Minutes of 30th Expert Appraisal Committee (Industry-2) meeting held during 2-3 November, 2017 at Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi - 3

Day One - 2nd November, 2017

30.1 Opening remarks by the Chairman

30.2 Confirmation of the Minutes of the 29th meeting of the EAC (Industry-2) held during 12-13 October, 2017 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 29th meeting held on 12-13 October, 2017 at New Delhi, confirmed the same.

30.3 Environmental Clearance

Agenda No.30.3.1

Exploratory Drilling and Testing of Hydrocarbons of M/s Oil India Ltd in Jairampur Extension PEL Block in District Changlang (Arunachal Pradesh) - For Environmental Clearance


30.3.1.1 The project proponent and their accredited consultant M/s SGS India Private Ltd, gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Environmental Clearance of Exploratory Drilling and Testing of Hydrocarbons at Jairampur Extension Petroleum Exploration License (PEL) Area by M/s Oil India Limited, Duliajan, Assam and the project site is located at Jairampur area, Changlang District of Arunachal Pradesh.

(ii) The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 20th EAC meeting held during 23-24 June, 2014 and recommended Terms of Reference (ToR) for the Project. The ToR has been granted by Ministry vide letter ref. No. J-11011/149/2014-IA II (I) dated 1st October 2014.

(iii) All activities are listed at S. N. 1 (b) of Schedule of Environmental Impact Assessment (EIA) Notification under Category ‘A’ and are appraised at Central Level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry.

(iv) Proposal has been submitted for diversion of 17.15 ha of forestland (including approach road) for proposed project.

(v) The proposed project area is a forestland and only bare minimum area of forestland will be used for the project. Thus, development of greenbelt may not be feasible in the proposed area during the exploration stage. In case of non-discovery of Hydrocarbons, the forestland will be handed over to the Forest Dept. of Govt. of Arunachal Pradesh.

(vi) The estimated total project cost is Rs.30 crore/well. Total capital cost earmarked for environmental pollution control measures is Rs.78.64 lakhs/well during exploration stage. Total employment will be 30 persons/well as direct (for unskilled labour) during exploration drilling period. Industry proposes to allocate @ 2.5% towards Corporate Social Responsibility.
(vii) As per Form-1, there is no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Namchik River is flowing at a distance of 5 km (Project site & 2 km from the PEL block boundary) in south-west direction.

(viii) Ambient air quality was monitored at 8 (eight) locations during 30th November 2015 to 20th February 2016 and submitted baseline data indicates that ranges of concentrations of PM$_{10}$ (52.2 to 71.1µg/m³), PM$_{2.5}$ (17.25 to 32.94µg/m³), SO$_2$ (5.3 to 8.6 µg/m³) and NO$_2$ (15.8 to 21.1µg/m³), respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after proposed project would be 71.94 µg/m³, 8.78 µg/m³ and 31.53 µg/m³ with respect to PM$_{10}$, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 50 m$^3$/day of which fresh water requirement is 15 m$^3$/day (domestic use) to be met from tube well/nearby river. Treated effluent of the project will be treated through Effluent Treatment Plant based on Zero Liquid discharge system.

(x) Power requirement will be met through 4 no. of 1400 kVA (each) portable DG sets (2 operating at a time and 2 units in standby). A 63 kVA DG set will be used to meet power requirement during well testing operations. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

(xi) Details of process emissions generation and its management are as under:

**Process description:** 5 (five) exploration wells will be drilled by using a standard land rig or a “Mobile Land Rig” with standard water based drilling fluid system. First location JRB will be drilled and on the basis of outcome of the 1st location drilled, activities in the other location will be taken up. All the wells are proposed to be drilled from the same plinth area of Loc. JRB.

Air emissions from point sources expected from the DG sets which will be operated to meet power requirement of the drilling rig activities. The flaring of oil during testing of the well will also lead to the release of some pollutants including un-burnt hydrocarbons to the atmosphere.

**Liquid Waste:** It is estimated that 8 m$^3$/day of drilling wastewater and 3m$^3$/day drill cuttings (waste mud) are likely to be generated from each well during drilling operation. The rig wash water and drilling wastewater generated is proposed to be collected in a wastewater pit lined with HDPE sheet constructed at the drilling site. Domestic waste water generated (from Camp site) will be treated through a soak pit/septic tank arrangement. Disposal of drilling wash water will be achieved through necessary treatment through onsite Effluent Treatment Plant (ETP) to comply with the CPCB onshore effluent discharge standard for oil and gas industry.

(xii) Details of solid waste/hazardous waste generation and its management are as under:

**Solid waste:** Nearly 350 m$^3$ of drill cuttings are likely to be generated from each well during drilling operation. HDPE lined impervious pit of capacity 600 m$^3$ for temporary storage of drill cuttings and their disposal in accordance with “CPCB Oil & Extraction Industry Standard – Guidelines for Disposal of Solid Wastes” will be made for the purpose.

**Hazardous Waste:** Hazardous waste generated will be mainly from used and waste oil. The quantity generated will be very less and will be collected in drums kept & disposed to approved oil recycling facilities.
(xv) Public Hearing for the proposed project has been conducted by the Arunachal Pradesh State Pollution Control Board on 23rd May, 2017.

30.3.1.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project ‘Exploratory drilling of 5 wells’ of M/s Oil India Limited at Jairampur Extension Petroleum Exploration License (PEL) Block in a total area of 23.25 sq km (all forest land) in District Changlang (Arunachal Pradesh).

The project involves drilling of wells at 5 different locations from the same plinth area of ‘JRB’ location. Stage-I forest clearance has been sought for one location only i.e. ‘JRB’ covering an area of 17.15 ha, which is reported to be under process.

The project/activity is covered under category A of item 1(b) ‘Onshore oil and gas exploration, Development and production’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 1st October, 2014. Public hearing was conducted by the SPCB on 23rd May, 2017.

Total estimated water requirement is 50 m³/day, which includes fresh water demand of 15 m³/day (for domestic use) proposed to be met from tube well/nearby river.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

30.3.1.3 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:

- Stage-I forest clearance for diversion of forest land (covering all the five wells locations) for non-forestry purposes as required under the Forest (Conservation) Act, 1980 shall be obtained and submitted to the Ministry.
- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Domestic sewage shall be disposed off through septic tank/soak pit.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM10, PM2.5, SO2, NOX, CO, CH4, HC, Non-methane HC etc.
- Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- Approach road shall be made pucca to minimize generation of suspended dust.
- The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
• Total fresh water requirement shall not exceed the proposed quantum of 15 cum/day, and prior permission shall be obtained from the concerned regulatory authority.
• 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.
• Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMMH Rules, 2016. No effluent/drilling mud/drill cuttings shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
• Oil spillage prevention and mitigation 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.
• 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.
• The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
• The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.
• Blow Out Preventer 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.
• Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
• 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 the area in 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.
• All the commitments made to the public during public hearing/consultation meeting on 23rd May, 2017 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
• At least 2.5% of the total project cost shall be allocated for 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.
• Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
• Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry’s Regional Office.
• Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry’s Regional Office.
• 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.
Company shall have own Environment Management Cell having qualified persons with
proper background.
Company shall prepare operating manual in respect of all activities, which would cover all
safety & environment related issues and 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. Remote monitoring of
site should be done.
On completion of drilling, the company has to plug the drilled wells safely and obtain
certificate from environment safety angle from the concerned authority.

Agenda No.30.3.2

Manufacturing of Synthetic Resins and Allied Chemicals Products at A-11/2B-1, SIPCOT
Industrial Area, Thervoykandigai Village, Gummidipoondi Taluk, Thiruvallur District
(Tamil Nadu) by M/s Hindustan Resins & Terpenes - For Environmental Clearance

[A/TN/IND2/60836/2016, J- 11011/357/2016-IA.II(I)]

30.3.2.1 The project proponent and their accredited consultant M/s Hubert Enviro Care
Systems (P) Ltd, gave a detailed presentation on the salient features of the project and
informed that:

(i) The proposal is for obtaining Environmental Clearance at MoEF&CC by M/s Hindustan
Resins & Terpenes (HRT) and located at Plot No: A-11/2B-1, SIPCOT Industrial Park,
Thervoykandigai Village, Gummidipoondi Taluk, Thiruvallur District (Tamil Nadu).

(ii) The proposal is classified as Schedule 5(f) of the Environmental Impact Assessment
(EIA) Notification, 2006 under Category ‘A’ and are appraised at Central Level by Sectoral
Expert Appraisal Committee (EAC) in the Ministry.

(iii) The land area is 5 acres (20234.30 sqm) and no additional land will be required. It is
proposed to develop greenbelt in an area of 33.19% i.e. 1.66 acres out of 5 acre area of the
project.

(iv) The estimated project cost is Rs.9.5 crores (including land). Total capital cost earmarked
for pollution control measures is Rs.0.85 crores and the recurring cost for operation and
maintenance will be about Rs.6 lakhs/Annum.

(v) Total manpower will be 150 no. During construction phase 100 no and during operation
phase will be 50 no (40 as direct & 10 indirect). Industry proposes to allocate Rs.23.75 Lakhs @
of 2.5% towards Environmental Social Responsibility.

(vi) As per Form-1, there is no notified National Parks, Wildlife Sanctuaries, Biosphere
Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project.
Arani River - ≈7.59 km in South-East, Kusathali River 14.87 km in South & Telugu Ganga Canal
– ≈6.02 km in West.

(vii) Ambient Air Quality (AAQ) monitoring was carried out at 8 locations during March - May
2017 and submitted baseline data indicates that ranges of concentrations of PM$_{10}$ (37.7-58.1
µg/m$^3$), PM$_{2.5}$ (14.5-27.7 µg/m$^3$), SO$_2$ (7.9-10.6 µg/m$^3$), NO$_2$ (18.5-23.8 µg/m$^3$), respectively. AAQ
modelling study for point source emissions indicates that the maximum incremental GLCs after
the proposed project would be 0.003 µg/m$^3$, 3.28 µg/m$^3$ and 1.64 µg/m$^3$ with respect to PM$_{10}$,
SO\textsubscript{X} and NO\textsubscript{X}. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 75 m\textsuperscript{3}/day (Fresh water of 64.35 m\textsuperscript{3}/day and treated water of 10.65 m\textsuperscript{3}/day) and will be met from SIPCOT (from CMWSSB).

(ix) Treated effluent of 8.25 m\textsuperscript{3}/day will be treated through ETP, RO & EE Plant based on Zero Liquid discharge system. Sewage 2.4 m\textsuperscript{3}/day will be treated in STP, also based on Zero Liquid discharge system.

(x) Power requirement will be 400 kw (500 kVA) and will be met from Tamil Nadu Electricity Board (TNEB). DG set of 1x380 kVA capacity will be used during power failure; additionally no DG set will be used as standby during power failure. Stack (height 12m AGL) will be provided as per CPCB norms to the proposed DG sets of 1x380 kVA.

(xi) Briquettes/LDO/Coal fired Thermic fluid heaters of capacity 1x10 & 1x20 lakh kcal/h will be equipped with bag filter or cyclone separator with a stack of height of 30 m will be installed to control the particulate emissions (within the statutory limit of 115 mg/Nm\textsuperscript{3}).

(xii) All reactors’ vents will be connected to Scrubber (2 nos). The process emissions (VOC) generated will be scrubbed and vent through the stacks of 3 m ARL height.

(xiii) Total municipal solid waste generated during the construction phase will be 50 kg/day for total 100 nos. of manpower. Total municipal solid waste generated during the operation phase will be 25 kg/day for total 50 employees (Permanent and Contractual). Hazardous wastes will be disposed as below:

<table>
<thead>
<tr>
<th>Waste Category No</th>
<th>Description</th>
<th>Quantity (TPA)</th>
<th>Mode of Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Waste oil/Used oil</td>
<td>0.700</td>
<td>Will be Collected in leak proof containers and disposed TNPCB Authorized Agencies for Reprocessing/Recycling</td>
</tr>
<tr>
<td></td>
<td>HDPE Bags (Nos./ Annum)</td>
<td>20,000</td>
<td>After Complete Detoxification, will be disposed to TNPCB Authorized Agencies.</td>
</tr>
<tr>
<td></td>
<td>Used Filter Cloth</td>
<td>1.600</td>
<td>Will be collected in HDPE Barrels and stored in Hazardous waste storage area and handed over to TSDF.</td>
</tr>
<tr>
<td>33.2</td>
<td>Cotton soaked waste</td>
<td>0.250</td>
<td>Will be collected in HDPE Barrels and stored in Hazardous waste storage area and handed over to TSDF.</td>
</tr>
<tr>
<td>35.3</td>
<td>ETP Sludge &amp; Evaporation Salt</td>
<td>1.825</td>
<td>Will be collected in HDPE Barrels and stored in Hazardous waste storage area and handed over to TSDF.</td>
</tr>
</tbody>
</table>

(xiv) Public hearing is exempted under the provisions as per para 7 III Stage (3) (b) of the EIA Notification, 2006 for preparation of EIA/EMP Report, as the project site is located in the SIPCOT industrial area.

(xv) Following are the list of proposed products:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Proposed Products Synthetic Organic Chemicals</th>
<th>Capacity (MTPA)</th>
<th>S. No</th>
<th>Proposed Products</th>
<th>Capacity (MTPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alkyd Resin</td>
<td>12,000</td>
<td>12</td>
<td>Gum Rosin</td>
<td>3,200</td>
</tr>
<tr>
<td></td>
<td>Product</td>
<td>Quantity</td>
<td></td>
<td>Product</td>
<td>Quantity</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------</td>
<td>----------</td>
<td>---</td>
<td>-------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>2</td>
<td>Rosin Estergums</td>
<td>3,600</td>
<td>13</td>
<td>Terpene Chemicals</td>
<td>1,800</td>
</tr>
<tr>
<td>3</td>
<td>Phenolic Resins</td>
<td>1,200</td>
<td>14</td>
<td>Thinners</td>
<td>2,000</td>
</tr>
<tr>
<td>4</td>
<td>Rosin Modified Maleic</td>
<td>600</td>
<td>15</td>
<td>Industrial Solvents</td>
<td>2,000</td>
</tr>
<tr>
<td>5</td>
<td>Polyester Resins</td>
<td>6,000</td>
<td>16</td>
<td>Epoxy Esters</td>
<td>600</td>
</tr>
<tr>
<td>6</td>
<td>Amino Resin</td>
<td>6,000</td>
<td></td>
<td>Sub Total</td>
<td>48,000</td>
</tr>
<tr>
<td>7</td>
<td>Polyamide Resin</td>
<td>1,200</td>
<td></td>
<td>Paint Products</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ketonic Resin</td>
<td>1,200</td>
<td>17</td>
<td>Solvent Base Paint</td>
<td>4,800</td>
</tr>
<tr>
<td>9</td>
<td>Acrylic Resins &amp; Emulsions</td>
<td>3,600</td>
<td>18</td>
<td>Water Base Paint</td>
<td>12,000</td>
</tr>
<tr>
<td>10</td>
<td>CNSL &amp; Cardanol Resins</td>
<td>2,400</td>
<td></td>
<td>Sub Total</td>
<td>16,800</td>
</tr>
<tr>
<td>11</td>
<td>Synthetic Resins &amp; Varnishes</td>
<td>600</td>
<td></td>
<td>Grand Total</td>
<td>64,800</td>
</tr>
</tbody>
</table>

**30.3.2.2** During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project ‘Setting up Synthetic Resins and allied Chemical Products Manufacturing unit’ of a total capacity of 64800 TPA by M/s Hindustan Resins & Terpenes in an area of 5 acres at A-11/2B-1, SIPCOT Industrial Area, Thervoykandigai Village, Gummidipoondi Taluk, Thiruvallur District (Tamil Nadu).

The project/activity is covered under category B of item 5(f) ‘Synthetic Organic Chemicals industry’ of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal by the concerned SEAC/SEIAA. However, due to applicability of general conditions (inter-state boundary of Tamil Nadu and Andhra Pradesh within 5 km of the project site), the project was appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

The ToR for the project was granted on 28th February, 2017. Public hearing is exempted under the provisions as per para 7 III Stage (3) (b) of the EIA Notification, 2006.

Total estimated water requirement is 75 m³/day, which includes fresh water demand of 64.35 m³/day (for domestic use) proposed to be supplied by SIPCOT/CMWSSB. The remaining requirement of 10.65 m³/day shall be met from recycled/treated water.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

**30.3.2.3** The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
• To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

• Solvent management shall be carried out as follows:

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

• Total fresh water requirement shall not exceed 53.35 cum/day proposed to be met from SIPCOT supply through CMWSSB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

• Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

• Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

• The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIH) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

• The company shall undertake waste minimization measures as below:-
  a) Metering and control of quantities of active ingredients to minimize waste.
  b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  c) Use of automated filling to minimize spillage.
  d) Use of Close Feed system into batch reactors.
  e) Venting equipment through vapour recovery system.
  f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

• The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

• At least 2.5% of the total project cost shall be allocated for 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.

• The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

• The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

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

• Raw material storage should not exceed 3 days at any point of time.
Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.30.3.3

Drilling of 19 wells of Exploratory/Appraisal/Development nature and setting up of Production facilities at CB-ONN-2000/1 Block in District Gandhinagar (Gujarat) by M/s GSPC Ltd - For Environmental Clearance

[IA/GJ/IND2/69401/2014, J-10011/96/2014-IA II (I)]

30.3.3.1 The project proponent and their accredited consultant M/s Kadam Environmental Consultants, gave a detailed presentation on the salient features of the project and informed that:

i) The proposal is for Drilling and development of 14 wells (6 exploratory and 8 development) of exploratory/development nature and development of 5 already drilled wells by setting up necessary facilities in Block CB-ONN-2000/1 by M/s Gujarat State Petroleum Corporation Limited and located at Ahmedabad block, District: Ahmedabad (Gujarat).

ii) All Onshore oil and gas exploration, development and production are listed at S.N. 1(b) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006 under category ‘A’ and are appraised at Central level by Sectoral Expert Appraisal Committee (EAC) in the Ministry.

iii) The project was considered by the Expert Appraisal Committee (Industry-2) in its 3rd EAC meeting held during 29-30 October 2014 and recommended Terms of Reference (ToR) for the project. The ToR has been granted by Ministry vide letter No. J-11011/45/2016-IA II (I) dated 17th January, 2015. Subsequently GSPC had applied ToR amendments to MoEF&CC and received the amendment vide letters No.J-11011/96/2014-IA II (I) dated 8th March, 2017 and No.J-11011/96/2014-IA II (I) dated 12th June, 2017, respectively.


v) Proposed land required for drill site area is 15,000 m² and for production facility (EPS) is 27,000 m². It is proposed to develop green belt in an area of 33% i.e. 8910 m² out of 27,000 m² of area of the project.

vi) The estimated project cost of drilling one well will be Rs.5 crores. Cost of establishment of each EPS will be about Rs.1-2 crore. Total capital cost earmarked for environmental pollution measure for each drilling site will be Rs.13 Lakhs and approximate recurring & capital cost for each EPS will be Rs.9.30 Lakhs & Rs.33.8 Lakhs.

vii) During the drilling operations, about 30 to 40 persons will be working in 24 hours shift at site. Approx. 6 - 10 person per shift will work at EPS. GSPC being Government of Gujarat owned company, all the CSR activity as applicable and instructed by Government of Gujarat shall be carried out.
viii) As per Form-1, there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km distance of the project. Sabarmati River is flowing east side of the block area.

ix) Ambient Air Quality (AAQ) monitoring was carried out at 16 different locations within the study area during post monsoon season 2015. Additional monitoring was carried out twice post ToR amendment at 6 locations during winter 2016-17 and submitted baseline data indicated that ranges of concentrations of PM$_{10}$ (55 µg/m$^3$ - 100.5 µg/m$^3$), SO$_2$ (<8.0 µg/m$^3$, 13.1 µg/m$^3$), and NO$_2$ (18.8 µg/m$^3$, 21.9 µg/m$^3$) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.17 µg/m$^3$, 0.43 µg/m$^3$ and 0.17 µg/m$^3$ for SO$_2$, NOx and Particulate matter respectively at distance of 100 m from the source in South Direction. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

x) Total water requirement of 2.2 KLPD is required for industrial and domestic purpose at each EPS, which will be sourced through bore well at site of from nearby water bore (private) or Panchayat Water supply.

xi) Treated effluent of 10 KLD generated during drilling phase will be discharged in HDPE lined evaporation pit. Treated effluent of 15 KLD/EPS generated during EPS operation phase will be disposed through mobile ETP or injected in well or disposed through water tankers to approved effluent treatment facility.

xii) During Drilling phase, D.G Set (662.5 kVA (2 nos. per well)) shall be utilized as prime movers for meeting the power required to run the drilling rig, circulation system etc. and also for lighting. D.G set stack height will be 6.0 m.

During EPS operation phase, Motive power: 100 kVA and Light: 25 kVA required at each EPS. Source of power supply will be local GEB. One D.G set of capacity 125 kVA will be kept at each EPS as emergency backup power. Power shall be sourced from local GEB at each proposed EPS.

xiii) Details of process emission generation and its management are as under:

<table>
<thead>
<tr>
<th>Stack attached to</th>
<th>Fuel</th>
<th>Consumption in Kg/h</th>
<th>Stack Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DG sets of 662.5 kVA</td>
<td>HSD</td>
<td>200</td>
<td>15 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stack attached to</th>
<th>Pollutant</th>
<th>SO$_2$</th>
<th>NO$_x$</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DG sets of 662.5 kVA</td>
<td>Emission in gm/sec</td>
<td>0.004</td>
<td>0.01</td>
<td>0.004</td>
</tr>
</tbody>
</table>

xiv) Details of solid waste/ hazardous waste generation and its management are as under:

- Drill cuttings of 224-300 MT / well and spent drilling mud of 25 MT shall be generated at site per well (for well depth of 1200 to 2700 m). This shall be stored in well-designed HDPE line pit. It shall be tested for its hazardous constituents (Oil and Grease). If found to be hazardous, it shall be handed over to authorized TSDF. In case of Non-hazardous, it shall be handed disposed in-site in HDPE lined pit.
- Used /waste Oil – During the drilling approx. 200 liters of spent oil shall be generated per well. This oil shall be sent to authorize recyclers.
- Domestic waste of 1-2 kg/day per well shall be generated at site, which shall be segregated at source (Organic / Inorganic) and disposed accordingly.
xv) Public Hearing for the proposed project has been conducted by the state pollution control board on dated 30th August 2017 in Ahmedabad District at ‘AathGaam Leva Patel SamajVadi, KaliKund - Saroda Road, Kalikund, Taluka Dholka, District Ahmedabad’.

xvi) Certified Compliance Report No. 5-50/2011(ENV)/323 obtained for earlier EC issued for the block.

xvii) Following is the Well wise production:

<table>
<thead>
<tr>
<th>Details</th>
<th>Quantity per Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil</td>
<td>30-40 m³/day</td>
</tr>
<tr>
<td>Associated Gas</td>
<td>1000 m³/day</td>
</tr>
</tbody>
</table>

xviii) Final well locations after original ToR and subsequent amendments issued for the project are:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Final locations of this application after two amendments</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Covered in which TOR application</th>
<th>Type of well (Exploratory/development wells)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GSAH#5A2</td>
<td>22°44'57.30&quot;N</td>
<td>72°25'6.0&quot;E</td>
<td>Covered in original TOR application</td>
<td>Exploratory</td>
</tr>
<tr>
<td>2</td>
<td>GSAH#5</td>
<td>22°44'32.31&quot;N</td>
<td>72°25'2.50&quot;E</td>
<td>Covered in 2nd TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>3</td>
<td>GSAH#7</td>
<td>22°45'46.994&quot;N</td>
<td>72°23'53.7&quot;E</td>
<td>Covered in original TOR application</td>
<td>Exploratory</td>
</tr>
<tr>
<td>4</td>
<td>GSAH#5-A1</td>
<td>22°44'14.1&quot;N</td>
<td>72°25'22.8&quot;E</td>
<td>Covered in 2nd TOR amendment application</td>
<td>Appraisal</td>
</tr>
<tr>
<td>5</td>
<td>GSAH5#D4</td>
<td>22°44'42.07&quot;N</td>
<td>72°25'28.9&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>6</td>
<td>GSAH5#D2</td>
<td>22°44'29.40&quot;N</td>
<td>72°25'28.8&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>7</td>
<td>GSAH5#D1</td>
<td>22°44'2.02&quot;N</td>
<td>72°25'17.5&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>8</td>
<td>GSAH5#D3</td>
<td>22°44'57.3&quot;N</td>
<td>72°25'15.3&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>9</td>
<td>SE#Dev-2</td>
<td>23°0'53.77&quot;N</td>
<td>72°26'20.0&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>10</td>
<td>PK1-Dev1</td>
<td>22°36'52.757&quot;N</td>
<td>72°28'29.5&quot;E</td>
<td>Covered in original TOR application</td>
<td>Development</td>
</tr>
<tr>
<td>11</td>
<td>PK1-Dev2</td>
<td>22°36'48.980&quot;N</td>
<td>72°28'25.9&quot;E</td>
<td>Covered in original TOR application</td>
<td>Development</td>
</tr>
<tr>
<td>12</td>
<td>PL#1</td>
<td>22°38'14.710&quot;N</td>
<td>72°28'49.3&quot;E</td>
<td>Covered in 2nd TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>13</td>
<td>PK#2-A1</td>
<td>22°38'16.5&quot;N</td>
<td>72°28'41.4&quot;E</td>
<td>Covered in 2nd TOR amendment application</td>
<td>Appraisal</td>
</tr>
<tr>
<td>14</td>
<td>PK#Dev-1</td>
<td>22°38'10.98&quot;N</td>
<td>72°28'29.3&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Development</td>
</tr>
<tr>
<td>15</td>
<td>PK#2-A2</td>
<td>22°38'16.54&quot;N</td>
<td>72°28'41.4&quot;E</td>
<td>Covered in 2nd TOR amendment application</td>
<td>Appraisal</td>
</tr>
<tr>
<td>16</td>
<td>GSAH#3</td>
<td>22°54'6.57&quot;N</td>
<td>72°28'7.65&quot;E</td>
<td>Covered in 1st TOR amendment application</td>
<td>Exploratory</td>
</tr>
<tr>
<td>17</td>
<td>C-8</td>
<td>22°56'30.00&quot;N</td>
<td>72°22'18.6&quot;E</td>
<td>Covered in original TOR application</td>
<td>Exploratory</td>
</tr>
</tbody>
</table>
30.3.3.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project ‘Onshore Oil and gas exploration, Development and Production for 19 wells’ (6 wells for exploration and 13 for development) by M/s Gujarat State Petroleum Corporation Limited in Block CB-ONN-2000/1 in District Ahmedabad (Gujarat).

The project/activity is covered under category A of item 1(b) ‘Onshore oil and gas exploration, Development and production’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 17th January, 2015 followed by amendments therein vide letters dated 8th March, 2017 & 12th June, 2017. Public hearing was conducted by the SPCB on 30th August, 2017.

Total water requirement of 2.2 KLPD shall be required for industrial and domestic purpose at each EPS, which is proposed to be sourced through bore well at site or Panchayat Water supply.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

Earlier, the Ministry had issued environmental clearances on 3rd August, 2007 for the project ‘Exploratory drilling for oil and gas in CB-ONN/2000/01 Block in Ahmedabad (Gujarat)’ and then on 16th August, 2011 for the project ‘Drilling of 5 wells (onshore) in the onshore Block CB-ONN-2000/01 in District Ahmedabad (Gujarat)’ in favour of M/s Gujarat State Petroleum Corporation Limited. The monitoring report on compliance status of existing ECs conditions, forwarded by the Ministry’s Regional Office at Bhopal vide letter dated 6th July, 2015 (Site visit carried out 11th April, 2015) is found to be satisfactory.

30.3.3.3 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Domestic sewage shall be disposed off through septic tank/soak pit.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
• Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM$_{10}$, PM$_{2.5}$, SO$_2$, NO$_x$, CO, CH$_4$, HC, Non-methane HC etc.
• Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
• Approach road shall be made pucca to minimize generation of suspended dust.
• 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.
• Total water requirement shall not exceed the proposed and prior permission shall be obtained from the concerned regulatory authority.
• 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.
• Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
• Oil spillage prevention and mitigation 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.
• 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.
• The company shall develop a contingency plan for H$_2$S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H$_2$S detectors in locations of high risk of exposure along with self containing breathing apparatus.
• The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.
• Blow Out Preventer 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.
• Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
• 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 the area in 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.
• All the commitments made to the public during public hearing/consultation meeting on 30th August, 2017 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
• At least 2.5% of the total project cost shall be allocated for 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.
- Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry’s Regional Office.
- Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry’s Regional Office.
- 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.
- Company shall have own Environment Management Cell having qualified persons with proper background.
- Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
- On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

**Agenda No.30.3.4**

Manufacturing of Technical Grade pesticides and Intermediates (32350 MTPA) by M/s Jubilant Life Sciences Limited at Plot No. 5, SEZ, Vilayat GIDC, Taluka Vagra, District Bharuch (Gujarat) - For Environmental Clearance

[IA/GJ/IND2/51463/2014, J-11011/311/2014-IA II (I)]

30.3.4.1 The project proponent and their accredited consultant M/s Kadam Environmental Consultants, gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Environmental Clearance for the project Manufacturing of Technical Grade pesticides and Intermediates (32350 MTPA) by M/s Jubilant Life Sciences Limited at Plot No. 5, SEZ, Vilayat GIDC, Taluka Vagra, District Bharuch (Gujarat)

(ii) All products are listed at S.N. 5 (b) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2017 under category ‘A’ and are appraised at Central Level by Sectoral Expert Appraisal Committee (EAC) in the Ministry.

(iii) The project was considered by the Expert Appraisal Committee (Industry-2) in its 26th meeting held during 29-30 October, 2014 and recommended Terms of Reference (ToR) for the project. The ToR was issued by Ministry vide letter No. J-11011/311/2014-IA II (I) dated 6th January 2015, in which public hearing was exempted. Later, an application for ToR amendment was made by project proponent on 12/12/2016 to include public hearing, which was considered in the 16th EAC meeting held during 8-9 December, 2016. An amendment in ToR was issued by Ministry vide letter No. J-11011/311/2014-IA. II (I) dated 27th March, 2017.

(iv) The total plot area is 20 ha located within a SEZ operated by Jubilant Infrastructure Limited in the GIDC, Vilayat spread over an area of 107 ha.
(v) Industry will develop a greenbelt area of 16,000 m² within the premises of proposed unit in addition to the green belt developed in the common green belt area within the SEZ boundary.

(vi) The estimated project cost is Rs.250 Crores. Total capital cost earmarked for environmental pollution control measures is Rs. 957.27 Lakhs and the recurring cost for operation and maintenance will be about Rs. 208.2 Lakhs per annum.

(vii) Total Employment projected will be 332 persons as direct & 228 persons indirect, at full capacity. Industry proposes to allocate Rs. 6.25 Crores @ 2.5 % towards Corporate Social Responsibility to be spent phase wise during project implementation period.

(viii) As per Form-1, there is no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Bhukhi River is flowing at a distance a distance of 2.94 km in South direction.

(ix) Ambient Air Quality (AAQ) monitoring was carried out at 7 locations during 15th December 2014 to 15th March 2015 and submitted baseline data indicates that ranges of average concentrations of PM₁₀ (59-72 μg/m³), PM₂.₅ (23-31 μg/ m³), SO₂ (9.3-10.6 μg/ m³) and NO₂ (16.3-18.4 μg/ m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.16 μg/ m³, 4.45 μg/ m³ and 30.7 μg/ m³ with respect to PM₁₀, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement is 1492 m³/day to be met from surface water i.e. Narmada water which is supplied by Jubilant Infrastructure Limited (JIL) received from GIDC.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>Water Consumption in KLD</th>
<th>Wastewater generation in KLD</th>
<th>Treatment &amp; Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DM Plant</td>
<td>275</td>
<td>9</td>
<td>To ETP</td>
</tr>
<tr>
<td>2</td>
<td>Process</td>
<td>266</td>
<td>300</td>
<td>High inorganic TDS high COD stream to MEE after primary treatment. MEE condensate treatment in ETP.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High Organic TDS High COD stream to Liquid Incinerator</td>
</tr>
<tr>
<td>3</td>
<td>Cooling Tower</td>
<td>982</td>
<td>110</td>
<td>To ETP</td>
</tr>
<tr>
<td>4</td>
<td>Washing</td>
<td>100</td>
<td>100</td>
<td>To ETP</td>
</tr>
<tr>
<td>5</td>
<td>Others (Safety showers, firefighting, Laundry &amp; Bathing)</td>
<td>50</td>
<td>50</td>
<td>To ETP</td>
</tr>
<tr>
<td>6</td>
<td>Domestic</td>
<td>50</td>
<td>45</td>
<td>To STP and reuse</td>
</tr>
<tr>
<td>7</td>
<td>Gardening</td>
<td>35</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1492</td>
<td>659</td>
<td>• 564 KLD to ETP including Utilities effluent and condensate from MEE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• 45 KLD to Liquid Incinerator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• 45 KLD sewage to STP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• 5 KLD salts from MEE to TSDF</td>
</tr>
</tbody>
</table>

**Total Fresh Water Consumption**  | 1492 | - | - |
Various streams of effluents generated during the manufacturing process are proposed to be segregated and treated as per their quality, before discharge to the Deep sea effluent disposal system of the GIDC provided to the SEZ operator.

- High TDS (Inorganic) & High COD streams shall be collected separately and provided primary treatment followed by stripper & multiple effect evaporation to be set up in JLSL premises.
- High TDS (organic) & High COD streams shall be collected separately and will be sent to liquid incinerator. The Condensate from MEE along with Low TDS streams i.e. utilities blow downs, wastewater from washings will be collected in collection sump and pumped to ETP which will be installed and operated in JIL - SEZ premises.
- Low TDS streams i.e. utilities blow downs, wastewater from washings along with condensate from MEE as a combined stream shall be treated in ETP consisting of Primary treatment, Two Stage Secondary Treatment and Tertiary Treatment proposed to be set in unit or in JIL – SEZ area before discharge to sea. GIDC has given permission to JIL SEZ for effluent discharge into GIDC drain.
- The sewage generated from the domestic use will be treated in STP at site (Unit-III) and treated sewage will be reused for greenbelt & garden development.

Total estimated electrical load for the proposed manufacturing unit is around 4 MW. The power requirement for the proposed facility will be met either through captive generation by SEZ operator M/s Jubilant Infrastructure Limited, or sourced from grid of Dakshin Gujarat Vij Company Limited (DGVCL). In addition, the plant will have 4 DG sets of 500 kVA each, for emergency power back-up during grid power failure. Applicable stack heights, as per CPCB standards, shall be provided to the DG sets.

The Unit shall purchase process steam from the existing boilers installed and operated by SEZ operator M/s Jubilant Infrastructure Limited. Similarly, for solid waste and liquid waste incineration, the incinerator installed by SEZ operator M/s Jubilant Infrastructure Limited (or) GPCB authorized common incinerator facility will be used.

Details of process emissions generation and its management are as under:

Stacks for emission of fuel combustion gases would be attached to the following facilities:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Stack Attached to</th>
<th>Capacity of each Unit</th>
<th>Stack Nos.</th>
<th>Type of Fuel Used</th>
<th>Fuel Consumption</th>
<th>Stack Height, m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DG Sets (4 Nos.)</td>
<td>500 kVA</td>
<td>4</td>
<td>Diesel</td>
<td>17.1 kg/h. each</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Thermic Fluid Heaters (3 Nos.)</td>
<td>2 Mio. kcal</td>
<td>3</td>
<td>Natural Gas</td>
<td>262 m³/h. each</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Stack Attached to</th>
<th>Nos. of Stacks</th>
<th>Stack Height, m</th>
<th>Pollutants Emitted</th>
<th>Air Pollution Control Measures Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Common Vent for Reactors (Production Train)</td>
<td>4</td>
<td>20</td>
<td>VOC</td>
<td>Condensation and Chilling</td>
</tr>
<tr>
<td>2</td>
<td>Chlorination Reactor</td>
<td>2</td>
<td>20</td>
<td>Cl₂ &amp; HCl</td>
<td>Water Scrubber + Caustic Scrubber</td>
</tr>
<tr>
<td>3</td>
<td>Sulphonation Reactor</td>
<td>1</td>
<td>20</td>
<td>SO₂</td>
<td>Caustic Scrubber</td>
</tr>
<tr>
<td>4</td>
<td>Bromination Reactor</td>
<td>1</td>
<td>20</td>
<td>HBr</td>
<td>Caustic Scrubber</td>
</tr>
<tr>
<td>5</td>
<td>Flourination Reactor</td>
<td>1</td>
<td>20</td>
<td>HF</td>
<td>Caustic Scrubber</td>
</tr>
</tbody>
</table>
Details of solid waste/ hazardous waste generation and its management are as under:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of Waste</th>
<th>Hazardous Waste Category</th>
<th>Quantity in MT/Month</th>
<th>Method of Collection</th>
<th>Treatment / Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chemical sludge from waste water treatment (ETP, MEE/ Dryer etc.)</td>
<td>35.3</td>
<td>1800</td>
<td>Poly bags/loose</td>
<td>TSDF for Landfill</td>
</tr>
<tr>
<td>2</td>
<td>Empty barrels /containers /liners contaminated with hazardous chemicals/wastes</td>
<td>33.3</td>
<td>400 Nos.</td>
<td>As is</td>
<td>sale to authorized vendor</td>
</tr>
<tr>
<td>3</td>
<td>Used or Spent Oil</td>
<td>5.1</td>
<td>5</td>
<td>Drums</td>
<td>Sale to CPCB/GPCB authorized Reprocessor</td>
</tr>
<tr>
<td>4</td>
<td>Process wastes or residues</td>
<td>29.1</td>
<td>750</td>
<td>Drums</td>
<td>Cement Co-incineration/ Incinerator / TSDF for Landfill</td>
</tr>
<tr>
<td>5</td>
<td>Spent Catalysts</td>
<td>29.5</td>
<td>24</td>
<td>Poly Bag/loose</td>
<td>TSDF for Landfill / Sale to authorized agency</td>
</tr>
<tr>
<td>6</td>
<td>Date-expired and off-specification pesticides</td>
<td>29.3</td>
<td>10</td>
<td>Poly Bag / Drums</td>
<td>Incineration/ Cement Co-incineration</td>
</tr>
<tr>
<td>7</td>
<td>Spent Solvents</td>
<td>29.4</td>
<td>20 KL</td>
<td>Drums</td>
<td>Sale to CPCB/GPCB authorized agency</td>
</tr>
<tr>
<td>8</td>
<td>Spent carbon or filter medium</td>
<td>36.2</td>
<td>30</td>
<td>Poly Bags</td>
<td>Cement Co-incineration/ Incinerator / TSDF</td>
</tr>
<tr>
<td>9</td>
<td>Sludge from wet scrubber</td>
<td>37.1</td>
<td>2</td>
<td>Drums</td>
<td>Cement Co-incineration / Landfill</td>
</tr>
<tr>
<td>10</td>
<td>Corrosive wastes</td>
<td>Class C2</td>
<td>5</td>
<td>Drums</td>
<td>TSDF for Landfill</td>
</tr>
<tr>
<td>11</td>
<td>Wastes or residue containing oil</td>
<td>5.2</td>
<td>0.5</td>
<td>Drums</td>
<td>Cement Co-incineration / Incineration / TSDF for Landfill</td>
</tr>
<tr>
<td>12</td>
<td>Contaminated Organic or aqueous phase</td>
<td>C 12</td>
<td>50</td>
<td>Drums/tank</td>
<td>Cement Co-incineration/ Incinerator/ authorised MEE</td>
</tr>
</tbody>
</table>

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 18th August, 2017.

Following are the list of proposed products:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Products</th>
<th>Quantity (TPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mepiquat Chloride</td>
<td>160</td>
</tr>
<tr>
<td>2</td>
<td>Chlormequat Chloride</td>
<td>2000</td>
</tr>
<tr>
<td>3</td>
<td>Chlorpyrifos &amp; its derivatives</td>
<td>10000</td>
</tr>
<tr>
<td>4</td>
<td>Imidacloprid</td>
<td>1000</td>
</tr>
<tr>
<td>5</td>
<td>Acetamiprid</td>
<td>500</td>
</tr>
<tr>
<td>6</td>
<td>Thiamethoxam</td>
<td>500</td>
</tr>
<tr>
<td>7</td>
<td>Thiacloprid</td>
<td>200</td>
</tr>
<tr>
<td>8</td>
<td>Chlorfluazuron</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>Chlorantraniliprole</td>
<td>1000</td>
</tr>
<tr>
<td>10</td>
<td>Cyantraniliprole</td>
<td>1000</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Products</td>
<td>Quantity (TPA)</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>11</td>
<td>Triclopyr</td>
<td>220</td>
</tr>
<tr>
<td>12</td>
<td>Triclopyr butoxy ethyl ester</td>
<td>220</td>
</tr>
<tr>
<td>13</td>
<td>Fluoxypry-meptyl</td>
<td>1000</td>
</tr>
<tr>
<td>14</td>
<td>ClodinafopPropargyl</td>
<td>200</td>
</tr>
<tr>
<td>15</td>
<td>Diquat dibromide</td>
<td>1500</td>
</tr>
<tr>
<td>16</td>
<td>Haloxyfop-P-methyl</td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>Fluazifop-P-butyl</td>
<td>50</td>
</tr>
<tr>
<td>18</td>
<td>Diflufenican</td>
<td>100</td>
</tr>
<tr>
<td>19</td>
<td>Nicosulfuron</td>
<td>150</td>
</tr>
<tr>
<td>20</td>
<td>Picloram</td>
<td>300</td>
</tr>
<tr>
<td>21</td>
<td>Clopyralid</td>
<td>300</td>
</tr>
<tr>
<td>22</td>
<td>Paraquat &amp; its derivatives</td>
<td>5000</td>
</tr>
<tr>
<td>23</td>
<td>Trifloxystrobin</td>
<td>400</td>
</tr>
<tr>
<td>24</td>
<td>Imazethapyr</td>
<td>100</td>
</tr>
<tr>
<td>25</td>
<td>Pyroxsulam</td>
<td>150</td>
</tr>
<tr>
<td>26</td>
<td>Picoxystrobin</td>
<td>2000</td>
</tr>
<tr>
<td>27</td>
<td>Boscalid</td>
<td>100</td>
</tr>
<tr>
<td>28</td>
<td>Azoxystrobin</td>
<td>1000</td>
</tr>
<tr>
<td>29</td>
<td>Intermediates of any of the above (#1 to #28)</td>
<td>As per requirement within the approved capacity</td>
</tr>
<tr>
<td>30</td>
<td>2-Chloro-6-(trichloromethyl)pyridine</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>32350</td>
</tr>
</tbody>
</table>

30.3.4.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project ‘Setting up Technical Grade pesticides and Intermediates Manufacturing unit’ of capacity 32350 MTPA by M/s Jubilant Life Sciences Limited (Unit-3) in an area of 20 ha at Plot No.5, SEZ, Vilayat GIDC, Taluka Vagra, District Bharuch (Gujarat).

The project/activity is covered under category A of item 5(b) ‘Pesticides industry and pesticide specific intermediates’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 6th January, 2015 followed by the amendment therein on 27th March, 2017. Public hearing was conducted by the SPCB on 18th August, 2017.

Total water requirement of 1492 m³/day is proposed to be met from surface water resource i.e. Narmada water supplied by Jubilant Infrastructure Limited (JIL- SEZ) through GIDC supply of 15 MLD water to M/s JIL-SEZ, to meet the proposed industrial operations of M/s JLSL (Unit-III).

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

30.3.4.3 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-

- Total production of pesticides shall include manufacturing at least 10% of bio-pesticides.
Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.

To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

Solvent management, if any, shall be carried out as follows:

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

Total fresh water requirement shall not exceed 1492 cum/day proposed to be met from GIDC supply through M/s JIL-SEZ. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

The company shall undertake waste minimization measures as below:-

a) Metering and control of quantities of active ingredients to minimize waste.
b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
c) Use of automated filling to minimize spillage.
d) Use of Close Feed system into batch reactors.
e) Venting equipment through vapour recovery system.
f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

The green belt shall be developed along the plant periphery of M/s JLSL (Unit-3) in downward wind direction, and along road sides etc. Total plantation within the unit as well as that already in place for the SEZ operated by M/s JIL, shall not be less than 33% of the total SEZ area. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
• All the commitment made regarding issues raised during the public hearing/consultation meeting held on 18th August, 2017 shall be satisfactorily implemented.
• At least 2.5% of the total project cost shall be allocated for 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.
• The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
• The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
• Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
• Raw material storage should not exceed 3 days at any point of time.
• Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.30.3.5

Additional storage of 2x900 MT capacity Mounded Storage Vessels and bottling capacity of 60TMTPA in the existing facility situated at Gaisinghpur (V), District Farrukhabad (Uttar Pradesh) by M/s Indian Oil Corporation Ltd - For Terms of Reference

[IA/UP/IND2/65556/2017, IA-J-11011/329/2017-IA-II(I)]

30.3.5.1 The project proponent and their consultant M/s SV Enviro Labs & Consultants gave a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for storage of LPG in 2 x 900 MT MSVs and bottling capacity of 60 TMTPA at Farrukhabad by M/s Indian Oil Corporation Ltd and located at Sy. No. 704, 705, 706, 707, 708, 709/1, 710/1, 714, 715, 818, 822, 832, Gaisinghpur Village, Tehsil & District Farrukhabad (Uttar Pradesh).

(ii) All the Isolated Storage & Handling of Hazardous chemicals projects (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of the MSIHC Rules, 1989 amended 2000) are listed at S.N 6 (b) of schedule of environmental impact assessment (EIA) notification under category ‘B’. However, due to non-functioning of SEIAA, Uttar Pradesh, the project is considered under category ‘B’ and appraised at Central level by Expert Appraisal Committee (EAC).

(iii) The plant was commissioned in 1993 prior to EIA Notification.

(iv) The existing land area is 32.9 acres, no additional land will be used for proposed expansion. It is proposed to develop greenbelt in an area of 33% i.e. 48562.27 m² out of 133141.57 m² area of the project.

(v) The estimated project cost is Rs.26.43 crores including existing investment of Rs.10.20 crores. Total capital cost earmarked for environmental pollution control measures is Rs.1 crore and the recurring cost for operation and maintenance will be about Rs.1,00,000 (Rs. One lakh only) per annum.
(vi) Total employment will be the same as existing (33 direct employees and 77 contract employees) i.e. 110 persons as direct & indirect after expansion. Industry proposes to allocate Rs. 0.66 crores @ of 5/2.5% towards corporate social responsibility. No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No River/water body is flowing at a distance of 10km radius.

(vii) There will be no chemical process involved and the operation carried out will be receipt of LPG in Bulk form in road tankers, storage in mounded bullets from Mathura, Loni and Madanpur Khadar and filling of LPG into cylinders using carousel and associated systems. The cylinders filled will be checked for quality and then dispatched by cylinder stake Trucks.

(viii) The water requirement is fulfilled with existing 3 nos. of tube well within plant premises. During operation water consumption will be 9 KLD for domestic & cylinder washings. For fire mock drills the water requirement is 15 KL / 6 Months.

Water Requirement & Wastewater Generation

<table>
<thead>
<tr>
<th>S.No</th>
<th>Domestic water requirement</th>
<th>Industrial Water requirement (KLD)</th>
<th>Domestic sewage generation</th>
<th>Waste water from process/ cylinder washing (KLD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.0</td>
<td>3.0</td>
<td>4.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>9.0</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(ix) Treated effluent, will be treated through ETP plant will be based on Zero liquid discharge system.

(x) The total power requirement is 270 KW and will be met from Uttar Pradesh Power Corporation Limited, Dakshinanchal Vidyut Vitrana Nigam Ltd. (UPPCL, DVVNL). 2x500 kVA DG for operation and 1x250 kVA DG for lighting purpose will be maintained as standby during power failure. Additionally, DG sets are not required. Stack Height: (4.6 m from roof top for 500 kVA DG sets and 3.2 m from roof top for 250 kVA DG sets) is provided as per UPPCB norms to the existing DG sets of 2x500 kVA and 1x250 kVA used as standby during power failure.

(xi) Details of solid waste/hazardous waste generation and its management are as under:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Hazardous waste generation</th>
<th>Generation Annually</th>
<th>It’s Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Waste mineral or synthetic Lube Oil used as lubricant in DGs and Fire Engines or other appliances. Stored in Barrels</td>
<td>Approx. 1000 Liter/Year used/waste oil.</td>
<td>Used/ waste lube oil stored in barrels and disposed off through TSDF registered party M/s Bharat Oil &amp; Waste Management Ltd.</td>
</tr>
<tr>
<td>2</td>
<td>LPG Storage Vessel Cleaning Sludge- Rust and sediments</td>
<td>5 kg/year generated during vessels cleaning only.</td>
<td>Disposed off through TSDF approved party.</td>
</tr>
</tbody>
</table>
The details of products and proposed capacity are as under:

**Existing product** list (In case of Expansion proposals):

<table>
<thead>
<tr>
<th>S.No</th>
<th>Products</th>
<th>Quantity (MTPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Storage of LPG</td>
<td>2 x 150 MT (Above ground bullets) &amp; 1 x 660 MT (Horton sphere)</td>
</tr>
<tr>
<td>2</td>
<td>Bottling capacity</td>
<td>Approx. (5500 to 6500) MT per month</td>
</tr>
</tbody>
</table>

**Proposed products** and their capacities for Expansion:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Products</th>
<th>Quantity (MTPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Storage of LPG</td>
<td>2 x 900 MT (i.e. Total 1800 MT Mounded Storage vessels)</td>
</tr>
<tr>
<td>2</td>
<td>Bottling capacity</td>
<td>Approx. 5500 to 6500 MT per month (No Change in Bottling capacity)</td>
</tr>
</tbody>
</table>

30.3.5.2 The proposal was last considered by the EAC in its meeting held on 5-7 July, 2017, wherein the committee noted that the project was Category B project of item 6(b) of the Schedule to the Environmental Impact Assessment Notification, 2006. However, due to SEIAA not functional in the State at the time of submission of the proposal (19th June, 2017), the project was first appraised at Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. During the meeting, the EAC has recommended the project for environmental clearance as category B2 exempting from EIA/EMP report and public hearing, subject to compliance of certain specific and other general conditions.

30.3.5.3 During deliberations, the EAC noted the following: -

The proposal is for ToR to the project ‘Additional storage of 2x900 MT capacity Mounded Storage Vessels and Bottling Capacity of 60 TMTPA’ by M/s Indian Oil Corporation Ltd in the existing facility located at Gaisinghpur (V), District Farrukhabad (Uttar Pradesh).

The project/activity is covered under category B of item 6(b) ‘Isolated Storage & handling of hazardous chemicals’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal by the concerned SEAC/SEIAA at the State level. However, due to SEIAA not functional in the State at the time of submission of the proposal (19th June, 2017), the project was first appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

As per the Ministry’s OM dated December, 2013, the project/activity has not identified as category B2, and thus requires appraisal/approval as applicable for other category B projects.

30.3.5.4 The EAC, after deliberations, recommended the project for grant of ToR for preparation of EIA/EMP reports. The ToR shall include the standard ToR as specified/notified applicable for such project/activities, and the additional terms and conditions as under:

- Compliance report for the existing environmental clearance, if any, duly certified by the concerned Regional Office of the Ministry to be submitted.
- 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.
• ESR plan for 5 years @2.5% of the project cost in consultation with nearby villagers to be submitted.
• Layout plan earmarking space for development of green belt of 5-10 m width along the plant periphery, and also ensuring 33% of the project area to be developed as green area with native species plantation.

Agenda No.30.3.6

Expansion of resins at Block No.1834/P1 & P2, Chikhli Vansda Road, Opposite Khodiyar Quary, Taluka Chikhali, District Navsari (Gujarat) by M/s Windson Chemical Pvt. Ltd - For reconsideration of EC

[IA/GJ/IND2/27574/2014, J-11011/103/2014-IA II (I)]

30.3.6.1 The project proponent and their accredited Consultant M/s T.R. Associates made a detailed Presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of Synthetic Organic Chemicals unit at Block No. 1834/P1 & P2, Chikhli Vansda Road, Opp. Khodiyar Quary, At & PO. Alipore, Taluka Chikhali, District Navsari (Gujarat) by M/s Windson Chemicals Pvt Ltd.

(ii) All Synthetic organic chemicals industry projects, located outside the notified industrial area/estate & not fall into small scale unit criteria as per notification dated on 25th June 2014 Products are listed at S.N. 5(f) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006 under category ‘A’ and are appraised at Central Level by Expert Appraisal Committee (EAC) in the Ministry.

(iii) The ToR had been issued by Ministry vide letter No. J-11011/130/2014-IA-II (I) dated 8th September, 2014.


(v) Existing land area is 21553 m²; no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33% i.e. 7112.49 m² out of 21553 m² of area of the project.

(vi) The estimated project cost is Rs.17.582 crores including existing investment of Rs 11.582 Crores. Total capital cost earmarked for environmental pollution control measures is Rs. 69 lakhs.

(vii) Total employment will be 50 persons as direct & some persons indirect after expansion. Industry proposes to allocate Rs 17,00,000 per year @ of 5% towards Corporate Social Responsibility.

(viii) As per Form-1, there is no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. (However Vansda National park – 46.29 km). Kaveri is flowing at a distance of 2.41 in South direction.

(ix) Ambient Air Quality (AAQ) monitoring was carried out at 7 locations during March to May 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (59.2 -
91.9 μg/m$^3$, \(\text{PM}_{2.5}\) (18.7 – 35.5 μg/m$^3$), \(\text{SO}_2\) (6.6 – 12.8 μg/m$^3$) and \(\text{NO}_2\) (11.6 – 17 μg/m$^3$) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 96.1 μg/m$^3$, 14.48 μg/m$^3$ and 25 μg/m$^3$ with respect to \(\text{PM}_{10}\), \(\text{SO}_x\) and \(\text{NO}_x\). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). (In case of EC Proposal).

(x) Total estimated water requirement is 694.25 m$^3$/day, which includes fresh water demand of 491.25 m$^3$/day (for domestic use) proposed to be met from own bore well. Effluent of 5 m$^3$/day will be treated through ETP consisting of Primary followed by tertiary treatment based on Zero Liquid discharge system.

(xi) Power requirement after expansion will be 600 kVA including existing 300 kVA which will be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). Existing unit has 1 D.G set of 250 kVA capacity, additionally 2 D.G sets are used as standby during power failure. Stack (height 6 m) will be provided as per CPCB norms to the proposed DG sets of 250 kVA in addition to the existing DG sets of the 250 kVA which will be used as standby during power failure.

(xii) Existing unit has 0.6 TPH Bio coal/Agro waste fired boiler installed. Multi cyclone separator with a stack of height of 30 m is installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm$^3$). The same boiler will be used for proposed expansion project.

(xiii) Details of solid waste/ hazardous waste generation and its management (As per Hazardous Waste Rules, 2016) are as under:

<table>
<thead>
<tr>
<th>Type</th>
<th>Category</th>
<th>Existing Quantity</th>
<th>Total Quantity after Expansion</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used Oil</td>
<td>5.1</td>
<td>25 Lit./ month</td>
<td>50 Lit/Month</td>
<td>Collection, storage and used within premises as a lubricant/sold to registered recycler.</td>
</tr>
<tr>
<td>Discarded Plastic Bags</td>
<td>33.1</td>
<td>4860 no./Month</td>
<td>10900 No./Month</td>
<td>Collection, storage &amp; sold to approved vendor.</td>
</tr>
<tr>
<td>ETP sludge+ Evaporation Residue</td>
<td>35.3</td>
<td>---</td>
<td>3.75 MT/month</td>
<td>Collection, storage &amp; sent to approved TSDF site.</td>
</tr>
</tbody>
</table>

(xiv) Public Hearing for the proposed expansion project has been conducted by the Gujarat Pollution Control Board on 17th April, 2015.

(xv) Details of Certified Compliance Report submitted by RO, MoEF&CC.

✓ 1st certified compliance report by RO, MOEF&CC Bhopal is dated on 25.08.2015.
✓ 2nd certified compliance report of only Non-Compliances raised during 1st certified compliance report is dated on 04.09.2017.

(xvi) Following are the existing and proposed products:

**Existing Product list** (In case of Expansion proposals):
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Product Details</th>
<th>MT/ANNUM</th>
<th>Existing</th>
<th>Proposed Expansion</th>
<th>Total after expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Formaldehyde</td>
<td>26400</td>
<td>108000</td>
<td>134400</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Formaldehyde based Resin (Powder)</td>
<td>---</td>
<td>10800</td>
<td>10800</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Formaldehyde based Resin (Liquid)</td>
<td>10800</td>
<td>3600</td>
<td>14400</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Para Formaldehyde</td>
<td>---</td>
<td>10800</td>
<td>10800</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Hexamine</td>
<td>---</td>
<td>3600</td>
<td>3600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>37200</td>
<td>136800</td>
<td>174000</td>
<td></td>
</tr>
</tbody>
</table>

30.3.6.2 The proposal was last considered by the EAC in its meeting held on 6-7 February, 2017, wherein the Committee noted that PP did not submit the adequate information w.r.t non-complied points raised by the RO, MoEF&CC. EAC recommended to the ministry to take up the matter with the Regional office. The proposal was deferred for the needful.

30.3.6.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project ‘Expansion of resin manufacturing unit’ from the present capacity of 37200 MTPA to 174000 MTPA by M/s Windson Chemicals Pvt Ltd at Block No.1834/P1 & P2, Chikhli Vansda Road, Opposite Khodiyar Quary, Taluka Chikhali, District Navasari (Gujarat).

The project/activity is covered under category A of item 5(f) ‘Synthetic Organic Chemicals Industry’ of the Schedule to Environmental Impact Assessment Notification, 2006, and was appraised at Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 8<sup>th</sup> September, 2014. Public Hearing was conducted by the Gujarat Pollution Control Board on 17<sup>th</sup> April, 2015.

Total estimated water requirement is 694.25 m$^3$/day, which includes fresh water demand of 491.25 m$^3$/day (for domestic use) proposed to be met from own bore well.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

Earlier, the Ministry had issued environmental clearance on 7<sup>th</sup> January 2014 for Synthetic organic chemicals manufacturing to M/s Windson Chemicals Pvt. Ltd. The proposal was considered by the EAC in its meeting held on 6-7 February, 2017. During that meeting, the Committee desired for the present/updated status in respect of the said EC conditions reported to be partially/non-complied at that stage.

In response to the observations of the Committee, fresh monitoring report on compliance status of the EC conditions forwarded by the Ministry’s Regional Office on 4<sup>th</sup> September, 2017 (site visit on 7<sup>th</sup> July, 2017) and subsequent submissions/clarifications provided by the project proponent found to be in order.

30.3.6.4 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-
Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.

To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

Solvent management, as applicable, shall be carried out as follows:

a) Reactor shall be connected to chilled brine condenser system.

b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.

d) Solvents shall be stored in a separate space specified with all safety measures.

e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

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

Total fresh water requirement shall not exceed 491.25 cum/day proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

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

Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

The company shall undertake waste minimization measures as below:

a) Metering and control of quantities of active ingredients to minimize waste.

b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.

c) Use of automated filling to minimize spillage.

d) Use of Close Feed system into batch reactors.

e) Venting equipment through vapour recovery system.

f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
• All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 17th April, 2015 shall be satisfactorily implemented.
• At least 2.5% of the total project cost shall be allocated for 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.
• The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
• The unit shall make arrangements for protection of possible fire hazards during manufacturing process and in material handling. Fire fighting system shall be as per the norms.
• Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
• Raw material storage should not exceed 3 days at any point of time
• Indoor air quality monitoring and control measures for formaldehyde has to be carried out regularly and submit the report to MoEF&CC.

30.4 Amendment in Environmental Clearance

Agenda No.30.4.1

Mumbai-Manglya pipeline extension project to Piyala/Bijwasan by M/s Bharat Petroleum Corporation Ltd- For amendment in Environmental Clearance


The project proponent did not attend the meeting. The proposal was, therefore, deferred.

Agenda No.30.4.2

Distillery Unit (120KLPD) by M/s Naglamal Sugar Complex (A unit of Mawana Sugar Ltd) at village Naglamal, Tahsil Sadar in District Meerut (Uttar Pradesh) - For amendment in Environmental Clearance


30.4.2.1 The project for setting up a 120 KLPD molasses based distillery by M/s Naglamal Sugar Complex (A unit of Mawana Sugars Limited) in an area of 55 acres at Village Naglamal, Tehsil Sadar, District Meerut (UP), was granted environmental clearance on 31st August, 2006 subject to compliance of specific and general conditions as environmental safeguards.

30.4.2.2 The EC conditions included one of the conditions regarding operation of the distillery restricted to 270 days in a year and not to operate during rainy season. Now the proposal has been submitted for amendment in the said EC effecting increase in working/operation days from 270 to 365 per year. In support of the proposal, the project proponent informed the Committee about the directions of CPCB vide their letter dated 16th June, 2017, allowing the distilleries with covered bio-composting yard to operate throughout the year.

30.4.2.3 During deliberations, the project proponent informed that they have covered bio-composting yard with proven technology from a South American company which gives flexibility to operate during rains without affecting composting process in any way. The company can now operate throughout the year and thus applied for amendment in environment clearance.
30.4.2.4 Based on the submissions made by the project proponent, the EAC recommended for the proposed amendment in the said EC, with the details as under-

‘The number of the working days of the distillery shall now be 365 days per year in place of 270 days mentioned in the earlier EC.’

The remaining terms and conditions stipulated in the EC dated 31st August, 2006 shall remain unchanged.

The Committee further observed that validity of the EC dated 31st August, 2006 has already been expired. As such, the above recommendations shall be subject to a decision by the Ministry regarding admissibility of such proposals after expiry of the validity of EC.

**Agenda No.30.4.3**

Expansion of 40 KLPD to 100 KLPD Rectified Spirit and ENA Distillery Unit at Mansurpur, Khatauli, Muzaffarnagar (UP) by M/s Sir Shadilal Distillery and Chemical Works - For amendment in Environmental Clearance


The project proponent vide their letter dated 1st November, 2017 have expressed their inability to attend the meeting. The proposal was, therefore, deferred.

**Agenda No.30.4.4**

Proposed Green Field Fertilizer Plant for production of 2200 TPD Ammonium and 3850 TPD of Urea along with 33 MW Captive Power Plant at Panagarh, District Burdwan (West Bengal) by M/s Matix Fertilizers and Chemicals Ltd - For amendment in Environmental Clearance


30.4.4.1 The project for setting up Green Field Fertilizer Plant (Ammonium -2200 TPD, Urea-3850 TPD) along with 33 MW Captive Power Plant by M/s Matix Fertilizers and Chemicals Ltd (MFCL) at Panagarh, District Burdwan (West Bengal) was granted environmental clearance by the Ministry on 22nd April, 2010 followed by amendments therein vide letter dated 19th December, 2013 for enhancement of Captive Power Plant capacity from 33 MW to 54 MW, and 15th May, 2015 for using Naphtha as an additional fuel.

30.4.4.2 The project proponent has requested for amendment in EC for use of Propane as an additional fuel along with the presently used Coal Bed Methane (CBM) and/or Naphtha for their primary reformers in Ammonia plant. Based on the technical feasibility study by M/s MFCL, it is reported that there will not be any changes in main processing units, production capacity and also supporting facility under the propane usage scenario. Only, minor modifications in fuel burners of primary reformers are envisaged to accommodate multiple fuels (CBM, Naphtha and Propane).

In respect of air quality concerns, a comparative statement for SO₂ emissions with the different fuel consumption (CBM/Naphtha/Propane), and the relating details as under:-

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>CBM</th>
<th>Naphtha</th>
<th>Propane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Consumption</td>
<td>MTPD</td>
<td>259</td>
<td>256</td>
<td>300</td>
</tr>
</tbody>
</table>
30.4.4.3 During deliberations, the Committee noted that the present proposal for amendment in EC is limited to usage of Propane as an additional fuel only to operate the primary reformer of the Ammonia plant. The other processing units including gas turbine (Ammonia plant), auxiliary boiler etc shall continue to operate on the dual fuel system (CBM and Naphtha) as approved earlier and EC amended accordingly. In the proposed scenario, the SO₂ emissions load shall be reduced nearly by 80% from that using Naphtha due to much lesser Sulphur content (50 ppm) in Propane compared to that in Naphtha (500 ppm).

The Committee further noted that the proposed additional fuel arrangement would save the equivalent quantity of CBM, resulting in increased availability of CBM as feed stock for increase in plant throughput.

30.4.4.4 Based on the submissions made by the project proponent, the EAC opined that the present proposal may not require the amendment in the EC as requested by the project proponent. In fact, such proposals with no change in production capacity and not contributing to any increase in pollution load, may not be insisted for any environmental clearance or amendment in the existing EC. The Committee further desired that the Ministry may also take a view on the subject matter, if so required, in the background of extant statutory provisions/guidelines/norms to resolve similar other proposals on the same lines.

**Agenda No.30.4.5**

Expansion of Petrochemical and synthetic organic chemicals manufacturing facility at Plot No.T-2, MIDC Taloja, Tehsil Panvel, District Raigad (Maharashtra) by M/s I G Petrochemicals Ltd (IGPL) - For amendment in Environmental Clearance

[IA/MH/IND2/50347/2016, J-11011/73/2016- IA II(I)]

30.4.5.1 The project for expansion of Petrochemical and Synthetic Organic Chemicals manufacturing unit of M/s I G Petrochemicals Ltd (IGPL) in an area of 113,282 sqm at Plot No. T-2, MIDC Taloja, Tehsil Panvel, District Raigad (Maharashtra) was granted EC by the Ministry on 18th July 2017.

30.4.5.2 The project proponent has now requested for the amendments in the said EC, with the details as under:

<table>
<thead>
<tr>
<th>Para/Item</th>
<th>As per the EC</th>
<th>Amendment requested</th>
<th>Justification</th>
</tr>
</thead>
</table>
| 4         | Under Proposed Additional Capacities of Products Benzoic acid (BA) Capacity 500 TPA | Benzoic acid (BA) Capacity Revision to 750 TPA | By optimizing the process conditions-  
Lowering crystallisation temperature from 18° to 15°C  
Increasing the crude PA |
Thermal treatment temperature from 275 to 285°C, thereby increasing the BA formation.

Higher Benzoic acid recovery will reduce load to ETP and ensure better performance of ETP.

| 10 A (ii) | At least 5% of the total project cost should be earmarked towards ESC… | ESC norm should be amended to 1.5% of the total project cost. | Higher ESC will endanger the viability of the project and we would not be able to sustain & compete in the international market. |
| 10 A (iv) | The unit shall adhere to Zero Liquid Discharge (ZLD) | The effluent from new expansion project will be totally recycled and part of the existing effluent will also be recycled. The expected net discharge to CETP will reduce to 220 m3/day | We have studied feasibility of Recycling of effluent and determined the maximum quantity of recycle technically feasible with available energy. The effluent discharge shall reduce from Existing 686 cum/day + proposed 174 cum/day = 860 cum/day to 220 cum/day net discharge. Beyond this Effluent Recycle is uneconomical and technically unviable. |

30.4.5.3 During deliberations, the EAC noted the following:

Increase in Benzoic Acid production from the present of 1500 TPA to 1750 TPA is due to its higher recovery from the effluent generated (mainly scrubber wash water) through process improvement by optimizing operating conditions (lowering of temperature in crystallization unit and increasing temperature of thermal treatment unit of crude Phthalic Anhydride). There will be no increase in fresh water consumption, waste water generation, hazardous waste generation, process emissions, fuel requirement & utilities. Instead, the effluent generation will be reduced, and thus contributing lesser load on the ETP/CETP. No increase in pollution load due to proposed increase in recovery of Benzoic Acid, has also been certified by the Institute of Chemical Technology, Mumbai. The Committee further noted that such an effort is in fact, actual utilization of waste on the concept ‘Waste is Wealth’, and has to be promoted at all costs.

Total cost of the project is estimated to be Rs.350 crore. With the proposed 5% of the total project cost to be earmarked for Enterprise Social Commitment (ESC), it will amount an investment of Rs.17.5 crore. In order to keep the project sustainable and compete in the International Market and also in conformity with the extant provisions, the same needs to be reduced from the present 5% to 2.5%.

At present, generated effluent quantity of 686 cum/day is sent to CETP for disposal. The additional effluent generation of 174 cum/day in the proposed expansion will be completely recycled. Also, based on the feasibility study carried out, more treated effluent of 466 cum/day from the present industrial operations, is also proposed to be recycled, and thus leaving only 220 cum/day of effluent to be taken to the CETP for treatment. Beyond that, effluent recycling uneconomical and technically unviable.
30.4.5.4 The Committee, after deliberations and based on the submissions made by the project proponent, recommended for the proposed amendment in the said EC, with the details as under:

(a) Specific condition (ii) & (iv) shall be replaced with and now read as

(ii) At least 2.5% of the total cost of the project shall be earmarked toward the Enterprise Social Commitment (ESC)......

(iv) The effluent generation of 174 cum/day due to the proposed expansion shall be completely recycled after treatment. Also, part of the treated effluent of 686 cum/day shall also be recycled, resulting in net discharge to the CETP as 220 cum/day.

(b) Given the waste utilization through process improvement resulting in higher recovery of Benzoic Acid involving no increase in pollution load, there may not be any requirement of environmental clearance or amendment in EC for the proposed increase in production capacity of Benzoic Acid from 1500 TPA to 1750 TPA.

The remaining terms and conditions stipulated in the EC dated 18th July, 2017 shall remain unchanged.

(Day Two - 3rd November, 2017)

30.5 Environmental Clearance

Agenda No.30.5.1

Installation of additional tankages (750 KL) and other facilities at IOCL Sidhpur, Patan District (Gujarat) by M/s IOCL

[IA/GJ/IND2/65218/2017, IA-J-11011/309/2017-IA-II(l)]

30.5.1.1 The project proponent and their accredited consultant M/s Engineers India, gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for setting up additional tankages (1x750 KL) and other facilities at IOCL Petroleum Storage Terminal, Sidhpur, Patan District (Gujarat) by M/s Indian Oil Corporation Limited (IOCL).

(ii) The existing land area is 71 acre. No additional land will be used for the proposed expansion. Industry has already developed a greenbelt in an area of 9.8 acre and the same will be maintained. The estimated project cost is Rs.2.51 Crores. Total capital cost earmarked for environmental pollution control measures is Rs.5 lakhs and the recurring cost for operation and maintenance will be about Rs.2 lakhs per annum. Total employment will be for 10-20 persons as indirect during construction.

(iii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc within 10 km distance from the project site.

(iv) All the Isolated Storage & Handling of Hazardous chemicals Projects (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended
The existing and proposed tankage facilities are:

### Existing tankage

<table>
<thead>
<tr>
<th>S.No</th>
<th>Tank No</th>
<th>Products</th>
<th>Nominal Quantity (KL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>201A</td>
<td>MS</td>
<td>1924</td>
</tr>
<tr>
<td>2</td>
<td>201B</td>
<td>MS</td>
<td>1924</td>
</tr>
<tr>
<td>3</td>
<td>201C</td>
<td>MS</td>
<td>1924</td>
</tr>
<tr>
<td>4</td>
<td>201D</td>
<td>MS</td>
<td>6562</td>
</tr>
<tr>
<td>5</td>
<td>202A</td>
<td>SKO</td>
<td>2037</td>
</tr>
<tr>
<td>6</td>
<td>202B</td>
<td>SKO</td>
<td>2037</td>
</tr>
<tr>
<td>7</td>
<td>202C</td>
<td>SKO</td>
<td>2037</td>
</tr>
<tr>
<td>8</td>
<td>203A</td>
<td>HSD</td>
<td>6285</td>
</tr>
<tr>
<td>9</td>
<td>203B</td>
<td>HSD</td>
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</tr>
<tr>
<td>10</td>
<td>203C</td>
<td>HSD</td>
<td>6285</td>
</tr>
<tr>
<td>11</td>
<td>203D</td>
<td>HSD</td>
<td>12320</td>
</tr>
<tr>
<td>12</td>
<td>TE01</td>
<td>Ethanol</td>
<td>70</td>
</tr>
<tr>
<td>13</td>
<td>TE02</td>
<td>Ethanol</td>
<td>70</td>
</tr>
</tbody>
</table>

### Proposed tankage

<table>
<thead>
<tr>
<th>S.No</th>
<th>Products</th>
<th>Quantity (KL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethanol</td>
<td>1 x 750</td>
</tr>
</tbody>
</table>

No additional water is required for the proposed expansion. Effluent of 0.5 m³/day (intermittently) will be treated through existing ETP.

Power requirement after expansion will be 350 kVA. Existing terminal has 2 DG sets of 320 kVA capacity for emergency power failure. There will be no process emissions as the proposed project is for storage of ethanol.

There will be marginal waste generation (200 kg/year) on operation phase during tank cleaning. However, in construction phase the waste will be disposed as per the existing practice adopted by IOCL. Used oil (50/litre) generated during processing will be reused in plant and machineries as a lubricant.

Ambient air quality monitoring was carried out at 3 locations during March, 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (85.70 µg/m³), SO₂ (39.70 µg/m³) and NO₂ (30.50 µg/m³) respectively. No emission is envisaged from the proposed project.

The EAC, in its 25th meeting held during 5-7 July, 2017, has considered the project for environmental clearance as category B2 project/activity, exempting EIA/EMP report and public consultation. The EAC after detailed deliberations, has recommended the project for environmental clearance.

The proposal was last considered by the EAC in its meeting held on 5-7 July, 2017, wherein the committee noted that the project was Category B project of item 6(b) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006. However, due to
SEIAA not functional in the State at the time of submission of the proposal (6<sup>th</sup> June, 2017), the project was first appraised at Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. The EAC after detailed deliberation has recommended the project for environmental clearance as category B2 exempting EIA/EMP report and public hearing, subject to compliance of following specific and other general conditions.

**30.5.1.3** During deliberations, the EAC noted the following: -

The proposal is for ToR to the project ‘Additional tankages (1x750 KL) and other facilities at IOCL Petroleum Storage Terminal’ by M/s Indian Oil Corporation Limited (IOCL), Sidhpur, Patan District (Gujarat).

The project/activity is covered under category B of item 6(b) ‘Isolated Storage & handling of hazardous chemicals’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at State level. However, due to SEIAA not functional in the State at the time of submission of the proposal (6<sup>th</sup> June, 2017), the project was first appraised at Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

As per the Ministry’s OM dated December, 2013, the project/activity has not identified as category B2, and thus requires appraisal/approval as applicable for other category B projects.

**30.5.1.4** The EAC, after deliberations, recommended the project for grant of standard ToR as specified/notified applicable for such project/activities, for preparation of EIA/EMP reports without public hearing.

**Agenda No.30.5.2**

Expansion of Existing Distillery (60 KLPD to 150 KLPD) at Village Alaganchi, Taluka Nanjangud, District Mysore (Karnataka) by M/s Bannari Amman Sugars Limited - For Environmental Clearance

[J-11011/71/2013-IA II(I); IA/KA/IND2/54195/2013]

**30.5.2.1** The project proponent and their accredited consultant M/s Ultra-Tech (Environmental Consultancy & Laboratory) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of existing distillery unit from 60 KLPD to 150 KLPD at Alaganchi village, Nanjangud Taluk, Mysore District, Karnataka State by M/s. Bannari Amman Sugars Limited.

(ii) The project proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting held on 21<sup>st</sup> July, 2016 and 6<sup>th</sup> February, 2017. The EAC in its meeting held on 6<sup>th</sup> February, 2017 has recommended the project for the grant of environmental clearance.

Thereafter, it was desired by the Ministry to have point-wise updated action taken report on the non-complied points mentioned in the compliance report duly certified by RO, MoEFCC concerned.

The action taken report on the non-complied points was submitted to Ministry on 18<sup>th</sup> August, 2017. The monitoring report (Compliance report) on the Environmental Clearance was also submitted to the Ministry on 26<sup>th</sup> September 2017.
The Ministry, further asked for clarification on the following:

- How the present fresh water requirement of 4215 cum/day (including 599 cum/day for distillery) is being met. Whether, the state Irrigation Department has given permission to draw the same through the river Kabini.
- How the proposed fresh water requirement of 4816 cum/day (including 1200 cum/day for distillery) shall be met.
- If the clearance from the CGWB is not required, then why the proposal for permission to operate the bore wells is under consideration by them.
- Time lines to install the STP for the residential area.

The reply has been submitted to Ministry on 26th September 2017.

(iii) All Molasses based distilleries are listed at S.N. 5 (g) of the Schedule to the Environment Impact Assessment (EIA) Notification, 2006 under category ‘A’ and are appraised at Central Level by Expert Appraisal Committee (EAC) in the Ministry.


(v) Existing land area is 51 Acres; no additional land will be used for proposed expansion. Industry has already developed Greenbelt in an area of 33 % i.e., 17 acres out of 51 acres of area of the project.

(vi) The estimated project cost is Rs.8,500 Lakhs, the existing investment of Rs.8320 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.4500 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.160 Lakhs per annum.

(vii) The existing manpower in the industry is 60 no’s, the additional direct man power to the industry after expansion will be 30 no’s & there will be more than 100 persons indirect employment after expansion. Industry proposes to allocate Rs 415 Lakhs @ of 5 % towards Corporate Social Responsibility.

(viii) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kabani River is flowing at a distance of 6 kms, flowing from West to East direction.

(ix) Ambient Air Quality (AAQ) monitoring was carried out at 6 locations during 21st December 2013 to 21st March 2014 and submitted baseline data indicates that ranges of concentrations of PM$_{10}$, PM$_{2.5}$, SO$_2$ and NO$_2$ are in respectable Limits. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.84 μg/m$^3$, 12.48 μg/m$^3$ and 4.08 μg/m$^3$ with respect to PM$_{10}$, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total fresh water requirement for the entire Industry is 4816 m$^3$/day (Sugar, Co-gen and Distillery), of which fresh water requirement for Distillery unit after expansion is 1200 m$^3$/day and will be met from Kabini River, We have been accorded approval from the irrigation Department, Government of Karnataka for the drawal of 3 Cusecs of water per day (i.e., 7.5 Million Litres) from river Kabini vide Govt. Order No. ID/150/MMK/99, dated 30.05.2000.
Accordingly, we are drawing water from River Kabini and utilizing for our plant operation which is inclusive of our Distillery plant.

(xi) The effluent of 1200 m³/day will be treated through MEE and Incinerated through Boiler of Capacity 2 X 23.4 TPH, and will be based on Zero Liquid discharge system.

(xii) Power requirement after expansion will be 3200 KW. Including existing 1300 KW and will be met from in-house Power generation. Existing unit has 1 number of DG sets of capacity’s 750 kVA for Distillery, will be used as standby during power failure. Stack of 8 m ARL is provided for as per CPCB norms for existing DG set.

(xiii) Existing unit has 23.4 TPH Spent wash/ Coal fired boiler is installed. Bag filter with a stack of height of 58 m is installed for controlling the particulate emissions (within statutory limit of 150 mg/Nm³). Spent wash/ Coal fired boiler of 23.4 TPH shall be installed for proposed expansion.

(xiv) Details of process emissions generation and its management are as under:

<table>
<thead>
<tr>
<th>S No.</th>
<th>Source of Flue gases</th>
<th>Fuel consumption</th>
<th>Flue gas flow rate</th>
<th>Stack Height</th>
<th>APC measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Existing boiler, 23.4 T/h in 60 KLPD distillery unit</td>
<td>i. CSW (Concentrated Spent wash), 148 T/d</td>
<td>66.200 Nm³/h</td>
<td>58 m, AGL</td>
<td>Bag filter &amp; Stack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Coal (as support fuel), 45 T/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Proposed additional boiler, 23.4 T/h for 150 KLPD distillery Unit</td>
<td>i. CSW (Concentrated spent wash), 361 T/d</td>
<td>66.200 Nm³/h</td>
<td>58 m, AGL</td>
<td>Bag filter &amp; Stack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Coal, (as support fuel), 124 T/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Bagasse (as alternative coal), 236 T/d</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(xv) Details of solid waste/ hazardous waste generation and its management is as follows:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Quantity, T/d</th>
<th>Utilization/disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler Ash, T/d</td>
<td>31.5</td>
<td>80.0</td>
</tr>
<tr>
<td>Yeast sludge from molasses based process.(Dry basis), T/d</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

(xvi) Public Hearing for the proposed expansion project was conducted by the State Pollution Control on 26th February 2015.
(xvii) Following are the existing and proposed products:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Transportation</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Existing 60 KLPD</strong></td>
<td><strong>After expansion to 150 KLPD</strong></td>
<td></td>
</tr>
<tr>
<td>Alcohol, KL/d (RS/ENA grades)</td>
<td>60</td>
<td>150</td>
<td>Lorry tanker</td>
</tr>
<tr>
<td>Yeast sludge, dry</td>
<td>2T/d (Dry)</td>
<td>5 T/d (Dry)</td>
<td>Tractor</td>
</tr>
<tr>
<td>Boiler ash</td>
<td>31.5 T/d</td>
<td>80 T/d</td>
<td>Tractor</td>
</tr>
</tbody>
</table>

30.5.2.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project ‘Expansion of Molasses based Distillery’ from 60 KLPD to 150 KLPD by M/s Bannari Amman Sugars Limited in a total area of 51 Acres at Alaganchi village, Nanjangud Taluk, District Mysore (Karnataka).

All Molasses based distilleries are listed at S.N. 5 (g) (i) of Schedule to the EIA Notification, 2006 under category ‘A’ and require appraisal at Central Level by the sectoral Expert Appraisal Committee (EAC).

The ToR was granted on 7th June, 2013. Public Hearing for the proposed expansion project was conducted by the SPCB on 26th February, 2015.

The project proposal was earlier recommended by the EAC in its meeting held on 6th February, 2017 for grant of environmental clearance.

As per the directions, clarifications/additional information were sought from the project proponent regarding action taken report on non-complied points observed by the Ministry’s Regional Office at Bengaluru, MoEFCC. In response, the proponent has submitted the monitoring report (site visit carried out on 24th July, 2017) on compliance status of EC conditions forwarded by the Regional Office vide their letter dated 1st September, 2017.

Meanwhile, more information was sought in respect of water requirement, source, CGWB permission and time line to install the STP for the residential area. The detailed clarification provided by the project proponent are as under:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Points</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How the present fresh water requirement of 4215 Cum/day (including 599 Cum/day for distillery) is being met. Whether the state irrigation Department has given permission to draw the same through the river Kabini.</td>
<td>Our fresh water requirement of 4215 m³/day (including 599 Cum/day for Distillery) as submitted is being drawn from River Kabini. Yes, We have been accorded approval from the irrigation Department, Government of Karnataka for the drawal of 3 Cusecs of water per day (i.e., 7.5 Million Litres) from river Kabini vide Govt. Order No. ID/150/MMK/99, dated 30.05.2000. Accordingly, we are drawing water from River Kabini and utilizing for our plant operation which is inclusive of our Distillery plant. A notarized copy of the permission letter obtained from the irrigation department, Government of Karnataka is enclosed.</td>
</tr>
</tbody>
</table>
How the proposed fresh water requirement of 4816 Cum/day (including 1200 Cum/day for distillery) shall be met.

Our fresh water requirement of 4816 Cum/day (including 1200 Cum/day for Distillery – after expansion) will be drawn from River Kabini and this will be met from the permitted quantity of 3 Cusecs of water drawal per day (i.e., 7.5 Million Litres) from River Kabini, as already approved by the Irrigation Department, Government of Karnataka vide Govt. order No. ID/150/MMK/99, dated 30.05.2000. A notarized copy of the permission letter obtained from the irrigation Department is enclosed.

If the clearance from the CGWB is not required, then why the proposal for permission to operate the bore wells is under consideration by them.

As per the directions of MoEF&CC, Bangalore, we have submitted application to the Ground Water Authority for issue of No Objection Certificate for the utilization of ground water from bore wells situated in our factory premises for domestic purpose only.

During the course of our follow up action for obtaining No Objection Certificate, the Senior Geologist, Office of the District Ground Water, Directorate of Ground water, Mysore District, Mysore issued an endorsement to us vide letter ODGW/kgwa/Endorse/2017-18/419, dt. 28.08.2017 subsequent to the meeting held on 14.08.2017 under the Chairmanship of the Deputy Commissioner, Mysore, who is the Chairman of District Ground Water Authority. Mysore, stating that there are no notified areas/taluks in the Mysore District as per Karnataka Ground Water Act 2011, Clause 11 and hence they do not have any provisions for the issue of permission / no objection certificate. With this they closed our application on this subject.

A notarized copy of the endorsement issued by the senior Geologist, Office of the Ground Water, Mysore is enclosed.

Since our factory is situated in Mysore District which is not in the notified areas of Karnataka Ground Water Authority, Mysore informed us that the permission to operate the bore well situated in our factory may not be required.

Time lines to install the STP for the residential area

We hereby agree to install the STP in our residential area within a period of one year.

The Regional Office at Bangalore vide their letter dated 27th October, 2017 has further informed to the project proponent that the project has already complied with their earlier observations, and also the conditions of existing environmental clearance were complied with satisfactorily.

Subsequent to the recommendations of the Committee for grant of EC to the project, the monitoring reports forwarded by the Regional Office and further submissions/clarifications provided by the project proponent were found to be in order.

Consent to Operate for the present of capacity 60 KLPD has been obtained from the Karnataka PCB, which is presently valid up to 30th June, 2021.

30.5.2.3 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to the compliance of terms and conditions as under:-

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

Total fresh water requirement shall not exceed 1200 cum/day for the distillery. Prior permission shall be obtained from the concerned regulatory authority.

Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams, as applicable. 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.

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

Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.

Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

The company shall undertake waste minimization measures as below:-
(a) Metering and control of quantities of active ingredients to minimize waste.
(b) Use of automated filling to minimize spillage.
(c) Use of Close Feed system into batch reactors.
(d) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 26th February, 2015 shall be satisfactorily implemented.

At least 2.5% of the total project cost shall be allocated for 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.

The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the Factories Act.

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

Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
Agenda No.30.5.3

Manufacturing of Chlorinated and hydrogenated Derivatives (11000 MTM) for agro intermediates Plant at Plot No. D-2/CH/6, Survey No. 843/P, 844/P, 845/P, 850/P, 851/P, 852/P, GIDC Industrial Estate, Town Dahej-II, Tehsil Vagra, District Bharuch (Gujarat) by M/s Radha Madhav Processors Pvt Ltd - For Environmental Clearance

[IA/GJ/IND2/59261/2015, J-11011/274/2014 IA II (I)]

30.5.3.1 The proposal is for environmental clearance to the project ‘Manufacturing of Chlorinated and Hydrogenated Derivatives’ of capacity 11000 TPM (for Agro Intermediates Plant) by M/s Radha Madhav Processors Pvt Ltd in a total area of 60,000 sqm located at Plot No.D-2/CH/6, Survey No. 843/P, 844/P, 845/P, 850/P, 851/P, 852/P, GIDC Industrial Estate, Town Dahej-II, Tehsil Vagra, District Bharuch (Gujarat).

The details of proposed products are reported to be as under:-

<table>
<thead>
<tr>
<th>Plant Code</th>
<th>Common Name</th>
<th>Products</th>
<th>Capacity (TPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant A</td>
<td>CPVC</td>
<td>Chlorinated Poly Vinyl Chloride</td>
<td>1,500</td>
</tr>
<tr>
<td>Plant B</td>
<td>Chlorination of Benzene and Toluene</td>
<td>Benzyl chloride, 2,6 Dichloro Phenol, 2,4 Dichloro Phenol, 2,4 Chloro Phenol, Benzyl chloride/Benzo Trichloride/Benzoal chloride, P-Chlorobenzyl chloride/P-ChorobenzalChloride/P-ChloroBenzotrichloride, o-ChorobenzylChloride/o-ChorobenzalChloride/o-ChloroBenzotrichloride, Chloro Benzene/Di Chloro Benzene, Mono ChloroBenzene (MCB), Dichloro Benzene (DCB) (Ortho/Meta/Para), Para Chloro Toluene/ Ortho Chloro Toluene,</td>
<td>2,000</td>
</tr>
<tr>
<td>Plant C</td>
<td>Chlorination of Acetic Acid</td>
<td>Mono Chloro Acetic Acid, Tri Chloro Acetyl Chloride,</td>
<td>1,500</td>
</tr>
<tr>
<td>Plant D</td>
<td>Hydrolysis of Chlorinated Compound</td>
<td>IsoPhthaloyl chloride, Phthaloyl chloride, o-Chlorobenzaldehyde, p-Chlorobenzaldehyde, Benzyl Alcohol, o-Chloro Benzyl Alcohol, p-Chloro Benzyl Alcohol, Benzoyl Chloride, Benzoaldehyde, 2-Methoxy 5-Bromo 6-Methyl Benzoil Chloride, 2,4 Dichloro Benzoil Chloride, 4 Methyl Benzoil Chloride, Propargyl Chloride, Pivaloyl Chloride, 4-Chloro Butyryl Chloride, Terephthaloyl Chloride, N-Valeroyl Chloride, 4-Chloro Benzoil Chloride, 3-Nitro Benzoil Chloride, 4-Nitro Benzoil Chloride,</td>
<td>1,500</td>
</tr>
<tr>
<td>Plant E</td>
<td>Amines</td>
<td>Primary Amines, Ethoxylation of Primary Amines</td>
<td>1,000</td>
</tr>
<tr>
<td>Plant F</td>
<td>Amines</td>
<td>Paracetamol</td>
<td>1,000</td>
</tr>
<tr>
<td>Plant G</td>
<td>Nitro Compounds</td>
<td>4-Chloro 3, 5 Dinitro Benzoic Acid, 6-Nitro 3, 4 Dichloro Aniline, 4-Nitro 5-Chloro, 2-methyl Aniline, 2-Nitro 4-Methyl Aniline, 3, Nitro 4-Chloro Benzoic Acid, 3-Nitro-para Toluic acid, 2,4 Dichloro 6 Nitro Phenol, 2,3 Dichloro 4 Nitro Phenol, 2,5 Dichloro 4 Nitro Phenol, 1,3 Di Nitro Benzene, Nitro Benzene, 2/3/4 Nitro Toluene, 3,5 Di Nitro Benzoic Acid, p-Nitro Salicylic Acid, 2,5 Dichloro Nitro Benzene, 3,4/2,3 Dichloro Nitro Benzene,</td>
<td>1,000</td>
</tr>
<tr>
<td>Plant H</td>
<td>Hydrogenation compounds</td>
<td>p-Hydroxy Aniline/o-Hydroxy Aniline</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
30.5.3.2 The project/activity is covered under category A of item 5(b) ‘Pesticides industry and pesticide specific intermediates (excluding formulation)’ and 5(f) ‘Synthetic Organic Chemical Industries’ of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 6th January, 2015 with public hearing, followed by amendment on 18th April, 2017. The project proponent informed that the project site is located in Petroleum, Chemical and Petrochemical Investment Region (PCPIR) at Dahej (Gujarat) for which EC/CRZ clearance was granted by the Ministry on 14th September, 2017 and thus public hearing might not be applicable to the project. However, the Committee observed that the exemption from public hearing to the projects/activities in the PCPIR due to the EC granted to PCPIR on 14th September, 2017, should be given effect prospectively on case to case basis, and not to be applied suo-moto in all cases. The instant proposal for EC is presently not in compliance with the ToR issued for the project. Further, if the proposal is to be considered in its present form, then a formal request should have been made accordingly.

30.5.3.3 The EAC, after deliberations and in the first instance, suggested for amending the ToR in respect of the condition stipulated therein for public hearing so that the proposal for EC is compliant with the ToR so revised. The Committee also desired for reconsideration of the proposal for EC after a formal request from the project proponent for exemption from public hearing. The EAC further desired that the Ministry may also take a policy decision in this regard so that the same can be replicated in similar other cases also.

Agenda No.30.5.4

Manufacturing of Agrochemicals at Plot No.918, GIDC Jhagadia, District Bharuch (Gujarat) by M/s Amarjyot Chemical Ltd (Unit-3) - For Environmental Clearance

[IA/GJ/IND2/70003/2017, J-11011/39/2017-IA-II(II)]

30.5.4.1 The project proponent and their consultant M/s Jyoti Om Chemical Research Centre Private Limited made a detail presentation on the salient features of Project and informed that:

(i) The proposal is for setting up Agrochemicals manufacturing unit (Pesticides industry and pesticide specific intermediates), Plot No.918, GIDC Estate Jhagadia, District Bharuch (Gujarat) by M/s Amarjyot Chemical Ltd (Unit III).

(ii) The activity/project are listed at S.N. 5(b) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006 under category ‘A’ and are appraised at Central Level by Expert Appraisal Committee (EAC) in the Ministry.

(iii) The land area is 15000 sqm. It is proposed to develop green belt in an area of 33%, i.e. 4850 sqm, out of 15000 sqm of area of the project.

(iv) The estimated project cost is Rs.11.54 crore. Total capital cost earmarked for pollution control measures is Rs.4.40 crore. Total employment will be 50 persons as direct and 30 persons indirect after expansion. Industry proposed to allocate Rs.0.2885 crore @ of 2.5% towards corporate social responsibility.

(v) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tigers/Elephants Reserves, Wildlife Corridors within 10 km distance from the project site. Daman Ganga River is flowing within 10 km distance from the project site.
(vi) Ambient Air Quality (AAQ) monitoring was carried out at 9 locations during Jan to Mar-2017 and the baseline data indicates the ranges of concentrations as: PM$_{10}$ (83-34µg/m$^3$), SO$_2$ (17-9µg/m$^3$) and NO$_2$ 20-10µg/m$^3$ respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 00µg/m$^3$ with respect to PM$_{10}$, SOx and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement of 329.4 KLD will be met from GIDC, Jhagadia. Effluent of 353.4 KLD (Industrial) will be treated through Effluent Treatment Plant based on Zero Liquid discharge system.

(viii) Power requirement of 500 kVA will met from Daxin Gujarat Vij Company Ltd State Power Distribution Corporation Limited (SPDCL). One DG Set (500 kVA) is proposed as standby during power failure with stack (height 11 m) as per CPCB norms.

(ix) Detail of solid waste/Hazardous waste and its management given below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of Hazardous Waste</th>
<th>Quantity in MT/Month</th>
<th>Hazardous Waste Category</th>
<th>At time storage quantity</th>
<th>Area allocated in sqm</th>
<th>Storage, Collection &amp; Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ETP Sludge</td>
<td>540</td>
<td>35.3</td>
<td>600 MT</td>
<td>100</td>
<td>Collection, Storage, Transportation &amp; Disposal to TSDF</td>
</tr>
<tr>
<td>2.</td>
<td>Used Oil/Spent Oil</td>
<td>100liter</td>
<td>5.1</td>
<td>1000 Liter</td>
<td>10</td>
<td>Collection, Storage, Transportation &amp; Sell to GPCB Authorized Preprocessor</td>
</tr>
<tr>
<td>3.</td>
<td>Empty Drums/Container</td>
<td>What so ever</td>
<td>33.1</td>
<td>50 Ton</td>
<td>20</td>
<td>Collection, Storage, Decontamination, Transportation &amp; Sell to CPCB/GPCB Authorized Preprocessor</td>
</tr>
<tr>
<td>4.</td>
<td>Empty Bags</td>
<td>What so ever</td>
<td>33.1</td>
<td>50 nos.</td>
<td>10</td>
<td>Collection, Storage, Decontamination, Transportation &amp; Sell to CPCB/GPCB Authorized Vendor</td>
</tr>
<tr>
<td>5.</td>
<td>Salt from MEE</td>
<td>450MT</td>
<td>35.3</td>
<td>500 MT</td>
<td>100</td>
<td>Collection, Storage, Transportation &amp; Sold to End Users/TSDF Site</td>
</tr>
</tbody>
</table>

7. **Organic waste from stripper** | 100 | 23.1 | 100 | 20 | Collection, Storage, Transportation & send for Incineration/Co Processing.

8. **Spent Carbon** | 2 | 28.3 | 10 | Collection, Storage, Transportation & send for Incineration/Co Processing.

### Solid waste

1. **E Waste** | What so ever | -- | 50 MT | 10 | Collection, Storage, Transportation & Disposal as per Rules.

The proposed product is:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Products</th>
<th>CAS No</th>
<th>End Use</th>
<th>Capacity (MT/Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2,4 Di chlorophenoxy acetic acid</td>
<td>94-75-7</td>
<td>Agricultural Herbicide to control broadleaf weeds, especially in Cereal crops.</td>
<td>1200</td>
</tr>
</tbody>
</table>

**30.5.4.2** During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project ‘Setting up Pesticide Manufacturing Unit’ of capacity 1200 TPM by M/s Amarjyot Chemical Ltd (Unit-3) in a total area of 15000 sqm located at Plot No.918, GIDC Jhagadia, District Bharuch (Gujarat).

The project/activity is covered under category A of item 5(b) ‘Pesticides industry and pesticide specific intermediates (excluding formulation)’ of the Schedule to the EIA Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 10th July, 2017 exempting public consultation/hearing, as per Section 7(i), III. Stage (3), Para (i)(b) of the EIA Notification, 2006.

Total water requirement is estimated as 329.4 m³/day. Out of it, fresh water demand is 54 cum/day which is proposed to be met from GIDC water supply.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

**30.5.4.3** The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
• Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

• National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.

• To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

• Total fresh water requirement shall not exceed 54 cum/day proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

• Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

• Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

• The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

• The company shall undertake waste minimization measures as below:
  (a) Metering and control of quantities of active ingredients to minimize waste.
  (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  (c) Use of automated filling to minimize spillage.
  (d) Use of Close Feed system into batch reactors.
  (e) Venting equipment through vapour recovery system.
  (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

• The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

• At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on item-wise details along with time bound action plan shall be prepared and submitted to the Ministry’s Regional Office.

• The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

• The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

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

• Raw material storage should not exceed 3 days at any point of time.

• The project proponent shall carry out the Bio-assay tests for the proposed products/pesticides and submit the report to the Ministry.

• Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
Agenda No.30.5.5

Expansion of synthetic organic chemicals (205 TPM to 1125 TPM) at Plot no 63,6A,6B, Rasayani Road, Village Madap, Taluka Khalapur, District Raigad (Maharashtra) by M/s Lakeland Chemicals (India) Ltd - For Environmental Clearance

[IA/MH/IND2/68663/2016, J 11011/287/2015-IA II (I)]

30.5.5.1 The project proponent and their accredited consulted M/s Eco Chem Sales & Services - Surat made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of Synthetic Organic Chemicals manufacturing unit of capacity 1125 TPM (Existing 205 TPM Proposed 920 TPM) at Plot no 63,6A,6B, Rasayani Road, Vill. Madap, Tq. Khalapur, Dist. Raigad. (Maharashtra) by Lakeland Chemicals (India) Ltd.

(ii) All products are listed at S.N. 5 (f) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006 under category ‘A’ and are appraised at Central Level by Sectoral Expert Appraisal Committee (EAC) in the Ministry.

(iii) The project was considered by the Expert Appraisal Committee (Industry-2) in its 6th meeting held during 30 March - 2 April, 2016 and recommended Terms of Reference (ToR) for the project. The ToR has been issued by Ministry vide letter No.J 11011/287/2015-IA II (I) dated 11th May, 2016.

(iv) The existing unit was established in the year 1986 and hence EC is not available for the existing unit. Existing land area is 17575 m² and additional 5484 m² land will be used for proposed expansion. Industry will develop green belt in an area of 36.51% i.e., 8420 m² out of 23059 m² of area of the project.

(v) The estimated project cost is Rs.58.57 Cr. Including existing investment of Rs.34.52 crores. Total capital cost earmarked for pollution control measures is Rs 5.07 Cr. and the recurring cost for operation and maintenance will be about Rs.62.5 Lakhs per annum. Total employment will be 50 persons as direct & 50 persons indirect after expansion. Industry proposes to allocate Rs. 50 Lakhs i.e. 2.5% of the project cost of towards Corporate Social Responsibility.

(vi) There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the site. Patalganga River is flowing at a distance of 2.85 km in East direction.

(vii) Ambient Air Quality (AAQ) monitoring was carried out at 8 locations during 1.10.2016 to 31.12.2016 and the baseline data indicates the ranges of concentrations as; PM$_{10}$ (15.2 to 64.1 μg/m$^3$), PM$_{2.5}$ 6.5 to 32.9 μg/m$^3$), SO$_2$ 7.3 to 36.7 μg/m$^3$) and NO$_2$ 10.5 to 45.9μg/m$^3$) respectively.AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.20µg/m$^3$ and 3.27µg/m$^3$ with respect to PM10, SOx The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 88 m$^3$/day of which freshwater requirement of 66.5m$^3$/day will be met from Patalganga River. Treated effluent of 21.5 m$^3$/day (20 m$^3$/day RO permeate, 1.5 m$^3$/day MEE condensate will be reused in process) will be treated
through UASB followed by Two Stage Biological plant, RO and MEE based on Zero Liquid discharge system

(ix) Power requirement after expansion will be 425 kVA including existing 225 kVA and will be met from Maharashtra State Electricity Distribution Co Ltd (MSEDCL). Existing unit has 1 DG sets of 350 kVA capacity, additionally No DG sets are used as stand by during power failure. Stack (height Nil M) will be provided as per CPCB norms to the proposed DG sets of Nil in addition to the existing DG sets of which will be used as stand by during power failure.

(x) Existing unit has 4 TPH Briquette fired boiler, and 6 Lakhs KCl/h. Thermic Fluid Heater is installed. Cyclone separator with a stack of height of 15m is installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³). No process emission is not expected since reactions are carried out in close vessels.

(xi) Details of solid waste/hazardous waste generation and its management are as under:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Type of Hazardous Waste</th>
<th>Hazardous Waste Category</th>
<th>Quantity, TPA</th>
<th>Place Of Storage</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Existing</td>
<td>Proposed</td>
<td>Total</td>
</tr>
<tr>
<td>1</td>
<td>Waste From ETP</td>
<td>34.3</td>
<td>0.6</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>2</td>
<td>Used Oil</td>
<td>5.1</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
</tr>
<tr>
<td>3</td>
<td>Waste &amp; Residue</td>
<td>23.1</td>
<td>0.6</td>
<td>1.2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 29th June, 2017 at Kumbhivali, Raigad.

(xiii) Following are the existing and proposed products:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Product</th>
<th>MT/Month</th>
<th>Existig</th>
<th>Proposed</th>
<th>Total after proposed expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Esters</td>
<td>80</td>
<td>0</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ethoxylates</td>
<td>80</td>
<td>0</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Specialty Chemicals</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Amphoterics</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Propoxylates</td>
<td>0</td>
<td>120</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ester Emulsions</td>
<td>0</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Blending Chemicals</td>
<td>0</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Block Co polymer (EO/PO)</td>
<td>0</td>
<td>200</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>205</td>
<td>920</td>
<td>1125</td>
<td></td>
</tr>
</tbody>
</table>
30.5.5.2 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project ‘Expansion of Synthetic Organic Chemicals manufacturing unit from 205 TPM to 1125 TPM’ by Ms Lakeland Chemicals (India) Ltd in a total area of 23059 sqm (existing land area 17575 sqm and additional area 5484 sqm) at Plot No 63, 6A, 6B, Rasayani Road, Village Madap, Taluka Khalapur, District Raigad (Maharashtra).

The project/activity is covered under category A of item 5(f) ‘Synthetic Organic Chemicals’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 11th May, 2016. Public hearing was conducted by the SPCB on 29th June, 2017.

Total estimated water requirement is 88 m³/day, which includes fresh water demand of 66.5 m³/day proposed to be met from Patalganga river.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit is reported to be established in the year 1992 i.e. prior to the issue of the EIA Notification, 1994, and such, there is no requirement of prior EC. As a matter of proof, the project proponent has submitted CTO by Maharashtra Pollution Control Board, issued vide their letter dated 30th November, 1992 issued in the name of the earlier company operating at the same address.

Consent to Operate for the presently manufactured synthetic organic chemicals of capacity 205 TPM has been obtained from the Maharashtra PCB, which is presently valid up to 31st December, 2019.

30.5.5.3 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Total fresh water requirement shall not exceed 66.5 cum/day proposed to be met from Patalganga river water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
• Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

• Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

• Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

• The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

• The company shall undertake waste minimization measures as below:-
  (a) Metering and control of quantities of active ingredients to minimize waste.
  (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  (c) Use of automated filling to minimize spillage.
  (d) Use of Close Feed system into batch reactors.
  (e) Venting equipment through vapour recovery system.
  (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

• The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

• All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 29th June, 2017 shall be satisfactorily implemented.

• At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on item-wise details along with time bound action plan shall be prepared and submitted to the Ministry’s Regional Office.

• The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

• The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

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

• Raw material storage should not exceed 3 days at any point of time.

• Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

30.6 Amendment in Environmental Clearance

Agenda No.30.6.1

Setting up specialty chemicals at plot no. D-2/CH-12, GIDC, Industrial Estate, village Dahej, Teshil Vagra, District Bharuch (Gujarat) by M/s Indofil Industries - For Amendment in EC reg.

[IA/GJ/IND2/48107/2013, J-11011/265/2013-IA II (I)]

30.6.1.1 The project for setting up Specialty Chemicals Manufacturing Unit of capacity 107485 TPA by M/s Indofil Industries Ltd (Unit-3) at plot no. D-2/CH-12, GIDC, Industrial Estate, village
Dahej, Teshil Vagra, District Bharuch (Gujarat) was granted environmental clearance by the Ministry on 28th October, 2016.

30.6.1.2 The project proponent has now requested for amendment/correction in the said EC in respect of water requirement, its source, effluent generation and to use coal as additional fuel. The details in this regard are explained as under:-

<table>
<thead>
<tr>
<th>Item in the EC</th>
<th>Matter as per EC Letter</th>
<th>Amendment required</th>
<th>Justification/reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Para No. 3</td>
<td>The Committee suggested PP to use Natural Gas as clean fuel. Stack of adequate height shall be provided to the gas fired boiler as per CPCB/SPCB guidelines. Bag Filter will be provided to spray dryer. Adequate stack Height will be provided to DG Set. Alkali scrubber will be provided to incinerator. Scrubber will be provided to control process emissions viz. HCl, HBr, NH3, CS2, H2S etc. Total Water requirement will be 2711 m$^3$/day, out of which total fresh water requirement from River Damanganga through GIDC Vapi will be 1500 m$^3$/day and remaining water requirement 1311 m$^3$/day will be met from treated effluent/recycled water. Effluent generation will be 1323 m$^3$/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film dryer (ATFD). Low TDS effluent stream will be treated in the effluent treatment plant (ETP) followed by reverse osmosis (RO). No effluent will be discharged outside</td>
<td>The Committee suggested PP to use Coal or Natural Gas as fuel. Stack of adequate height shall be provided to the gas or coal fired boiler as per CPCB/SPCB guidelines. Bag Filter will be provided to spray dryer. Adequate stack Height will be provided to DG Set. Alkali scrubber will be provided to incinerator. Scrubber will be provided to control process emissions viz. HCl, HBr, NH3, CS2, H2S etc. Total Water requirement will be 2811 m$^3$/day (Industrial: 2711 m$^3$/day + Domestic: 100 m$^3$/day) from GIDC Water Supply. Effluent generation will be 1361 m$^3$/day (Industrial: 1311 m$^3$/day + Domestic: 50 m$^3$/day). Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD stream will be treated in multiple effect evaporator (MEE) &amp; condensate goes to conventional</td>
<td>Coal required for boiler will be 100 MTPD. HSD for DG sets are 110 L./h. Natural gas for main plant as well as utility will be used as fuel. Estimated quantity of natural gas is 3500 SM$^3$/hr., which will be supplied through pipeline. We want to have dual fuel use as below: Coal = 100 MT/Day Or Natural Gas = 3500 SM$^3$/h &amp; HSD = 110 L/h Because supply and cost of natural gas keeps on fluctuating and that disturbs our routine operations. EIA studies were done on coal basis, and gas dispersion modeling for the same was done during EIA studies. Reuse of treated industrial wastewater deteriorates our utilities, reduces life of utilities and increases cost of our products. It also deteriorates quality of our products. We are located in GIDC Industrial Estate</td>
</tr>
</tbody>
</table>
the plant premises. Process Inorganic Residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Catalyst, waste oil and used batteries will be sent to authorized recyclers.

| Specific Condition No. v | Total fresh water requirement from Damanganga River shall not exceed 1500 m$^3$/day | Total Fresh Water requirement will not exceed 2811 m$^3$/day (Industrial: 2711 m$^3$/day + Domestic: 100 m$^3$/day) from GIDC Water Supply. | As we require 1361 m$^3$/day of deep sea discharge and we are not going for ZLD so our water requirement is increased to 2811 m$^3$/day and that will be supplied from GIDC water supply. |
| Specific Condition No. vi | Effluent generation shall not exceed 1323 m$^3$/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film dryer (ATFD). Low TDS effluent stream will be treated in the effluent treatment plant (ETP) followed by reverse osmosis (RO). No effluent will be discharged outside the plant premises | Effluent generation will be 1361 m$^3$/day (Industrial: 1311 m$^3$/day + Domestic: 50 m$^3$/day). Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD stream will be treated in multiple effect evaporator (MEE) & condensate goes to conventional ETP where it is mixed with Low TDS/COD effluent stream and ultimately the treated effluent i.e. 1361 m$^3$/day (Industrial: 1311 m$^3$/day + Domestic: 50 m$^3$/day) | Reuse of treated industrial wastewater deteriorates our utilities, reduces life of utilities and increases cost of our products. It also deteriorates quality of our products. |
30.6.1.3 During deliberations, the Committee noted that the EIA/EMP report earlier submitted by the project proponent mentions about the coal to be used as a fuel. It was only the suggestion of the Committee to use natural gas as a cleaner fuel. Considering the merits and submissions of the project proponent, the EAC agreed to their request to use coal or natural gas as a fuel. In respect of other items, the Committee observed that the amendments requested by the project proponent are actually based on the facts and figures mentioned in the EIA/EMP report, and agreed for the same.

30.6.1.4 The EAC, after deliberations, recommended the proposed amendments on the above lines in the Environmental Clearance dated 28th October, 2016. Rest of the terms and conditions stipulated in the Environmental Clearance shall remain unchanged.

**Agenda No.30.6.2**

**Agrochemicals and Organic intermediates (1913 MTPA) at Plot No. 5303, GIDC Notified Chemical Zone, 4th Phase, Village Vapi, Tehsil Pardi, District Valsad (Gujarat) by M/s Cropnosys India Pvt Ltd - For amendment in EC**

IA/GJ/IND2/69375/2015, J-11011/151/2012-IA II (I)]

30.6.2.1 The project for manufacturing agro-chemicals and organic intermediates of capacity 1913 TPA by M/s Cropnosys India Pvt. Ltd at Plot No. 5303, GIDC Notified Chemical Zone, 4th Phase, Village Vapi, Tehsil Pardi, District Valsad (Gujarat) was granted environmental clearance by the Ministry on 29th January, 2015 subject to compliance of certain terms and conditions as environmental safeguards.

30.6.2.2 The project proponent has now requested for amendment/correction in the said EC in respect of zero liquid discharge, water consumption and the effluent generation. The details of the amendments sought are explained as under:-

<table>
<thead>
<tr>
<th>Para no.</th>
<th>As per EC</th>
<th>To be revised as</th>
<th>Reason/Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>....Total water requirement will be 84 m$^3$/day, out of which 49 m$^3$/day water demand will be met from fresh water (GIDC water supply) and remaining 35 m$^3$/day water demand will be met from recycled water. Industrial effluent generation will be 42.3 m$^3$/day and treated in effluent treatment plant (ETP) followed by multiple effect evaporator (MEE). Quantity of condensate from MEE will be 35 m$^3$/day and same will be recycled/reused in</td>
<td>....Total water requirement will be 84 m$^3$/day, out of which 74 m$^3$/day water demand will be met from fresh water (GIDC water supply) and remaining 10 m$^3$/day water demand will be met from recycled water. Industrial effluent generation will be 42.3 m$^3$/day, out of which 12.3 m$^3$/day of concentrated process effluent will be treated in ETP followed by MEE and balance 30 m$^3$/day of normal</td>
<td>Initially the project was proposed as a Zero Liquid Discharge (ZLD) unit because during that time Vapi was declared as critically polluted area and no additional discharge of effluent was permitted into CETP as per 18 (1) B of CPCB order. Based on our proposal, EC was granted on zero liquid discharge. There was no option but to start the production of Agro chemicals &amp; organic</td>
</tr>
</tbody>
</table>
process. No effluent will be discharged outside the factory premises.

Effluent from boiler, cooling tower and floor/equipment washing will be treated in effluent treatment plant (ETP) consisting of primary, secondary and tertiary treatment units and finally discharge into CETP for further treatment and disposal into Arabian Sea. Quantity of condensate from MEE will be 10 m³/day and same will be recycled/reused in process.

intermediates even though it was incurring high cost of treatment and operation of MEE.

Now, since Vapi is out of critically polluted area and the CETP has issued permission to discharge our effluent into CETP, the project now proposes to dispose off its effluent partially i.e. 30 KLD into CETP of Vapi Green Enviro Limited after treatment in its own ETP.

| A (vii) | Total fresh water requirement from GIDC water supply shall not exceed 49 m³/day and prior permission shall be obtained from the Competent Authority. | Total fresh water requirement from GIDC water supply shall not exceed 74 m³/day and prior permission shall be obtained from the Competent Authority. | Because of this proposed change of discharge of treated effluent in CETP, there will be increase in fresh water consumption due to reduction in recycled water quantity. Hence, fresh water consumption will now increase from 49 KLD to 74 KLD. The permission for the same has been obtained from GIDC for additional fresh water consumption. |
| A (viii) | Total effluent generation shall not exceed 42.3 m$^3$/day. Effluent shall be treated in ETP followed by MEE. MEE condensate shall be recycled/reused in process. No effluent shall be discharge outside the plant and Zero discharge concept will be followed..... | Total effluent generation shall not exceed 42.3 m$^3$/day. Out of which 12.3 m$^3$/day of concentrated process effluent will be treated in ETP followed by MEE and balance 30 m$^3$/day of normal effluent from boiler, cooling tower and floor/equipment washing will be treated in effluent treatment plant (ETP) consisting of primary, secondary and tertiary treatment units and finally discharge into CETP for further treatment and disposal into Arabian Sea. Quantity of condensate from MEE will be 10 m$^3$/day and same will be recycled/reused in process. | Initially the project was proposed as a Zero Liquid Discharge (ZLD) unit because during that time Vapi was declared as critically polluted area and no additional discharge of effluent was permitted into CETP as per 18(1) B of CPCB order. Based on our proposal, EC was granted on zero liquid discharge. There was no option but to start the production of Agro chemicals & organic intermediates even though it was incurring high cost of treatment and operation of MEE. Now, since Vapi is out of critically polluted area and the CETP has issued permission to discharge our effluent into CETP, the project now proposes to dispose off its effluent partially i.e. 30 KLD into CETP of Vapi Green Enviro Limited after treatment in its own ETP. |

### 30.6.2.3
During deliberations, the EAC noted that the EIA/EMP report earlier submitted by the project proponent was based on the ZLD concept and no effluent was proposed to be taken to the CETP. Now, with the revisions so proposed, the complete water scenario including its consumption, effluent generation and the recycling, is bound to change resulting in major deviation from that mentioned in the EIA report. The Committee was not inclined to consider such proposals without any substantive reasons and sufficient details submitted by the project proponent in this regard.

### 30.6.2.4
The EAC, after deliberations, was not agreed to the submissions of the project proponent, and recommended for rejection of the proposal.

### Agenda No.30.6.3

Proposed manufacturing of Agro Chemicals & Organic intermediates (702MTPM) at Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Tehsil Vagra, District Bharuch (Gujarat) by M/s Yashashvi Rasayan Pvt Ltd - For amendment in EC

[IA/GJ/IND2/26742/2015, J-11011/29/2015-IA-II(I)]
30.6.3.1 The project for manufacturing agro-chemicals and organic intermediates of capacity 702 TPM was granted environmental clearance by the Ministry on 31st March, 2016 subject to compliance of certain terms and conditions as environmental safeguards.

30.6.3.2 Now the project proponent has requested for amendments in the said EC in respect of certain item relating to water requirement and effluent generation with the details as under:

<table>
<thead>
<tr>
<th>Para no.</th>
<th>As per EC</th>
<th>To be revised as</th>
<th>Reason/Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>...Following products will be manufactured:</td>
<td>...Following products will be manufactured:</td>
<td>Recovery of K₂SO₄ - helps in foreign exchange saving as Potassium (K) is totally imported</td>
</tr>
<tr>
<td></td>
<td>S. No.</td>
<td>Product</td>
<td>Capacity, TPM</td>
</tr>
<tr>
<td>1</td>
<td>3,6 Dichloro Methoxy Benzoic Acid</td>
<td>500.00</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Di Potassium Salt of 3,6 Dichloro Salicylic Acid</td>
<td>701.50</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>2,5 Dichloro Phenol</td>
<td>510.92</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>2,5 Dichloro Aniline</td>
<td>664.75</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>By-products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Methanol</td>
<td>108.9</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

2.0 ...and MEE salt will be sent to TSDF for landfill.....

3.0 ...and MEE salt will be partially recovered as Potassium Sulphate and Sodium Sulphate...

3.0 A. viii) Total fresh water requirement from GIDC water supply should not exceed 296 m³ / day...

7.0 Total fresh water requirement from GIDC water supply should not exceed 2256 m³ / day...

For recovery of valuable Potassium Sulphate and Sodium Sulphate, chilling and cooling process is introduced which requires high tonnes of refrigeration hence there is more drift.
30.6.3.3 Based on the submission made by the project proponent, the EAC recommended for the proposed amendments in the said Environmental Clearance dated 31st March, 2016, in the following manner:

Para 2 - ‘In place of the only by product Methanol, two more by products namely Potassium Sulphate of 600 TPM and Sodium Sulphate of 90 TPM shall be generated/recovered.’

Para 3 to be revised and read as ‘……MEE salt will be partially recovered as Potassium Sulphate and Sodium Sulphate.’

Para 7A (viii) to be revised and read as ‘Total fresh water requirement from GIDC water supply should not exceed 2256 cum/day….’

Rest of the terms and conditions stipulated in the Environmental Clearance shall remain unchanged.

Agenda No. 30.6.4

Pesticides & Intermediates Manufacturing Unit (12000 MTPA) at Plot No. 46, Dahej Industrial Area, Bharuch - Dahej Road, Dahej, District Bharuch (Gujarat) by M/s Spectrum Ethers Ltd - For Amendment in EC reg.

[IA/GJ/IND2/69488/2014, J-11011/562/2010-IA II (I)]

30.6.4.1 The project proponent did not attend the meeting. The proposal was, therefore, deferred.

30.7 Other item

With the permission of the chair, following proposals for reconsideration of ToR were also placed before the EAC.

Agenda No. 30.7.1

Setting up Petroleum products and petrochemical based product Manufacturing Unit by Deepak Fertilizers & Petrochemicals Corporation Ltd at its 100% subsidiary company site M/s Smartchem Technologies Ltd, Ponnada, Etcherla Mandal, Srikakulam District (Andhra Pradesh) - Terms of Reference - reg

[IA/AP/IND2/64120/2017, J-11011/199/2017-IA II (I)]

30.7.1.1 The proposal was earlier considered by the EAC in its meeting held on 3-5 May, 2017, wherein the Committee recommended for a site visit. The Committee was informed that the site visit has yet not been planned/carried out due to other pressing assignments. Meanwhile, the project proponent has requested for the needful to facilitate early reconsideration of the proposal and grant of ToR.
30.7.1.2 The EAC, after deliberations, recommended the project for grant of standard ToR as specified/ notified applicable for such project/activities, for preparation of EIA/EMP reports with public hearing.

**Agenda No.30.7.2**

Setting up Gas based Ammonia Plant of capacity 1550 MTPD in the existing premises of JSPL at Angul unit, Taluka Chhendipada, District Angul (Orissa) by M/s Jindal Steel & Power Ltd - Terms of Reference - reg

[IA/OR/IND2/61858/2017, J-11011/27/2017-IA II (I)]

30.7.2.1 The proposal was earlier considered by the EAC in its meeting held on 27-28 February, 2017, wherein the Committee recommended for a site visit. The Committee was informed that the site visit has yet not been planned/carried out due to other pressing assignments. Meanwhile, the project proponent has requested for the needful to facilitate early reconsideration of the proposal and grant of ToR.

30.7.2.2 The EAC, after deliberations, recommended the project for grant of standard ToR as specified/ notified applicable for such project/activities, for preparation of EIA/EMP reports with public hearing.

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Members of the EAC (Industry-2) present during 30th meeting held on 2-3 November, 2017 at MoEF&CC, New Delhi

1. Dr. J. P. Gupta  
2. Prof. J.R. Mudakavi  
3. Dr. Ajay Gairola  
4. Dr. N. Nandini  
5. Prof. (Dr.) H.R.V. Reddy  
6. Ms. Saloni Goel  
7. Shri Suhas Ramchandra Pharande  
8. Sh. Paritosh Kumar  
9. Prof. (Dr.) Y.V. Rami Reddy  
10. Shri S.K. Srivastava

Chairman
Member
Member
Member
Member
Member
Member
Member
Member
Member Secretary

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