherein units such as Delayed Coker Unit (1.7 MMTPA), Coker Gas Oil Hydrotreater Unit (1.4 MMTPA) and Coker LPG treating Unit (70 TMTPA) are considered for improving distillate yield of the refinery. Also, in post-DYIP scenario, refinery capacity is envisaged to be augmented from current 7.5 MMTPA to 8.0 MMTPA thru' Crude Distillation Unit Revamp (CDU-I) along with matching capacity augmentation in downstream vacuum distillation unit (VDU-I). Following is the crude unit revamp scenario as well as vacuum distillation unit revamp case.

Attributes	Crude Distillation Unit	Vacuum Distillation Unit
Target Unit	CDU-I	VDU-I
Present Capacity	3300 TMTPA	1500 TMTPA
Target Capacity post revamp	3800 TMTPA	1700 TMTPA
Licensor for revamp package	In-house	In-house
Major Modifications envisaged	<ul style="list-style-type: none"> <li>• Desalter change</li> <li>• Modification in feed preheat network</li> <li>• Modifications in furnace</li> <li>• Prefractionator column and Main Fractionator column internals change &amp; nozzles'</li> </ul>	<ul style="list-style-type: none"> <li>• Main Vacuum Fractionator column internals change &amp; nozzles' augmentation</li> <li>• Replacement of pumps</li> <li>• Replacement of ejector system</li> </ul>

	augmentation • Replacement of pumps	
Requirement of additional land / Manpower	No requirement	No requirement
Requirement of additional Power & Utility	<ul style="list-style-type: none"> <li>• Additional Fuel:</li> <li>• Additional Steam:</li> <li>• Additional Power:</li> <li>• Additional Cooling Water:</li> </ul>	<ul style="list-style-type: none"> <li>• Additional Fuel:</li> <li>• Additional Steam:</li> <li>• Additional Power:</li> <li>• Additional Cooling Water:</li> </ul>
Incremental Stack Emission	SO <sub>x</sub> : 11 kg/h (considering 100% IFO burning in furnace, IFO 'S' ≤1% w/w) CO/NO <sub>x</sub> : Nil by low-NO <sub>x</sub> burner & proper combustion control	SO <sub>x</sub> : 7 kg/h (considering 100% IFO burning in furnace, IFO 'S' ≤1% w/w) CO/NO <sub>x</sub> : Nil by low-NO <sub>x</sub> burner & proper combustion control
Incremental Effluent Generation	3.6 m <sup>3</sup> /h (which shall be taken care of by existing ETP)	1.1 m <sup>3</sup> /h (which shall be taken care of by existing ETP)
Approximate Cost for revamp (±30%)	~20 Crores	~40 Crores

The Committee noted that MoEF&CC has already issued TOR alongwith public hearing for Installation of Feed Preparation Unit (FPU) for Catalytic Dewaxing Unit (CDWU) at Haldia Refinery, West Bengal. The Committee suggested to update the said EIA-EMP report by taking this expansion into consideration. The Committee also desired the following additional information:

- i) Details of additional utilities to be installed.
- ii) Compliance report on the implementation of new standards for Refinery.
- iii) Details of Sulphur balance in the existing refinery unit and proposed expansion. Additional SO<sub>2</sub> emissions due to the proposed product mix.
- iv) Details of water consumption and source of water supply, waste water generation, treatment and utilisation of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire. Water balance chart for the existing unit and proposed expansion.
- v) Details of existing and proposed effluent treatment plant along with water quality characteristic of inlet and outlet of ETP.
- vi) Issues raised during existing public hearing and commitments made by the project proponent.
- vii) Full Quantitative Risk Assessment & Disaster Management Plan should include:
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Determination of Individual Risk and Societal Risk
  - d. List of last Major Refinery Incidents Globally in last 10 years
  - e. Proposed measures for risk reduction.

After deliberation, It was decided that project proponent should submit above mentioned information for consideration of the proposal by the Expert Appraisal Committee

(Industry-2). Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was recently conducted for Catalytic Dewaxing Unit (CDWU) project.

**28.4.2 Construction of Additional Storage Tanks (capacity 16626 KL) Mounded Bullets, LPG Bottling Plant at Port Exim Park area, Visakhapatnam, Andhra Pradesh by M/s East India Petroleum Pvt. Ltd.– regarding TOR**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken. All isolated storage & handling of hazardous chemicals are listed at S.N. 6(b) under category ‘B’ and appraised at state level. However, the project proposal is treated under category ‘A’ project due to applicability of general condition i.e. location of project is within CPA “Visakhapatnam”.

M/s East India Petroleum Pvt. Ltd. has proposed for Construction of Additional Storage Tanks (capacity 16626 KL) Mounded Bullets, LPG Bottling Plant at Port Exim Park area, Visakhapatnam, Andhra Pradesh. East India Petroleum Pvt. Ltd., is one of the storage terminal in private sector located at Visakhapatnam, Port Exim Park area, Andhra Pradesh, to set up the Port Based world Class facility for receipt, storage and handling of POL products and LPG. The Proposed expansion will be within existing terminal area of 50 acres land leased from Visakhapatnam Port Trust and no new land requirement is envisaged. The total land (including the land required for proposed expansion) is under possession of EIPL under long lease from Visakhapatnam Port Trust. Cost of project is Rs. 408.27 Crore. It is reported that no areas protected under international conventions, national or local legislation for their ecological, landscape, cultural and other related value are located within 20 km from project site.

EIPL proposes to build two numbers of MS Tanks of diameter 23 Meter and 20metres height to store Fire Water for 100% replacement of existing Earthen Reservoir for total prevention of water losses. The total capacity of proposed water tanks shall be 16,626 KL which will be of 63% excess than existing reservoirs capacity. EIPL proposes to build additional storage tanks in reservoir area, Mounded Bullets, LPG Bottling Plant and associated facilities in existing LPG area to meet future business development requirements since there is a huge demand of storage space for storage of Petroleum Products, Liquid chemicals and LPG in Vizag Port for upcoming Pharma based industries and Public Sector companies in Visakhapatnam. The proposed project is an expansion project of the existing terminal with existing storage capacity 70,000 KL of Petroleum Products, 39,274 KL of Crude palm oil & Bio Diesel products and 9000 MT of LPG. After expansion, the combined storage capacity of different Petroleum products will be of 1, 66,601 KL of POL and 28,773 MT of LPG as per the following table:

Name of Product	Existing Capacity (as per existing EC/CFE)	Proposed Capacity Expansion	Total Capacity after Expansion	Remarks
POL & Liquid Chemicals	70,000 kL	57,327 kL	1,27,327 kL	New proposed tanks-15 no's

Conversion of existing Crude Palm oil & Bio diesel Products to POL& Liquid Chemicals	39,274 kL	-	39,274kL	Existing 8 no. of tanks will be utilized for conversion
<b>Total Capacity after expansion</b>			<b>1,66,601kL</b>	-
LPG Storage	9000MT	19,773MT	28,773MT	Proposed capacity expansion will be done

The Depot has facilities for storage, handling and dispatch of different petroleum products, Bio fuels and LPG. The terminal is capable of receiving /dispatching products through pipeline/tank trucks. No chemical process is involved in the operations of the Terminal. Additional water requirement will be 2 m3/day and source through tank lorries, from Greater Visakhapatnam Municipal Corporation.

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

#### A. Standard TOR

1. Executive summary of the project.
2. Project description and project benefits.
3. Whether CRZ clearance is applicable or not? If yes, CRZ clearance/ recommendation from State Coastal Zone Management Authority.
4. Map authenticated by wildlife warden indicating crude oil tankages and marine sanctuary and marine national park including distance.
5. Land use details of the site based on satellite imagery.
6. Process details and design details of all the tanks.
7. A list of industries within 10 km radius of the project.
8. List of villages/residential colonies and population within 5 Km.
9. Layout plan with provision of trucks parking area. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
10. Details of the storage and technical specifications with safety aspects & standards
11. Site details including satellite imagery for 5 km around the site.
12. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
13. Demography & socio-economics of the area.
14. Baseline data collection for air, water and soil for:
  - i. Ambient air quality monitoring for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>.
  - ii. Background levels of Ozone, hydrocarbons (methane & non-methane HC) and VOCs.
  - iii. Soil sample analysis.
  - iv. Base line underground and surface water quality in the vicinity of project.
  - v. Climatology & meteorology including wind speed, wind direction, temperature, rainfall etc.
  - vi. Measurement of noise levels

14. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire.
15. Storm water system should have provision to prevent any unintended oil in the drain to flow out with storm water and should take care of the highest rainfall care. Details of oil water separator.
16. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
17. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
18. Details of proposed preventive measures for leakages and accident.
19. Details of Vapour Recovery System for the storage tanks and lorries.
20. Adequate width of approach road to avoid congestion and to have safe exit in emergencies.
21. Type of seismic zone.
22. Environmental Management Plan
23. Risk Assessment & Disaster Management Plan
  - i. Identification of hazards
  - ii. Consequence Analysis
  - iii. Preventive measures.
  - iv. Risk assessment should also include leakages during storage, handling, transportation and proposed measures for risk reduction.
  - v. Company shall ensure that the damage distance in case of any accident remains within boundary of the plot. If this study shows any change in layout or the quantity of the product to be stored this will have to be incorporated in the proposal.
  - vi. Fire and explosion hazard.
  - vii. Disaster management plan; on-site & off-site emergency plan.
24. Details of fire fighting facilities.
25. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
26. Environmental Monitoring programme.
- 27. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
28. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

29. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
30. A tabular chart with index for point wise compliance of above TORs.

## **B. Additional TOR**

- 1 Disaster management plan w.r.t. cyclone to be prepared
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

The following general points should be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included

It was decided that TORs 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 should be submitted to the Andhra Pradesh Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP Report alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

### **28.4.3 Sugar (5000 TCD), Molasses/Sugarcane Juice/Sugar beet based Distillery (60 KLPD)/ Grain based (45 KLPD) and Co-generation Power Plant (29.5 MW) at Village A/p Pande, Tehsil Karmala, District Solapur, Maharashtra by M/s Vitthal Refined Sugars Ltd– regarding TOR**

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

M/s. Vitthal Refined Sugars Ltd. has proposed for setting up of Sugar (5000 TCD), Molasses/Sugarcane Juice/Sugar beet based Distillery (60 KLPD)/ Grain based (45 KLPD)

and Co-generation Power Plant (29.5 MW) at Village A/p Pande, Tehsil Karmala, District Solapur, Maharashtra. Plot area is 26.7 ha. of which greenbelt will be developed in 16.19 ha. Cost of project is Rs. 220.37 Crore. Rs. 11.11 Crore and Rs. 76.10 Lakh have been earmarked towards capital cost and recurring cost per annum for implementation of environment management plan. It is reported that no tropical forest/ biosphere reserve/national park/ wildlife sanctuary /coral formation are located within 10 Km distance. Sina River is flowing at a distance of 5 Km. Following are plant configurations:

S.N.	Unit	Capacity	Operational days per annum
1	Sugar cane crushing	5000 TCD	160 days
2	Co-generation power plant and power from incineration boiler	29.5 MW	160 days
3	Molasses/cane juice based distillery	60 KLPD	300 days
4	Grain based distillery	45 KLPD	300 days
5	CO <sub>2</sub> recovery plant	50 TPD	
6	Cyclodextrin plant	2.5 TPD	
7	Malt spirit	5 KLPD	
8	Grape spirit	5 KLPD	
9	IMFL bottling	one lac cases / Month	
10	Country liquor bottling	two lac cases / Month	

ESP alongwith stack of adequate height will be provided to bagasse fired boiler (150 TPH) and spent wash and coal fired incineration boiler (35 TPH). Fresh water requirement will be 2943 m<sup>3</sup>/day. Effluent from sugar unit, co-gen, distillery and other auxiliary units will be treated in the ETP comprising of anaerobic digestion followed by aeration system. Treated effluent will be reused /recycled within factory premises. The spent wash from molasses based distillery will be concentrated in MEE and incinerated in incineration boiler (35 TPH) to achieve Zero discharge. DG set (500 KVA) will be installed. Bagasse ash will be sent to soil conditioner. Incineration ash will be sent to brick manufacturers. ETP sludge will be sent for composting.

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

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

1. Executive summary of the project.
2. Justification of the project
3. Detailed break-up of the land area along with latest photograph of the area.
4. Present land use based on satellite imagery and details of land availability for the project along with supporting document.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
8. A copy of lease deed or allotment letter, if land is already acquired.
9. List of existing distillery units in the study area along with their capacity and sourcing of raw material.

10. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc.
11. Details of proposed products along with manufacturing capacity.
12. Number of working days of the sugar unit, distillery unit and CPP.
13. Details of raw materials, its source with availability of all raw materials including cereal grains requirement in case of grain based distillery. If molasses based distillery, then give source and quantity available for molasses.
14. Manufacturing process details of Sugar , distillery and CPP along with process flow chart.
15. Sources and quantity of fuel (rice husk/bagasse/ coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
16. Storage facility for raw materials, prepared alcohol, fuels and fly ash.
17. Action plan for ambient air quality parameters as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and HC (methane & non methane) shall be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Mathematical modelling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler's stack.
20. An action plan to control and monitor secondary fugitive emissions from all the sources.
21. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
22. Details of boiler and its capacity. Details of the use of steam from the boiler.
23. Ground water quality around proposed spent wash storage lagoon and the project area.
24. Details of water requirement, water balance chart for existing unit as well as proposed expansion (as applicable). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
25. Source of water supply and permission of withdrawal of water from Competent Authority.
26. Proposed effluent treatment system for grain/molasses based distillery (spent wash and spent lees) along with utility wastewater including CPP/Co-gen Unit (wherever applicable) as well as domestic sewage and scheme for achieving zero discharge. Details of treatment of effluent generation from sugar unit.
27. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
28. Capacity for spent wash holding tank and action plan to control ground water pollution.
29. Layout for storage of bagasse/biomass/coal.
30. Capacity for spent wash holding tank and action plan to control ground water pollution.
31. Dryer shall be installed to dry DWGS.
32. Layout for storage of rice husk/biomass/coal.
33. Details of solid waste management including management of boiler ash.
34. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
35. Alcohol storage and handling area fire fighting facility as per norms. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.

36. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
37. List of flora and fauna in the study area.
38. Noise levels monitoring at five locations within the study area.
39. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
40. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
41. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
42. Details of occupational health surveillance programme.
43. Details of socio-economic welfare activities.
44. Transportation of raw materials and finished products for the project (proposed/expansion) in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
45. Action plan for post-project environmental monitoring.
46. Corporate Environmental Responsibility
47. (a) 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.  
 (b) Does the Environmental 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 report.  
 (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.  
 (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
48. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.

**B. Additional TOR**

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Total project cost to be re-casted with component wise details. Accordingly, expenditure on pollution control measures to be incorporated.

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material 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.

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.

**28.4.4 Expansion of Bulk Drugs & Intermediates ( from 9.5 MTPA to 60 MTPA) at Plot Nos. 19, 20, 21 & 17 B2, Phase-I, IDA, Village Jeedimetla, Mandal Qutubullapur, District Rangareddy, Telangana by M/s Symed Labs Limited- Unit-3 – regarding TOR**

The project authorities and their Consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, non-existent of SEIAA/SEAC, in Telangana, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Symed Labs Limited- Unit-3 has proposed for expansion of Bulk Drugs & Intermediates ( from 9.5 MTPA to 60 MTPA) at Plot Nos. 19, 20, 21 & 17 B2, Phase-I, IDA, Village Jeedimetla, Mandal Qutubullapur, District Rangareddy, Telangana. Plot area is 14232.9 m<sup>2</sup> of which greenbelt will be developed in 4582.96 m<sup>2</sup>. Cost of project is Rs. 2.0 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 10 km distance. Reserved forests Dulapalli RF, Pochampalli Khurd RF, Pochampalli Kalan RF, Gudavalli RF, Gajularamaran RF, Borampet RF, Suraram RF, Kazipally RF, Dundigal RF, Water bodies such as Cheruvu, Bon Cherruvu, Maisamma Cherruvu, Suram Cherruvu, Kamunoni Cheruvu, Ambir Chruvu are located within 10 Km distance. Details of existing and proposed products are as given below:

S.No	Product ( Existing as per CTO)	Quantity
1	2-(2-4-Difluoro Phenyl)1,3,Bis(1H 1,2,4-Triazol-yl)	4.50 TPA

	prophane	
2	5-Benzoyl-2,3-Dihydro 1H-Pyrrolizine-1-Carboxylic Acid	4.50 TPA
3	1,2,3,9-Tetrahydro-9-methyl-3-[(2-methyl-1H-imidazol-1-yl)] Methyl-4H-carbazol-4one	0.50 TPA
Total		9.50 TPA

### List of Proposed Products

S.No	Name of The Products	CAS No.	Application	Quantity In MT/Month
1	Carvedilol Phosphate	610309-89-2	Antihypertensive	0.45
2	Dronedarone HCl	141625-93-6	Ant arrhythmic	0.50
3	Epalrestat	82159-09-9	Ant diabetic	0.50
4	Iron Sorbitol Citric Acid dextrin Complex	99676-02-5	Anti anemic	1.50
5	Levocetirizine Di HCl	130018-87-0	Antihistamine	1.50
6	Ondansetron HCl dihydrate	103639-04-9	5-HT3 receptor antagonist	0.25
7	Zopiclone	43200-80-2	Sedative-Hypnotic Drug	0.05
8	Zotepine	26615-21-4	Neuroleptic agent	0.25
Total				5.00

Existing Coal fired boiler (3 TPH) will be continued and additional coal fired boiler (2 TPH) will be installed. Bagfilter alongwith stack of adequate height will be provided to coal fired boiler(2 TPH). Distillation column/dedicated reactors with condensers for effective recovery of solvents will be installed. All the solvent storage tanks are connected with vent condensers. Water requirement from APIIC Water Supply will be 128.25 m<sup>3</sup>/day. Wastewater generation will be 34.07 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. DG set (500 KVA) will be installed.

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

#### A. Standard TOR:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.

8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.

36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
  - a) To which chemicals, workers are exposed directly or indirectly.
  - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - c) What measures company have taken to keep these chemicals within PEL/TLV.
  - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - e) What are onsite and offsite emergency plan during chemical disaster.
  - f) Liver function tests (LFT) during pre-placement and periodical examination.
  - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
46. Note on compliance to the recommendations mentioned in the CREP guidelines.
47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or

shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

## **B. Additional TOR**

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of AP Pollution Control Board for proposed expansion.

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.

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.

**28.4.5 Expansion of Bulk Drugs & intermediates (from 6.25 TPM to 28.0 TPM) at Plot No.73/C/4, IDA, Anrich Industrial Estate, Village Bollaram, Mandal Jinnaram, District Medak, Telangana by M/s Panicare Pharmaceuticals Pvt. Ltd-regarding TOR.**

The project authorities and their Consultant (M/s Team Labs and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. It was informed General Condition viz. critically polluted area is applicable. However, non-existent of SEIAA/SEAC, in Telangana, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Panicare Pharmaceuticals Pvt. Ltd has proposed for expansion of Bulk Drugs & intermediates (from 6.25 TPM to 28.0 TPM) at Plot No.73/C/4, IDA, Anrich Industrial Estate, Village Bollaram, Mandal Jinnaram, District Medak, Telangana. Plot area is 2004.45 m<sup>2</sup> of which greenbelt will be developed in 664 m<sup>2</sup>. Cost of project is Rs. 5.05 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 10 km distance of project site. Reserved forests Wailal RF, Kistaipally RF, Kazipally RF, Dundigal RF, Borampet RF, Suraram RF, Kottaguda RF, Water bodies such as Damara Cheruvu, Ameenpur lake, Miyapur Cheruvu, Rayasamudram Cheruvu are located within 10 Km distance. Details of existing and proposed products to be manufactured are as given below:

**Any one of the above four products at any given point of time will be manufactured.**

**List of proposed products to be manufactured**

S.No	Proposed Products	CAS Number	Therapeutic Category	Quantity In MT/Month
1	Atorvastatin Calcium	134523-03-8	Anti Lipemic	2.00
2	Cetirizine Dihydrochloride	83881-52-1	Anti Histamine	1.00
3	Esomeprazole Magesium Trihydrate	217087-09-7	Proton Pump inhibitor	3.00
4	Rabeprazole Sodium	117976-90-6	Gastric anti secretory agent.	1.00
5	Rosuvastatin Calcium	147098-20-2	Anti Lipemic	1.00
6	Sildenafil Citrate	171599-83-0	Anti-erectile dysfunction agent	20.00
<b>Total</b>				<b>28.00</b>

Existing Coal fired boiler (0.5 TPH) will be dropped and additional coal fired boiler (4.0 TPH)

S.N.	Existing (Product List)	Quantity
1	Calcium Glycerphosphate	75.0 TPA
2	Sodium Glycerphosphate	8.0 TPA
3	Magnesium Glycerphosphate	3.5 TPA
4	Manganese	3.5 TPA

will be installed. Bagfilter alongwith stack of adequate height will be provided to coal fired boiler(4 TPH). Distillation column/dedicated reactors with condensers for effective recovery

of solvents will be installed. All the solvent storage tanks are connected with vent condensers. Scrubber will be provided to control process emissions viz. SO<sub>2</sub>. Water requirement from APIIC Water Supply will be increased from 6.5 m<sup>3</sup>/day to 89.21 m<sup>3</sup>/day after expansion. Wastewater generation will be 32.12 m<sup>3</sup>/day. Industrial wastewater will be

segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Fly ash will be sent to brick manufacturers. Additional DG set (500 KVA) will be installed.

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

#### **B. Standard TOR:**

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.

24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.
36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
  - a) To which chemicals, workers are exposed directly or indirectly.
  - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - c) What measures company have taken to keep these chemicals within PEL/TLV.
  - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - e) What are onsite and offsite emergency plan during chemical disaster.

- f) Liver function tests (LFT) during pre-placement and periodical examination.
  - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
  45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  46. Note on compliance to the recommendations mentioned in the CREP guidelines.
  47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  49. Total capital cost and recurring cost/annum for environmental pollution control measures.

#### **50. Corporate Environmental Responsibility**

- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

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

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of State Pollution Control Board for proposed expansion.

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.

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.

**28.4.6 Expansion of Pesticides and Pesticide specific Intermediates (from 137 MTPM to 455 MTPM) Manufacturing Unit at Plot No.A2/236, GIDC, Village Nandesari, District Vadodara, Gujarat by M/s Sabari Chemicals Pvt. Ltd (F.J-11011/278/2014. IA-II (I))– regarding TOR.**

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

M/s Sabari Chemicals Pvt. Ltd. has proposed for expansion of Pesticides and Pesticide specific Intermediates (from 137 MTPM to 455 MTPM) Manufacturing Unit at Plot No.A2/236, GIDC, Village Nandesari, District Vadodara, Gujarat. Existing unit was established in 1984. Existing plot area is 3000 m<sup>2</sup> and no additional land will be required. Cost of project is Rs. 5.00 crore. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 15 km distance of project site. Following products will be manufactured :

S.N.	Products	Existing Quantity (MTPM)	Total Quantity after expansion (MTPM)
1	Benzyl Acetate	20	50
2	Benzyl Bezoate	20	50
3	Benzyl Alcohol	20	50
4	Benzyl Cyanide	20	50
5	Phenyl acetic acid	20	50
6	Benzyl salicylate	20	50
7	Naphthalene acetic acid (Tech) and	5	30

	Sodium Salt		
8	Sodium Acetate	6	0
9	Sodium Benzoate	6	0
10	Para Methoxy Phenyl Aceto nitrile	0	50
11	Para Methoxy Phenyl Acetic Acid	0	10
12	Naphthalene Acetamide	0	10
13	Dibenzyl Ether ( Higher boiler of Benzyl Alcohol)	0	30
14	High boiler of Benzyl Benzoate	0	10
15	Higher boiler of Benzyl Acetate	0	15
16	Trading ( Repacking )	0	150
	Benzyl Acetone		
	1 Acetyl Naphthalene		
	Benzyl Acetate		
	Total manufacturing capacity of the plant will be 455 MTPM		

Existing natural gas fired boiler will be installed. Briquettes/agrowaste fired thermic fluid heater will be installed. Scrubbers will be provided to control process emissions viz. HCl and NH<sub>3</sub>. Water requirement will be increased from 39 m<sup>3</sup>/day to 152 m<sup>3</sup>/day after expansion. Industrial effluent (120 m<sup>3</sup>/day) will be given primary treatment in ETP and treated effluent will be sent to CETP for final treatment at Nandesari. ETP sludge and Distillation residue will be sent to TSDF. Used /spent oil will be sent to authorized recyclers.

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

#### A. Standard TOR

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Plant layout alongwith details of facility.
6. Infrastructure facilities including power sources.
7. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
8. Project site location alongwith photographs and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
9. Present land use based on satellite imagery for the study area of 10 km radius.
10. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
11. Details of the total land and break-up of the land use for green belt and other uses.
12. List of products alongwith the production capacities.
13. Detailed list of raw material required and source, mode of storage and transportation.
14. Manufacturing process details alongwith the chemical reactions and process flow chart.
15. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.

16. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
17. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, Cl<sub>2</sub>, HCl, SO<sub>2</sub>, HBr, HF including HC and VOCs should be collected. The monitoring stations should take into account the predominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
18. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
19. Name of all the solvents to be used in the process and details of solvent recovery system.
20. Design details of ETP, incinerator, if any alongwith control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
21. Details of water and air pollution and its mitigation plan
22. An action plan to control and monitor secondary fugitive emissions from all the sources.
23. Action plan for odour assessment and control to be submitted.
24. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
25. Source and quantity of fresh water requirement. Water balance chart including quantity of effluent generated recycled and reused and discharged.
26. Action plan for 'Zero' discharge of effluent should be included.
27. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
28. Detailed plan for zero liquid discharge and reduction of water consumption to be prepared .
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the management of fly ash generated from boiler should be included.
30. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
31. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
32. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF.
33. Risk assessment for storage for chemicals/solvents. Risk assessment for Cyanide.
34. Material safety data sheet to be submitted. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
35. An action plan to develop green belt in 33 % area. Layout map indicating greenbelt to be submitted.
36. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
37. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.

- iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
38. Details of occupational health surveillance programme.
  39. Socio-economic development activities shall be in place.
  40. Note on compliance to the recommendations mentioned in the CREP guidelines.
  41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided. Toxic substance monitoring plan.
  42. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  43. Total capital cost and recurring cost/annum for environmental pollution control measures.

#### **44. Corporate Environmental Responsibility**

- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  46. A tabular chart with index for point wise compliance of above TORs.

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

1. Public hearing to be conducted by SPCB as proposed project is located in the new industrial area and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Since three months environmental data already monitored, one month additional environmental data to be monitored and revalidated.

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.

- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above ToRs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the Gujarat Pollution Control Board for conducting public hearing/consultation. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

#### **28.4.7 Expansion of Bulk Drug Unit by adding Active Pharma Ingredients (60 TPA) at Plot No.125 & 126, SIPCOT Industrial Complex, Village & Tehsil Hosur, District Krishnagiri, Tamil Nadu by M/s Global Calcium –regarding TOR**

The project authorities and their Consultant (M/s Rightsource Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition i.e. 2.5 KM away from interstate boundary of Karnataka, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Global Calcium has proposed for expansion of Bulk Drug Unit by adding Active Pharma Ingredients (60 TPA) at Plot No.125 & 126, SIPCOT Industrial Complex, Village & Tehsil Hosur, District Krishnagiri, Tamil Nadu. PP informed that environmental clearance for the existing unit was obtained vide MoEF letter no. J-11011/411/2006 Ia II (I) dated 1<sup>st</sup> August, 2007. Total plot area is 2.32 ha. Cost of project is Rs. 5.0 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 15 km distance of project site. Hosur lake is situated at a distance of 3.0 km. Following products will be manufactured:

<b>Products</b>	<b>Existing (in TPA)</b>	<b>Proposed (in TPA)</b>
<b><u>Processing in the Plant</u></b>		
<b>by conventional process</b> Pharmaceutical bulk drugs and chemicals such as Mineral salts of Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, etc.	1641	--
<b>by Spray Drier Process</b> Calcium Glubionate , Calcium Borogluconate, Calcium lacto Gluconate, and other Mineral Salts	2615	--
<b><u>Conventional / job work</u></b>		
<b>by conversion (Conventional process)</b> Pharmaceutical bulk drugs and chemicals such as Mineral Salts of Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, etc.	1400	--
<b>Job Work by conversion (Spray Drier Process)</b> Calcium Glubionate , Calcium Borogluconate Calcium lacto Gluconate, and other Mineral Salts	1215	--
<b><u>API Products</u></b> (Active Pharma Ingredients) such as Iron sucrose, Calcium dobesylate, Tiemonium methyl sulphate,	--	60

Ethamsylate, Tolperisone hcl, Calcium glycerophosphate, Magnesium glycerophosphate, Carbasalate calcium, Calcium d-saccharate, Alendronate sodium, Benfotiamine, Calcium folinate, Sodium beta glycerphosphate, Phenrocoumon, etc.		
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Water requirement will be increased from 142 m<sup>3</sup>/day to 162.94 m<sup>3</sup>/day after expansion. Effluent generation will be increased from 61.6 m<sup>3</sup>/day to 72.8 m<sup>3</sup>/day after expansion. Effluent will be treated in a full-fledged ETP with 2 stage RO/Evaporator provided to recycle the treated waste water in process and make-up water met through SIPCOT supply. The Plant operates at present, and will operate on expansion on Zero Discharge basis. The entire waste water is treated & reused. There will be no discharge of waste water from the Plant. The additional make-up water requirement is met through SIPCOT sources. There is no drawl of ground or surface water from the plant. The Hazardous waste is disposed to common waste collection yard of Tamil Nadu Waste Management Limited at Gummidipoondi, Tiruvallur District.

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

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

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.

24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.
36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
  - a) To which chemicals, workers are exposed directly or indirectly.
  - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - c) What measures company have taken to keep these chemicals within PEL/TLV.
  - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - e) What are onsite and offsite emergency plan during chemical disaster.

- f) Liver function tests (LFT) during pre-placement and periodical examination.
  - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
  45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  46. Note on compliance to the recommendations mentioned in the CREP guidelines.
  47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

## **B. Additional TOR**

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of State Pollution Control Board for proposed expansion.

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.

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.

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

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

M/s Lakshmi Sugar Mills Co. Ltd. has proposed for setting up of Molasses based Distillery (40 KLPD) alongwith Cogeneration Power Plant (1.75 MW) at Village Behedki Saidabad, Post Iqbalpur, District Haridwar, Uttarakhand. Total plot area is 24.25 acre. Cost of project is Rs. 62 Crore. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 15 km distance of project site. Solani River is flowing at a distance of 7.22 km. Interstate boundary of Uttarakhand and UP is at a distance of 6.65 Km. the proposed site is adjacent to the existing sugar unit. Molasses (180 MTPD) will be transported from own source Wet scrubber will be provided to bagasse fired 15 TPH boiler. Water requirement will be 495 KLPD. Spent wash will be treated through biomethanation followed by MEE and bio-composting. No effluent will be discharged outside the plant premises. Bagasse ash will be used for landfill /bio-composting. Distillery will be operated for 270 days.

After deliberation, the Committee realized that the proposed unit is located in Ganga Basin and the Committee, therefore, recommended for site visit. The proposal is deferred till site visit is conducted.

**28.4.9 Grain based Distillery (2x45 KLPD) and Cogeneration Power Plant (2x3 MW) and IMFL/IMIL bottling (2x800 day) at Survey No.244, 249 to 251, 253 to 262, 295 to 298, 300 to 302, 314, 317, 319, 322, 327, 331, 334, 337, 339, 340 at Village Goud Sargiguda, Taluka Junagarh, District Kalahandi, Odisha by M/s Starlight Energy Pvt. Ltd. – reg. TOR**

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

M/s Starlight Energy Pvt. Ltd. has proposed for setting up of Grain based Distillery (2x45 KLPD) and Cogeneration Power Plant (2x3 MW) and IMFL/IMIL bottling (2x800 day) at Survey No.244, 249 to 251, 253 to 262, 295 to 298, 300 to 302, 314, 317, 319, 322, 327, 331, 334, 337, 339, 340 at Village Goud Sargiguda, Taluka Junagarh, District Kalahandi, Odisha. The project is planned to be established in two phases. In phase 1, the company would install a 45 KLPD grain based distillery unit having 3.0 MW cogeneration power plant along and around 8000 cases/day of IMFL/IMIL bottling unit. After the commissioning of the phase 1, the promoters of the project would implement the phase 2 having identical project of 45 KLPD grain based distillery unit having 3.0 MW cogeneration power plant alongwith additional around 8000 cases/day of IMFL/IMIL bottling unit. The promoters of the project are already having more than 90 acres of land at village Village - Goud-Sargiguda, Taluka Junagarh, Dist. Kalahandi. Out of this, the promoters of the project would earmark 40 acres of land for the proposed 2 x 45 KLPD grain based distillery project. Cost of project is Rs. 112.5 Crores. It is reported that no eco-sensitive area such as national park/ wildlife sanctuary/biosphere reserves/ reserve forests within 10 km radius of project area. Hati River is crossing at a distance of 3.7 Km from the site.

Fresh water requirements for the industry would be around 750 m<sup>3</sup>/day for each phase and total requirements would be around 1500 m<sup>3</sup>/day, which will be met from River water source. During the operation of each phase of the project, waste water in the form of spent wash (355 m<sup>3</sup>/day), spent lees (100 m<sup>3</sup>/day), MEE condensate (215 m<sup>3</sup>/day) would be generated. Besides this, misc. effluent such as floor/fermentor washing effluent @ 10 m<sup>3</sup>/day, cooling towers blow down @ 35 m<sup>3</sup>/day, domestic effluent @ 9 m<sup>3</sup>/day, D.M. plant reject @ 15 m<sup>3</sup>/day, bottle washing and spillages @ 22 m<sup>3</sup>/day and boiler blowdown @ 15 m<sup>3</sup>/day would also be generated. Spent wash will be sent to decenter where wet cake will be separated. Further thin slop will be reused in the process and remaining 250 m<sup>3</sup>/day will be treated in MEE to achieve zero discharge. The spent less and MEE condensate would be reused in the process/utilities. The other misc. streams effluent after treatment would be used on land for irrigation purposes.

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

**A. Standard TOR:**

1. Executive summary of the project.
2. Detailed break-up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.

4. Details of site and information related to environmental setting within 10 km radius of the project site.
5. A copy of lease deed or allotment letter, if land is already acquired.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material.
8. Details of proposed products alongwith manufacturing capacity.
9. Number of working days of the distillery unit.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Details of raw materials, its source & availability of all raw materials including cereal grains requirement.
12. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. Stack height should be based on maximum sulphur content in the coal. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
14. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
15. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
17. An action plan to control and monitor secondary fugitive emissions from all the sources.
18. Details of the use of steam from the boiler.
19. Ground water quality around proposed spent wash storage lagoon and the project area.
20. Details of water requirement, water balance chart for grain based Distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
21. Fresh water requirement should be restricted upto 10 Kl/Kl of alcohol for grain based distillery
22. Permission of withdrawal of water from competent authority.
23. Proposed effluent treatment system for grain based distillery (spent wash and spent lees) alongwith utility wastewater including CPP and scheme for achieving zero discharge.
24. Spent wash generation should not exceed 6 Kl/Kl of alcohol production. Details of the spent wash treatment for grain based distillery based distillery.
25. Capacity for spent wash holding tank and action plan to control ground water pollution.
26. Dryer shall be installed to dry DWGS.
27. Layout for storage of rice husk/biomass.
28. Details of solid waste management including management of boiler ash.
29. Green belt development as per the CPCB guidelines.
30. List of flora and fauna in the study area.
31. Noise levels monitoring at five locations within the study area.
32. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency,

- responsibility and time bound implementation plan for mitigation measure should be provided.
33. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
  34. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
  35. Alcohol storage and handling area fire fighting facility as per norms.
  36. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
  37. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  38. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  39. Details of occupational health surveillance programme.
  40. Details of socio-economic welfare activities.
  41. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
  42. Action plan for post-project environmental monitoring.

### **43. Corporate Environmental Responsibility**

- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
44. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  45. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  46. A tabular chart with index for point-wise compliance of above TORs. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

## **B. Additional TOR**

1. Public hearing 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.

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

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.

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

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

M/s BCL Industries and Infrastructure Ltd. has proposed for expansion of Grain Based Distillery from 100 KLPD to 200 KLPD and Cogeneration Power Plant from 5 MW to 10 MW at Village Machchana and Sangat Kalan, Tehsil and District Bathinda, Punjab. Plot area is 35.3 acres (14.28 ha.). PP informed that environmental clearance for the existing unit was obtained vide MoEF's letter no J-11011/473/2010-IA I (I) dated 24<sup>th</sup> November, 2011. Cost of expansion project is Rs. 45.10 Crore.

Following is the project configurations:

S.N.	Item	Unit	Existing Capacity	Proposed Additional Capacity	Total
1	ENA/RS	KL	100	100	200
2	By-products				
	CO2	MT	80	80	160
	Fusel Oil	MT	1	1	2
	DDGS	MT	50	50	100
3	Corn Oil ( in case of Maize used as raw material)	Cases	8000	8000	16000
4	Electrical Power	MW	5.0	5.0	10.0

Distillery will be operated for 330 days. Existing boiler capacity is 35 TPH and additional rice husk /coal fired boiler (60 TPH) will be installed. ESP will be provided to control particulate emissions. Water requirement from canal water will be increased from 895 m<sup>3</sup>/day to 1790 m<sup>3</sup>/day after expansion. Spent wash will be sent to decenter where wet cake will be separated. Further thin slop will be reused in the process and remaining will be treated in MEE to form DWGS to achieve zero discharge. Dryer will be installed to dry DWGS. The spent less and MEE condensate would be reused in the process/utilities. The other misc. streams effluent after treatment would be used on land for irrigation purposes. Boiler ash will be sent for brick manufacturing.

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

#### **A Standard TOR:**

1. Executive summary of the project.
2. Detailed break-up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.
4. Details of site and information related to environmental setting within 10 km radius of the project site.
5. A copy of lease deed or allotment letter, if land is already acquired.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material.
8. Details of proposed products alongwith manufacturing capacity.
9. Number of working days of the distillery unit.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Details of raw materials, its source & availability of all raw materials including cereal grains requirement.
12. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. Stack height should be based on maximum sulphur content in the coal. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
14. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.

15. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
17. An action plan to control and monitor secondary fugitive emissions from all the sources.
18. Details of the use of steam from the boiler.
19. Ground water quality around proposed spent wash storage lagoon and the project area.
20. Details of water requirement, water balance chart for grain based Distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
21. Fresh water requirement should be restricted upto 10 Kl/Kl of alcohol for grain based distillery
22. Permission of withdrawal of water from competent authority.
23. Proposed effluent treatment system for grain based distillery (spent wash and spent lees) alongwith utility wastewater including CPP and scheme for achieving zero discharge.
24. Spent wash generation should not exceed 6 KL/KL of alcohol production. Details of the spent wash treatment for grain based distillery based distillery.
25. Capacity for spent wash holding tank and action plan to control ground water pollution.
26. Dryer shall be installed to dry DWGS.
27. Layout for storage of rice husk/biomass.
28. Details of solid waste management including management of boiler ash.
29. Green belt development as per the CPCB guidelines.
30. List of flora and fauna in the study area.
31. Noise levels monitoring at five locations within the study area.
32. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
33. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
34. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
35. Alcohol storage and handling area fire fighting facility as per norms.
36. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
37. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
38. Compliance to the conditions stipulated in the NOC granted by the SPCB.
39. 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, compliance to the notice(s).
40. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
41. Details of occupational health programme.

- I. To which chemicals, workers are exposed directly or indirectly.
  - II. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - III. What measures company have taken to keep these chemicals within PEL/TLV.
  - IV. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - V. What are onsite and offsite emergency plan during chemical disaster.
  - VI. Liver function tests (LFT) during pre-placement and periodical examination.
42. Details of socio-economic welfare activities.
  43. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
  44. Action plan for post-project environmental monitoring.

#### **45. Corporate Environmental Responsibility**

- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
46. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  47. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  48. A tabular chart with index for point-wise compliance of above TORs. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

#### **B. Additional ToR**

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

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

3. Copy of NOC/Consent to Establish for the existing unit.

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

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.

## **28.5 Any Other Items**

### **28.5.1 Revamp of Ammonia Plant for changeover of feedstock and fuel from Naptha to NG/RLNG and reduction of specific energy consumption along with debottlenecking the capacity of ammonia-urea plants, changeover of fuel from FO to NG/RLNG in the utility boiler as also debottlenecking the capacity of NPK plant A & B alongwith product mix change at Zuari Nagar, Goa by M/s Zuari Chemicals Ltd – reg extension of EC**

MoEF vide letter no. J-11011/217/2008-IA –II dated 1<sup>st</sup> September, 2009 has issued environmental clearance for the above mentioned project.

PP vide letter dated 31<sup>st</sup> October, 2013 has informed the following reasons for delay in implementation of EC dated 1<sup>st</sup> September, 2009:

- i) NG receipt at site only in February 2013.
- ii) ZACL could not undertake the revamp features whilst operating with Neptha because the production was capped at 3,99,300 MTPA.

- iii) The project was conceptualized based on NIP 2008, which was however, superseded by NIP-2012 which was notified in January 2013. Again NIP 2012 had a couple of amendments and the same was notified in October 2014.

Therefore PP requested to extend the validity of Environmental clearance for a period of five years w.e.f. 1.09.2014.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of five years with effect from 1.09.2014.

### **28.5.2 Proposed 1000 TCD Sugar Plant, 31.5 MW Cogeneration Plant and 300 KLPD distillery at Gulbarga, Karnataka by M/s Shree Renuka Sugars Ltd. - reg. amendment of EC.**

MoEF vide letter no. J-11011/979/2007-IA –II dated 24<sup>th</sup> October, 2008 has issued environmental clearance with following specific condition:

*“For treatment of spent wash, for initial one year from the date of environmental clearance, the unit shall adopt concentration followed by bio-composting and after one year the same shall be shifted to concentration in the multiple effect evaporator followed by incineration in the boiler. No effluent shall be discharged outside the factory premises and Zero discharge shall be strictly followed. Land and other requirements for treatment of spent wash shall be as per CPCB guidelines. The compost yard shall be made impervious as per CPCB guidelines.”*

PP vide letter dated 17.12.2013 has requested for amendment in the EC conditions. PP informed that they approached KSPCB and made representation for inclusion of composting technology in spent wash treatment scheme for fulfilling the demand of compost by the cane growers. KSPCB instructed them to approach MOEF&CC for amendment in EC and only after necessary amendment in EC they can apply for consent under section 25. They informed that unit has 10000 TCD sugar crushing unit. The said distillery is integrated part of sugar complex with 10,000 TCD sugar cane crushing capacity industry generates around 400 MTPD press mud and 60,000 MT annually. Recently, Ministry of Agriculture, Govt. of India come up with the suggestion for conversion of sugar factory organic waste into compost to meet increasing demand of organic manure under National Programme for Organic Production ( NPOP).

After detailed deliberation, the Committee recommended for following amendments in EC dated 24<sup>th</sup> October, 2008:

- (i). 50 % of spent wash generated from (distillery; 150 KLPD) shall be treated in Bio-methanation. Treated spent wash shall be evaporated in falling film evaporators to reduce the quantity upto 525m<sup>3</sup>/day. Concentrated bio-methanted spent wash shall be bio-composted with press mud. Condensate shall be recycled back to process. This process shall be operated for 270 days.
- (ii). 50 % Spent wash generated from another fermenter (distillery; 150 KLPD) shall be evaporated in falling film evaporators followed by concentration in MEE. Concentrated

spent wash shall be incinerated in the incineration boiler. Condensate shall be recycled back to process. This process shall be operated for 330 days.

### **28.5.3 Setting up of 200 KLPD Grain Based Distillery, 15 KLPD Malt Spirit, Bottling of IMFL, Country Liquor and 10 MW Co-generation Power Plant at Village Rampur, District Kamrup, Assam by M/s N.V. Distilleries & Breweries (North-West) Pvt. Ltd – regarding extension of EC**

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

### **28.5.4 Development Drilling of (138 nos.) of wells in oil Field of Ahmedabad Asset of ONGC at Kheda, Gandhinagar and Ahmedabad District of Gujarat – Amendment in TOR.**

Ministry vide letter no. J-11011/92/2012-IA.II (I) dated 13<sup>th</sup> July, 2012 has granted TOR for Development Drilling of (138 nos.) of wells.

In the meantime, ONGC has recently updated reservoir data in the Gamij Field which comes under area IV of Ahmedabad Asset. Owing to this updation, Gamij field which was excellent potential needs to be monetized at the earliest in the interest of Nation. An additional 268 wells need to be drilled in Gamij field. Therefore total wells in all the field constituting the proposed project will increase from 138 to 406 wells.

After detailed deliberation, the Committee recommended the same TOR for preparation of EIA –EMP report along with Public Hearing in each district.

## **28.6 Environmental Clearance**

### **28.6.1 Bulk Drugs and Intermediates Manufacturing Unit at Sy.No.227, 228, 137 (136), Village Shabashally, Mandal Shivampet, District Medak, Telengana by M/s Almelo Chemicals Pvt. Ltd. - reg EC**

The project authorities and their consultant (KKB Envirocare Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 17<sup>th</sup> Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 18<sup>th</sup>–19<sup>th</sup> March, 2014 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central.

M/s Almelo Chemicals Pvt. Ltd. has proposed for setting up of Bulk Drugs and Intermediates Manufacturing Unit at Sy. No. 227, 228, 137 (136), Shabashally (V), Shivampet (M), Medak District A.P. Plot area is 9.33 ha. (23.06 acres), of which greenbelt will be developed in 3.13 ha .The cost of project is Rs. 31.5 crore. It is reported that there is no eco-sensitive area like sanctuaries, national parks, tiger reserve or Biosphere reserve or elephant corridor or protected areas within 10 km radius from core area of the proposed project site. Shivampet RF, Paribanda RF, Palat RF, Bijlipur RF, Pilotla RF, Manoharabad RF, Hastalpur RF,

Minajipet RF and Kanukunta RF are located within 10 Km distance. Haldi river is flowing at a distance of 8 Km. The following products will be manufactured:

S.N.	Product Name	Quantity (TPA)	Therapeutic Category
<b>Proposed Bulk Drugs on campaign basis (9 products at a time)</b>			
1	Ximelagatran	4	Anti-coagulant
2	BifeprunoxMesylate	4	Antipsychotic agent
3	Satigrel	6	Antagonist
4	Rosuvastatin Calcium	36	Lipid lowering agent
5	Talampanel	3	Antagonist
6	Zafirlukast	8	Anti-Asthma
7	Tolterodine Tartrate	3	Antispasmodic
8	PrulifloxacinMesylate	6	Anti-bacterial
9	Dexmedetomidine	4	Analgesic
10	PramipexoleDihydrochloride	2	Anti Parkinsonian
11	Frovatriptan Hydrochloride	4	Lipid lowering agent
12	Selegiline Hydrochloride	2	Anti-Parkinson's
13	Asenapine Maleate	6	Anti-schizophrenia
14	Udenafil	2	Erectile dysfunction
15	Balofloxacin	6	antibiotic
16	Vildagliptin	6	Anti-diabetic
17	Rizatriptan Benzoate	2	Anti-Migraine
18	Pitavastatin Calcium	12	Lipid Lowering Agent
19	Sitafloxacin	6	antibiotic
20	Levomilnacipran Hydrochloride	6	Anti-depression
21	Bosentan	3	Anti-pulmonary hypertension
22	Adenosine	2	Antiarrhythmic agent
23	Regadenoson	2	Diagnostic Agent
24	Esomeprazole Magnesium Trihydrate	12	Proton Pump Inhibitor
25	Valsartan	36	Anti-hypertensive
26	Irbisartan	36	Anti-hypertensive
27	LevocetizineDihydrochloride	12	Anti-Histaminic
28	Mesalamine	12	anti-inflammatory
29	Rabeprazole Sodium	10	Proton Pump Inhibitor
30	Alfuzosin Hydrochloride	2	Anti-hypertensive
31	Amlodipine Besylate	24	Anti-hypertensive
32	Anagliptin	8	Anti-diabetic
33	Aripiprazole	6	Anti-psychotic
34	Atorvasatin calcium	12	Lipid Lowering Agent
35	Atovaquone	6	Anti-malaria
36	Brimonidine Tartrate	2	Ophthalmic drops
37	Chlorothiazide Sodium	2	antihypertensive
38	Cinacalcet Hydrochloride	10	Calcimimetic
39	Clarithromycin	80	Macrolide Antibiotic
40	ClopdogrelBisulphate	36	Anti-Thrombotic
41	Clopidogrel Hydrochloride	6	Anti-Thrombotic
42	DabigatranEtexilateMesylate	4	Blood-thinning Agent
43	Desvenlafaxine Succinate Monohydrate	6	Anti-depressant

44	Dexlansoprazole Magnesium	6	Proton Pump Inhibitor
45	Diacerein	6	Anti-inflammatory
46	Divalproex Sodium	6	Anti-Epileptic
47	Donepezil HCl	2	Anti-Alzheimer's
48	Doxazosin Mesylate	4	$\alpha$ 1-Selective alpha blocker
49	Duloxetine Hydrochloride	10	Antidepressant
50	Epinephrine Bitartrate	1	Cardio stimulant
51	Fesoterodine Fumarate	4	Anti-muscarinic
52	Fexofenadine Hydrochloride Monohydrate	12	Anti-histamine
53	Lansoprazole	6	Proton Pump Inhibitor
54	Linagliptin	8	Anti-diabetic
55	Lurasidone Hydrochloride	8	Anti-psychotic
56	Nicardipine Hydrochloride	2	Anti-hypertensive
57	Oxybutynin chloride	4	Anti-spasmodic
58	Paliperidone Palmitate	6	Schizophrenia
59	Pantoprazole sodium	6	Proton Pump Inhibitor
60	Pregabalin	12	Anti-Epileptic
61	Saxagliptin Hydrochloride	6	Anti-diabetic
62	Sitagliptin Phosphate	36	Anti-diabetic
63	Solithromycin	400	Antibiotic
64	Tamsulosin Hydrochloride	8	Benign Prostatic Hyperplasia
65	Valacyclovir Hydrochloride	24	Anti-Viral
66	WCK 2349	20	Antibiotic
67	WCK 4873	4	Antibiotic
68	Ziprasidone Hydrochloride Monohydrate	20	Anti-Psychotic
69	Zoledronic acid	6	Anti-Osteoporosis
70	Zonisamide	20	Anti-Epileptic

Nine (9) out of 70 products with production capacity 708 TPA will be manufactured at a time on campaign basis.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March-Mid June, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (28  $\mu$ g/m<sup>3</sup> to 48  $\mu$ g/m<sup>3</sup>), PM<sub>2.5</sub> (10  $\mu$ g/m<sup>3</sup> to 24  $\mu$ g/m<sup>3</sup>), SO<sub>x</sub> (4  $\mu$ g/m<sup>3</sup> to 15  $\mu$ g/m<sup>3</sup>) and NO<sub>x</sub> (4  $\mu$ g/m<sup>3</sup> to 16  $\mu$ g/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.97  $\mu$ g/m<sup>3</sup>, 4.5  $\mu$ g/m<sup>3</sup> and 2.6  $\mu$ g/m<sup>3</sup> with respect to SPM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Quality Monitoring Standards (NAAQM).

Multicyclone separator alongwith bag filter with a stack height of 30m will be installed for controlling the Particulate emissions from the proposed Coal fired boiler (2x 5TPH & 3TPH). Scrubber will be provided to control process emissions viz. HCl, H<sub>2</sub>S, NH<sub>3</sub> and SO<sub>2</sub>. H<sub>2</sub> will be diffused with the help flame arrestor. Total water requirement is 308 m<sup>3</sup>/day. Out of which, fresh water requirement will be 176 m<sup>3</sup>/day and remaining water requirement (132 m<sup>3</sup>/day) will be met from treated effluent, which will be reused in cooling tower to minimize fresh water requirement. Industrial wastewater will be segregated into High TDS/COD and

Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Power requirement from APCPDC Ltd will be 980 KVA.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 27<sup>th</sup> August, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding commitment of industry towards development, local employment, installation of pollution control system, steps to take control pollution etc. Regarding pollution control, PP informed that multi cyclone separator followed by bagfilter will be provided to control the particulate emissions from boilers. Scrubber /flame arrestor/vents based on the nature will be provided to arrest process emissions. The effluent treatment scheme is proposed for each stream i.e. HTDS/HCOD stream effluents consists of process effluent to achieve zero effluent discharge system. Regarding local employment, PP informed that about 150 nos. will be direct and 100 nos will be indirect manpower will be required. Preference will be given to the locals during employment on the basis of their education/skills. Rs. 160 lakhs are allocated towards CSR. The committee was satisfied with the response of PP.

After detailed deliberations, the Committee, on the basis of the EIA-EMP 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. Monitoring of VOC and Methane and Non –methane Hydrocarbon data in the ambient air and submitted to the MoEF &CC for record of baseline data.
- ii. Multi-cyclone followed by 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. Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by APPCB. Odour management plan shall be implemented.
- v. Total fresh water requirement from ground water source shall not exceed 176 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- vi. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

- vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- viii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- ix. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes 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.
- x. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- xi. 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.
- xii. Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xiii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xiv. All the issues raised during the Public Hearing/consultation meeting held on 27<sup>th</sup> August, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv. Company needs to bear operation & maintenance cost of the RO to be provided for drinking water for villages.
- xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xvii. 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.

### 28.6.2 Synthetic Resin Manufacturing Unit (4500 TPM) at Sy. No. 72, Village Sampa, Tehsil Dehgam, District Gandhinagar, Gujarat by M/s Vince Decor Pvt. Ltd. - regarding EC

The project proponent and their consultant (En-Vision Enviro Engineers Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 16<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 20<sup>th</sup> – 21<sup>st</sup> February, 2014 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other, synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Vince Décor Pvt. Ltd. has proposed for Manufacturing of Synthetic Resins at Village Sampa Tehsil Dehgam District Gandhnagar Gujarat. The unit has acquired total land area of 16646 m<sup>2</sup> from which 2072 m<sup>2</sup> will be utilized for proposed resin manufacturing unit. Cost of resin plant is Rs. 236 lakhs. It is reported that no national park/reserve forest, biosphere reserve and protected forests are located within 10 Km distance. Sabarmati, Meshwa, Khari Rivers are flowing at a distance of 19.30 Km, 2.55 km and 5.70 km respectively. The following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin	1500 MTPM
2	Melamine Formaldehyde Resin	1000 MTPM
3	Urea Formaldehyde Resin	1500 MTPM
4	Polyvinyl Acetate	500 TPM

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during February-April, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (42 µg/m<sup>3</sup> to 78.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (15 µg/m<sup>3</sup> to 41.7 µg/m<sup>3</sup>), SO<sub>x</sub> (8 µg/m<sup>3</sup> to 17 ug/m<sup>3</sup>) and NO<sub>x</sub> (15 µg/m<sup>3</sup> to 35.7 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 1.1 µg/m<sup>3</sup>, 0.92 µg/m<sup>3</sup> and 0.33 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 Quality Monitoring Standards (NAAQM).

Multi cyclone and bagfilter will be provided to coal/lignite/agrowaste fired steam boiler (2 x 5 TPH) and Thermic Fluid Heater to control particulate. Adequate stack height will be provided to DG set (500 KVA + 250 KVA). Total Water requirement from ground water source will be 63 m<sup>3</sup>/day. Industrial effluent generation will be 10 m<sup>3</sup>/day and treated in ETP. Treated effluent will be evaporated in evaporator to achieve zero discharge. ETP sludge will be sent to TSDf. Used oil will be sent to registered recyclers. Power requirement from Uttar Gujarat Vij Company Ltd will be 600KVA. Amount of Rs. 11.8 lakhs has been earmarked as CSR fund for five years of period.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 19<sup>th</sup> August, 2014. The issues were raised regarding local employment, local development, air & water

pollution control, pollution control etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Multicyclone followed by bag filter along with stack of adequate height should be installed to coal/lignite/agrowaste 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 shall be reduced from 63 m<sup>3</sup>/day to 53 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) As proposed, 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. 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 19<sup>th</sup> August, 2014 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- 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.

### **28.6.3 Grain based Distillery (60 KLPD) along with Cogeneration Power Plant (3.0 MW) at Village Mahanad, Block Polba-Dadpur, Polba, District Hoogly, West Bengal by M/s Alpine Distilleries Pvt. Ltd- Reg. EC**

The project proponent and their consultant (En-Vision) 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 3<sup>rd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 3<sup>rd</sup> to 5<sup>th</sup> December, 2012 for preparation of EIA-EMP report. All the grain based Distillery Units are listed at S.N. 5(g) (ii) under Category 'A' and appraised at the Central level.

M/s Alpine Distilleries Pvt. Ltd have proposed for setting up of grain based distillery(60 KLPD) alongwith Cogeneration Power Plant (3.0 MW) at Sy. Nos. 106,103,117/163, 98, 102, 389, 395, 385, 387, 388, 99 and 97, Village Mahanad, Block Polba-Dadpur, Polba, District Hoogly, West Bengal. Total plot area is 4.5 ha of which greenbelt will be developed in 18967 m<sup>2</sup>. Total project cost is Rs. 60 crores. Rs. 7.35 crores and Rs. 2.75 Crores per annum have been earmarked towards capital and recurring cost per annum for implementation of environmental management plan. It is reported that no eco-sensitive area such as national park/wild life sanctuary / biosphere reserve /reserve forest is located within 10Km. Distillery will be operated for 330 days in a year.

Ambient air quality monitoring was carried out at 6 locations 1<sup>st</sup> October, 2012 –31<sup>st</sup> December, 2012 and submitted data indicates as PM10 (50–68 ug/m3), PM2.5 (21–32 ug/m3), SO<sub>2</sub> (4.0– 10.0 ug/m3) and NO<sub>x</sub> (7.5-25 ug/m3). Predicted value of ground level concentration due to proposed project is SPM (5.0 ug/m3) and SO<sub>2</sub> (2.5 ug/m3). The resultant concentrations are within the NAAQS.

Bag filter/ESP will be provided to Coal/rice husk fired boiler (6 TPH) to control particulate emission. Limestone will be blended with coal to take care of SO<sub>2</sub> emission. Total fresh water requirement from ground water source will be 660 m<sup>3</sup>/day. Permission has been obtained from District Level Ground Water Resources. Spent wash generation will be 430 m<sup>3</sup>/day and centrifuged in decanter to form wet cake. Thin slop will be evaporated in MEE and concentrated will be mixed with wet cake to form DWGS. Spentlees and MEE condensate will be treated in ETP comprising UASBR followed by aerobic treatment and tertiary treatment and used as make water for cooling. Effluent from other process such as washing effluent, DM rejects, bottle washing and spillages, boiler blowdown. The said effluent will be used on land for irrigation purpose. No effluent will be discharged outside the factory premises. flyash will be sent to brick manufacturers/used oil will be sent to authorized recyclers. Funds allocated for ESR is Rs. 2.1 Crore and funds will be utilized for a period of five years.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 11<sup>th</sup>September, 2013 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding to ensure the commitments regarding pollution control and developmental activities, employment for women; local employment etc. In response, PP informed that local people will be given preference for employment. The industry would generate employment around 100-150 people. Public Hearing 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 EC and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated. The unit will use bagasse if available.
- ii. Bag filter alongwith stack of adequate height shall be provided to Coal/rice husk fired boiler to control particulate emission within 50mg/Nm<sup>3</sup>.

- iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iv. Total fresh water requirement from ground water source shall not exceed 660 m<sup>3</sup>/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA.
- v. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. Spent lees, effluent from utilities and cogeneration unit shall be treated in effluent treatment plant (ETP) and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- viii. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored.
- ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- x. Coal storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xi. Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- xii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xiii. Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

- xiv. As proposed, green belt 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.
- xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 11<sup>th</sup>September, 2013 shall be satisfactorily implemented.
- xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.

**28.6.4 Drug Manufacturing Unit at Survey No.344, Village & Mandal Thala Kondapally, District Mahabubnagar, Andhra Pradesh by M/s Sai Shakthi Pharma Pvt. Ltd. – reg. EC**

The project authorities and their consultant (Right Source Industrial 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 12<sup>th</sup> Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 30<sup>th</sup> September–1<sup>st</sup> October, 2013 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

M/s Sai Shakthi Pharma Pvt. Ltd. has proposed for setting up of Bulk Drug Manufacturing Unit at Survey No. 344, Village & Mandal ThalaKondapally, District Mahabubnagar, Andhra Pradesh. Total plot area is 4.25 acres (17200 m<sup>2</sup> ) of which greenbelt will be developed in land area of 5849 m<sup>2</sup>. Cost of project is Rs. 12.0 Crore. No forest land is involved. It is reported that no national park/sanctuary is located within 10 Km distance. Padakal Reserve Forest (2.8 Kms) and Ramnuthal Reserve Forest (6.5 Km) are located within 10 Km distance. Surasamudram Cheruvu near Amangal and Tank near Jangamreddipalli are located within 10 Km distance. Following products will be manufactured:

S.N.	Product	CAS Number	Quantity (in Kg/Month)	Quantity (in Kg/Day)
1	Lansoprazole	103577-45-3	1000.00	33.33
2	Losartan Potassium	124750-99-8	1000.00	33.33
3	Lisinopril	76547-98-3	1000.00	33.33
4	Levocetirizine Di hydrochloride	130018-87-0	500.00	16.67
5	Rabeprazole sodium	117976-90-6	2000.00	66.67
6	Sertraine Hydrochloride	79559-97-0	2000.00	66.67
7	Zidovudine	30516-87-1	1000.00	33.33
8	Itraconazole	84625-61-6	1000.00	33.33
9	Metformin Hydrochloride	657-24-9	20000.00	666.67

10	Ciprofloxacin Hydrochloride	86483-48-9	3000.00	100.00
11	Carvedilol	72956-3	1000.00	33.33
	<b>Total</b>		<b>33500.00</b>	<b>1116.66</b>

Ambient air quality monitoring was carried out at 6 locations December, 2013 –February, 2014 and submitted data indicates as PM10 (40.20–59.20 ug/m<sup>3</sup>), PM2.5 (8.10–20.10 ug/m<sup>3</sup>), SO<sub>2</sub> (7.10 – 12.10 ug/m<sup>3</sup>) and NO<sub>x</sub> (11.20-16.10 ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed project is PM (0.40 ug/m<sup>3</sup>), SO<sub>2</sub> (1.15 ug/m<sup>3</sup>) and NO<sub>x</sub> (1.57 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS.

Bag filter alongwith stack of adequate height will be provided to coal fired boiler ( 3.0 TPH and 2.0 TPH) to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, SO<sub>2</sub> and NH<sub>3</sub>. Distillation column/ dedicated reactors with condensers for effective recovery of solvents. All the solvent storage tanks will be connected with vent condensers with chilled water circulation. Total water requirement will be 98.77m<sup>3</sup>/day of which fresh water requirement from ground water source will be 98.77 m<sup>3</sup>/day. Remaining water requirement will be met from recycled/treated effluent. Industrial effluent generation will be 37.09 m<sup>3</sup>/day. Effluent will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream (23 m<sup>3</sup>/day) will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream (14.12 m<sup>3</sup>/day) will be treated in effluent treatment plant (ETP) followed by RO. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Inorganic & evaporation salt and ETP sludge will be sent to Treatment Storage Disposal Facility (TSDF) for hazardous waste. Fly ash will be sold to brick manufacturers. Waste oil and used batteries will be sold to authorized recyclers/re-processors. A copy of NOC for the proposed project from the office of Gram Panchayath, Talakondapally, District Mahbobnagar, A.P has been submitted.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the AP Pollution Control Board on 26<sup>th</sup> August, 2014 under the Chairmanship of Additional District Magistrate. The Committee noted that there was problem in public hearing and lot of agitation on the issues.

After deliberations, the Committee suggested the followings:

- (i) Authenticated English translated copy of the representations received in support and against the proposal during public hearing to be submitted.
- (ii) A note on the
- (iii) Original Certification /NOC bearing from the Ghram Panchyat bearing date to be provided.

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

#### **28.6.5 Drilling of 9 Exploration Wells in Kutch Offshore NELP-IX Block GK-OSN-2010/1, GK-OSN- 2010/2 in West Coast of India by M/s ONGC – reg. EC**

The project authorities and their consultant (ONGC) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 9<sup>th</sup> Meeting of the

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 drilling of exploratory wells (9) in Kutch Offshore, NELP IX Blocks GK-OSN-2010/1 & GK-OSN-2010/2 in west coast of India. The block comprises of an area of 1361 km<sup>2</sup>. The block was awarded with effective date 04.05.2012 to ONGC as operator. The participating interest of ONGC (90 %) and JV partner (GAIL) have a participating interest of 10 %. The cost of these nine wells will be Rs. 540 Crores. Following is the coordinates of block:

Pt.	Longitude			Latitude		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
A	67	48	34.37	22	35	00.00
B	68	15	00.00	22	37	00.00
C	68	15	00.00	22	30	00.00
D	68	13	05.00	22	30	00.00
E	68	13	05.00	22	23	11.00
F	68	21	45.00	22	23	11.00
G	68	21	45.00	22	27	00.00
H	68	25	11.53	22	27	00.00
I	68	25	11.53	22	15	10.00
J	68	03	40.00	22	15	10.00
K	68	03	00.00	22	16	53.00
L	67	56	31.00	22	31	32.00
M	67	50	53.00	22	20	41.00
N	67	46	49.00	22	24	54.00
O	67	46	18.00	22	29	44.00
A	67	48	34.37	22	35	00.00

First six wells will be drilled upto the depth of 2700, 2700, 3000, 3000, 3500 and 3500 m. Three wells in phase II locations as well as depth to be decided at the time of exercising the option. Water depth ranging from 20 m to 45 m. the block is located beyond territorial water & distance of locations from coast is 45 to 60 km. No sensitive area such as coral reef, marine water park, sanctuary and any other eco-sensitive area lies within 10 km from the block boundary. Kutch Bustard Sanctuary also known as Lala Parjan Sanctuary is located near Jakhau Village in Naliya Taluka. CRZ notification is not applicable on this project as block is beyond territorial waters. Water based mud will be used for the offshore exploratory drilling operations. However, synthetic oil based mud (SOBM) will be used to combat specific hole problems. Water requirement will be 40 m<sup>3</sup>/day. Diesel requirement will be 15 KLD. Drilling fluid used for drilling of wells will be recycled and reused to maximum possible extent. Each rig will be provided with 5 Nos. of DG sets for meeting power requirement (600 KW/day). The disposal of the drill cuttings will be conforming to the guidelines pertaining to the "Disposal of Drill Cuttings and drilling fluids for offshore installations" provided by the Ministry of Environmental & Forests GSR 546 ( E ) August, 2005. The solid waste generated on the rig will be segregated

and stored in colour coded bags. The solid waste will be transported back using support vessels or with the rig to Nhava supply base of ONGC.

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

- i. Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur clean diesel shall be used. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- ii. Gas produced during testing shall be flared with appropriate flaring booms.
- iii. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.
- iv. Total water requirement shall not exceed 40 m<sup>3</sup>/day/well and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.
- v. Water based drilling mud shall be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30<sup>th</sup> August, 2005.
- vi. The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall undertake conservation measures to protect the marine animals/biota in the region. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.
- vii. Treated wastewater (produced water or formation water) shall comply with the marine disposal standards notified under the Environment (Protection) Act, 1986. Sewage treatment on board of the rig as per MARPOL regulation. Residual chlorine shall not exceed 1 mg/l before disposal.
- viii. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.
- ix. All the guidelines shall be followed for the disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005. Different types of wastes shall be kept segregated.
- x. High efficiency equipment shall be used to separate solids, hydrocarbons and water such as shale shakers with improved capacity to filter smaller solids, low shear pumps for use in produced water shall be employed.

- xi. Good book keeping practices shall be put in place to manage wastes such as waste tracking program i.e. identify where and when the waste generated, the type of waste and its volume, the disposal method and its location, and the personnel responsible for the waste management.
- xii. A waste minimization plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimized equipment maintenance schedules.
- xiii. Only essential rig personnel shall be on board the rig. Emergency Response Plan and health, safety and environment (HSE) system shall be installed. Geo-hazard and geotechnical studies shall be carried out to ensure safe drilling operations.
- xiv. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MOEF/CPCB authorized recyclers/re-processors only.
- xv. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick within 500 meters shall be provided.
- xvi. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.
- xvii. The International 'Good Practices' adopted by the Petroleum Industry viz International norms to safeguard the coastal and marine biodiversity shall be implemented by the company.
- xviii. The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MOEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.
- xix. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.

- xx. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.
- xxi. Full drawings and details of Blow Out Preventor to encounter well kick due to high formation presence, if encountered, shall be submitted to the Ministry's Regional Office within 3 months of the issue of environment clearance.
- xxii. On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well. The position at the end of the activities shall be communicated in detail to the Ministry indicating the steps taken i.e. whether all the wells are plugged or abandoned and necessary precautions taken.
- xxiii. A brief report on environmental status & safety related information generated and measures taken as well as frequency of such reporting to the higher Authority shall be submitted to this Ministry and its respective Regional Office at Bangalore.
- xxiv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.
- xxv. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.
- xxvi. Adequate funds both recurring and non-recurring shall be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- xxvii. Petroleum and Natural Gas (safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.

#### **Reconsideration for Environmental Clearance**

##### **28.6.6 Pesticide Manufacturing Unit at SP 3-7/B, Keshvana Industrial Area, Tehsil Kothputli, District Jaipur, Rajasthan by M/s Agro Allied Ventures Pvt Ltd.- reg. EC**

Proposal was considered in the 19<sup>th</sup> EAC meeting held during 28<sup>th</sup> May, 2014 to 30<sup>th</sup> May, 2014 and the Committee recommended the Public Hearing /public consultation as per the provisions of EIA notification, 2006. Accordingly, the final EIA-EMP report incorporating all the issues raised during Public Hearing / Public Consultation shall be submitted to the Ministry for considering the proposal for environmental clearance.

The public hearing/consultation was conducted by the Rajasthan State Pollution Control Board on 24<sup>th</sup> September, 2014. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting. The issues were raised regarding local employment, improvement in the standards of local people etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- i. National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3<sup>rd</sup> February, 2006 and amended time to time shall be followed by the unit.
- ii. Multicyclone followed by bagfilter alongwith adequate stack height shall be provided to coal fired boiler to control particulate emissions.
- iii. Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control HCl and Cl<sub>2</sub> emissions. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. All necessary steps should be taken for monitoring of chlorine, HCl as well as VOCs in the proposed plant.
- vi. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- vii. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- viii. Total water requirement from ground water source should not exceed 25.8 m<sup>3</sup>/day and prior permission should be obtained from the CGWA.
- ix. Industrial effluent generation should not exceed 15.4 m<sup>3</sup>/day. Effluent should be treated in ETP followed by Reverse Osmosis. Treated effluent shall be recycled/reused in the process/ cooling tower make up water. Cyanide effluent stream shall be segregated and treated.
- x. No effluent shall be discharged outside the premises and 'Zero' effluent discharge shall be followed.

- xi. 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 RSPCB 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.
- xii. As proposed, ETP sludge should be sent to TSDF site. High calorific value waste such as spent organic should be incinerated.
- xiii. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xiv. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xv. As proposed, 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.
- xvi. 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 Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.

**28.6.7 Expansion of organic Chemical Manufacturing Unit (7.1 MTPM to 84.1 MTPM) at Survey No. 318 to 322, Kankar na Muvad, Village Derol, Taluka Kalol, District Panchmahal, Gujarat by M/s Stellar Chemical Laboratories Pvt. Ltd. - reg EC**

The proposal was considered in the 29<sup>th</sup> EAC meeting held during 17<sup>th</sup>-18<sup>th</sup> November, 2011 and the Committee sought following additional information:

1. Scheme for adoption of 'zero' discharge. Characteristics of treated effluent. Mode of disposal of effluent.
2. Detailed emergency plan for controlling spillage of chemicals, solvents and other materials.

PP vide letter dated 5<sup>th</sup> August, 2014 has submitted the above mentioned addl. information.

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

- i) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and VOC should be monitored in ambient air.

- ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.
- iii) Total fresh water requirement from ground water source should not exceed 35 m<sup>3</sup>/day and prior permission should be obtained from the CGWA/SGWA.
- iv) Effluent shall be treated in the ETP followed by Reverse Osmosis. Rejects of RO will be concentrated in MEE. Treated effluent shall be reused in the process. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.
- v) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- vi) As proposed, process organic residue and spent carbon should be sent to cement industries. ETP sludge, process inorganic & evaporation salt should be disposed off to the TSDF.
- 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 APPCB 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) As proposed, 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) 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

**28.6.8 Expansion of Synthetic Organic Chemical (Bulk Drugs & Drugs Intermediates- 11.0 MTPM to 37.0 MTPM) Manufacturing Unit at Survey No. 47, Hadmtala Industrial Area, Rajkot Gondal Highway, Taluka Kotda Sangani, District Rajkot, Gujarat by M/s Sam Finechem Limited – reg. EC**

The proposal was considered in the 4th EAC meeting held during 8th-9th January, 2013 and the Committee recommended the project proposal subject to submission of following addl. Information:

1. Confirmation needs to be obtained from the Gujarat Pollution Control Board whether any of the District Magistrate/ District Collector/ Dy. Commissioner or his or her representative not below the rank of Additional District Magistrate has supervised and presided over the entire public hearing process.

PP vide letter dated 14.07.2014 informed that they have conducted fresh public hearing.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 01<sup>st</sup> July, 2014. The issues were raised regarding contamination of ground water, water consumption, local employment, process emissions etc. The Committee noted that concern of the public particularly contamination of the groundwater and views of the project proponent. PP informed that SPCB has conducted the groundwater monitoring of the affected area. The Committee, therefore was of the view that a report to be obtained from SPCB regarding pollution status in and around of the project site together with recommendation for this unit for proposed expansion. The project is deferred till the information is received from the respective SPCB

**28.6.9 Sugar Complex (Sugar Plant 5,000 TCD; Co-generation Plant, 30 MW; Molasses based Distillery Plant, 120 KLPD) at Sy. Nos. 138 to 151, 159 to 162, 167, 168 of Village Mygur and Sy. Nos. 237 to 241 of Village Hippargi, Taluka Jamakhandi, District Bagalkot, Karnataka by M/s Shri Sai Priya Sugars Ltd. – reg.EC**

The project proponent and their consultant (Environmental Health & Safety Consultants Pvt. Ltd. ) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 14<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 16<sup>th</sup>-17<sup>th</sup>September, 2010 for preparation of EIA-EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

The proposal was earlier placed before the Reconstituted Expert Appraisal Committee (Industry) in its 22<sup>nd</sup> meeting held during 28<sup>th</sup>-29<sup>th</sup> August, 2014. the Committee recommended that M/s Shri Sai Priya Sugars Ltd. *has to start the process de novo after obtaining fresh TORs*, in context of OM no. J-11013/41/2006-IA II (I) Part, dated 22<sup>nd</sup>August, 2014 by MoEF&CC.

The proposal has now further been examined in light of the O.M.No. J-11013/41/2006-IA II (I) Part, dated 7<sup>th</sup> November, 2014 wherein the issue of consideration of projects by EAC in background of data used for preparation of EIA/EMP report and public hearing more than three years old is clarified. Accordingly the proposal is reconsidered and placed before the Committee.

M/s Shri Sai Priya Sugars Ltd. has proposed for setting up of Sugar Complex (Sugar Plant 5,000 TCD; Co-generation Plant, 30 MW; Molasses based Distillery Plant, 120 KLPD) at Sy. Nos. 138 to 151, 159 to 162, 167, 168 of Village Mygur and Sy.Nos. 237 to 241 of Village Hippargi, Taluka Jamakhandi, District Bagalkot, Karnataka. Plot area is 140 acres 28 Guntas, of which greenbelt will be developed in 47 acres. Cost of project is Rs. 300 Crore. Krishna River is located at a distance of 5 Km. Banahatti Reserved forest is at distance of 8 Km. It is reported that no national parks/ biosphere reserves are located within 10 km distance. No. of working days of sugar unit, Cogeneration and Distillery unit is 180 days, 300 days and 270 days respectively.

Ambient air quality monitoring was carried out at 12 locations during March, 2010 to May, 2010 and submitted data indicates as PM<sub>10</sub> (25.6–43.9 ug/m<sup>3</sup>), PM<sub>2.5</sub> (5.6–14.9ug/m<sup>3</sup>), SO<sub>2</sub> (2.4 – 4.9 ug/m<sup>3</sup>) and NO<sub>x</sub> (5.1-9.0ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed project is PM (2.092 ug/m<sup>3</sup>), SO<sub>2</sub> (0.416ug/m<sup>3</sup>) and NO<sub>x</sub> (0.55ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. ESP will be provided to bagasse fired boiler (120 TPH) to control particulate emissions. Bagfilter will be provided to incineration boiler. Fresh water requirement for sugar ( 5000 TCD) and CPP ( 30 MW) will be 1150 m<sup>3</sup>/day. Fresh water requirement for distillery has been estimated to be 2000 m<sup>3</sup>/day. However, Committee of the view that water requirement for distillery should be based on 10 KL per KL of alcohol produced. Spentwash generation will be 1080 m<sup>3</sup>/day. Spent wash will be evaporated in MEE. Concentrate spent wash will be sent to incineration for incineration boiler. Effluent from sugar and cogeneration will be treated in aeration tank followed by clarifier. Treated effluent will be used for irrigation. Bagasse fly ash will be mixed with press mud and yeast sludge and used for bio-composting. DG set ( 2 x 2000 KVA + 2 x 1000 KVA) will be installed for sugar and distillery unit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 22<sup>nd</sup> March, 2011. The issues were raised regarding excess cane in the project area, install of pollution control equipment etc. The people have supported the project. 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 following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Distillery unit shall be based on Molasses based only and no Grain based distillery unit shall be operated.
- ii) ESP along with stack of adequate height shall be provided to bagasse fired boilers (120 TPH) and bagfilter alongwith stack of adequate height shall be provided to concentrated spent wash fired boiler to control particulate emissions within 50 mg/Nm<sup>3</sup>.
- iii) Total fresh water requirement from River shall not exceed 2350 m<sup>3</sup>/day for sugar, distillery and CPP and prior permission shall be obtained from the Competent Authority.
- iv) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated in incineration boiler to achieve 'Zero' discharge. Evaporator Condensate shall be treated 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 pucca 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 and co-generation power plant shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

- vii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- viii) 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 Bangalore and KSPCB.
- ix) Bagasse/biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- x) 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. Bagasse ash and coal ash shall be stored separately.
- xi) 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.
- xii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xiii) Dedicated parking facility for loading and unloading of 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.
- xiv) 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.
- xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 22<sup>nd</sup> March, 2011 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi) 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.

## Terms of Reference (TOR)

### **28.6.10 Expansion of Bulk Drugs & Drugs intermediates (from 300 kg/day to 1500 kg/day) Sy.No.637, 660, Village Bonthapally, Mandal Jinnaram, District Medak, Telangana by M/s Otira Pharmaceuticals Pvt. Ltd.– regarding TOR**

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

M/s Otira Pharmaceuticals Pvt. Ltd has proposed for expansion of Bulk Drugs & Drugs intermediates (from 300 kgs/day to 1500 kgs/day) Sy.No.637, 660, Village Bonthapally, Mandal Jinnaram, District Medak, Telangana. Plot area is 8327.83 m<sup>2</sup> of which greenbelt will be developed in 3221.64 m<sup>2</sup>. Cost of project is Rs. 12.05 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 10 km distance.

Following products will be manufactured:

S.No	Proposed Product Name	CAS Number	Therapeutic Category	Quantity In MT/Month
1	Ciprofloxacin Hydrochloride	85721-33-1	Anti-infective	10.00
2	Citalopram Hydrobromide	59729-32-7	Antidepressant	3.00
3	Domperidone	57808-66-9	Antiemetic	5.00
4	Esomeprazole Sodium	161796-78-7	Proton-pump Inhibitor	1.00
5	Esomeprazole Magnesium Trihydrate	217087-09-7	Proton pump inhibitor	2.00
6	Fexofenadine Hydrochloride	153439-40-8	Antihistamine	5.00
7	Omeprazole	73590-58-6	Proton Pump inhibitor	10.00
8	Pantoprazole Sodium	138786-67-1	Proton pump inhibitor	2.00
9	Sertraline Hydrochloride	79559-97-0	Antidepressant	5.00
10	Valsartan	137862-53-4	Antihypertensive	2.00
Total				45.00

#### **List of By – Products**

S.No	Name of the Product	Quantity In Kg/Day
1	Piperazine Hydrochloride	137.80

Existing thermic fluid heater will be continued and additional coal fired boiler (4 TPH) will be installed. Bagfilter alongwith stack of adequate height will be provided to coal fired boiler (2 TPH). Distillation column/dedicated reactors with condensers for effective recovery of solvents will be installed. All the solvent storage tanks are connected with vent condensers. Scrubber will be provided to control process emissions. Water requirement from ground water source will increase from 0.75 m<sup>3</sup>/day to 116.99 m<sup>3</sup>/day after expansion. Wastewater generation will be increased from 0.67 m<sup>3</sup>/day to 59 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. DG set (1x 250 KVA and 1 x 380) will be installed.

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

**A. Standard TOR:**

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.

24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.
36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
  - a) To which chemicals, workers are exposed directly or indirectly.
  - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - c) What measures company have taken to keep these chemicals within PEL/TLV.
  - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - e) What are onsite and offsite emergency plan during chemical disaster.

- f) Liver function tests (LFT) during pre-placement and periodical examination.
  - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
  45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  46. Note on compliance to the recommendations mentioned in the CREP guidelines.
  47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
- (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

**B. Additional TOR**

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of State Pollution Control Board for proposed expansion.

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.

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.

**28.6.11 Expansion of Technical grade Pesticides Manufacturing (from 900 TPA to 3000 TPA) at Plot No.SP-9 (D-1), RIICO Industrial Area, Village Khushkhera, District Alwar, Rajasthan by M/s HPM Chemicals and Fertilizers Ltd. – regarding TOR**

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

M/s HPM Chemicals and Fertilizers Ltd has proposed for expansion of Technical grade Pesticides Manufacturing (from 900 TPA to 3000 TPA) at Plot No.SP-9 (D-1), RIICO Industrial Area, Village Khushkhera, District Alwar, Rajasthan. It is reported that there are no national parks/wildlife sanctuary located within 10 km distance. Khorikalan protected forest ( 7 Km & SE), Ranwan 5.7 km, Gohdhan are located within 10 km distance. Total plot area is 6025 m<sup>2</sup> of which greenbelt will be developed in 1990 m<sup>2</sup>. Cost of expansion project is Rs. 5 Crores. Following products will be manufactured:

S.N	Particulars	Category	Sub- Category	Installed Capacity (TPA)	Proposed Capacity (TPA)
<b>INSECTICIDES</b>					
1	Acetamiprid	Insecticides	Neonicotinoids	60	200
2	Imidacloprid	Insecticides	Neonicotinoids		
3	Thiacloprid	Insecticides	Neonicotinoids		
4	THiamrthoxam	Insecticides	Neonicotinoids		

5	Novaluron	Insecticides (IGR)	Benzoyl Phenyl urea	10	10
6	Lambda-Cyhalothrin	Insecticides	Synthetic Pyrethroids	30	30
7	Bifenthrin	Insecticides	Synthetic Pyrethroids		
8	Chlorpyrifos	Insecticides	Organo Phosphates	150	1350
9	Acephate	Insecticides	Organo Phosphates		
10	Profenofos	Insecticides	Organo Phosphates		
11	Fipronil	Insecticides	Others	120	140
12	Buprofezin	Insecticides	Others		
13	Cartap Hydrochloride	Insecticides	Others		
14	Pymetrozine	Insecticides	Others	NEW	
15	Abamectin	Insecticides	Fermentation Technology	50	75
16	Azoxystrobin	Insecticides	Fermentation Technology		
17	Emmamectin benzoate	Insecticides	Fermentation Technology		
18	Spinosad	Insecticides	Fermentation Technology		
<b>BACTERICIDE</b>					
19	Validamycin	Bactericide	Fermentation Technology		
<b>FUNGICIDES</b>					
20	Hexaconazole	Fungicides	Trizole	50	100
21	Tricyclazole	Fungicides	Trizole		
22	Propiclazole	Fungicides	Trizole		
23	Tebuconazole	Fungicides	Trizole		
24	Difenconazole	Fungicides	Trizole		
25	Epoxyconazole	Fungicides	Trizole		
26	Paclobutrazole	Fungicides	Trizole		
27	Myclobutanil	Fungicides	Trizole	NEW	
28	Thiophnate methyl	Fungicides	Benzimidazole (carbamate)	20	40
29	Metalaxyl	Fungicides	Others		
30	Isoprothiolane		Others	NEW	
<b>HERBICIDES</b>					
31	Imazethapyr	Herbicides	Imidazolinone	20	20
32	Metsulfuron Methyl	Herbicides	Suplhonyl Urea	35	35
33	Sulfosulfuron	Herbicides	Suplhonyl Urea		
34	Chlorium Ethyl	Herbicides	Suplhonyl Urea		
35	Pyrazosulfuron	Herbicides	Suplhonyl Urea		
36	Bensulfuron Methyl	Herbicides	Suplhonyl Urea		
37	ClodinafopPropargyl	Herbicides	Phenoxy	5	50
38	Butachlor	Herbicides	Organochlorine	100	350
39	Pretilachlor	Herbicides	Organochlorine		
40	Glyphosate	Herbicides	Others	250	600
41	Oxyfluorfen	Herbicides	Others		
42	Atrazine	Herbicides	Others		

43	Metribuzin	Herbicides	Others		
44	Bispyribac Sodium	Herbicides	Others	NEW	
TOTAL CAPACITY (TPA)				900	3000

Water requirement will be increased from 50 m<sup>3</sup>/day to 118 m<sup>3</sup>/day after expansion. Source of water supply is RIICO. Effluent generation will be increased from 16 m<sup>3</sup>/day to 40 m<sup>3</sup>/day. DG set 125 KVA and DG set 160 KVA will be installed. Environmental clearance has been obtained in the name of M/s Hindustan Pulverizing Mills vide MoEF Letter no. J-11011/459/2009 IA II (I) dated 4<sup>th</sup> February, 2010.

As such no ETP scheme with unit-wise details was proposed during presentation. After detailed deliberation, the committee suggested to conduct site visit and TOR shall be prescribed based on site visit.

**28.6.12 Pesticide and pesticide specific intermediate at Sy. No. 1277 & 1319 to 1324 village Nandigama, Mandal Kothur, district Mahboobnagar, Andhra Pradesh by M/s MSN Laboratory Ltd Unit-II- reg. TOR.**

The PP did not attend the meeting. The committee recommended to consider the project as and when applied on line by the PP.

**28.6.13 Expansion of Molasses based Distillery (capacity 50 KLPD to 100 KLPD) at Gut No.398, 399, 400, 423, 424, Village Chitali, Tehsil Rahata, District Ahamadnagar, Maharashtra by M/s John Distilleries Pvt. Ltd.– regarding TOR**

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

M/s John Distilleries Pvt. Ltd. has proposed for expansion of Molasses based Distillery (capacity 50 KLPD to 100 KLPD) at Gut No.398, 399, 400, 423, 424, Village Chitali, Tehsil Rahata, District Ahamadnagar, Maharashtra. Total plot area is 226.36 acres. Cost of project is Rs. 40.00 Crore. Nearest river is Godavari River, which is located at a distance of 10 Km. It is reported that no national park/ sanctuary is located within 10 km distance.

Bagfilter will be provided to coal/biogas fired boiler. Fresh water requirement will be 807 m<sup>3</sup>/day. Spent wash will be treated through bio-methanation process. Treated spent wash will be evaporated in MEE. Concentrate will be mixed with bagasse to incinerate in the incineration boiler. Spent lees, condensate and other streams-blow down/floor washing will passed through condensate polishing unit and recycle to cooling tower /process/ garden.

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

1. Executive summary of the project.
2. Detailed breakup of the land area along with latest photograph of the area.
3. Present land use based on satellite imagery.
4. Details of site and information related to environmental setting within 10 km radius of the project site.
5. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
6. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
7. List of existing distillery units in the study area alongwith their capacity.
8. Number of working days of the distillery unit.
9. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
10. Manufacturing process details of distillery plant alongwith process flow chart.
11. Details of raw materials and source of raw material molasses, bagasse etc.
12. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.
13. Action plan prepared by the SPCB to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
14. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
15. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
16. An action plan to control and monitor secondary fugitive emissions from all the sources.
17. Details of boiler and its capacity. Details of the use of steam from the boiler.
18. Ground water quality around existing /proposed spent wash storage lagoon and the project area.
19. Details of water requirement, water balance chart for Molasses based Distillery. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
20. Water requirement should not exceed 10 KI/KI of alcohol for distillery and prior 'permission' for the drawl of total fresh water. Details of source of water supply.
21. Hydro-geological study of the area for availability of ground water.
22. Spentwash generation from molasses based should not exceed 8KI/KI of alcohol production.
23. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) and scheme for achieving 'zero' discharge.
24. Lagoon capacity for sugar unit and spent wash as well measures to be taken to control ground water contamination.
25. Details of solid waste management including management of boiler ash. Submit Ash management plan. MoU with cement plant for the use of fly ash.

26. Land available for bio-composting. Details of lining to be provided in the compost yard.
27. Green belt development as per the CPCB guidelines.
28. List of flora and fauna in the study area.
29. Noise levels monitoring at five locations within the study area.
30. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
31. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
32. Details of bagasse storage. Details of press mud requirement.
33. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
34. Alcohol storage and handling area and its fire fighting facility as per norms.
35. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
36. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
37. Details of socio-economic welfare activities to be provided.
38. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
39. Action plan for post-project environmental monitoring.

#### **40. Corporate Environmental Responsibility**

- (a) 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.
- (b) Does the Environmental 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 report.
- (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
- (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or

shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

41. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
42. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
43. A tabular chart with index for point-wise compliance of above TORs.

## **B. Additional TOR**

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made

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.

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.

**28.6.14 Expansion of assembly unit by adding Poly Urethane Foam (capacity 3700 TPA) at Plot No.3/p.10, Sector-10. IIE, SIDCUL, Ranipur, Haridwar, Uttarkhand by M/s Autofit Pvt. Ltd J-11011/325/2014-IAII (I)– regarding TOR.**

The project authorities and their Consultant (M/s J M Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by SEIAA/SEAC. However, applicability of General condition i.e. Rajaji National Park is located within 10 km distance boundary and project is treated as category 'A' project.

M/s Autofit Pvt. Ltd has proposed for Expansion of assembly unit by adding Poly Urethane Foam (capacity 3700 TPA) at Plot No.3/p.10, Sector-10. IIE, SIDCUL, Ranipur, Haridwar, Uttarkhand. Plot area is 2.02 ha of which area earmarked for greenbelt is 0.68 ha. Cost of project is Rs. 1.5 crore. Rs. 25 lakh and Rs. 5 Lakh per annum are earmarked towards capital cost and recurring cost per annum for implementation environmental management plan. Rajaji national park is located within 10 km distance. Ganga River is flowing at a distance of 8.5 Km. Following products will be manufactured :

Seat Cover & assembly	Existing capacity	Proposed Additional capacity	Total Capacity after expansion
Seat cover & Assembly	24.40 Lakh Pcs/annum	Nil	24.40 Lakh Pcs/annum
Wheel assembly	24.40 Lah set/annum	Nil	24.40 Lah set/annum
Poly Urethane Foam ( PUF) New Product	--	3,700 TPA	3,700 TPA

Raw materials i.e. polyols and isocyanates will be sourced from M/s Bayer India, GNOIDA by road. PP confirmed that in the proposed project, there will be no effluent is generated from the process. The effluent mainly arises from domestic source which is subjected to the sewage treatment plant. The treated sewage will be reused for gardening purpose with plant premises. Scraps such as cuttings will be handed over to vendors. The committee noted that baseline data has been collected for the month of March to May, 2014. The Committee suggested that one month VOC data also be collected and incorporated in the EIA report.

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

**A Standard TOR**

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.

5. A copy of Gazette Notification issued by the Govt. of Uttarakhand indicating location of the project in notified Industrial Area should be included necessarily.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
11. Copy of application submitted for clearance from NBWL.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Action plan for the transportation of raw material and products.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 4 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction. Data for water and noise monitoring shall also be included.
19. Details of water and air pollution and its mitigation plan.
20. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
21. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
22. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
23. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
24. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
25. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
26. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
27. A tabular chart with index for point wise compliance of above TORs.

## **B Additional TOR**

1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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.

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.

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.

### **28.6.15 Expansion of Bulk Drugs and Intermediates Manufacturing Unit (from 17.48 TPM to 26 TPM) at Plot No. Phase-I IDA 19 to 28, Phase-I IDA, Village Pashamylaram, Tehsil Patancheru, District Medak, Telangana by M/s Satyadeva Pharmaceuticals Pvt Ltd. – regarding TOR**

The project authorities and their Consultant (M/s Team Labs and Consultants.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the

preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, non-existent of SEIAA/SEAC, in Telangana, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s. Satyadeva Pharmaceuticals Pvt. Ltd., proposes to remove piperzine recovery at Unit I and modernize/expand the drug intermediate manufacturing to Bulk drug and intermediate manufacturing at Unit II by merging Satyadeva Pharmaceuticals Pvt. Ltd., Unit I and II from 17.48 TPM to 26 TPM in existing area of 3.06 acres (Unit I: 1.27 acres & Unit II 1.79 acres). The capital cost for expansion is Rs. 15 crores, towards modernization of zero liquid discharge facility, debottlenecking and additional equipment to enhance the capacity at Phase – II IDA, Plot No.19, 20, 21, 22, 23, 24, 25, 26, 27 & 28, Pashamailaram Village, Patancheru Mandal, Medak District, Telangana. Nakkavagu stream is at a distance of 6.6 km in northeast direction, flowing from north to south. It is reported that there are no ecologically sensitive areas like reserve forests, national parks, and sanctuaries within 10 km radius of the site. The site is located at a distance of 5.6 Km from the critically polluted area of Patancheru and Bollaram Industrial estates. The manufacturing capacity after expansion is as follows:

#### Manufacturing Capacity - Permitted

##### Unit I:

S.No	Name of the Product	Capacity	
		TPM	Kg/Day
1	Piperzine (recovery from MLs)	22.5	750
2	N-Ethyl Puiperzine	4.5	150
	<b>Total</b>	<b>27</b>	<b>009</b>

##### Unit II:

S.No	Name of the Product	Capacity	
		TPM	Kg/Day
1	5-Cyanophthalide	4.48	149.33
2	2-Chloro-n-(2-Chloro-4-Methyl-3-Pyridinyl)-3-Pyridine Carboxamide	5.00	166.67
3	N-Phenyl Carbonyl-L-Valine	1.35	45.00
4	2-[[[(2-Isopropyl-1,3-Thiazole-4-Methyl)(Methyl)Amino] Carbonyl]Amino]-3-Methyl Butanoic Acid	2.00	66.67
5	(2S)-(1-Tetrahydropyrimidin-2-Only)-3-Methylbutanoic Acid	4.65	155.00
	<b>Total</b>	<b>17.48</b>	<b>582.67</b>

#### Manufacturing Capacity - After Expansion and Merger of Both Units

S.No	Name of the Product	CAS No.	Capacity	
			TPM	(Kg/Day)
1	1,2-dihydro-2-oxo-6-propylpyridine-4-carboxylic acid (PPC)	76594-12-2	2.10	70
2	Clopidogrel Bisulfate	144077-07-6	1.95	65
3	Cetirizine dihydrochloride	83881-52-1	3.00	100
4	<b>Risperidone</b>	106266-06-2	<b>7.50</b>	<b>250</b>
5	<b>Metoprolol Succinate</b>	98418-47-4	<b>5.40</b>	<b>180</b>

6	Zonisamide	68291-97-4	0.45	15
7	Alendronate Sodium	121268-17-5	0.75	25
8	Levocetirizine Hydrochloride	130018-87-0	0.60	20
9	Atomoxetine Hydrochloride	82248-59-7	0.30	10
<b>10</b>	<b>Citalopram HBr</b>	59729-32-7	<b>7.50</b>	<b>250</b>
11	Escitalopram Oxalate	219861-08-2	0.24	8
12	Abacavir Sulphate	188062-50-2	1.20	40
13	Darunavir Ethanolate	635728-49-3	1.20	40
14	Emtricitabine	143491-57-0	0.30	10
<b>15</b>	<b>Levetiracetam</b>	102767-28-2	<b>6.00</b>	<b>200</b>
16	Lopinavir	192725-17-0	0.45	15
17	Ritonavir	155213-67-5	1.35	45
18	Esomeprazole Magnesium	217087-09-7	0.90	30
<b>Total (Campaign Basis Worst Case: 4 Products)</b>			<b>26</b>	<b>880</b>

#### List of Utilities

S.N.	Utility	Unit I	Unit II	Proposed	After Expansion
1	Coal Fired Boiler	4.5 TPH	2.5 TPH 2 TPH		4.5 TPH 2.5 TPH* 2 TPH*
2	DG Set*	250 KVA#		500 KVA	500 KVA*

\* Shall be kept as Standby.

# will be dismantled

The sources of air pollution from the existing plant are 4.5 TPH coal fired boiler. The utilities are provided with effective stack height in addition to Multi-cone Cyclone Separators as air pollution control equipment for coal fired boiler. It is proposed to add a 500 KVA DG set as part of expansion. The present water consumption and effluent generation is 51.12 KLD and 19.81 KLD respectively. The total water requirement after the proposed expansion is 105.9 KLD out of which 71.9 KLD will be fresh water and 34 KLD is recycled water. Fresh water is sourced from APIIC Industrial water supply. The effluents are treated in "Zero Liquid Discharge" system. The effluents generated from the plant are from process, washings, DM rejects and scrubbers of about 22.6 KLD are sent to Stripper followed by MEE, AFTD. The condensate from MEE and AFTD is treated along with utility blow downs of 9 KLD in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers and domestic effluent of 4.5 KLD sent to Septic tank followed by Soak pit. Solid wastes are generated from process, solvent distillation, stripper, AFTD, ETP (primary & secondary), and DG sets. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration. The evaporation salts are sent to TSDF. Filter media like activated carbon and hy-flow are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorize recyclers. The sludge from effluent treatment plant is sent to TSDF. Ash generated from coal fired boilers sent to brick manufacturers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorized buyers after detoxification. 0.87 acres of land of the total land area shall be developed as green belt. PP informed that the Satyadeva Pharmaceuticals Pvt. Ltd., Unit - I was established in 1999 under the name of S.R. Piperazines and subsequently name was changed to Satyadeva Pharmaceuticals Pvt. Ltd., and obtained Consent for Establishment vide letter no. PCB/ZO/RCP/2002-6520 dated 18.05.2002. The unit is involved in recovery of Piperzine Mother Liquor. Satyadeva Pharmaceuticals Pvt. Ltd., Unit –

It obtained Consent for Establishment vide letter no. PASHA-82/PCB/ZO/RCP/CFE/2010-944 dated: 16.07.2010 and it is merge of three units namely Swathi Fine Chemicals, Vimal Fine Chemicals and Satyadeva Pharmaceuticals Pvt. Ltd. Above three units obtained Consent for Establishment vide letter nos. Pasha-74/PCB/ZO/RCP/2004-609 dated 19.08.2004; Pasha-73/PCB/ZO/RCP/2004-610 dated 19.08.2004; Pasha-82/PCB/ZO/RCP/2004-179 dated 06.11.2004 respectively. The products manufactured by this unit are Bulk drug intermediates only, which did not attract EC notification of 1994.

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

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

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction,

- population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
  27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
  28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
  29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  30. Name of all the solvents to be used in the process and details of solvent recovery system.
  31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
  32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
  33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
  34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
  35. Zero discharge effluent concepts to be adopted.
  36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
  38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
  39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
  42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  43. Details of occupational health programme.
    - a) To which chemicals, workers are exposed directly or indirectly.
    - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - c) What measures company have taken to keep these chemicals within PEL/TLV.
    - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - e) What are onsite and offsite emergency plan during chemical disaster.
    - f) Liver function tests (LFT) during pre-placement and periodical examination.
    - g) Details of occupational health surveillance programme.
  44. Socio-economic development activities shall be in place.
  45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  46. Note on compliance to the recommendations mentioned in the CREP guidelines.

47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

## **B. Additional TOR**

1. 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, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
3. Recommendation of State Pollution Control Board for proposed expansion.

The following general points shall be noted:

1. All documents shall be properly indexed, page numbered.
2. Period/date of data collection shall be clearly indicated.
3. Authenticated English translation of all material in Regional languages shall be provided.
4. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
5. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
6. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
7. 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.

8. 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.

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.

**28.6.16 Exploration & Test production of Coal Bed Methane in Block TL-CBM-2008/IV, Talcher CBM Block, Odisha, by M/s Essar Oil Ltd (E&P Division)- reg TOR**

The project authorities and their consultant (SENES Consultants India Pvt. Ltd.,) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP. All the Coal Bed Methane plants are listed at S.N. 1(b) under Category ‘A’ and appraised at the Central level.

M/s Essar Oil Ltd (E&P Division) has proposed for Exploration & Test production of Coal Bed Methane in Block TL-CBM-2008/IV, Talcher CBM Block, Odisha. Essar Oil Ltd. and Govt. of India signed CBM contract for exploration and production of coal bed methane (CBM) gas from Talchar CBM block ( TL-CBM-2008/IV) on 29<sup>th</sup> July, 2010. The petroleum exploration license application submitted to Govt. of Odisha on 17.09.2010.c total area of CBM block is 557 km<sup>2</sup>, spread over Angul, Sambalpur & Deogarh districts of Odisha. PP informed that forest clearance for core holes (26 nos.) applied on 10<sup>th</sup> July, 2014. Tikira River (3 Km) and Aunli River (5 Km) are located within 10 km distance. Wildlife Sanctuary namely Khalasuni and Badrama are located at the distance of 5 Km. Reserve Forests namely Nandimal RF, Rail RF, Dangapal RF, Kanloi RF, Kholgarh RF are within the CBM block. Tal-Kolgarh elephant corridor is located at a distance of 13 Km . Following activities will be carried out:

S.N.	Activity
1	Phase – I Program i) core holes (26 core holes in forest land.  ii) 03 Test wells
2	Phase – II Program i) 25 pilot wells and 100 supporting wells. Total 125 wells.  ii) Gas gathering stations -4 no. and main compressor station 1 No.

	<p>iii) Interconnecting &amp; transportation pipelines for CBM &amp; produced water -4" to 18" dia.</p> <p>iv) Wells will be drilled to a depth of 2000 m using air / water based mud.</p> <p>v) Expected gas production is 5000 m<sup>3</sup>/day/well</p>
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Land requirement for core hole is 0.5 acres, pilot /test well is 1.5 to 2 acres. GGS/MCS is 4 to acres. 3.036 ha of Forest land is involved for coreholes and approach roads. Cost of project is Rs. 1288.50 Crore. Average water requirement for core hole is 30 m<sup>3</sup>/hole. Pilot / Test well will be 75 m<sup>3</sup>/well. Produced water will be stored in HDPE lined pits.

PP informed that TOR for the said project was issued by MoEF File No. J-11011/104/2011 IA II (I) dated 13<sup>th</sup> July, 2011. Draft EIA report submitted on 15.05.2013 for public consultation. TOR validity extended for another one year. Member Secretary, OPCB issued request letter to concerned District Magistrate for conduct of PH. However, District Administration could not conduct PH due to model code of conduct and Law order. Further PP requested for extension of validity of TOR for another one year. On 29<sup>th</sup> August, 2014, the Committee recommended to submit an application for TOR. The Committee suggested that collected baseline data for the said project may be used in the proposal as per MoEF&CC's OM . To validate the earlier data, one more month baseline data shall be collected.

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

**A. Standard TOR:**

1. Executive summary of the project.
2. Details of existing land use pattern within the proposed CBM block. (Cropping pattern, forest, agriculture land, wasteland etc, flora and fauna etc.)
3. Details of land acquisition w.r.t. private land, Govt. land, agriculture land, mode of compensation for land losers due to land acquisition and R & R etc.
4. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
5. Copy of stage – I forest clearance for carrying out drilling activity in 3.036 ha forest land.
6. Permission and recommendations from the National Board for Wildlife and Chief Wildlife Warden regarding impact of proposed project on Wildlife Sanctuary namely Khalasuni and Badrama.
7. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding Reserve Forests, if any.
8. Name and experience of the collaborators, whether foreigner agencies are involved.

9. Confirmation with documentary support indicating allocation of the Block solely to M/s Essar Oil Limited.
10. Is the block allocated for mining also? If yes, name the company.
11. Design details of all the plants including CGS, GGS and technology to be used for CBM project.
12. Location of core holes outside the forest area. The well sites shall be selected at more than 1.5 km away from the habitation. Forest and revenue land shall be avoided as far as possible.
13. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including HC, methane and non-methane VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
14. Representative baseline data is to be collected for traffic survey, surface water, ground water and soil.
15. Hydrogeological study is to be conducted for the block.
16. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
17. Fugitive emissions in ambient air to be monitored and data included.
18. Actual source and 'Permission' for the drawl of water from the concerned authority.
19. Details of wastewater treatment method should be included.
20. Measures for use of produced water for drinking after treatment / pisciculture / ground water recharge / irrigation / coal washing/power generation etc.
21. Extent and duration of flaring of methane gas during exploration.
22. Analysis of gas w.r.t. H<sub>2</sub>S.
23. Assessment of generation of solid and hazardous waste and its characteristics from the operator.
24. Proposed measures for treatment and disposal of solid and hazardous waste.
25. Storage of chemicals at the site, proposed preventive measures for spillage and accidents.
26. Developing emergency response plan and disaster management plan.
27. Capping of core holes in case of emergency.
28. Statistical data of accident occurred so far during CBM exploration.
29. Identification of hazard prone operations and asses the damage.

30. The post project closures plan, if the project is not economically viable.
31. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
32. Details of occupational health surveillance programme.
33. Details of socio-economic welfare activities.
34. Action plan for post-project environmental monitoring.
35. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
36. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
37. 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.

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

1. Public hearing to be conducted by SPCB as proposed project is located in the new industrial area and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
2. Additional one month data to be collected in addition to three month data collected earlier.

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.

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

**28.6.17 Expansion of Bulk Drugs Manufacturing Unit (from 7.5 TPM to 75 TPM) at Plot Nos. 262,263,264,269,270 & 271, Phase II, IDA Pashamylaram, Mandal Patancheru, District Medak, Telanagana by M/s Suven Life Sciences Limited-reg TOR**

The project authorities and their Consultant (M/s Team Labs and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. It was informed General Condition viz. critically polluted area is applicable. However, non-existent of SEIAA/SEAC, in Telangana, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Suven Life Sciences Limited has proposed for expansion of Bulk Drugs Manufacturing Unit (from 7.5 TPM to 75 TPM) at Plot Nos. 262,263,264,269,270 & 271, Phase II, IDA Pashamylaram, Mandal Patancheru, District Medak, Telanagana. Plot area is 7.7 acres of which greenbelt will be developed in 2.59 acre. Cost of project is Rs. 100 Crores. It is reported that no areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value are located within 10 km distance of project site. Water Bodies such as Nakka Vagu, Kotta Cheru and Lakdaram cheru are located within 10 Km distance. Following products will be manufactured:

**Manufacturing Capacity - After Expansion**

S.No	Name of the Product	CAS No.	Capacity - TPM	
			Phase I*	Phase II
1	Acyclovir	[59277-89-3]	12.6	12.6
2	Doxofylline	[69975-86-6]	10.05	10.05
3	Tenofovir	[202138-50-9]	4.95	4.95
4	Gabapentin	[60142-96-3]	4.95	4.95
5	Benzohydroyl Thioacetamide	[68524-30-1]	4.95	4.95
6	Nitazoxinide	[55981-09-4]	2.55	2.55
7	Losartan Potassium	[124750-99-8]	2.55	2.55

8	Calcium Acetate	[62-54-4]	2.55	2.55
9	Entacapone	[130929-57-6]	2.55	2.55
10	(1S)-1-(3-Ethoxy-4-MethoxyPhenyl)-2-Methane Sulfonyl Ethylamine (AminoSulfone Base)	[608141-42-0]	2.1	2.1
11	N-(1,3-Dioxo-1,3-Dihydro-Isobenzofuran-4-Yl)Acetamide	[6296-53-3]	2.1	2.1
12	Divalprox Sodium	[76584-70-8]	1.5	1.5
13	Fenoprofen Calcium	[53746-45-5]	1.05	1.05
14	Iron Sucrose Complex		1.05	1.05
15	Thiabendazole	[148-79-8]	1.05	1.05
16	Lamotrigine	[84057-84-1]	1.05	1.05
17	[R-Cis-N-Methyl-N-proponic acid-tetrahydro papaverine] besylate.		1.05	1.05
18	2,3-Diamino Benzamide Hydrochloride	[266993-72-0]	1.05	1.05
19	Pencillamine	[52-67-5]	1.05	1.05
20	Sodium Ferric Gluconate Complex	[34089-81-1]	0.45	0.45
21	Sodium Phenyl Butyrate	[1716-12-7]	0.45	0.45
22	Zolmitriptan	[139264-17-8]	0.45	0.45
23	Aripiprazole	[129722-12-9]	0.45	0.45
24	Thaimine Hydrochloride	[67-03-8]	0.05	0.05
25	Glycopyrrolate	[596-51-0]	0.03	0.03
26	Tamsulosin Hydrochloride	[106463-17-6]	0.03	0.03
27	Imatanib Mesylate	[220127-57-1]	0.03	0.03
<b>Total (Campaign Basis Worst Case: 5 Products)</b>			<b>37.5</b>	<b>37.5</b>

\* Including permitted production capacity

#### List of By-Products After Expansion

S.No	Name of the Product	Stage	Name of the By-Product	Capacity (TPM)	
				Phase I*	Phase II
1	Acyclovir	I	Acetic Acid	10.94	10.94
		II	Acetic Anhydride	8.76	8.76
2	Doxofylline	I	Potassium Chloride	3.22	3.22
			Potassium Carbonate	3.02	3.02
3	Tenofovir	II	Ethyl Bromide	5.15	5.15
			PTSA	4.10	4.10
4	Gabapentin	I	Sodium Hydroxide	2.15	2.15
5	D-Pencillamine	II	Sodium Bisulphate	4.69	4.69
6	Tamulsosin HCl	III	Ethanol	0.24	0.24
			Sodium Sulphate	0.72	0.72
		IV	Potassium Bromide	0.30	0.30
			Hydrogen Bromide	0.074	0.074

\* Including permitted production capacity

#### List of Utilities

S.No	Description	Capacity
<b>Existing - Suven Life Sciences</b>		
1	Oil Fired Boiler#	4 TPH & 0.6 TPH

2	DG Sets	75 KVA and 500 KVA
<b>Existing - formerly known as Suraj Drugs Pvt. Ltd.</b>		
1	Coal Fired Boiler#	2 TPH
2	DG Set	125 KVA
<b>Proposed</b>		
<b>Phase I</b>		
1	Coal Fired Boiler	6 TPH
3	DG Sets	2 x 1010 KVA & 500 KVA
<b>Phase II</b>		
1	Coal Fired Boiler	6 TPH
3	DG Sets	1 x 1010 KVA

# shall be dismantled

Existing oil fired boiler (4 TPH & 0.6 TPH) & Coal fired boiler (2 TPH) and additional coal fired boiler (6.0 TPH + 6 TPH) will be installed in each phase. DG sets ( 2 x 1010 KVA & 500 KVA) and DG sets ( 1 x 1010 KVA) will be installed. Bagfilter alongwith stack of adequate height will be provided to coal fired boilers. Distillation column/dedicated reactors with condensers for effective recovery of solvents will be installed. All the solvent storage tanks are connected with vent condensers. Scrubber will be provided to control process emissions viz. HCl, HBr, SO<sub>3</sub>, SO<sub>2</sub> and NH<sub>3</sub>. Water requirement from APIIC Water Supply will be increased from 212.5 m<sup>3</sup>/day to 401.2 m<sup>3</sup>/day after expansion. Wastewater generation will be 199.8 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. EC of the existing unit was obtained vide MoEf letter no. J-11011/118/2005-IA II (I) dated 30.06.2005 and MoEF letter no. J-11011/140/2004- IA II (I) dated 14.07.2005.

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

**A. Standard TOR:**

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the SPCB.
6. Copy of NOC/Consent to Establish for the existing unit.
7. Compliance to the conditions stipulated in the NOC granted by the SPCB.
8. 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, compliance to the notice(s).
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. A map indicating location of the project and distance from severely polluted area.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.

13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Details of water and air pollution and its mitigation plan
27. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
30. Name of all the solvents to be used in the process and details of solvent recovery system.
31. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
32. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
33. Source and permission from Competent Authority for the drawl of water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
34. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
35. Zero discharge effluent concepts to be adopted.
36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Material Safety Data Sheet for all the Chemicals are being used/will be used.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.

40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
42. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
43. Details of occupational health programme.
  - a) To which chemicals, workers are exposed directly or indirectly.
  - b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - c) What measures company have taken to keep these chemicals within PEL/TLV.
  - d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - e) What are onsite and offsite emergency plan during chemical disaster.
  - f) Liver function tests (LFT) during pre-placement and periodical examination.
  - g) Details of occupational health surveillance programme.
44. Socio-economic development activities shall be in place.
45. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
46. Note on compliance to the recommendations mentioned in the CREP guidelines.
47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

## **B. Additional TOR**

1. 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, a

- certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report.
2. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  3. Recommendation of State Pollution Control Board for proposed expansion.

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.

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.

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

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken. All isolated storage & handling of hazardous chemicals are listed at S.N. 6(b) under category 'B' and appraised at state level. However, the project proposal is treated under category 'A' project due to applicability of general condition i.e. location of project is within 1.5 Km distance of Marine National Park & sanctuary.

M/s Petro Tankages India Limited has proposed for setting up of Isolated LPG storage facility (2 x 16,00 MT) at Bharana Village ,Gujarat. M/s Petro Tankages India Limited a special purpose vehicle (SPV) established by Vadinar Ports & Terminal Limited as Essar Group Company. Proposed project will have LPG storage of 32000 MT in two refrigerated

tanks of 16,000 MT each alongwith required associated facilities. Essar's available marine facilities' will be utilized for this project. PTIL will provide storage and evacuation facilities for propane, butane and mixture of propane and butane. Jamnagar- Loni LPG pipeline will be the main mode of transportation of LPG. Total cost of project is Rs. 430 Crores. Water bodies namely, Sinhan River (7 Km) and Blunt Channel (2.5 Km) are flowing within the distance of 10 Km distance. Eco-sensitive area Gulf of Kutch is at 2.5 km in NW. There will be a flare stack of 60 m height will be used only during emergency. Adequate stack height will be provided to gas fired boiler. The fresh water requirement during construction phase is estimated as 100 KLD and in operation phase 490 KLD. Water will be sourced from EOL Refinery. 0.8 KLD Sewage will be generated in operation and will be disposed through soak pit via septic tank. 8 KLD Cooling Tower & Boiler Blow down will be recycled in Greenbelt. Hazardous wastes such as used oil (1 KL/ year) gets generated during the operation will be managed as per the Hazardous Wastes Rules 2008.

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

## **A Standard TOR**

1. Executive summary of the project.
2. Project description and project benefits.
3. Whether CRZ clearance is applicable or not? If yes, CRZ clearance/ recommendation from State Coastal Zone Management Authority.
4. Map authenticated by wildlife warden indicating crude oil tankages and marine sanctuary and marine national park including distance.
5. Land use details of the site based on satellite imagery.
6. Process details and design details of all the tanks.
7. A list of industries within 10 km radius of the project.
8. List of villages/residential colonies and population within 5 Km.
9. Layout plan with provision of trucks parking area. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
10. Details of the storage and technical specifications with safety aspects & standards
11. Site details including satellite imagery for 5 km around the site.
12. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
13. Demography & socio-economics of the area.
14. Baseline data collection for air, water and soil for:
  - i. Ambient air quality monitoring for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>.
  - ii. Background levels of Ozone, hydrocarbons (methane & non-methane HC) and VOCs.
  - iii. Soil sample analysis.
  - iv. Base line underground and surface water quality in the vicinity of project.
  - v. Climatology & meteorology including wind speed, wind direction, temperature, rainfall etc.
  - vi. Measurement of noise levels
3. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire.
4. Storm water system should have provision to prevent any unintended oil in the drain to flow out with storm water and should take care of the highest rainfall care. Details of oil water separator.
5. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
6. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.

7. Details of proposed preventive measures for leakages and accident.
8. Details of Vapour Recovery System for the storage tanks and lorries.
9. Adequate width of approach road to avoid congestion and to have safe exit in emergencies.
10. Type of seismic zone.
11. Environmental Management Plan
12. Risk Assessment & Disaster Management Plan
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Preventive measures.
  - d. Risk assessment should also include leakages during storage, handling, transportation and proposed measures for risk reduction.
  - e. Company shall ensure that the damage distance in case of any accident remains within boundary of the plot. If this study shows any change in layout or the quantity of the product to be stored this will have to be incorporated in the proposal.
  - f. Fire and explosion hazard.
  - g. Disaster management plan; on-site & off-site emergency plan.
13. Details of fire fighting facilities.
14. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
15. Environmental Monitoring programme.
- 16. Corporate Environmental Responsibility**
  - (a) 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.
  - (b) Does the Environmental 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 report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
17. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
18. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
19. A tabular chart with index for point wise compliance of above TORs.

The following general points should be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.

- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included

## **B. Additional TOR**

Public hearing to be conducted by SPCB as proposed project is located in the new industrial area 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 decided that TORs 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 should be submitted to the Gujarat Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP Report alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

### **28.6.19 Proposed Bulk Drugs Manufacturing Unit at Plot no. IP-13 P, Part-2, KIADB Industrial Area, 1st Phase, Kudumalkunt (Village), Taluka Gowribidanur, District Chikkabalapur, Karnataka, by M/s RACES Pharma Chem. (India), Pvt. Ltd.- reg. TOR**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. It was informed General Condition viz. interstate boundary is applicable. Therefore, proposal is treated as category 'A' project and appraised by Expert Appraisal Committee (I).

M/s RACES Pharma Chem. (India), Pvt. Ltd. has proposed for setting up of bulk drugs manufacturing unit at Plot no. IP-13 P, Part-2, KIADB Industrial Area, 1st Phase, Kudumalkunt (Village), Taluka Gowribidanur, District Chikkabalapur, Karnataka. Total plot area is 3300.24 m<sup>2</sup> of which greenbelt will be developed in 1090 m<sup>2</sup>. Cost of project is Rs. 3.8 Crore. Interstate boundary ( Karnataka – AP) is at 0.6 km from project site. Pannar River is flowing at a distance of 2.2 Km. It is reported that there is no ecologically sensitive, wet lands, water bodies, monuments etc within the 15 Km distance. Following products will be manufactured :

S.N.	Name of the Products	Quantity
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1	2-Chloro Phenothiazine	12 TPA
2	3-Chloro iminodibenzyl	06 TPA
3	2-Methyl benzophenone	24 TPA
4	Ethyl Amyl ketone	12 TPA
5	Tertiary Butyl benzene	24 TPA
6	2-Amino methyl-7-chloro-2,3-Dihydro-5-(2-Fluorophenyl) 1H-1,4-Benzodiazipine	2.4 TPA
7	Iminodibenzyl	06 TPA
8	Omeprazole	24 TPA
9	Lansoprazole	12 TPA
10	Esomeprazole	12 TPA

Coal fired boiler (1 TPH) and Disesel fired boiler (1 TPH) will be installed. Water requirement from K IADB will be 8.4 m3/day. Effluent will be treated in ETP. No effluent will be discharged outside plant premises.

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

**A. Standard TOR:**

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures specifically suggested by the Committee as Bagfilter to be installed for the effective control of gaseous emissions within permissible limits.

20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of total 397.5 m<sup>3</sup>/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged. Efforts shall be made to reduce ground water drawl.
27. Action plan for 'Zero' discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
33. A copy of 'Memorandum of Understanding' (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
35. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
39. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
40. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
41. Socio-economic development activities should be in place.
42. Note on compliance to the recommendations mentioned in the CREP guidelines.

43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
46. A tabular chart with index for point wise compliance of above TORs.

## **B. Additional TOR**

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

47. The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

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

## **28.7 Any Other**

### **28.8.1 Proposed 45 KLPD Molasses based distillery unit at Village Madhukarnagar, Taluka Daund in District Pune in Maharashtra by M/s Bhima Sahakari Sakhar Karkhana Limited - amendment in EC**

MoEF&CC vide letter no. J-11011/115/2008 IA II (I) dated 17<sup>th</sup> March, 2009 has issued environmental clearance to M/s Bhima Sahakari Sakhar Karkhana Limited for the above mentioned project with following specific condition:

“The company shall earmark an area of 25 acre for bio-composting.”

PP informed that the proposal was technically appraised by M/s Vasantdada Sugar Institute, Manjari, Pune, before financial approval by the Commissioner of Sugar. The proposal for bio-composting was examined by VSI Pune, which is State Government Institute mainly for Cooperative Sugar and Distillery Units. The total area requirement for the compost activity has been worked out by VSI to be 17.5 acres only, including greenbelt, pressmud storage and not 25 as mentioned in the EC application. They informed that they have provided compost yard of 10 acres as per CREP guidelines.

After detailed deliberation, the Committee recommended the amendment for compost yard of 10 acres instead of 25 acres.

**28.8.2 Greenfield Fertilizer Plant for production of 2200 MTPD Ammonia and 3850 MTPD of Urea along with CPP (33 MW) at Panagarh, Burdwan District, West Bengal by M/s Matix Fertilizers and Chemicals – Amendment in EC**

MoEF&CC vide letter no. J-11011/440/2009 IA II (I) dated 22<sup>nd</sup> April, 2010 has issued environmental clearance to M/s Matix Fertilizers and Chemicals for the above mentioned project. Fertilizer plant was planned to utilize coal bed methane (CBM) as the feedstock and primary fuel in the plant. The CBM supply from Raniganj block of Essar Oil Ltd is also in the advanced stage of production and supply. However, there is delayed in the supply of adequate quantity of CBM by ESSAR Oil to the fertilizer and the main plant is getting ready for commissioning on March, 2015. In order to avoid economic loss and overall project viability due to delay in plant commissioning, MFCL intends to commission and operate the plant on a multiple fuel basis ( CBM and Naptha). Similar to CBM, Neptha is also a clean fuel with low sulphur content. No major change in the environmental impacts is envisaged from the earlier scenario. Since there is no change in rest of plant configuration, production processed and utilities, there will not be any change in the water consumption, wastewater generation, waste generation and other environmental components.

The Committee suggested to modify/update the said EIA-EMP report by taking this fuel change into consideration. The Committee also recommended following additional information:

- i) Layout map indicating all changes.
- ii) Full Quantitative Risk Assessment & Disaster Management Plan should include:
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Determination of Individual Risk and Societal Risk
  - d. List of last Major Refinery Incidents Globally in last 10 years
  - e. Proposed measures for risk reduction.

It was decided that project proponent should submit above mentioned information for consideration of the proposal by the Expert Appraisal Committee (Industry-2). Public hearing is exempted under section 7 (ii) of EIA Notification, 2006 as public hearing was conducted for the project on 09.12.2009 and no significant pollution load increase has been envisaged.

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**LIST OF PARTICIPANTS OF EAC (Industry) IN 28<sup>TH</sup> MEETING OF EAC (INDUSTRY) HELD ON 1-2<sup>ND</sup> DECEMBER, 2014**

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