# GOVERNMENT OF INDIA
# MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
# (IA DIVISION-INDUSTRY-3 SECTOR)

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**Dated: 09.09.2021**

## MINUTES OF THE 16th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD DURING SEPTEMBER 1-2, 2021

**Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)**

**Time: 10:30 AM onwards**

**DAY 1 - 1ST SEPTEMBER, 2021 (WEDNESDAY)**

### (i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman EAC welcomed the Committee members and opened the EAC meeting for further deliberations.

Prof. Pandit also appreciated the efforts of the Ministry's Team (Industry 3 Sector) for preparation and uploading the agenda of the EAC meetings very systematically and timely on Parivesh Portal.

### (ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'E' & Member Secretary, EAC appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

### (iii) Confirmation of the Minutes of the 15th Meeting of the EAC (Industry-3 Sector) held during August 10-11, 2021 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **15th Meeting of the EAC (Industry-3) held on August 10-11, 2021** conducted through Video Conferencing (VC), and as such one request has been received for modifications, in the minutes of the project/activities, **confirmed the same with following corrections.**

**<u>Correction in the minutes of the EAC meeting w.r.t.</u> Expansion of High Rubber Graft-HRG (Rubber Rich ABS) unit from 15000 TPA to 50000 TPA by M/s Bhansali Engineering Polymers Limited at Satnoor Plant, Bhansali Nagar, Taluka Sausar, District Chhindwara, Madhya Pradesh- Amendment in the minutes of the meeting**

The matter relates to the proposal of the environmental clearance to the project for Expansion of High Rubber Graft-HRG (Rubber Rich ABS) unit from 15000 TPA to 50000 TPA by M/s Bhansali Engineering Polymers Limited at Satnoor Plant, Bhansali Nagar, Taluka Sausar, District Chhindwara, Madhya Pradesh.

2. The proposal was considered and recommended by the Expert Appraisal Committee (Industry-3) in its meeting held on 10-11 August, 2021. Thereafter, the project proponent vide letter dated 21st August., 2021 has submitted a request for amendment in the minutes of the meeting, for changes in conditions.

3. The project proponent and their consultant made a detailed presentation on the changes required in the minutes and submitted as under:

| S. No. | As per MoM | Revision sought as |
|---|---|---|
| 1 | As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose. | As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. **As the treated effluents are complying with the discharge norms as per CTO, hence requested to permit to utilize treated effluents for irrigation/horticulture/gardening/greenbelt development within the plant premises. Tertiary treated water after ETP upgradation post expansion will also be utilized for process and utilities.** |
| 2 | Solvent management shall be carried out as follows:<br>(a) Reactor shall be connected to chilled brine condenser system. | BEPL is using latest technology of chilled water condenser system from Daikin (Japanese Technology) compressor containing R-134a as a refrigerant which is environment friendly. BEPL plant is based on Sumitomo technology, Japan where reactors are connected with Chilled Water Condenser System (temp,. is maintained between 8°C to 12 C) and there is no requirement for chilled brine in HRG emulsion polymerization, hence no question of use of chilled brine condenser system. **PP proposed to** |

| | | |
|---|---|---|
| | | **continue use of Chilled Water Condenser System, for existing as well as post expansion.** |
| | (e) Entire plant shall be flame proof. | As per technology provider i.e. Sumitomo Japan, flame proof areas are - Tank farm (storage) and Polymerization. Utilities, ETP, F&D and Finished Goods Storage are non-Flame proof Areas. During proposed expansion BEPL will adopt World Class latest Technology considering safety on Top Priority complying international Standards. |
| 3 | The green belt of at least 5-10 m width shall be developed/strengthened over 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented within 6 months. | Total land area - 35.775 Ha existing no. of plants 18782. Proposed greenbelt area = 33% which is 11.80 Ha i.e. 118000 sq.m. Each tree will cover 4 sq.m (2mx2m), hence total no. of trees required 29500.<br><br>Existing no. of trees 18782, proposed tree plantation 10718 will be planted within three years. |

***Deliberations in the EAC:***

The EAC made detailed deliberations on the proposal. The Committee noted that the project proponent is not inclined to accept the concept of Zero Liquid Discharge and in turn requested for use of treated effluents complying with the discharge norms as per CTO, for irrigation/horticulture/gardening/greenbelt development within the plant premises. The Committee noted that the project proponent has submitted effluent quality parameters and PP justified that the treated water is meeting the norms for irrigation. The Committee also

deliberated on the solvent management system and accepted the suggestions of the PP. The Committee however did not accept the changes proposed by the PP regarding greenbelt development as the PP has not shown interest in proper greenbelt development during the present monsoon season and reiterated the earlier recommendations.

The Committee after detailed deliberations **recommended** for revision of the respective conditions as under, subject to its observations as above:

(i). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent, meeting the irrigation standards as notified by the concerned State Irrigation Department and approved by the SPCB, may be used for gardening/greenbelt development/horticulture purpose. The implementation and analysis report shall be submitted to the IRO, MoEFCC for its compliance.

(ii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled water condenser system. ……. (e) Tank farm (storage), polymerization, solvent handling, agitated areas shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. …

(iii). The green belt of at least 5-10 m width shall be developed/strengthened over 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented within 6 months.

After this the discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

## Consideration of Environmental Clearance Proposals

### Agenda No.16.1

**Setting up of API's & Bulk Drug Intermediates Manufacturing Industry of capacity 604 MTPA, located at Plot No. 174 & 175, Kadechur & Badiyal KIADB Industrial Area, Saidapur Hobli, Yadgiri Taluk & District, Karnataka by M/s Sunrise Industries- Consideration of Environmental Clearance**

**[Proposal No.: IA/KA/IND2/222135/2021; File No. J-11011/249/2020-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Eco Green Enviro Services made a presentation on the salient features of the project and informed that:
Project proponent has applied under API category Notified by Ministry of Environment, Forest

& Climate Change vide SO.1223 (E) dated 27.03.2020, 15.102.2020 and further amendment S.O. No. 2859(E) dated 16th July, 2021. However, the application and other reports have mentioned that the proposal is for API and Bulk Drugs Intermediate both.

**Deliberations by the EAC:**

The EAC clarified that the said notification is only for API and not for Intermediates. The Member Secretary informed to the Committee that the Ministry has also sought the EDS on 02.08.2021 to clarify whether the proposal is for API or Bulk Drug Intermediates as the Notification dated 16.07.2021 is only for API not for intermediates. However, PP has not revise the application. Moreover, PP submitted the reply without signed, date and covering letter on Parivesh Portal.

PP during the presentation accepted the mistake and requested for revision of the application. EAC, after deliberations, accepted the request of PP for revision of the application.

**The Committee also warned the Consultant [M/s. Eco Green Enviro Services] to submitting such vague and incomplete application. Consultant should read the provisions of the EIA Notification, 2006 and various others OMs/Circular issued by the Ministry from time to time.**

After detailed deliberations, the EAC **returned** the proposal in present form.

**Agenda No.16.2**

**Expansion of Synthetic Organic Chemicals Manufacturing industry, located at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra M/s MVL Medisynth Pvt. Ltd.-Consideration of Environmental Clearance**

**[Proposal No.: IA/MH/IND3/222701/2021; File No. J-11011/293/2013-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of Environmental Clearance (EC) to the project for expansion of Synthetic Organic Chemicals Manufacturing Unit at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd.

As per the provision of EIA Notification 2006 and as amendments from time to time, the expansion project comes under Category “B1”. But, due to presence of the GIB sanctuary within 5 Km from Project Site in MIDC, the general condition is applicable to project and requires appraisal at Centre Level by the EAC, at the MoEFCC. The Proposed Project Site in MIDC Chincholi is located 2.43 Km from the boundary of GIB Sanctuary. Further, the ESZ for GIB is finalized vide notification No. 596 dated 11.02.2020. Project Site is 2.16 Km from Notified

ESZ.

PP informed that the Ministry has issued EC earlier vide letter no. J-11011/293/2013-IA-II (I) dated 28.03.2016 to the existing Bulk Drug Manufacturing Unit in favour of M/s MVL Medisynth Pvt. Ltd. PP submitted Certified Compliance report dated 31.03.2021 wherein, it was observed that project for which EC was granted was not implemented. Project was not implemented on site due to funds problem. It was also informed that there are changes of Board of Directors of MVLMPL.

PP informed that in order to sustain financially, the PP approached MPCB for obtaining Consent to Establish for setting up of Distillation unit of Glycols / Ethanol Amines / Aceto Nitriles /BDO / NMP / NEP /Other Solvents. The MPCB granted CTE vide letter dated 12.10.2018. Subsequently, MPCB also granted Consent to Operate with validity up to 31.01.2025. During site inspection, it was observed that equipment installed & operated included – (1) Distillation Unit, (2) MEE Plant, (3) Coal based boiler and Thermic Fluid Heater, (4) Storage area, (5) Admin Building.

Industry has only developed Green Belt in an area of 330 sqm (**2%** out of total plot area). Moreover, additional Green Belt area of 5080 Sqm (31 % out of total plot area) will be developed. After expansion of project, the total Green Belt area would be 5410 Sqm which accounts for 33 % of total plot area.

**Deliberations by the EAC:**

The EAC deliberated on the proposal and noted that although the EC was not implemented by the PP but the distillation activity is going on since 2018. PP has failed to develop green belt. By looking at the picture and google earth image the Committee noted that the green belt on about 2% of the plot area has been recently planted within past 1-2 months earlier. The EAC observed that that PP had been very negligent towards environmental concerns and even the basic condition of green belt development had not been implemented though EC was granted on 2016.

EAC also noted that as the initial EC was not implemented then how the expansion project can be considered from the existing capacity (i.e. 319.15 TPA) to the proposed capacity (i.e. 41369.15 TPA). The Committee opined that as the PP has started other activities but has failed to develop green belt, therefore, it instructed PP to first develop green belt and then re-submit the proposal for further appraisal.

**After detailed deliberations, the EAC is of the view that this instant proposal can only be considered after the plantation of green belt and other environmental mitigation measures as approved in the earlier EC of 2016. The EAC is of the view that the Consultant has to properly guide the Project Proponent for the implementation of basic condition of green belt mentioned in the earlier EC.**

**The EAC accordingly returned the proposal in its present form.**

**Agenda No.16.3**

**Setting up of "Manufacturing of Active Pharmaceutical Ingredients (API)" Industry of capacity 45 TPM, located at Plot No 98, Kadechur Industrial Area, Yadgir Taluk and District, Karnataka M/s Vineela Thakkallapally -Consideration of Environmental Clearance**

**[Proposal No.: IA/KA/IND2/225026/2021; File No. IA-J-11011/143/2021-IA-II(I)]**

The project proponent and the accredited consultant M/s. AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of "Manufacturing of Active Pharmaceutical Ingredients (API)" Industry of capacity 45 TPM, located at Plot No 98, Kadechur Industrial Area, Yadgir Taluk and District, Karnataka M/s Vineela Thakkallapally.

The details of products and capacity as under:

| S. No | Name of Products | Qty. in TPM | CAS No. | Therapeutic use |
|---|---|---|---|---|
| 1 | Bendamustine HCl | 1 | 3543-75-7 | To treat chronic lymphocytic leukemia |
| 2 | Bortezomib | 4 | 179324-69-7 | To treat Multiple myeloma |
| 3 | Busulfan | 10 | 55-98-1 | To treat Chronic myelogenous leukemia |
| 4 | Cyclophosphamide | 5 | 50-18-0 | To treat cancer |
| 5 | Gefitinib | 1 | 184475-35-2 | Anti-cancer (lung cancer) |
| 6 | Ibrutinib | 3 | 936563-96-1 | Anti-cancer (Blood cancer) |
| 7 | Imatinib Mesylate | 3 | 220127-57-1 | Anti-cancer (Blood cancer) |
| 8 | Lenalidomide | 5 | 191732-72-6 | To treat anemia |
| 9 | Melphalan | 3 | 148-82-3 | Alkylating agents – To treat ovarian cancer |
| 10 | Nintedanib Esylate | 0.1 | 656247-18-6 | Anti-cancer (lung cancer) |
| 11 | Pazopanib HCl | 10 | 635702-64-6 | Anti-cancer (kidney cancer) |
| 12 | Sorafenib | 5 | 284461-73-0 | To treat cancer |
| 13 | Temozolomide | 10 | 85622-93-1 | Anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug |
| 14 | Zoledronic acid | 10 | 165800-06-6 | To treat high levels of calcium |
| | R & D products | 0.2 | | -- |
| | **Total (5 Products)** | **45** | | |
| Note: From the above list of products, any 5 products along with R&D products will be manufactured at a given point of time. | | | | |

**LIST OF PROPOSED BY-PRODUCTS**

| Name of the Product | Name of the By Product | Quantity in Kgs/Day |
|---|---|---|
| Melphalan | O-Pthalamide | 63 |

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8093.7 sqm). Industry will develop greenbelt in an area of 2710.7 sqm. which is 33.5% out of the total project area. The proposed project cost is about Rs. 6.4 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 80 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 17 lakhs per annum. Total Employment under proposed project will be of 50 persons. Industry proposes to allocate Rs. 7 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.9 km in the North-East direction. The total water requirement is 148.3 KLD, out of which freshwater requirement is 96.0 KLD and will be met from KIADB. Generated effluent is 80.9 KLD. All industrial effluents will be treated through Common Effluent Treatment Plant CETP, Kadechur. Domestic sewage of 1.9 KLD will be passed to septic tank followed by multigrade filter.

The Power requirement of project will be 500 kVA and will be met from GESCOM. The unit has proposed to install 1 x 250 kVA DG Set, Stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1 X 4 TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm3). The industry has also proposed for Thermic fluid heater of 3 Lakh kcal/hr with chimney of height 15 m.

**Details of Process emissions generation and its management.**

| S. No | Name of the Gas | Quantity in Kg/Day | Treatment Method | Disposal Method after treatment |
|---|---|---|---|---|
| 1 | Hydrogen chloride | 111.9 | Scrubbed by using water media | Generated dil HCl will be reused within the industry |
| 2 | Ammonia | 2.1 | | Generated $NH_4OH$ will be reused within the industry |
| 3 | Sulphur dioxide | 112.9 | Scrubbed by using C.S. Lye solution | Residues from the reaction will be sent to TSDF |
| 4 | Pentane | 18.4 | Dispersed into atmosphere | - |
| 5 | Oxygen | 66.7 | | |

| | | | | |
|---|---|---|---|---|
| 6 | Carbon dioxide | 81.6 | | |
| 7 | Hydrogen | 3.3 | Dispersed into atmosphere through flame arrester | - |

**Details of Solid waste and Hazardous waste generation and its management:**

| S. No | Category of the HW Rules 2016 | Name of the Hazardous Waste | Quantity | Disposal Method |
|---|---|---|---|---|
| **Hazardous waste generation from plant** | | | | |
| 1 | 5.1 | Waste oils & Grease/ Used Mineral oil | 0.2 KL/Annum | Agencies authorized by KSPCB |
| 2 | 5.2 | Oil Soaked Cotton | 2 Kgs/month | KSPCB authorized Vendor |
| 3 | 20.3 | Distillation Residue | 923 kgs/day | Store in secured manner and hand over to authorized cement industry for Co-processing |
| 4 | 28.1 | Process Residues & Waste | 5243 kg/day | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 5 | 28.2 | Spent Catalyst | 8.3 kg/day | Store in secured manner and hand over to authorized recycler |
| 6 | 28.3 | Spent Carbon | 233 Kgs/Day | Store in secured manner and hand over to authorized cement industry for Co-processing |
| 7 | 28.4 | Off Specification Products | 1 TPM | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 8 | 28.5 | Date expired products | 500 Kgs/Month | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 9 | 33.1 | Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes | 250 No's/Month | After complete detoxification, shall be disposed to the outside agencies. |
| 10 | 33.2 | Contaminated cotton rags or other cleaning | 25 Kgs/month | Store in secured manner and hand over to KSPCB Authorized Vendor |

| | | | | |
|---|---|---|---|---|
| | | materials | | |
| 11 | A1160 | Used Lead Acid batteries | 2 No's/Annum | Returned back to dealer/ Supplier |
| **Other & Miscellaneous Solid Wastes** | | | | |
| 12 | -- | Coal ash | 1120 kgs/day | Sent to Brick Manufacturers |
| 13 | -- | Briquette ash | 2860 kgs/day | Sent to fertilizer industries |
| 13 | -- | Residues from Scrubber | 222 kgs/day | Shall be stored in secured manner & handed over to TSDF. |
| 14 | -- | Used PPE | 5 Kgs/ Month | Sent to authorized vendor |
| 15 | -- | E- Waste | 150 Kgs/ Annum | Authorized recyclers |
| 16 | -- | Plastic Waste | 200 Kgs/ Annum | Authorized recyclers |
| 17 | -- | Metal Scrap | 3 TPA | Sale to outside agencies/ recyclers |
| 18 | -- | Used Filters (HEPA filters, Oil Filters etc.) | 25 Nos /year | Sent to TSDF |
| 19 | -- | Used / Discarded RO Membranes | 0.2 TPA | Sent to TSDF |

The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 which inter-alia request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

| **Kg per day** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EFFLUENT WATER** | | | | | | | | **SOLID WASTE** | | | | | |
| Water in put | Water in Effluent | Organics in effluents | TDS | COD | HTDS | LTDS | Total Effluent | Organic | Inorganic | Spent carbon | Spent Catalyst | Process Emission | Distillation residue |
| 45756.7 | 46083.9 | 1179.4 | 3472.0 | 1620.9 | 32655.4 | 14391.5 | 47047.0 | 2808.6 | 2434.6 | 233.3 | 8.3 | 337.2 | 923 |

**HAZARDOUS SOLID WASTE DETAILS**

| Organic solid waste | Inorganic solid Waste | Spent Carbon | Distillation Residue |
|---|---|---|---|
| Kg/day | Kg/day | Kg/day | Kg/day |
| 2808.6 | 2434.6 | 233.3 | 923 |

**EMISSION DETAILS**

| Kg per day | | | | | | |
|---|---|---|---|---|---|---|
| **HCl** | **$NH_3$** | **$CO_2$** | **$H_2$** | **$O_2$** | **$SO_2$** | **Pentane** |
| 111.9 | 2.1 | 81.6 | 3.3 | 66.7 | 112.9 | 18.4 |

**Deliberations by the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in the desired format along with PFR & EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the PFR & EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the greenbelt development in the unit complex and suggested the PP to develop greenbelt on at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation with-in one year. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested for increase in the use percentage of recycled water.

The committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year.

The EAC deliberated on the proposal with due diligence using the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

**Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:**

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Project Proponent reported that the amount of $CO_2$ emissions per day are stated to be 81.6 Kg/day and hence it is desirable that usage of economical viable technologies for CO2 sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). The treated effluent of 80.9 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 96.0 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(x). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

(xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xii). 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.

(xiii). 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) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

(xv). 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.

(xvi). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xvii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**Agenda No. 16.4**

**Setting up of "Manufacturing of Active Pharmaceutical Ingredients (API)" Industry of capacity 25 TPM, located at Plot No. 253 & 254, Kadechur Industrial Area, Yadgir District, Karnataka by M/s 4S Laboratories -Consideration of Environmental Clearance**

**[Proposal No.: IA/KA/IND2/224998/2021; File No. IA-J-11011/322/2021-IA-II(I)]**

The project proponent and the accredited consultant M/s. AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of "Manufacturing of Active Pharmaceutical Ingredients (API)" Industry of capacity 25 TPM, located at Plot No. 253 & 254, Kadechur Industrial Area, Yadgir District, Karnataka by M/s 4S Laboratories.

The details of products and capacity as under:

| S. No | Name of Products | Qty. in TPM | CAS No. | Therapeutic use |
|---|---|---|---|---|
| 1. | Bisoprolol fumarate | 1 | 66722-44-9 | To treat high blood pressure (hypertension) |
| 2. | Deferasirox | 3 | 201530-41-8 | To treat high levels of iron |
| 3. | Desloratadine | 2 | 100643-71-8 | To relieve hay fever and allergy symptoms |
| 4. | Domperidone | 3 | 57808-66-9 | Anti-sickness |

| | | | | |
|---|---|---|---|---|
| 5. | Escitalopram oxalate | 5 | 219861-08-2 | Depression and Anxiety |
| 6. | Esomeprazole magnesium trihydrate | 5 | 217087-09-7 | To treat certain stomach and oesophagus problems |
| 7. | Fexofenadine HCl | 5 | 83799-24-0 | Anti-histamine |
| 8. | Irbesartan | 5 | 138402-11-6 | To treat high blood pressure |
| 9. | Linezolid | 1 | 165800-03-3 | To treat infection (pneumonia, skin infection) |
| 10. | Lopinavir | 2 | 192725-17-0 | Help to control HIV infection |
| 11. | Loratadine | 2 | 79784-75-5 | Anti-histamine |
| 12. | Losartan potassium | 5 | 124750-99-8 | To treat high blood pressure |
| 13. | Mirabegron HCl | 2 | 223673-61-8 | To treat overactive bladder in adults |
| 14. | Oseltamivir phosphate | 3 | 204255-11-8 | To treat acute and uncomplicated influenza |
| 15. | Pantoprazole sodium | 5 | 138786-67-1 | To treat Gastro-Oesophageal Reflux disease (GORD) |
| 16. | Pirfenidone | 1 | 53179-13-8 | To treat idiopathic pulmonary fibrosis |
| 17. | Risedronate sodium | 1 | 105462-24-6 | To treat disease that weakens bones |
| 18. | Terbinafine hydrochloride | 5 | 91161-71-6 | To treat fungal infection of the skin and nails caused by Trichophyton |
| 19. | Tetrabenazine | 1 | 91161-71-6 | To treat chorea |
| 20. | Vildagliptin | 1 | 274901-16-5 | To treat type 2 diabetes mellitus |
| | **Total (5 Products)** | **25** | | |
| Note: From the above list of products, any 5 products will be manufactured at a given point of time. | | | | |

**LIST OF PROPOSED BY-PRODUCTS**

| S .No | Name of the Product | Name of the By Product | Quantity in Kgs/Day |
|---|---|---|---|
| 1 | Losartan potassium | Succinimide | 41.54 |
| | | Trityl alcohol | 104.79 |
| 2 | Mirabegron HCl | Triethyl amine hydrochloride | 22.8 |
| 3 | Pantoprazole sodium | Potassium Sulphate | 38 |

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8080 sqm). Industry will develop greenbelt in an area of 2668 sqm which is 33.0% out of the total project area. The

proposed project cost is about Rs. 6.6 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 79 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 17.5 lakhs per annum. Total Employment under proposed project will be of 50 persons. Industry proposes to allocate Rs. 7 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. The Kadechur lake is at a distance of 1.8 km in the East direction. Total water requirement is 97.1 KLD, out of which freshwater requirement is 58.8 KLD and will be met from KIADB. Generated effluent is 41.8 KLD. All industrial effluents will be treated through Common Effluent Treatment Plant CETP, Kadechur. Domestic sewage of 1.9 KLD will be passed to septic tank followed by multigrade filter and will be reused for gardening.

The Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1 x 250 kVA DG Set, Stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1 X 4 TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm3). The industry has also proposed for Thermic fluid heater of 1 Lakh kcal/hr with chimney of height 15 m.

**Details of Process emissions generation and its management**

| S. No | Name of the Gas | Quantity in Kg/Day | Treatment Method | Disposal Method after treatment |
|---|---|---|---|---|
| 1. | Hydrogen chloride | 85.7 | Scrubbed by using water media | Generated Dil. HCl will be reused within the industry |
| 2. | Ammonia | 65.2 | | Generated NH4OH will be reused within the industry |
| 3. | Sulphur dioxide | 49.1 | Scrubbed by using C.S. Lye solution | Residues from the reaction will be sent to TSDF |
| 4. | Chloromethane | 22.0 | | |
| 5. | Nitrogen | 21.0 | Dispersed into atmosphere | - |
| 6. | Oxygen | 14.4 | | |
| 7. | Carbon dioxide | 169.0 | | |
| 8. | Methane | 1.2 | | |
| 9. | Hydrogen | 18.8 | Dispersed into atmosphere through flame arrester | - |

**Details of Solid waste & Hazardous waste generation and its management:**

| Sl. No | Category of the | Name of the Hazardous | Quantity | Disposal Method |
|---|---|---|---|---|

| | HW Rules 2016 | Waste | | |
|---|---|---|---|---|
| **Hazardous waste generation from plant** | | | | |
| 1 | 5.1 | Waste oils & Grease/ Used Mineral oil | 0.2 KL/Annum | Agencies authorized by KSPCB |
| 2 | 5.2 | Oil Soaked Cotton | 2 Kgs/month | KSPCB authorized Vendor |
| 3 | 20.3 | Distillation Residue | 1114.2 kgs/day | Store in secured manner and hand over to authorized cement industry for Co-processing |
| 4 | 28.1 | Process Residues & Waste | 3245.6 kg/day | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 5 | 28.2 | Spent Catalyst | 13.5 kg/day | Store in secured manner and hand over to authorized recycler |
| 6 | 28.3 | Spent Carbon | 201.7 Kgs/Day | Store in secured manner and hand over to authorized cement industry for Co-processing |
| 7 | 28.4 | Off Specification Products | 1 TPM | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 8 | 28.5 | Date expired products | 500 Kgs/Month | Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF |
| 9 | 33.1 | Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes | 250 No's/Month | After complete detoxification, shall be disposed to the outside agencies. |
| 10 | 33.2 | Contaminated cotton rags or other cleaning materials | 25 Kgs/month | Store in secured manner and hand over to KSPCB Authorized Vendor |
| 11 | A1160 | Used Lead Acid batteries | 2 No's/Annum | Returned back to dealer/ Supplier |
| **Other & Miscellaneous Solid Wastes** | | | | |
| 12 | -- | Coal ash | 1120 kgs/day | Sent to Brick Manufacturers |
| 13 | -- | Briquette ash | 2860 kgs/day | Sent to fertilizer industries |
| 13 | -- | Residues from Scrubber | 111 kgs/day | Shall be stored in secured manner & handed over to TSDF. |
| 14 | -- | Used PPE | 5 Kgs/ | Sent to authorized vendor |

| | | | | |
|---|---|---|---|---|
| | | | Month | |
| 15 | -- | E- Waste | 150 Kgs/ Annum | Authorized recyclers |
| 16 | -- | Plastic Waste | 200 Kgs/ Annum | Authorized recyclers |
| 17 | -- | Metal Scrap | 3 TPA | Sale to outside agencies/ recyclers |
| 18 | -- | Used Filters (HEPA filters, Oil Filters etc.) | 25 Nos /year | Sent to TSDF |
| 19 | -- | Used / Discarded RO Membranes | 0.2 TPA | Sent to TSDF |

The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 which inter-alia request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

| **Kg per day** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EFFLUENT WATER** | | | | | | | | **SOLID WASTE** | | | | | |
| Water in put | Water in Effluent | Organics in effluents | TDS | COD | HTDS | LTDS | Total Effluent | Organic | Inorganic | Spent carbon | Spent Catalyst | Process Emission | Distillation residue |
| 19664.3 | 20999.6 | 2740.7 | 2400.9 | 5602.1 | 17490.8 | 2943.1 | 20472.6 | 1860.5 | 271.0 | 201.7 | 13.5 | 297.2 | 1114.2 |

**HAZARDOUS SOLID WASTE DETAILS**

| Organic solid waste | Inorganic solid Waste | Spent Carbon | Distillation Residue |
|---|---|---|---|
| Kg/day | Kg/day | Kg/day | Kg/day |
| 1860.5 | 271.0 | 201.7 | 1114.2 |

**EMISSION DETAILS**

| **Kg per day** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **HCl** | **$NH_3$** | **$SO_2$** | **$CH_3Cl$** | **$N_2$** | **$O_2$** | **$CO_2$** | **$CH_3$** | **$H_2$** |
| 85.7 | 65.2 | 49.1 | 22.0 | 21.0 | 14.4 | 169.0 | 1.2 | 18.8 |

**Deliberations by the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in the desired format along with PFR & EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the PFR & EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the greenbelt development in the unit complex and suggested PP to develop greenbelt in at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation with-in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested for increase in the use percentage of recycled water.

The committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year.

The EAC deliberated on the proposal with due diligence using the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

**Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to the following conditions:**

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not

tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Project Proponent reported that the amount of $CO_2$ emissions is 169.0 kg/day, hence it is desirable that usage of economical viable technologies for $CO_2$ sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). The treated effluent of 41.8 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 58.8 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(x). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

(xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xii). 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.

(xiii). 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) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

(xv). 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.

(xvi). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xvii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## Consideration of Amendment in EC

**Agenda No. 16.5**

**Manufacturing of Products in groups without increasing the production capacity and for permission for wastewater discharge of 447 KLD to NCTL facility and for the disposal of 29 KLD of HTDS effluent to the common MEE facility at Beil/Acptcl by M/s Hikal Limited, located at Plot no. 629,630-B GIDC Estate Panoli, Taluka - Ankleshwar, Bharuch., Gujarat – Consideration of Amendment in EC**

**[Proposal No.: IA/GJ/IND3/217713/2021; File No. IA-J-11011/98/2008-IA II(I)]**

The proposal is for amendment in the Environment Clearance granted by the ministry vide letter IA-J-11011/98/2008-IA II(I) dated 9th May, 2019 for expansion of pharma products and Agro-chemicals located at Plot Nos, 629, 630-B, GIDC Estate, Panoli, Taluka: Ankleshwar, District: Bharuch (Gujarat) in favor of M/s. Hikal Limited

- As per the earlier Environmental Clearance obtained in 2019, MoEF&CC had recommended to achieve Zero Liquid Discharge scheme for wastewater treatment.

- But, as our unit is into the production of highly complex pesticide streams, having a common effluent treatment facility poses a high risk of cross contamination if, we recycle & reuse the treated wastewater in process.

- As per the proposed amendment, the total effluent will be bifurcated in the following manner:
  Total Effluent 3857 KLD

  (a) 447 KLD to ETP to NCT
  (b) 82 KLD Domestic waste water to STP
  (c) 2981 KLD In-house Effluent Treatment scheme
  (d) 29 KLD to ACPTCL/BEIL
  (e) 318 KLD (Boiler + Cooling)

- The unit will not be able to achieve complete Zero Liquid Discharge but it is committed that approx. 83 % of total waste water generation (3198 KL/day) will be reused within premises.
- The permission for disposal of effluent at NCT and BEIL has been already obtained.

The project proponent has requested for amendment in the EC with the details are as under :

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be revised/ read as | Justification/reasons |
|---|---|---|---|---|
| 1. | Condition No.6 (Para 2 of 3) | Industrial effluent of 3857 cum/day will be treated through stripper column, MEE & ATFD (for high COD) and ETP& RO (for Low COD). Treated effluent of 3085 cum/day will be reused in the process / cooling tower/boiler. There will be no discharge of treated /untreated wastewater from the unit, and thus ensuring zero liquid discharge. | ➢ Total wastewater generation will be 3857 KLD (Industrial 3775 KLD+ Domestic 82 KLD). *<br>➢ Total wastewater generation from industrial is 3775 KLD in which 318 KLD (Boiler 213 KLD + Cooling 105 KLD) will be reused in for the process utility in the plant after pretreatment.<br>➢ Remaining 3457 KLD industrial effluent will be segregated in to 2 streams: Stream I-High TDS and COD stream (3010 KLD) and stream II - Low TDS and COD stream (447 KLD).**<br>Stream I-High COD stream<br>➢ Out of the 3010 KLD of effluent, 29 KLD will be directly sent in to the common MEE facility at BEIL/ACPTCL.***<br>➢ Remaining 2981 KLD will be treated in in-house treatment facility through ETP+RO+HPRO or MEE+ Stripper+ ATFD with further reuse.<br>➢ Total 2801 KLD of RO permeate will be | As per the earlier Environmental Clearance vide letter no. IA-J-11011/98/2008-IA II(I) dated 9th May, 2019, our unit had proposed 100% Zero Liquid Discharge scheme for wastewater treatment.<br>Now, we have applied for EC Amendment for change in disposal mode considering the economical and technically viability of our project.<br>In the ZLD system previously adopted, there was a common in-house ETP facility, but as our unit is into the production of highly complex pesticide steams, having a common effluent treatment facility poses a high risk of cross contamination if, we recycle & reuse the treated wastewater in process.<br>Also, through the treatability study (as enclosed) conducted we have identified that about 29 KLD (effluent generated from Lactum) of the HTDS effluent produced, has an exorbitantly high amount of COD. This proved to have a high potential for MEE tube damage if treated in the in-house MEE facility.<br>The HTDS effluent stream generated also showed the possibility of corrosion in MEE components due to the highly complex nature of the pesticides stream. |

| | | | | |
|---|---|---|---|---|
| | | | reused for process.<br>➢ RO Reject will be sent to MEE for further treatment.<br>➢ 180 MT concentrated salt from MEE will be sent to TSDF site.<br>Stream II-Low COD stream<br>➢ 447 KLD after primary, secondary and tertiary treatment shall be sent to NCT. ****<br>Domestic Effluent<br>➢ Domestic effluent of 82 KLD shall be treated in the in-house STP. The treated effluent shall be reused for gardening purpose. | Hence, we had a discussion with the common MEE service providers who can ensure efficient dilution or pretreatment of the highly complex stream before treatment in their Common Multi Effect Evaporator (CMEE) and the final disposal. We have obtained permission from BEIL/ACPTCL for the disposal of 29 KLD of highly concentrated effluent.<br>As per the proposed amendment, Approx. 83 % of total waste water generation (3198 KL/day) will be reused within premises.<br>Kindly consider our project details for change in the mode of discharge from 100% ZLD and permit the disposal of 447 KLD of LTDS effluent to NCT facility and 29 KLD of HTDS effluent to CMEE facility at BEIL/ACPTCL. |
| 2. | Point No.3 | The details of Products are as under: ***** | The details of Products are as under:****** | Our unit is manufacturing products categorized under-5(b) 'Pesticides industry and pesticide specific intermediates' and '5(f)' 'Synthetic organic chemicals' as per EC granted in 2019.Also as per Product mix CCA Amendment No: AWH-112328 issue vide Letter No: GPCB/ANK/CCA-231(14)/ID-15177/591908 dated 08/06/2021.with reference to the minutes of the Technical Committee meeting held on 01/03/2021 the quantity of 3 products |

| | | | | |
|---|---|---|---|---|
| | | | | namely Cyclniliprole (IKI 3106), IKF with HPP and BIT have been reduced along with the addition of 2 new products i.e.5-MPDC and Benzophenaf. This alteration has been done without change in the total production quantity.<br>It is required, that we get permission to manufacture the products in groups. The demand for molecules in the market varies on a regular basis and in an unpredictable manner in the pharma and agro sector. Hence, obtaining permission for group wise production is more feasible and economically viable to survive the market in the agrochemical and pesticides sector. |

**Product List as per EC granted**

| S. No. | Products | Existing | Proposed | Total |
|---|---|---|---|---|
| | | Capacity (TPA) | | |
| Pharma Products | | | | |
| 1 | Gemester | 100 | 300 | 400 |
| 2 | Bupropion-HCl ((1-Propanone, 1-(3-chlorophenyl)-2-((1,1-dimethylethyl) amino) hydrochloride) | 100 | 300 | 400 |
| 3 | Lactum | 1800 | 2200 | 4000 |
| 4 | HPP-529 (Ethyl 2 oxo pyro butanoate) | 150 | 450 | 600 |
| 5 | HPP-453 (Decoquinate) | 150 | 450 | 600 |
| 6 | HPP-799 (Ethyly 2 oxo pyro acetate) | 60 | 540 | 600 |
| 7 | HPP-913 (CBZ Amide) | 100 | -100 | 0 |
| 8 | Leavi (Leavetiractam) | 100 | -100 | 0 |
| 9 | PBA HCl | 50 | -50 | 0 |
| 10 | Gabapentin (Neurontin 1-(Aminomethyl)_cyclohexaneacetic acid | 300 | 700 | 1000 |
| 11 | HBS - Hydrozobenzene sulfonamide | 0 | 300 | 300 |
| 12 | Diketon | 0 | 200 | 200 |
| 13 | S Ester | 0 | 855 | 855 |
| 14 | Pregablin (Lyrica S-3-(Aminomethyl)-5-methylhexanoic acid | 0 | 500 | 500 |

| | | | | |
|---|---|---|---|---|
| 15 | Gemfibrozil (2,2-Dimethyl-5-(2,5-dimethylphenoxy) pentanoic acid | 0 | 400 | 400 |
| 16 | Bupropion | 0 | 300 | 300 |
| 17 | Celecoxib | 0 | 300 | 300 |
| 18 | Quetiapine | 0 | 300 | 300 |
| 19 | Sitagliptin | 0 | 300 | 300 |
| 20 | Dabigatran | 0 | 300 | 300 |
| 21 | Canagliflozin | 0 | 200 | 200 |
| 22 | Dabagliflozin | 0 | 200 | 200 |
| 23 | Vildagliptin | 0 | 300 | 300 |
| 24 | Quetiapine 2/4 | 0 | 300 | 300 |
| | Sub Total (A) | 2,910 | 9,445 | 12,355 |
| Crop Products | | | | |
| 1 | Quinlphos (TECH) | 100 | -100 | 0 |
| 2 | Ethion (TECH) | 50 | -50 | 0 |
| 3 | Trizophos | 50 | -50 | 0 |
| 4 | Karphos | 100 | -100 | 0 |
| 5 | Temphos | 200 | 300 | 500 |
| 6 | 3-5 DFA | 100 | -100 | 0 |
| 7 | AF -02 (4 acetoxy 6 tert butyl 8 fluro 2, 3 dimethylequinoline) with intermediate | 100 | 50 | 150 |
| 8 | Isoxazole (RTY) | 100 | -100 | 0 |
| 9 | Karphos with Isoxazole (RTY) | 0 | 300 | 300 |
| 10 | Thiacloprid | 0 | 1000 | 1000 |
| 11 | Clothianidin | 0 | 1000 | 1000 |
| 12 | Trifloxystrobin (HPP 261) | 0 | 2000 | 2000 |
| 13 | Prothioconazole | 0 | 1500 | 1500 |
| 14 | Cyclniliprole | 0 | 500 | 500 |
| 15 | IKF with HPP | 0 | 300 | 300 |
| 16 | BIT - Benzoisothiazol | 0 | 3500 | 3500 |
| 17 | MPDC DME | 0 | 2000 | 2000 |
| 18 | 5- MPDC (MPDC -CA) | 0 | 1500 | 1500 |
| 19 | Benzophenaf (HPP-255) | 0 | 300 | 300 |
| | Sub Total (B) | 800 | 13,750 | 14,550 |
| | Grand Total | 3,710 | 23,195 | 26,905 |
| Note: The product list is as per IA-J-11011/98/2008-IA II(I) dated 9th May, 2019. | | | | |

**Product List Required**

| S. No. | Group of Products | Products List | Group Wise Total Qty. of Products |
|---|---|---|---|
| 1 | Group-A (API Intermediate) | Gemester | 7955 |
| 2 | | Bupropion-HCl (BUP-1) | |
| 3 | | Lactum | |
| 4 | | HPP-529 (Ethyl 2 oxo pyro butanoate) | |
| 5 | | HPP-453 (Decoquinate) | |

| S. No. | Group of Products | Products List | Group Wise Total Qty. of Products |
|---|---|---|---|
| 6 | | HPP-799 (Ethyly 2 oxo pyro acetate) | |
| 7 | | HBS | |
| 8 | | Diketon | |
| 9 | | S Ester | |
| 1 | Group-B (API's) | Gabapentin | 4400 |
| 2 | | Pregablin | |
| 3 | | Gemfibrozil | |
| 4 | | Bupropion | |
| 5 | | Celecoxib | |
| 6 | | Quetiapine | |
| 7 | | Sitagliptin | |
| 8 | | Dabigatran | |
| 9 | | Canagliflozin | |
| 10 | | Dabagliflozin | |
| 11 | | Vildagliptin | |
| 12 | | Quetiapine 2/4 | |
| | | **SUB TOTAL (A)** | **12355** |
| 1 | Group-C (Crop Intermediate) | TEMPHOS | 14550 |
| 2 | | Karphos with RTY | |
| 3 | | Thiacloprid | |
| 4 | | Clothianidin | |
| 5 | | Trifloxystrobin (TFS - HPP 261) | |
| 6 | | Prothioconazole | |
| 7 | | Cyclniliprole (IKI 3106) | |
| 8 | | IKF with HPP | |
| 9 | | BIT | |
| 10 | | MPDC DME | |
| 11 | | 5 MPDC (MPDC CA) | |
| 12 | | HPP-255 | |
| 13 | | AF - 02 with intermediate | |
| 14 | | Probenazole* | |
| 15 | | NBS (HTP-521)* | |
| | | **SUB TOTAL (B)** | **14550** |
| | | **GRAND TOTAL** | **26905** |
| Note: *Product mix CCA Amendment No: AWH-112328 issue vide Letter No: GPCB/ANK/CCA-231(14)/ID-15177/591908 dated 08/06/2021 | | | |

***Deliberations in the EAC:***

The EAC made detailed deliberations on the proposal. The Committee is of the view that the project proponent has to explore the provisions given in the Ministry's Notification dated 2nd March, 2021 for product mix change. The Committee while deliberating on the

effluent management system desired that the environmental benefit and cost analysis shall require to be submitted by the project proponent. The Committee, after detailed deliberations, desired that a techno-feasibility study on the effluent treatment mechanisms along with a tabular chart on the environmental benefit and cost analysis shall be first submitted by the PP for further consideration by the Committee.

***The proposal was accordingly RETURNED in its present form.***

**Agenda No.16.6**

**Amendment in Environmental Clearance of CFCL Fertilizer plant, at P.O. Gadepan, Distriact Kota, Rajasthan by M/s Chambal Fertilisers and Chemicals - Consideration of Amendment in EC**

**[Proposal no. IA/RJ/IND3/223492/2021; File no. J-11011/664/2008-IA II (I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter no. J-11011/664/2008-IA II (I) dated 18/06/2021 for the project "CFCL Fertilizer Plant" located at P.O Gadepan, District Kota, Rajasthan in favour of M/s Chambal Fertilizers and Chemicals Ltd. (CFCL).

The project proponent has requested for amendment in the Environment Clearance with the details are as under:

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be revised/ read as | Justification/ Reasons provided by PP |
|---|---|---|---|---|
| 1. | Point 13. (b) | Para 5 A.(v) of the environmental clearance dated 21 .05.2007 shall be read as under: -<br><br>" …….. *The discharge from G-I and G-II plant in the Kalisindh River be permitted only during the rainy season when the precipitation value* is *more than 5 mm in* a *day, after meeting the stringent norms* as *prescribed. During non-* | Para 5 A.(v) of the environmental clearance dated 21 .05.2007 shall be read as under: -<br><br>" …….. *The discharge from G-I and G-II plant in the Kalisindh River be permitted only during the rainy season when the precipitation value* is *more than* 5 mm *in* a *day* ***and its succeeding 5 days,*** *after meeting the stringent norms* as | PP submitted that during rainy times, the land gets saturated with water, hence the treated effluent cannot be used for irrigation even after 4-5 days after stoppage of rains. With this fact, we again request MoEF&CC to grant the permission for consequential discharge of effluent to river for 5 days succeeding the rainy days.<br><br>In the process of applying for the CTO amendment. PP had discussed about ZLD system with the senior officials of Rajasthan State |

| | | | | |
|---|---|---|---|---|
| | | *monsoon season, when precipitation* is *less that 5 mm in day (threshold value), the discharge from G-I & G-II plant in the Kalisindh River* is *not permitted and shall be ZLD system. The Committee further desired that the concerned State Pollution Control Board from time to time shall monitor discharge from G-I & G-II plant in the Kalisindh River and ensure strict compliance of the same and report this non-compliance, if any, to this Ministry. The State Pollution Control Board shall also ensure that the River water quality remains un-deteriorated".* | *prescribed. During non-monsoon season, when precipitation* is *less than 5 mm in day (threshold value), the discharge from G-I & G-II plant in the Kalisindh River* is *not permitted and shall be ZLD system* ***where treated effluent can be used for irrigation in greenbelt within CFCL premises****. The Committee further desired that the concerned State Pollution Control Board from time to time shall monitor discharge from G-I & G-II plant in the Kalisindh River and ensure strict compliance of the same and report this non-compliance, if any, to this Ministry. The State Pollution Control Board shall also ensure that the River water quality remains un-deteriorated".* | Pollution Control Board (RSPCB) Jaipur. As per their understanding,<br>"ZLD condition gives an impression that the industry is not discharging any effluent either on the land or in the water body or at any other place including use of treated effluent for irrigation within CFCL premises."<br><br>PP request MoEF&CC to kindly clarify that the word ZLD system implies that during non-monsoon season, the treated effluent from G-I & G-II plants shall be internally utilized for irrigation of green-belt within CFCL premises and no effluent should be discharged outside the CFCL complex (to continue with existing practice). |

**Deliberations by the EAC:**

The EAC deliberated the proposal and suggested that the PP shall rework on the proposal and to submit the detailed analysis report of the treated effluent w.r.t. use of green belt developments within premises for further appraisal by the EAC. The Committee **deferred** the proposal.

**Agenda No.16.7**

**Setting up of Formaldehyde Manufacturing Unit of capacity 120 TPD located at Khewat no. 95, Khata no. 98, Village- Haldana, Tehsil- Samalkha, District- Panipat, Haryana by M/s Nandsons Industries – Consideration of TOR**

**(Proposal No. IA/HR/IND3/223503/2021; File No. IA-J-11011/309/2021-IA-II(I))**

The project proponent and the accredited consultant M/s Vardan Environet, made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of TOR for setting up of Formaldehyde Manufacturing Unit of capacity 120 TPD located at Khewat no. 95, Khata no. 98, Village- Haldana, Tehsil- Samalkha, District- Panipat, Haryana by M/s Nandsons Industries

As per EIA Notification 2006 and its subsequent amendments the project falls under schedule 5(f) "Synthetic organic chemicals industry" (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates). As the project is located outside the industrial area hence categorized as Category 'A' Project.

Change of Land Use application has been submitted to Town and Country Planning Department vide Diary No. TCP-OFA/12134/2021 dated 10.07.2021. The same is under approval.

**Production Capacity**

| Product | Proposed Production |
|---|---|
| Formaldehyde | 120 TPD |

**Raw Material Detail**

The major raw material is Methanol which comes by road through tankers from Kandla Port, Gujarat & stored in underground U/G tanks.

| Raw Material | Quantity required |
|---|---|
| Methanol | 55 TPD |

**Resource Requirement**

| S. No. | Particular | Detail |
|---|---|---|
| 1 | Land Requirement | Total area for the proposed unit is 0.5362 Hectare. |
| 2 | Water Requirement | 80 KLD water will be required for the proposed unit.<br>Source: Ground Water<br>Approving Authority: Haryana Water Resources Authority |
| 3 | Power Requirement | 275 KW power will be required.<br>Source: UHBVN (Uttar Haryana Bijli Vitran Nigam)<br>DG sets as backup: 2x200 KVA |
| 4 | Boiler | 750 kg/hr HSD fired boiler is proposed |
| 5 | Manpower Requirement | |

| S. No. | Particular | Detail |
|---|---|---|
| | | Approx. 25 persons will be required at the plant |
| 6 | Cost of the Project | Rs.10 Crores |

**National Parks or Wild Life Sanctuary:** PP reported that there is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site. No NBWL Clearance required.

**Deliberations by the EAC:**

The Committee noted that there are two Units of M/s Nandsons Industries (One is in District Panipat and other is in District Sonipat near Murthal). However, PP/Consultant was unable to show both the locations on KML. The EAC want to know the details of constructions, if any, done by the PP or not.

The Member Secretary informed the Committee that this sector had received applications regarding manufacturing of Formaldehyde wherein PP is involved in the manufacturing of Formaldehyde and the Units were operating without prior EC. As per the extant provisions the manufacturing of Formaldehyde requires a prior Environment Clearance under the provisions of the EIA Notification, 2006. All such units attracting the said provisions are allowed to commence their activities only after obtaining the prior Environment Clearance. In this context, the SPCBs had already instructed to take necessary actions against such Units.

The Committee is of the view that PP shall first confirm whether any other unit of the PP is already in existence for manufacturing of Formaldehyde or not or construction activities completed or not. The PP shall submit all the details. The Committee, after detailed deliberation, **deferred** the proposal for clarification mentioned above. The PP shall submit the reply immediately otherwise necessary action against the PP to be taken, if found violating the provisions of the EIA Notification, 2006.

**DAY 1 - 2nd SEPTEMBER, 2021 (THURSDAY)**

**Agenda No. 16.8**

**Expansion for Mfg of Phenol Formaldehyde Resin@300 MT/M, MF Resin@300 MT /M, UF Resin@700 MT /M in Existing Unit (Mfg of Ind. laminated Sheets / Decorative Laminated Sheets@100000 No./M) by M/s Platinium Laminates, located at S. No. 760, Village Isanpur Dodiya, Taluka Dehgam, District Gandhinagar, Gujarat -Consideration of Environmental Clearance**

**[Proposal No.: IA/GJ/IND2/107855/2019; File No. IA-J-11011/206/2019-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Bhagwati Enviro Care Pvt. Ltd. made a detailedpresentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion for Mfg of Phenol Formaldehyde Resin@300 MT/M, MF Resin@300 MT /M, UF Resin@700 MT /M in Existing Unit (Mfg of Ind. laminated Sheets / Decorative Laminated Sheets @100000 No. /M) at Survey No. 760, Village – Isanpur Dodiya, Tal: Dehgam, Dist: Gandhinagar – 382308 by M/s. Platinium Laminates.

The details of products and capacity as under:

| S. No. | Product Details | Capacity | | |
|---|---|---|---|---|
| | | Existing (Qty) | Proposed (Qty) | Total (Qty) |
| 1. | Industrial Laminated Sheet / Decorative Laminated Sheet* | 1,00,000 Nos/Month | - | 1,00,000 Nos/Month |
| 2. | Phenol Formaldehyde Resin | - | 300 MT/month | 300 MT/month |
| 3. | Melamine Formaldehyde Resin | - | 300 MT/month | 300 MT/month |
| 4. | Urea Formaldehyde Resin | - | 700 MT/month | 700 MT/month |

The project/ activities are listed at S.N 5(f) “Synthetic Organic Chemicals” of schedule of Environment Impact Assessment (EIA) notification under category ‘A’ and is appraised at central level by Expert Appraisal Committee (EAC). TOR has been issued by Ministry vide letter No.J -11011/206/2019-IA-II(I) dated 19-07-2019. Public Hearing for the proposed project has been conducted by the State Pollution control board on 08/12/2020. The main issues during the public hearing are related to waste water disposal and air pollution control, CER Activity etc. No litigation pending against the existing unit. Ministry had not issued earlier EC to the project.

Existing land area is 8803 $m^2$. No additional land will be required for proposed expansion. Industry has already developed greenbelt and remaining will be developed for complete 33 % of Total Project Area. i.e., 2904 $m^2$ out of total area of the project.The estimated project cost is Rs 9.61 Crore including existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 68.33 lac and the Recurring cost (operation and maintenance) will be about Rs 23.5 lac per annum. Total Employment will be 60 Persons as direct & 20 person indirect after expansion (Including Laminated Unit & Resin Plant). Industry proposes to allocate Rs 0.89 lac of the proposed project cost 0.89 crore. i.e. 1.0 % towards CER.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Narmada Canal is flowing at a distance of 1.85 km in direction SSW direction.

Ambient air quality monitoring was carried out at Eight locations during October-December 2019 and the baseline data indicates the ranges of concentrations as: PM10 (55.18 to 84.79

µg/m3), PM2.5 (17.79 to 44.58 µg/m3), SO2 (5.22 to 15.36 µg/m3), NO2 (12.99 to 30.03 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.56621 µg/m3, 1.61904 µg/m3 and 0.95611 µg/m3, 0.31870 µg/m3 with respect to PM2.5, PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 35 $m^3$/day of which fresh water requirement of 32.2 m3/day will be met from Borewell & 2.8 $m^3$/day will be treated reuse water. Generated effluent @1.7 KLPD from PF Resin process will be treated through photo Fenton Process by O2 supply in oxidation vessel & Phenol degradation will take place in presence of sun light or UV lamp. During rainy and winter season the Photo Fenton process will be carried out into the closed vessel which contain UV lamp. This effluent will be finally evaporated in evaporator. Low COD effluent @ 3.5 KLPD generated from Boiler, Cooling, scrubbing waste & Other utilizes will be treated in Primary treatment units, Pressure sand and activated carbon filter followed by RO. RO Permeate water @ 2.8 KLPD will be reused in cooling, scrubbing & ash suppression whereas RO Rejected water @ 0.7 KLPD will be evaporated in In-house evaporation. So, Unit will achieve Zero Liquid Discharge.

Power requirement after expansion will be 60 KVA including existing KVA and will be met from UGVCL (Uttar Gujarat Vij Co. Ltd). Unit has DG sets of additionally DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 01 fired boiler (6 TPH). Additionally, 01 TFH (18 lac Kcal/Hr) will be installed. Multi Cyclone Separator, Bag Filter & water scrubber with a common stack height of 30 m is installed for controlling the Particulate emission within the statutory limit of 115 µg/m3 for the existing & proposed flue gas stacks. There is process gas emission from Existing Dryers (5 nos.), Sanding machines and Cutting machines for which adequate activated carbon column and Dust Collector are provided.

**Details of Solid waste/ Hazardous waste generation and its management:**

| S. No. | Type of Hazardous Waste | Source | Cat. No. | Quantity Per Annum | | | Mode of Disposal |
|---|---|---|---|---|---|---|---|
| | | | | As per CTE | As per TOR | Total | |
| 1 | ETP sludge/Evaporation residue | ETP | 35.3 | 0.5 MT | 1.0 MT | 1.500 MT | Collection, Storage & Disposal at TSDF site |
| 2 | Used Oil | Lubrication / D.G. set | 5.1 | 0.011 MT | 0.022 MT | 0.033 MT | Collection, Storage & reuse in plant & machinery and sale to registered recycler |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **3** | Discarded Container/ drums/bags | Production Area | 33.1 | 1500 Nos | 500 Nos | 2000 Nos | Collection, Storage and return back to supplier or Sale to Register Recycler. |
| **4** | Resin residue | Process | 23.1 | 0.25 MT | 0 | 0.25 MT | Collection, Storage & Reuse or Disposal at CHWIF |
| **5** | Spent Carbon | ETP | 36.2 | 0.2 MT | 0.1 MT | 0.3 MT | Collection, Storage & Disposal at CHWIF |
| **6** | Spent Ion exchange resin | RO plant | 35.2 | 0 | 0.1 MT | 0.1 MT | Collection, Storage & Disposal at TSDF site |

***Deliberations in the EAC:***

The EAC made detailed deliberations on the proposal. The Committee noted that the PP proposed to set up Resin manufacturing in the existing laminated sheet manufacturing complex. The Committee noted that the water balance requires optimization by improving recycle/reuse of treated water, and PP needs to submit additional requisite information. The Committee after detailed deliberations desired for additional information/input in respect of the following:

(i). Revised water balance with improvement in recycle/reuse.

(ii). Copy of NOC from CGWA for existing water use and compliance of the same. Status of the water application for proposed project.

(iii). Detailed solvent recovery and management plan.

(iv). Revised greenbelt plan (with ~2500 trees) along with budgetary allocations.

(v). Commitment that briquette or cleaner fuels shall be used in the unit.

(vi). Copy of existing CTO along with its compliance status certified by SPCB.

*(vii).* Detailed Conservation *plan submitted with State Forest/Wildlife Department.*

*(viii). Action Plan alongwith timelines and budgetary allocations on the issue raised during PH needs to be submitted.*

***The proposal was accordingly DEFERRED for the needful.***

**Agenda No. 16.9**

**Proposed Specialty Chemical, Pesticides Intermediates & Pesticide Technical (1005 Mt/Month) Manufacturing Plant At Plot No: T/75, Saykha Industrial Estate, Ta: Vagra, Dist: Bharuch, Gujarat of M/s Krishna Solvechem Ltd.-Consideration of Environmental Clearance**

**[Proposal No.: IA/GJ/IND3/196841/2021; File No. IA-J-11011/48/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up Specialty Chemicals, Pesticides Intermediates & Pesticides Technical Manufacturing Plant (1005 MT/Month) at Plot No: T/75, Saykha Industrial Estate, Ta: Vagra, Dist: Bharuch (Gujarat) India by M/s. Krishna Solvechem Ltd.

The details of products and capacity as under:

| S. No. | Name of Products | CAS No | Quantity MT/Month | End Use | Category |
|---|---|---|---|---|---|
| | **GROUP 1: BROMINATION COMPOUNDS** | | | | |
| 1 | Iso Butyl Bromide | 78-77-3 | 150 | Used as an Intermediate in 1-Ethyl-3-Methyl Imidazolium Bromide | 5 (f) |
| 2 | N-Butyl Bromide | 109-65-9 | | Used as an Pharmaceutical Intermediate in Hyoscine Butyl bromide | 5 (f) |
| 3 | Iso Propyl Bromide | 75-26-3 | | Used as an Intermediate | 5 (f) |
| 4 | N-Propyl Bromide | 106-94-5 | | Used as an Intermediate in Tetrachloroethylene | 5 (f) |
| 5 | N-Hexyl Bromide | 111-25-1 | | Used as an Intermediate Staphylococcus | 5 (f) |

| | | | | | |
|---|---|---|---|---|---|
| 6 | N-Octyl Bromide | 111-83-1 | | Used as an Intermediate<br>Propyl amine | 5 (f) |
| 7 | Iso Amyl Bromide | 107-82-4 | | Used as an Intermediate<br>Pentyl Peroxide Radical | 5 (f) |
| 8 | Tertiary Butyl Bromide | 507-19-7 | | Used as an Pharmaceutical<br>Intermediate Adenine | 5 (f) |
| 9 | N-Amyl Bromide / N-Pentyl<br>Bromide | 110-53-2 | | Used as Alkylation reagent,<br>intermediate for Flavours<br>and Fragrances &<br>Pharmaceuticals | 5 (f) |
| 10 | Sodium Bromide | 7647-15-6 | | Used as a Active Pharmaceutical Ingredient Hypnotic, Anticonvulsant Drugs | 5 (f) |
| 11 | Bromo Benzene | 108-86-1 | | Used as a Pharmaceutical<br>Intermediate for<br>Phencyclidine | 5 (f) |
| 12 | Allyl Bromide | 106-95-6 | | Used as a Pharmaceutical<br>Intermediate for Alcofenac, Albanol, Aprobarbital, Butalbital | 5 (f) |
| 13 | Ethyl Bromide | 74-96-4 | | Used as a Pharmaceutical<br>Intermediate for Tamoxifen | 5 (f) |
| 14 | 1-Bromo-3-Chlorine Propane | 109-70-6 | | Used as a Pharmaceutical<br>Intermediate for Chloroform | 5 (f) |
| 15 | 1,2-Di Bromo Ethane | 106-93-4 | | Used as a Pharmaceutical<br>Intermediate for Gasoline | 5 (f) |
| 16 | Cyclo Pentyl Bromide | 137-43-9 | | Used as a Pharmaceutical<br>Intermediate for | 5 (f) |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Glycopyrrolate | |
| 17 | Tertiary Butyl Bromo Acetate | 5292-43-3 | | Used as a Pharmaceutical Intermediate for Oligosaccharide | 5 (f) |
| 18 | 1,4-Dibromo Butane | 110-52-1 | | Used as a Pharmaceutical Intermediate for Aripiprazole | 5 (f) |
| 19 | Bronopol /2-Bromo-2-Nitro propane-1,3-Diol | 52-51-7 | | Used as a Pharmaceutical Antimicrobial Agent | 5 (f) |
| 20 | Mono Bromo Acetic Acid | 79-08-3 | | Used as a Pharmaceutical Intermediate for C-Peptide | 5 (f) |
| 21 | N-Bromo Succinimide | 128-08-5 | | Used as a Pharmaceutical Intermediate for Tramadol | 5 (f) |
| 22 | Tetra Butyl Ammonium Bromide | 1643-19-2 | | Used as a Intermediate polyamide | 5 (f) |
| 23 | Methyl Magnesium Bromide (THF) | 109-99-9 | | -- | 5 (f) |
| 24 | 2-Bromo Ethyl Butyrate | 533-68-6 | | Used as a Pharmaceutical Intermediate for Leveticetaum | 5 (f) |
| 25 | Ethyl Bromo Pyruvate | 70-23-5 | | Used as a Pharmaceutical Intermediate for Thiabendazole | 5 (f) |
| 26 | 2-Phenoxy Ethyl Bromide | 589-10-6 | | Used as a Pharmaceutical Intermediate for Tamsulosin | 5 (f) |
| 27 | Para Nitro Benzyl Bromide | 100-11-8 | | Used as a Pharmaceutical | 5 (f) |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Intermediate for Cefaclor, Rizatriptan | |
| 28 | Meta Bromo Anisole | 104-92-7 | | Used as a Pharmaceutical Intermediate for Raloxifene | 5 (f) |
| 29 | Meta Bromo Nitrobenzene | 585-79-5 | | Used as a Pharmaceutical Intermediate for Quinoline | 5 (f) |
| 30 | Para Bromo Nitrobenzene | 586-78-7 | | Used as Intermediate for Bronopol | 5 (f) |
| 31 | 4-Bromo 2-Chloro Phenol | 3964-56-5 | | Used as a Pharmaceutical Intermediate for oxazine | 5 (f) |
| 32 | Lithium Bromide Soln (55%) | 7550-35-8 | | Used as a Pharmaceutical Intermediate for Prostaglandin | 5 (f) |
| 33 | Calcium Bromide Soln (52%) | 7789-41-5 | | Used for Food Industry, Photography, Neuroses Medication, Freezing | 5 (f) |
| 34 | 2- Amino -5-Bromopyridine | 1072-97-5 | | Used for Polycyclic Azaarenes. | 5 (f) |
| 35 | 2- Bromo Pyridine | 109-04-6 | | Used as a Pharmaceutical Intermediate for Atazanavir | 5 (f) |
| 36 | 2,6- Dibromo Pyridine | 626-05-1 | | Used as a Pharmaceutical Intermediate for Acrivastine, Flupirtine | 5 (f) |
| 37 | Pyridine Hydro bromide | 18820-82-1 | | Used as a Pharmaceutical Intermediate for Cephalosporin | 5 (f) |

| | | | | | |
|---|---|---|---|---|---|
| 38 | 4- Bromo Pyridine Hydrochloride | 19524-06-2 | | Used as a Pharmaceutical Intermediate for Tradipitant | 5 (f) |
| 39 | Methyl 2-Bromo Butyrate | 3196-15-4 | | -- | 5 (f) |
| 40 | 3,4- Dichloro Bromobenzene / 1- Bromo 3,4 - Dichloro Benzene | 18282-59-2 | | -- | 5 (f) |
| 41 | Para Chloro Bromobenzene | 106-39-8 | | Used as an Intermediate of 3-Phenyl-5-Quinoline Methanol | 5 (f) |
| 42 | Para Fluoro Bromobenzene | 460-00-4 | | Used as an Intermediate of Atypical Antipsychotic Agents. | 5 (f) |
| 43 | 1-Bromo-5-Chloro Pantane | | | --- | 5 (f) |
| 44 | 3- Bromo Benzaldehyde | 3132-99-8 | | Used as an Intermediate of Meta Phenoxy Benzaldehyde | 5 (f) |
| 45 | Para Bromo Anisole | 104-92-7 | | Used in RN Extraction Which Serves to Further Eliminate DNA Contamination | 5 (f) |
| 46 | Para Bromo Toluene | 106-38-7 | | Used as a Pharmaceutical Intermediate for Losartan, Irbesartan | 5 (f) |
| 47 | HBr in Acetic Acid | 37348-16-6 | | Inorganic Bromides, Especially the Bromides of Zinc, Calcium, and Sodium. | 5 (f) |
| 48 | Di Bromo Dimethyl Hydantion | 77-48-5 | | Useful in Aromatic | 5 (f) |

| | | | | | |
|---|---|---|---|---|---|
| | /1,3-Di Bromo 5,5-Dimethyl Hydantion | | | Bromination of Alkoxybenzoic Acids and in Bromo Fluorination of Alkenes. | |
| 49 | 5- Bromo -2-Fluropyridine | 766-11-0 | | Used as a Pharmaceutical Intermediate for Piperidines | 5 (f) |
| 50 | 2- Chloro -4-Bromopyridine | 73583-37-6 | | Used as a Pharmaceutical Intermediate for Nemertelline | 5 (f) |
| 51 | 4- Bromopyridine | 1120-87-2 | | Used as a Pharmaceutical Intermediate | 5 (f) |
| 52 | 3-Bromopyridine/5-Bromopyridine | 626-55-1 | | Used as a Pharmaceutical Intermediate for Ofloxacin | 5 (f) |
| 53 | 2- Bromo-6-(Bromomethyl) Pyridine | 83004-10-8 | | Used as Phosphorylation and Dephosphorylation | 5 (f) |
| | **GROUP 2: CHLORINATION COMPOUNDS** | | | | |
| 54 | 4-Chloro Benzoyl Chloride | 122-01-0 | | Used as a Pharmaceutical Intermediate for Indomethacin, Dimethomorph | 5 (f) |
| 55 | N-Butyl Chloride | 109-69-3 | | Used as a Pharmaceutical Intermediate & Phenylbutazone | 5 (f) |
| 56 | Iso Butyl Chloride | 513-36-0 | | Used as a Pharmaceutical Intermediate for Ibuprofen | 5 (f) |
| 57 | N-Hexyl Chloride | 544-10-5 | | -- | 5 (f) |
| 58 | N-Pentyl Chloride | 543-59-9 | | -- | 5 (f) |
| 59 | Cyclo Hexyl Chloride | 542-18-7 | | -- | 5 (f) |
| 60 | Chloro Acetyl Chloride | 79-04-9 | | Used as a Intermediate for Acetophenone | 5 (f) |

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| 61 | Propionyl Chloride | 79-03-8 | 150 | Used as a Pharmaceutical Intermediate for loxoprofen | 5 (f) |
| 62 | 3-Chloro Propionyl Chloride | 625-36-5 | | Used as a Pharmaceutical Intermediate for Beclamide | 5 (f) |
| 63 | 2-Ethyl Hexanoyl Chloride | 760-67-8 | | Used as a Pharmaceutical Intermediate for Isoniazid | 5 (f) |
| 64 | Octanoyl Chloride | 111-64-8 | | Used as a Pharmaceutical Intermediate for 2 - Propyl octanoic acid | 5 (f) |
| 65 | N-Valeroyl Chloride | 638-29-9 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 66 | Isobutyril Chloride | 79-30-1 | | Used as a Pharmaceutical Intermediate for Polyethylene Amine | 5 (f) |
| 67 | N-Butyryl Chloride | 141-75-3 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 68 | Methoxy Acetyl Chloride | 38870-89-2 | | Used as a Pharmaceutical Intermediate for β-Lactamase | 5 (f) |
| 69 | Lauroyl Chloride | 112-16-3 | | Used as a Pharmaceutical Intermediate for 3-Amino Tetradecanoic acid | 5 (f) |
| 70 | Cyclo Hexanoyl Chloride | 2719-27-9 | | Used as a Pharmaceutical Intermediate for Praziquantel | 5 (f) |
| 71 | Pivaloyl Chloride | 3282-30-2 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 72 | Acetyl Chloride | 75-36-5 | | Used as a Pharmaceutical | 5 (f) |

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| | | | | Intermediate for Diazepam | |
| 73 | Trityl Chloride | 76-83-5 | | Used as a Pharmaceutical Intermediate for Cefotaxime, Ceftazidime, Losartan potassium, Remoxiprode, Zidovudine | 5 (f) |
| 74 | Lauryl Chloride | 112-57-1 | | Used as a Pharmaceutical Intermediate for Lauryl Pyridinium Chloride | 5 (f) |
| 75 | Cetyl Chloride / Palmityl Chloride | 01-03-4860 | | Used as a Pharmaceutical Intermediate for Cetyl Pyridinium Chloride | 5 (f) |
| 76 | Stearyl Chloride | 3386-33-2 | | Used as a Pharmaceutical Intermediate for Shimofuridin | 5 (f) |
| 77 | Decyl Chloride/1-Chloro Decane | 1002-69-3 | | Used as a Pharmaceutical Intermediate for Atovaquone | 5 (f) |
| 78 | Palmitoyl Chloride | 112-67-4 | | Used as a Pharmaceutical Intermediate for Chloramphenicol Palmitate | 5 (f) |
| 79 | 4-Chloro Butyryl Chloride | 4635-59-0 | | Used as a Pharmaceutical Intermediate for Clozapine | 5 (f) |
| 80 | 2-Chloro Propionyl Chloride | 08-09-7623 | | Used as a Pharmaceutical Intermediate for loxoprofen Sodium | 5 (f) |
| 81 | Oxalyl Chloride | 79-37-8 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 82 | 2-Methoxy Ethyl Chloride | 627-42-9 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |

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| 83 | 2-Propoxy Ethyl Chloride | 42149-74-6 | | Used as a Pharmaceutical Intermediate for Ibuprofen, Naproxen | 5 (f) |
| 84 | Iso Nonanoyl Chloride | 36727-29-4 | | Used as a Pharmaceutical Intermediate for Barbituric Acid | 5 (f) |
| 85 | Iso Octyl Chloride | 73772-39-1 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 86 | Neo Decanoyl /7,7-Dimethyloctanoyl Chloride | 40292-82-8 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 87 | Un Decanoyl Chloride | 17746-05-3 | | Used as a Pharmaceutical Intermediate for Doxycycline Hyclate | 5 (f) |
| 88 | 2-Chloro Ethyl Amine Hydrochloride | 870-24-6 | | Used as a Pharmaceutical Intermediate for Ifosfamide | 5 (f) |
| 89 | Bis 2-Chloro Ethyl Amine Hydrochloride | 821-48-7 | | Used as a Pharmaceutical Intermediate for Aripiprazole, Batoprazine, Itraconazole, Ketoconazole, Naluzotan, Trazodone | 5 (f) |
| 90 | Methyl 3-Acetyl Chrotonate | 623-70-1 | | -- | 5 (f) |
| 91 | Benzo Trichloride/Trichloro Methyl Benzene | 98-07-7 | | Used as a Pharmaceutical Intermediate for Benzoyl Chloride | 5 (f) |
| 92 | Phenyl Acetyl Chloride | 103-80-0 | | Used as a Pharmaceutical Intermediate for vialinin A | 5 (f) |
| 93 | Benzoyl Chloride | 98-88-4 | | Used as a Pharmaceutical Intermediate for Tennin | 5 (f) |

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| 94 | Benzyl Chloride | 100-44-7 | | Used as a Pharmaceutical Intermediate for Acamprosate, Amantadine | 5 (f) |
| 95 | Benzal Chloride | 98-87-3 | | Used as a Pharmaceutical Intermediate for Acamprosate, Amantadine | 5 (f) |
| 96 | Ortho Chloro Benzoic Acid | 118-91-2 | | Used as a Pharmaceutical Intermediate for Mefenamic Acid, Meselamine | 5 (f) |
| 97 | 2,4,6-Trimethyl Benzoyl Chloride | 938-18-1 | | Used as a Pharmaceutical Intermediate for Pyrimidine | 5 (f) |
| 98 | 3,5-Dimethyl Benzoyl Chloride | 6613-44-1 | | -- | 5 (f) |
| 99 | Isophthaloyl Chloride | 99-63-8 | | Used as a Pharmaceutical Intermediate for Zinc Oxide | 5 (f) |
| 100 | Terephthaloyl Chloride | 100-20-9 | | Used as a Pharmaceutical Intermediate for Meropenem | 5 (f) |
| 101 | 2-Furoyl Chloride | 527-69-5 | | Used as a Pharmaceutical Intermediate for Mometasone | 5 (f) |
| 102 | 2-Chloro Benzoyl Chloride | 609-65-4 | | Used as a Pharmaceutical Intermediate for Thiourea, Chlorphoxin, Clofentezine, Fenarimol | 5 (f) |
| 103 | 4-Methoxy Benzoyl Chloride | 100-07-2 | | Used as a Pharmaceutical Intermediate for Stilbene, Dihydrostilbene | 5 (f) |

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| 104 | 3-Methoxy Benzoyl Chloride | 1711-05-3 | | Used as a Pharmaceutical Intermediate for Phosphoinositide 3-kinase | 5 (f) |
| 105 | 3-Chloro Benzoyl Chloride | 618-46-2 | | Used as a Pharmaceutical Intermediate for Phenzainamine | 5 (f) |
| 106 | 2,3-Dichloro Benzoyl Chloride | 2905-60-4 | | Used as a Pharmaceutical Intermediate for Xanthine Oxidase Inhibitory | 5 (f) |
| 107 | 2,4-Dichloro Benzoyl Chloride | 89-75-8 | | Used as a Pharmaceutical Intermediate for Sarcosine | 5 (f) |
| 108 | 3,4-Dichloro Benzoyl Chloride | 3024-72-4 | | Used as a Pharmaceutical Intermediate for lamotrigine | 5 (f) |
| 109 | 3,5-Dichloro Benzoyl Chloride | 2905-62-6 | | Used as a Pharmaceutical Intermediate for Sulfonamide | 5 (f) |
| 110 | 4-Methyl Benzoyl Chloride | 874-60-2 | | Used as a Pharmaceutical Intermediate for Desloratadine | 5 (f) |
| 111 | 2-Methyl Benzoyl Chloride | 933-88-0 | | Used as a Pharmaceutical Intermediate for Phenoxy Strobin, Trifloxystrobin | 5 (f) |
| 112 | 4-Chloro Phenyl Isocyanate | 104-12-1 | | Used as a Pharmaceutical Intermediate for Isothiocyanates | 5 (f) |
| 113 | 2,4 – Dichloro Benzyl Chloride | 94-99-5 | | Used as a Pharmaceutical Intermediate for Miconazole | 5 (f) |
| | **GROUP 3: SPECIALTY CHEMICALS** | | | | |
| 114 | 2,4 Difluoro Acetophenone | 86404-63-9 | | -- | 5 (f) |

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| 115 | 3-Chloro Phenol | 108-43-0 | 150 | Used as Antimicrobial Agent as well as used as Antifungal Agent in Pesticides | 5 (f) |
| 116 | Phenyl Hydrazine | 100-63-0 | | Used as Fischer Indoles | 5 (f) |
| 117 | Phenyl Hydrazine HCl | 59-88-1 | | -- | 5 (f) |
| 118 | Acetyl Acetone | 123-54-6 | | Used as Chemical Intermediate Sulphamethazine, Nicarbazine | 5 (f) |
| | **GROUP 4: SPECIFIC PESTICIDE INTERMEDIATES** | | | | |
| 119 | Meta Phenoxy Benzaldehyde (MPBAD) | 39515-51-0 | 150 | Used as a Pesticides Intermediate of Cypermethrin, Permethrin, Alphacypermethrin & Other Synthetic Pyrethroid | 5 (b) |
| 120 | Lambda Cyhalothric Acid Chloride | 72748-35-7 | | Used as a Pesticides Intermediate for Bifenthrin, Tefluthrin & Lambda Cyhalothrin | 5 (b) |
| 121 | 2- Chloro 5-Chloromethyl Pyridine (CCMP) | 70258-18-3 | | Used as a Pesticides Intermediate for Acetamiprid, Imidacloprid & Thiacloprid | 5 (b) |
| 122 | N- Nitro Imino Imidazolidine (NII) | 5465-96-3 | | Used as a Pesticides Intermediate for Imidacloprid | 5 (b) |
| 123 | 2,5 Dichloro Phenol | 583-78-8 | | Used as a Pesticides Intermediate of Dicamba Fungicide | 5 (b) |
| 124 | 2,4 & 2,6 Dichloro Phenol | 120-83-2 | | Used as a Pesticides Intermediate for Triclosan | 5 (b) |
| 125 | 2-[2-(4-Chlorophenyl) Ethyl]-2- (1,1-Dimethyl Ethyl) Oxirane | 80443-63-6 | | Used as a Pesticides Intermediate for Tebuconazole | 5 (b) |
| 126 | 2,4 Dichloro Acetophenone | 2234-16-4 | | Pesticides Intermediates for Bactericide (Imazalil, | 5 (b) |

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| | | | | Propiconazole, Etaconazole), Insecticide (Clofenvinphos), Herbicide (Difenzoquat), ketoconazole | |
| 127 | 2(4-Hydoxy Phenoxy) Propionic Acid (4HPPA) | 94050-90-5 | | Pesticides Intermediates for Aryloxy Phenoxy Propionic Acid | 5 (b) |
| | **GROUP 5: PESTICIDES TECHNICAL PRODUCT** | | | | |
| | **INSECTICIDES** | | | | |
| 128 | Cypermethrin | 52315-07-8 | 200 | Used to control Cockroaches, Fleas & other Indoor Pests, control ectoparasites which infest cattle, sheep & poultry, Control moth in cotton, fruits & vegetable crops. | 5 (b) |
| 129 | Permethrin | 52645-53-1 | | Used to control pests such as fleas, ticks, cockroaches, flies & mosquitoes also control pests on veggies, fruits, nuts, ornaments, mushrooms, potatoes & cereal crops. | 5 (b) |
| 130 | Alpha Cypermethrin | 67375-30-8 | | Used to control weevils, moths, caterpillars, mites, bollworm, budworm, green mirid, cutworms' aphids, wireworms etc. | 5 (b) |
| 131 | Deltamethrin | 52918-63-5 | | Used to control pear suckers, plum fruit moth, caterpillars on brassicas, pea moth, aphids (apples, plums, hops), winter moth (apples & plums), codling & tortrix moths (apples). | 5 (b) |

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| 132 | Lambda Cyhalothrin | 91465-08-6 | | Used to control wide range of pests Aphids, Colorado beetles butterfly larvae, bollworms, jassids, thrips in cotton, leaf rollers in rice, spider, and mites in cotton, cereals, potatoes & vegetables. | 5 (b) |
| 133 | Chlorpyriphos | 2921-88-2 | | Used to control termites, mosquitoes, roundworms, armyworms, aphids, potato leafhoppers, mealybug, rust mites, leaf miner, rootworm, white grub etc. | 5 (b) |
| 134 | Imidacloprid | 138261-41-3 | | Used to control Sucking Insects such as hoppers, aphids, thrips, whiteflies, turf insects, soil insects & some beetles. | 5 (b) |
| | **HERBICIDES** | | | | |
| 135 | 2,4 D Acid (2,4-Dichloro Phenoxy Acetic Acid) | 94-75-7 | 100 | Controls of Broad leaf Weeds Crops | 5 (b) |
| 136 | 2,4 D Ethyl Ester | 533-23-3 | | Controls of Broad leaf Weeds Crops | 5 (b) |
| 137 | Glyphosate | 1071-83-6 | | Used to control broad leaf weeds, grasses, sedges | 5 (b) |
| | **FUNGICIDES** | | | | |
| 138 | Propiconazole | 60207-90-4 | 100 | Used for agriculturally as a fungicide on turf grasses grown for seed and aesthetic or athletic value, wheat, mushrooms, corn, wild, rice, peanuts, almonds, sorghum. Oats, apricots, peaches, nectarines, plums and lemons. | 5 (b) |

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| 139 | Tebuconazole | 107534-96-3 | | Used agriculturally to treat plant pathogenic fungi mainly rust fungus, sheath blight, leaf spot, and anthracnose. | 5 (b) |
| | **GROUP 6: RESEARCH & DEVLOPMENT BASED PRODUCTS** | | | | |
| 140 | Research & Development Based Products | | 5 | -- | |
| | **TOTAL** | | **1005** | | |

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' and 5(f) 'Synthetic Organic Chemicals Industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by Ministry vide letter No. J-11011/48/2021-IA II (I); dated 05th Mar 2021. Unit is located in PCPIR region of Notified Industrial estate of GIDC Saykha. PCPIR obtained Environment clearance in September, 2017. Hence, Public hearing is exempted. There is no litigation against the proposal.

PP reported that total 5462 sq.m. land area is available for proposed project. Industry will develop Greenbelt in an area of 33% i.e., 1800 sq. meter. The estimated project cost is Rs. 20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 15 Crores per annum. Employment will be 15 nos. persons as direct and 15 nos. persons indirect for proposed project. Industry proposes to allocate of Rs. 40 Lakhs (approx.) in next 1 years @ of 2.0% of the project cost towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River/ waterbody Narmada is flowing at distance of 14.22 Km in South direction.

Ambient air quality monitoring was carried out at 11 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (71.9 – 75.8 µg/m3), PM2.5 (40.5 – 45.6 µg/m3), SO2 (10.02 – 14.4 µg/m3) and NO2 (11.3 – 16.2 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.002 µg/m3, 0.001 µg/m3 and 0.067 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 267 KLD of which fresh water requirement of 227 KLD and will be met from GIDC Water Supply. Effluent of 188 KLD quantity will be treated through Primary treatment, MEE, RO and SBT facilities and then effluent will be sent to CETP for further treatment. The wastewater generations will 188.0 KL/Day (183.0 KL/Day Industrial + 5.0

KL/Day Domestic). 5.0 KL/Day from Domestic will be treated in STP & treated waste water shall be reused for Gardening, Cooling & Washing purposes. 7.0 KL/Day Waste water from Scrubbing System, which is mainly Hazardous Waste / By Products from respective gases such as HCl, HBr, $SO_2$ etc. are sold out to actual End users under Rule-9. Concentrated Stream: 161.0 KL/Day wastewater (159.0 KL/Day Process + 2.0 KL/Day from Floor/ Equipment Washings) shall be separate in to two stream. Stream – I (30 KL/Day) from specialty Chemicals will be treated in Primary ETP and then sent to RO system and RO permeate will be reuse within plant premises. Stream – II (131 KL/Day) from other Products & RO reject (10 KL/Day) will be treated in primary + Fenton treatment then subjected to MEE system and MEE condensate will be sent to SBT after treatment it's finally disposed of to CETP of Saykha Industrial Estate. Utility Stream- 15.0 KL/Day effluent (3.0 KL/Day from Boiler + 12.0 KL/Day from Cooling Tower) will be treated in RO, & RO permeate (11.0 KL/Day) will be reused in industrial purpose whereas RO reject (4.0 KL/Day) will be send to the primary lamella.

Power requirement for proposed project will be 150 KVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 1 No. DG sets of 150 KVA capacity is used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

Unit will have 1 Nos. TPH (Capacity: 1.0 Lac Kcal/Hr) and 1 Nos. of Steam Boiler (Capacity: 2.0 MT/Hr) will be installed. And 2.0 TPH Boiler, Thermic Fluid Heater (1 Lac Kcal/Hr) & D.G. Set with a stack of height of 18 m, 18 m & 11 m will be installed for controlling the particulate emissions (within the statutory limit of 150 mg/$Nm^3$) respectively.

**Details of Process emissions generation and its management.**

**Flue Gas Stack**

| S. No. | Source of Emission With Capacity | Stack Height (Meter) | Type of Fuel | Quantity of Fuel | Type of Emissions i.e. Air Pollutants | Air Pollution Control Measures (APCM) |
|---|---|---|---|---|---|---|
| 1. | Steam Boiler (Capacity: 2 MT/Hr) | 18 | Natural Gas | 4000.0 SCM/Day | PM $\leq$150 mg/$Nm^3$<br>$SO_2 \leq$100 ppm<br>NOx$\leq$50 ppm | Adequate Stack Height |
| 2. | TFH (Capacity: 1 Lac Kcal/hr) | 18 | Natural Gas | 500.0 SCM/Day | | Adequate Stack Height |
| 3. | D. G. Set (150 KVA) | 11 | HSD | 120 Liters/day | | Adequate Stack Height |

**Process Stack**

| S. No. | Vent attached to | Stack Height | Pollutants | Air pollution Control System |
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| 1 | Reaction Vessel | 11 Meters | HCl | Two Stage Water Scrubber |
| 2 | Reaction Vessel | 11 Meters | Br2/Cl2 | Two Stage Water Scrubber + Caustic Scrubber |
| 3 | Reaction Vessel | 11 Meters | HBr | Two Stage Water Scrubber |
| 4 | Reaction Vessel | 11 Meters | SO2 + HCl | Two Stage Scrubber First water for HCl & second stage Alkali for SO2 scrubbing |

**Details of Solid waste/ Hazardous waste generation and its management:** 28 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

| S. No | Name of Waste | Source of Generation | Cat No. | Proposed Quantity (MT/Annum) | Disposal Method |
|---|---|---|---|---|---|
| 1 | Discarded Containers / Bags / Liners | Storage & handling of Raw Materials | Sch-I/ 33.1 | 15.0 | Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler. |
| 2 | Used / Spent Oil | Equipment & Machineries | Sch-I/ 5.1 | 5.0 | Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler. |
| 3 | Distillation Residue | Distillation Process | Sch-I/ 36.1 | 1351.0 | Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site. |
| 4 | Spent Solvent | Process | Sch-I/ 28.6 | 151949.0 | Collection, Storage, Management & Recovery within the premises and will reuse in plant premises. |
| 5 | Spent Sulphuric Acid | Process | Sch-I/ 28.1 | 19485.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 6 | Sodium Bromate | Process | Sch-I/ 28.1 | 2639.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 7 | Tert Butanol | Process | Sch-I/ 28.1 | 1314.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |

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| 8 | Hydrochloric Acid Soln (30%) | Process / Scrubber | Sch-II-Class B (15) | 16142.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 9 | Potassium Bromide | Process | Sch-I/ 28.1 | 3126.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 10 | Sodium Bromide Solution | Process / Scrubber | Sch-I/ 28.1 | 8928.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 11 | Acetic Acid | Process | Sch-I/ 28.1 | 3510.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 12 | Spent Hydrobromic Acid | Process | Sch-I/ 28.1 | 5472.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 13 | 20 % Sodium Sulphite Solution | Process | Sch-I/ 28.1 | 17950.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 14 | Sodium Hypochlorite | Process / Scrubber | Sch- /28.1 | 1071.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 15 | Aluminium Chloride Soln | Process | Sch-II/ Class B (15) | 33753.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 16 | Phosphoric Acid | Process | Sch-I/ 28.1 | 4698.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 17 | Sodium Sulphate Solution | Process / Scrubber | Sch-I/ 28.1 | 4689.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 18 | 20% Sodium Methyl Sulphide | Process | Sch-I/ 28.1 | 3300.0 | Collection, Storage, Transportation & Disposal by |

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|---|---|---|---|---|---|
| | | | | | selling to authorized end user registered under Rule-9. |
| 19 | Spent Catalyst | Process | Sch-I/ 28.1 | 342.0 | Collection, Storage, Transportation & Disposal at Co-Processing or Common Incineration Site. |
| 20 | Formaldehyde | Process | Sch-I/ 28.1 | 253.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 21 | Calcium Chloride | Process | Sch-I/ 28.1 | 2806.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 22 | Sodium Chloride Salt | Process | Sch-I/ 28.1 | 1080.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 23 | Sodium Carbonate | Process | Sch-I/ 28.1 | 295.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 24 | Potassium Hydroxide | Process | Sch-I/ 28.1 | 900.0 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 25 | Ethyl Alcohol | Process | Sch-I/ 28.1 | 1913 | Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9. |
| 26 | Mixture (Toluene+ Benzyle Chloride) | Process | Sch-I/ 28.6 | 40.0 | Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site. |
| 27 | MEE Salt | MEE | Sch-I/ 35.3 | 7056.0 | Collection, Storage, Transportation & Disposal at common nearest TSDF Site |
| 28 | ETP Sludge | In House ETP | Sch-I/ 35.3 | 300.0 | Collection, Storage, Transportation & Disposal at common nearest TSDF Site |

**Deliberations in the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the socio-economic issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee noted that PP has submitted the conservation plan for Schedule-I species with a budget of Rs. 0.11725 Crore.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

**Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:**

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing

more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iii). No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(iv). The treated effluent of 188 cum/day proposed to send to CETP Saykha for further treatment and disposal, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal. Treated domestic effluent shall be used for greenbelt development.

(v). 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.

(vi). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(vii). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). 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.

(x). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xi). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7% with effective chillers/modern technology.

(xiii). Total fresh water requirement shall not exceed 227 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(xiv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be

used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xv). 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.

(xvi). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xvii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(xviii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.

(xix). As committed, at least Rs. 0.11725 Crore shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC.

(xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**Agenda No. 16.10**

**Expansion project for manufacturing of Pesticides Plot no.808/A/2, Phase-II, GIDC, notified industrial area, Vapi, Valsad, Gujarat by M/s Sandhya Organic Chemicals Pvt. Ltd- Consideration of Environment Clearance**

**[IA/GJ/IND2/190842/2018, J-11011/481/2011-IA-II(I)**

The Project Proponent and the accredited Consultant M/s. Precitech Laboratories Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of Pesticides Manufacturing Unit at Plot no. 808/A/2, Phase-III, GIDC Estate, Vapi, Dist. Valsad (Gujarat) India by M/s. Sandhya Organic Chemicals Pvt. Ltd.

The details of products and capacity as under:

| S. No. | Name of Products | CAS no. | Quantity (T/Month) | | | End Use | LD50 (mg/kg) |
|---|---|---|---|---|---|---|---|
| | | | Existing | Proposed | Total | | |
| 1 | Aluminum Phosphide | 20859-73-8 | 100 | 300 | 400 | Used as an insecticide and fumigant | • Oral: 11.5 mg/kg<br>• Dermal: >5000 mg/kg |
| 2 | Zinc Phosphide | 1314-84-7 | 100 | 200 | 300 | Used as a rodenticide | • Oral: 42.6 mg/kg<br>• Dermal: 1123 mg/kg |
| 3 | Ammonium Carbamate | 1111-78-0 | 0 | 50 | 50 | Used for captive consumption as a raw material for Aluminum Phosphide manufacturing | • Oral: <1470 mg/kg |
| 4 | Magnesium Phosphide | 12057-74-8 | 0 | 25 | 25 | Used as an insecticide and fumigant | • Oral: >5000 mg/kg<br>• Dermal: >10000 mg/kg |
| **Total** | | | **200** | **575** | **775** | | |

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by Ministry vide letter No. J-11011/481/2011-IA-II(I) dated 01.06.2018. Public Hearing is exempted as the project is located in the GIDC industrial estate of Vapi, which was notified before 2006. No litigation is pending against the proposal.

The Ministry had issued EC earlier vide File. No: J-11011/481/2011-IA II (I); dated 25th June 2015 for Expansion of Pesticides viz. Aluminium Phosphide (25 to 75 MTPM) & Zinc Phosphide

(25 to 75 MTPM) in favour of M/s. Sandhya Organic Chemicals Pvt. Ltd. MoEF&CC, RO, Bhopal issued certified monitoring report on EC Compliance dated 13th Feb 2020 for existing EC "Expansion of Pesticides (Rodenticides), Aluminium Phosphide (25 to 75 MTPM) & Zinc Phosphide (25 to 75 MTPM)" F. No. J-11011/481/2011-IA II (I) dtd. 25th June 2015 wherein compliance of some conditions were marked as partly complied/ complied subject to condition. SOCPL vide email dated 2nd July 2020 submitted an action taken cum compliance report (ATR). SOCPL further submitted the additional information vide email dated 4th Sep 2020 w.r.t. MoEF&CC RO Bhopal's email dated 2nd Sep 2020. Updated compliance status issued vide letter no. 5-111/2009(Env)/716 dated 14th Oct 2020. Again, SOCPL vide email dated 9th July 2021 submitted an action taken cum compliance report (ATR) against one (1) partially complied condition. Updated compliance status was issued vide letter no. 5-111/2009(Env)/050, dated 30th July 2021.

Existing land area is 5337 $m^2$, no additional land will be used for proposed expansion. Industry is developing greenbelt in an area of 14.04% i.e., 749.17 $m^2$ out of total area of the project. Also Company is developing the green belt area in area of 145.5 $m^2$ (2.73%) area near the main gate of company premises. In addition to this, greenbelt development of approx. 1400 $m^2$ (26.23%) area to be done in GIDC, Vapi. Hence, industry is developing greenbelt in an area of 2294.67 $m^2$, which is around 43% of the plot area.

The estimated project cost is Rs. 9.03 Crores including existing investment of Rs. 3.19 Crores and proposed additional investment of Rs. 5.84 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.44 Crores (Existing – 0.4 crores + Proposed Additional – 1.04 Crores) and the Recurring cost (operation and maintenance) will be about Rs. 0.13 Crores per annum (Existing – 0.0625 Crores per annum + Proposed Additional – 0.0675 Crores per annum).

Total Employment will be 170 persons as 105 persons direct & 65 persons indirect after proposed expansion project. Industry proposes to allocate Rs 17 Lakh @2.91% of Project Cost towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Rata Khadi is flowing at a distance of 2.5 km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during Oct'18 to Dec'18 and the baseline data indicates the ranges of concentrations as: $PM_{10}$ (58-88 µg/$m^3$), $PM_{2.5}$ (15-42 µg/$m^3$), $SO_2$ (10-24 µg/$m^3$) and $NO_2$ (11-28 µg/$m^3$). Further one month additional monitoring was carried out in Feb'21 & the baseline data indicates the ranges of concentrations as: $PM_{10}$ (64-92 µg/$m^3$), $PM_{2.5}$ (19-40 µg/$m^3$), $SO_2$ (9-23 µg/$m^3$) and $NO_2$ (11-27 µg/$m^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.243 µg/$m^3$, 0.330 µg/$m^3$ and 1.744 µg/$m^3$ with respect to $PM_{10}$, $SO_2$ & $NO_x$, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be 69.5 $m^3$/day of which fresh water requirement of 45 $m^3$/day will be met from GIDC water supply department. Approx. 24.5 $m^3$/day will be reduced by recycling of Boiler condensate and reuse of w/w in scrubbing system.

Effluent of 13.3 kl/day will be generated after proposed expansion (Domestic: 6.8 kl/day & Industrial: 6.5 kl/day). Domestic wastewater generated from the plant is disposed of through septic tank/ soak pit system. Industrial wastewater generated from cooling blow down, boiler

blow down and washing are reused in scrubbing system to scrub Phosphorous Pentoxide to recover Phosphoric Acid for further sale to end-users. Same scheme will be followed after proposed expansion project. The unit will be zero industrial w/w discharge unit.

Power requirement after expansion will be 450 kVA including existing 200 kVA and will be met from Dakshin Gujarat Vij Co. Ltd.. Existing unit has one DG sets of 125 kVA capacity, additionally one DG sets of 500 kVA capacity (existing D.G. set of 125 kVA will be discarded after proposed expansion project) will be used as standby during power failure. Stack (height: 11 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 0.3 TPH Natural gas fired boiler. Additionally, 2 nos. of 0.8 TPH (working-1 + standby-1) Natural gas fired boiler will be installed (existing boiler of 0.3 TPH will be discarded after proposed expansion project). Natural gas is/will be used as fuel in boilers. Stack (Height: 11 m) will be provided to additional boiler.

**Details of Process emissions generation and its management.**

In existing operations, the company has installed the three-stage water scrubber in order to control the process emission in terms of $P_2O_5$ generated from Aluminium Phosphide & Zinc Phosphide. $P_2O_5$ will also be generated from proposed manufacturing of Magnesium Phosphate. Additional scrubber will be installed after proposed expansion project.

Dilute Phosphoric Acid is sold out to end-users having authorization under Rule-9 of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

There will chances of release of Ammonia during reaction and handling from the proposed product Ammonium Carbamate. The company will install three-stage scrubber with dilute Sulphuric acid as scrubbing media to control these emissions. The bleed liquor from this scrubber will be sent to common co-processing facility of M/s. RSPL.

Also, dust collector + bag filter is/will be provided to control particulate emission from blending, ball mill and tableting areas.

**Details of Solid waste/ Hazardous waste generation and its management**

Hazardous wastes are/ will be generated from process scrubbers, raw material consumption and DG sets & boilers.

| S. No. | Types of Waste | Source | Quantity | | | Method of Disposal |
|---|---|---|---|---|---|---|
| | | | Existing | Proposed | Total | |
| 1. | Discarded Containers (Sch-I, 33.3) | Empty container of RM | 3000 nos./annum | 11000 nos./annum | 14000 nos./annum | After decontamination will be sold to re-conditioners |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2. | Used oil (Sch-1, 5.1) | Machinar-ies | 80 L/annum | 20 L/annum | 100 L/annum | Sale to registered recyclers. |
| 3. | Phosphoric Acid (15%) (Sch-2, B15) | Process Scrubber | 100 T/Month | 325 T/Month | 425 T/Month | Sale to end-users having authorization under Rule-9 |
| 4. | Ammonium Sulphate Solution (Sch-1, 35.1) | Process Scrubber | -- | -- | 6 kL/annum | Disposal at common facility of RSPL |

**Deliberations in the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the socio-economic issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

**Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:**

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not

tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iii). No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(iv). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities.

(v). Domestic effluent shall be treated in STP and treated domestic effluent shall be used for greenbelt development and other suitable purposes.

(vi). 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.

(vii). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(viii). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(x). 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.

(xi). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xii). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xiii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

(xiv). Total fresh water requirement shall not exceed 45 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(xv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xvi). 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.

(xvii). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xviii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**Agenda No.16.11**

**Setting up of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit located at Plot No F-2, MIDC, Chincholi, Sholapur, Maharashtra, Solapur, Maharashtra by M/s Challa Chlorides Pvt. Ltd.-Consideration of EC**

**[Proposal No.: IA/MH/IND2/68692/2017; File No. IA-J-11011/198/2021-IA-II (I)]**

The Project Proponent and the accredited Consultant M/s. Team Labs and Consultants, made a detailed presentation on salient features of the project and informed that:

The proposal is for environmental clearance to the project for setting up of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit located at Plot No F-2, MIDC, Chincholi, Sholapur, Maharashtra, Solapur, Maharashtra by M/s Challa Chlorides Pvt. Ltd.

The details products and capacities are as under:

| S. No | Name of Product | Capacity | |
|---|---|---|---|
| | | TPM | Kg/day |
| 1 | Metformin Hydrochloride | 50.4 | 1680 |
| 2 | Lumefantrine | 3 | 100 |
| 3 | Aluminium Chloride | 36.15 | 1205 |
| 4 | Ibuprofen | 23.6 | 786.67 |
| 5 | Ambroxol Hydrochloride | 10.75 | 358.33 |
| 6 | Amlodipine Besylate | 2 | 66.67 |
| 7 | Folic acid | 2 | 66.67 |
| 8 | Oxyclozanide | 2 | 66.67 |
| 9 | Cinnarizine | 1 | 33.3 |
| | **Total** | **130.9** | **4363.3** |

**List of By-Products**

| S. No. | Name of the Product | Name of By Product | Quantity (Kg/Day) |
|---|---|---|---|
| 1 | Ibuprofen | Hydrogen Chloride (20%) | 2050.8 |
| | | Aluminium hydroxide | 292.5 |
| | | Sodium carbonate | 432.4 |
| | | Chromic sulphate | 498.5 |
| | | Sodium sulphate | 180.6 |
| 2 | Amlodipine Besylate | Spent Acetic Acid (80%) | 312.5 |

The project/activities are covered under Category 'B' of item 5(f) 'Synthetic organic chemicals industry of the Schedule to the Environment Impact Assessment Notification, 2006, and due to applicability of general condition as the Great Indian Bustard Sanctuary is located within 5 km of the proposed Unit, hence, requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry. The Unit is outside of ESZ, as reported by the PP. The project had violated the provisions of the Environment Impact Assessment Notification, 2006 and submitted the application as per provisions of the Notification 2017.

The project proposal was considered by the Expert Appraisal Committee (Violation) in its 8th meeting held on 13.06.2018, 27th meeting held on 27.11.2018 and 17th meeting held on 30.01.2019 and recommended Terms of Reference for the project. The ToR has been issued by Ministry vide letter no 23-120/2018-IA-III (V) dated 24.04.2019. There is no pending litigation against the proposal, however MPCB is yet to file a court case against the project under the provisions of Environment (Protection) Act, 1986.

The land area available for the project is 4 acres. Industry will develop Greenbelt in an area of 33.75% i.e., 1.35 acres out of 4 acres of area of the project site. The estimated project cost is Rs.4.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.56 crores and the Recurring cost (operation and maintenance) will be about Rs.1.48 crores per annum. Total Employment will be 40 persons as direct and 30 persons indirect. Industry proposes to allocate Rs.12 lakhs towards CER.

It is reported that the Great Indian Bustard sanctuary is at a distance of 2.4 km in NNE direction and that there are no other National parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 Km distance. The ESZ of the sanctuary is at a distance of 2 km from the site in NE direction. The proposed Unit is outside of the ESZ. Ujjani left bank canal is at a distance of 2.8 km in southwest direction, Nanaji odha a seasonal stream is at a distance of 3.2 km in west direction and Sina river stream is at a distance of 6.2 km in southwest direction.

The Ambient air quality monitoring was carried out at eight locations during March 2019 to May 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (51-74 µg/m3), PM2.5 (20-29 µg/m3), $SO_2$ (9-15 µg/m3) and $NO_2$ (10-16 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.01 µg/m3, 0.0001 µg/m3, and 0.0003 µg/m3 with respect to $PM_{10}$, $SO_X$ and $NO_X$. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement is 81.1 KLD out of which 43.1 KLD will be fresh water and 38 KLD is recycled. Water requirement will be met from MIDC Chincholi. Total effluent of 41.5 m3/day will be treated through “Zero Liquid Discharge” based effluent treatment system. The treated wastewater is reused for cooling towers, boiler make-up, scrubber’s circulation and washings.

Power requirement will be met by MSEDCL. DG sets of capacity 1 x 250 kVA proposed to cater to the energy requirement during load shut down period. DG sets which will be used as standby during power failure. Stack (height 3.2 m) will be provided as per CPCB norms to the proposed. It is proposed to establish coal/bagasse fired boiler of 1 x 2 TPH capacity. Multi cyclone separator/ bag filter with a stack height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

**Details of Process emissions generation and its management:** Process emissions contain Hydrogen chloride, carbon dioxide, hydrogen and sulphur dioxide. Hydrogen chloride, sulphur dioxide is sent to scrubber. Sodium chloride from Hydrogen chloride scrubbing, sodium hydrogen sulfite salt from Sulphur dioxide scrubbing are sent to ETP. Carbon dioxide is let out into atmosphere following a standard operating procedure. Hydrogen is let out into atmosphere through water column by following standard operating procedure.

**Details of Solid waste/ Hazardous waste generation and its management:** Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to CHWTSDF facility. The evaporation salts and ETP sludge are sent to CHWTSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

The proposal was earlier considered in the 14th EAC Meeting (Industry 3 Sector) held on 22-23 July, 2021 wherein, the proposal was deferred for revision of the Remediation Plan, Natural and Community Resources Augmentation Plan and the damage assessment by the PP as the same were found to be inadequate. Accordingly, the PP has revised the Remediation Plan, Natural and Community Resources Augmentation Plan and the damage assessment as below:

**Damage Assessment Report**

**Summary of Remediation, Natural resource and Community Augmentation Plan**

| S. No | Activities Proposed | Estimated cost (Rs. in Lakhs) | | |
|---|---|---|---|---|
| | | As per EIA | As per ADS response | Revised |
| 1 | Remediation plan | 2.50 | 8.00 | 13.00 |
| 2 | Natural Resource plan | 4.00 | 8.00 | 8.00 |
| 3 | Community Augmentation plan | 3.93 | 3.93 | 3.93 |
| | **Sub Total** | **10.43** | **19.93** | **24.93** |
| 4 | 2.66% Contribution from Capital Cost against community welfare activities as per OM dated 30.09.2020 | 12.00 | 12.00 | 12.00 |
| **Grand Total** | | **22.43** | **22.43** | **36.93** |

**Total Damage Assessed**

| S. No. | Description | Damage Cost (Rs.) | | |
|---|---|---|---|---|
| | | As per EIA | As per ADS response | Revised |
| 1 | Land | 26,250 | 3,06,250 | 3,06,250 |
| 2 | Air | 2,57,621 | 2,57,621 | 2,57,621 |
| 3 | Water | 3,23,000 | 3,23,000 | 3,23,000 |
| 4 | Noise | 20,000 | 20,000 | 20,000 |
| 5 | Ecology and Biodiversity | 2,00,000 | **8,00,000** | **13,40,000** |
| 6 | Waste Management | 2,16,000 | 2,16,000 | 2,16,000 |
| | **Total (Rs. Lakhs)** | **Rs.10,42,872** | **Rs. 19,22,871** | **Rs. 24,62,871** |

**Deliberations in the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The committee was informed that Ministry during the review meeting held on 21.01.2021 took decision that all the EC applications for which TOR was recommended by the EAC (violation) shall be appraised by the sectoral EACs. Accordingly, the instant proposal was considered in the 14th EAC Meeting (Industry 3 Sector) held on 22-23 July, 2021 and 16th EAC meeting (Industry 3 Sector) held on 1-2 September, 2021.

The proposals submitted under the Ministry's Notification S.O. 804 (E) dated 14.03.2017. After detailed presentation the EAC noted that the plant/unit was constructed without obtaining prior EC hence violating the provisions of EIA Notification, 2006. However, the unit was not operational and civil construction was done.

The Ministry of Environment Forest and Climate Change (MoEF&CC) issued an office memorandum vide no. F.No.22-28/2020-IA.III dated 12.11.2020 which states that "while considering the applications for Environmental Clearance under the violation category as per the provisions of S.O. 804(E) dated 14.03.2017, the EACs/SEACs may insist for public hearing to be conducted only for those categories of projects for which EIA Notification, 2006 itself requires public hearing to be conducted. The Industry is located in Industrial area therefore PH is not required in the instant case. EAC also observed that credible action u/s 19 of the E(P) Act has not yet been filed by the State/State PCB. EAC deliberated on the damage assessment cost and activities proposed under RP, NRA and CRA. EAC noted that PP has submitted the combined RP, NRA and CRAP. EAC advised PP to revise the activities separately under RP, NRA and CRAP. As advised by the EAC, PP submitted the revised plan vide letter dated 03.09.2021.

EAC after detailed deliberation on the information submitted by the PP (EIA/EMP report, & Additional information and other Reports), **recommended** the proposal for grant of Environmental Clearance subject to the compliance of the following Specific conditions in addition to all standard conditions applicable for such projects:

(i) EAC recommended for an amount of Rs.24.93lakhs towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years.

(ii) Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is Rs.24.93 lakhs. Therefore, project proponent shall be required to submit a bank guarantee of an amount of Rs.24.93 lakhs towards

Remediation plan and Natural and Community Resource Augmentation plan with the SPCB prior to the grant of EC.

(iii) Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

(iv) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

(v) In pursuance to the Ministry's OM dated 30.09.2020, Project Proponent shall take up the community welfare activities. The implementation report shall be submitted to the IRO, MoEFCC.

(vi) Preventive measures to be taken to control ignition sources in bulk storage area and fire protection system to be established above ground storage tanks. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

(vii) Proper precautions to be taken to prevent inadvertent mixing of chemicals. Standard operating procedures to be strictly followed during handling of chemicals.

(viii) Solvents shall be stored in a separate space specified with all safety measures. Project Proponent shall keep inventory of solvents and fuel not more than five days. Sensors for odours will be installed at sensitive locations.

(ix) Project Proponent to ensure proper disposal of Hazardous wastes.

(x) Project Proponent shall create green belt (peripheral plantation) as per guidelines of MoEFCC in the additional area as requested by the PP adjoining the present boundary

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

(i). The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

(ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). Total fresh water requirement, sourced from MIDC Chincholi, shall not exceed 43.1 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(x). Coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

(xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xii). 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.

(xiii). 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) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame

proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

(xv). 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.

(xvi). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xvii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**Agenda No.16.12**

**Expansion and modification of Active pharmaceutical ingredients (APIs) manufacturing industry with R&D activity by M/s Shilpa Medicare Limited, 100% Export Oriented Unit (EOU), located at Unit II, Plot No 30, 31, 32 & 35-39, 33, 33A & 40-47, Raichur Industrial Growth Center, Wadloor Road, Chicksugur, Raichur District, Karnataka – Consideration of Amendment in EC**

**[Proposal No.: IA/KA/IND2/207308/2021; File No. IA-J-11011/301/2020-IA-II(I)]**

The proposal is for corrigendum in the Environmental Clearance granted by the Ministry vide letter dated 05th January 2021 for the project of expansion and modification of the Active Pharmaceutical Ingredients (APIs) manufacturing industry with R&D activity in the existing

industry located at Unit II, Plot No: 30, 31, 32 & 35-39, 33, 33A & 40-47, Raichur Industrial Growth Centre, Wadloor Road, Chicksugur - 584134, Raichur District, Karnataka in favour of M/s Shilpa Medicare Limited.

The project proponent has requested for amendment in the EC with the details are as under:

<table>
<tr><th>S. No.</th><th>Para of EC issued by MoEF &CC</th><th>Details as per the EC</th><th>To be revised/ read as</th><th>Justification/ reasons</th></tr>
<tr><td>1.</td><td>Page 6, Sl. no. 7</td><td>There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/water body river Krishna, Marched Kere, Machalapur Lake are at a distance of 7.7 km, 6.5 km & 7.84 km respectively in North, South West & South West direction respectively.</td><td>There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/water body river Krishna, Marched Kere, Machalapur Lake are at a distance of 7.7 km, 6.5 km & 7.84 km respectively in North, South West & South West direction respectively. Total water requirement is 625.667 m3/day of which fresh water requirement of 293.114 m3/day will be met from KIADB sourced from River Krishna. The total effluent generation from unit II after expansion and industrial effluents from Unit I will be treated in ETP of Unit II. Effluent quantities generated is in the table below:
<table>
<tr><th>Effluent from SML Unit</th><th>Wastewater Generated (in KLD)</th><th>Treated Effluent Reused (in KLD)</th><th>Utilization / Reused At</th></tr>
<tr><td rowspan="2"><u>Unit I*:</u><br>a) HTDS Effluent</td><td rowspan="2">61.5</td><td>40.93</td><td>SML Unit I</td></tr>
<tr><td>20.57</td><td>SML Unit II</td></tr>
<tr><td>b) Cooling Tower Bleed</td><td>8.04</td><td>8.04</td><td>SML Unit II</td></tr>
</table>
</td><td>Quantities of effluent generation is not mentioned.<br>Hence, it is requested to include the quantities.</td></tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>Total water requirement is 625.667 m3/day of which fresh water requirement of 293.114 m3/day will be met from KIADB sourced from River Krishna. The total effluent generation from unit II after expansion and HTDS effluent from Unit I will be treated in ETP of Unit II. Treatment facility has/will be as mentioned in the EMP report.</td>
<td>
<table>
<tr><td><u>Unit II:</u><br>a) HTDS Effluent = 80.539 KLD<br>b) LTDS Effluent = 123.704 KLD<br>c) Cooling Tower Bleed = 29.5 KLD<br>d) DM regenerate = 45 KLD<br>e) Domestic Sewage = 30 KLD**</td><td>308.743</td><td>308.743</td><td>SML Unit II</td></tr>
<tr><td></td><td>378.283</td><td>378.283</td><td></td></tr>
</table>
* - Industrial effluent from Unit I will be treated in ETP of Unit II.<br>** - Domestic sewage of Unit II will be treated along with LTDS effluent in SML Unit II.<br><br>Treatment facility has/will be developed as mentioned in the EMP report.
</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Page 7, Sl. no. 9</td>
<td>Existing unit has 1x10 TPH & 1x6 TPH rice husk/coal/briquette fired boilers. Additionally, 1x16 TPH Risk husk/coal/briquette fired boiler will be installed. Electrostatic precipitator</td>
<td>The emission sources, the fuel and the APC measures are as under:
<table>
<tr><th>S. No.</th><th>Source</th><th>Capacity</th><th>Fuel Used</th><th>APC equipment</th><th>Stack Height</th></tr>
<tr><td>1</td><td>Boiler</td><td>10 TPH</td><td rowspan="2">Rice husk / Coal / Briquette</td><td rowspan="2">Bag Filter</td><td rowspan="2">Common Stack of 30 m AGL</td></tr>
<tr><td>2</td><td>Boiler</td><td>6 TPH</td></tr>
<tr><td>3</td><td>Boiler -</td><td>16 TPH</td><td>Rice husk /</td><td>ESP</td><td>New stack</td></tr>
</table>
</td>
<td>The existing and the proposed Thermic Fluid Heater are not indicated in the Sl.no.9 of the EC.<br><br>In the EMP, a common chimney of 30 m AGL was proposed for all the thermic fluid heaters. Now, during</td>
</tr>
</table>

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | *with a stack of height of 30m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm$^3$ for the proposed boilers.* | | *New* | | *Coal / Briquette* | | *of 30 m AGL* | implementation, a separate stack of 30 m AGL is proposed for the new thermic fluid heater of 12 Lakh kcal. |
| | | | *4* | *Thermic Fluid Heater* | *6 Lakh kcal* | *Furnace oil* | *Chimney* | *Common chimney of 30 m AGL* | |
| | | | *5* | *Thermic Fluid Heater (new)* | *8 Lakh kcal* | | | | |
| | | | *6* | *Thermic Fluid Heater( new)* | *12 Lakh kcal* | *Furnace oil* | *Chimney* | *New chimney of 30 m AGL* | |
| | | | *Particulate emissions shall be within the statutory limit of 115 mg/Nm$^3$ for the boilers.* | | | | | | |

**Deliberations in the EAC:**

The EAC deliberated the amendment in EC as requested by PP and opined that in instant request at SI. No. 1 is only to add specific details which were already discussed while granting the environmental clearance.

The Committee noted that the request at SI. No. 2 had also been already deliberated by the EAC. Further, request of PP to install a separate stack of 30 m AGL for the new thermic fluid heater of 12 Lakh kcal was also accepted by the EAC keeping in view the implementation issue faced by the PP.

The PP requested for amendment of EC as they were facing issue in obtaining CTE/CTO. PP also accepted that while providing summary they did not mention the details requested in the instant proposal, however PP submitted that the same details were already submitted in the EMP.

After detailed deliberations, EAC **recommended** the amendment in EC as requested by PP.

**Agenda No. 16.13**

**Expansion of pesticide & pesticide intermediates manufacturing (3175 mt/ annum to 17625 mt/annum) in existing unit of M/s Crystal Crop Protection Pvt. Ltd., located at Plot No. D2/Ch-14, Dahej - II, GIDC Industrial Estate, Tal: Vagra, Dist: Bharuch, Gujarat– Consideration of TOR**

[Proposal No.IA/GJ/IND3/221804/2016; File No. IA-J-11011/7/2016-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for ToR to the project for Expansion of Pesticide & Pesticide Intermediates Manufacturing (3175 MT/ Annum to 17625 MT/Annum) In Existing Unit at Plot. No. D2/CH-14, Dahej – II, GIDC Industrial Estate, Tal: Vagra, Dist: Bharuch, Gujarat.by M/s. Crystal Crop Protection Pvt Ltd.

The details of products and capacity as under:

| S. No. | Products | Existing Quantity (MT/Year) | Additional Quantity (MT/Year) | After Expansion Quantity (MT/Year) | CAS No. | LD50 |
|---|---|---|---|---|---|---|
| 1. | Boscalid | 30 | 00 | 30 | 188425-85-6 | 2000 mg/kg |
| 2. | Cyproconazole | 20 | 00 | 20 | 94361-06-5 | 1010 mg/kg |
| 3. | Difenoconazole | 20 | 00 | 20 | 119446-68-3 | 2010 mg/kg |
| 4. | Flutriafol | 30 | 00 | 30 | 76674-21-0 | 1140 mg/kg |
| 5. | Epoxiconazole | 40 | 00 | 40 | 133855-98-8 | 3160 mg/kg |
| 6. | Hexaconazole | 200 | 00 | 200 | 79983-71-4 | 2189 mg/kg |
| 7. | Kresoxim methyl | 30 | 00 | 30 | 143390-89-0 | 2150 mg/kg |
| 8. | Mancozeb | 400 | 00 | 400 | 8018-01-7 | 4500 mg/kg |
| 9. | Metalaxyl | 100 | 00 | 100 | 57837-19-1 | 3100 mg/Kg |
| 10. | Pencycuron | 30 | 00 | 30 | 66063-05-6 | 2000 mg/kg |
| 11. | Propiconazole | 100 | 00 | 100 | 60207-90-1 | 1211 mg/kg |
| 12. | Propineb | 30 | 00 | 30 | 12071-83-9 | 3708 mg/kg |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13. | Prothioconazole | 25 | 00 | 25 | 178928-70-6 | 2500 mg/kg |
| 14. | Thiophanate methyl | 100 | 00 | 100 | 23564-05-8 | 5000 mg/kg |
| 15. | Tricyclazole | 100 | 00 | 100 | 41814-78-2 | 2000 mg/kg |
| 16. | Bispyribac Sodium | 100 | 00 | 100 | 125401-75-4, | 2250 mg/kg |
| 17. | Clodinofop-propargyl | 100 | 300 | 400 | 105512-06-9 | 2271 mg/kg |
| 18. | Dicamba | 20 | 00 | 20 | 1918-00-9 | 1190 mg/kg |
| 19. | Diuron | 20 | 00 | 20 | 330-54-1 | 3400 mg/kg |
| 20. | Imazethapyr | 100 | 00 | 100 | 81335-77-5 | 2150 mg/kg |
| 21. | Metribuzin | 100 | 200 | 300 | 21087-64-9 | 1090 mg/kg |
| 22. | Oxyfluorfen | 100 | 00 | 100 | 42874-03-3 | 5000 mg/kg |
| 23. | Pendimethalin | 400 | 00 | 400 | 40487-42-1 | 1421 mg/kg |
| 24. | Penoxsulam | 40 | 00 | 40 | 219714-96-2 | 5000 mg/kg |
| 25. | Propanil | 40 | 00 | 40 | 709-98-8 | 2500 mg/kg |
| 26. | Propaquizafop | 100 | 00 | 100 | 111479-05-1 | 2000 mg/kg |
| 27. | Quizalofop ethyl | 100 | 300 | 400 | 76578-14-8 | 1210 mg/kg |
| 28. | Terbuthylazine | 50 | 00 | 50 | 5915-41-3 | 1000 mg/kg |
| 29. | Diafenthiuron technical | 100 | 00 | 100 | 80060-09-9 | 2068 mg/kg |
| 30. | Fenpyroximate | 100 | 00 | 100 | 134098-61-6 | 2000 mg/kg |
| 31. | Flubendiamide | 250 | 00 | 250 | 272451-65-7 | 5000 mg/kg |
| 32. | Thiamethoxam | 200 | 1800 | 2000 | 153719-23-4 | 1563 mg/kg |
| 33. | Pretilachlor | 00 | 3500 | 3500 | 51218-49-6 | 6099 mg/kg |
| 34. | Cloquintocet | | | | 99607-70-2 | 5000 mg/kg |
| 35. | Bensulfuron Methyl | | | | 83055-99-6 | 2000 mg/kg |
| 36. | Halosulfuron Methyl | | | | 100784-20-1 | 1287 mg/kg |
| 37. | Pyrazosulfuran Ethyl | | | | 93697-74-6 | 2000 mg/kg |
| 38. | Oxadiazon | | | | 19666-30-9 | 8000 mg/kg |

| | | | | | | |
|---|---|---|---|---|---|---|
| 39. | Clethodim | | | | 99129-21-2 | 1630mg/kg |
| 40. | 2,6-Dichloroquinoxaline | | | | 1810-72-6 | 2000 mg/kg |
| 41. | 1,2,4 Triazinone | | | | 33509-43-2 | 20000 mg/kg |
| 42. | 2,6-Diethyl-N-(2-Propoxyethyl)Aniline | | | | 61874-13-3 | 750 mg/kg |
| 43. | 2-(4-Hydroxyphenoxy) Propanoic Acid Ethyl Ester | | | | 65343-67-1 | 1000 mg/kg |
| 44. | (R)-(+)-2-(4-Hydroxyphenoxy)Propionic Acid | | | | 94050-90-5 | 2500 mg/kg |
| 45. | Sulfosulfuron Methyl | 00 | 3500 | 3500 | 141776-32-1 | 5000 mg/kg |
| 46. | Metsulfuron Methyl | | | | 74223-64-6 | 5000 mg/kg |
| 47. | Carfentrazone | | | | 128639-02-1 | 2250 mg/kg |
| 48. | Fomesafen | | | | 72178-02-0 | 3,000 mg/kg |
| 49. | Mesotrione | | | | 104206-82-8 | 5000 mg/kg |
| 50. | Sulfentrazone | | | | 122836-35-5 | 2250 mg/kg. |
| 51. | Dimethomorph | | | | 110488-70-5 | 3900 mg/kg |
| 52. | Fluxapyroxad | | | | 907204-31-3 | 2000 mg/kg |
| 53. | Mandipropamid | | | | 34726-62-2 | 5000 mg/kg |
| 54. | Clothianidin | | | | 210880-92-5 | 4000 mg/kg |
| 55. | o-Fluoro Benzotrichloride | 00 | 1200 | 1200 | 488-98-2 | -- |
| 56. | p-Fluoro Benzotrichloride | | | | 402-44-8 | -- |
| 57. | o-Chlorobenzyl chloride | | | | 5216-25-1 | -- |
| 58. | 2,4-Dichlorobenzyl | | | | 94-99-5 | -- |

| | | | | | | |
|---|---|---|---|---|---|---|
| | chloride | | | | | |
| 59. | 3-Chloro pivaloyl chloride | | | | 4300-97-4 | -- |
| 60. | O-Chloro Benzyl Chloride | | | | 611-19-8 | -- |
| 61. | CCMT (2 Chloro 5 Chloromethyl Thiazole) | | | | 105827-91-6 | -- |
| 62. | N- Propyl Bromide | 00 | 1200 | 1200 | 106-94-5 | 3600 mg/kg |
| 63. | N-Butyl Bromide | | | | 109-65-9 | 2761 mg/kg |
| 64. | Iso- Propyl Bromide | | | | 75-26-3 | 2000 mg/kg |
| 65. | Ethyl Bromide | | | | 74-96-4 | 1350 mg/kg |
| 66. | Ethylene Di Bromide | | | | 106-93-4 | 117 mg/kg |
| 67. | 4-Bromo Anisole | | | | 104-92-7 | 3800 mg/kg |
| 68. | 5-Nitro Isophthalic Acid | 00 | 1200 | 1200 | 618-88-2 | -- |
| 69. | Meta Nitro Para Toluidine | | | | 119-32-4 | -- |
| 70. | Nitro Benzoyl Chloride | | | | 119-32-4 | -- |
| 71. | O-M-P Toluidine | 00 | 1200 | 1200 | 108-44-1 | 1160 mg/kg |
| 72. | Dichloro Benzidine Hydrochloride (DCBH) | | | | 612-83-9 | 6000 mg/kg |
| 73. | 3 Amino 4-Methyl Benzoic Acid | | | | 2458-12-0 | -- |
| 74. | 2, 4, 5-Trichloroaniline | | | | 636-30-6 | 300 mg/kg |
| 75. | 2,5 Dichloro 1,4 Phenylene Diamine | | | | 20103-09-7 | 1750 mg/kg |
| 76. | Pilot trials | 00 | 50 | 50 | | |
| Total | | 3175 | 14450 | 17625 | | |

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

Unit is located in Notified Industrial estate of GIDC Dahej-II. Hence, Public hearing is exempted.

There is no litigation pending against the proposal.

The Ministry had issued EC earlier vide letter no.J-11011/7/2016-IA II (I) dated 22/01/2019; to the existing project for setting up pesticide technical manufacturing unit of capacity 3175 TPA in favour of M/s. Crystal Crop Protection Pvt Ltd

Existing land area is 30000 $m^2$, additional no land will be used for proposed expansion. Industry will develop greenbelt in an area of 33 % i.e.9900 $m^2$ out of 30000 $m^2$,total area of the project.The estimated project cost is Rs 252.87 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15 Crore and the Recurring cost (operation and maintenance) will be about Rs. 28.66 Crore per annum.Total Employment will be 250 persons as direct & 550 persons indirect after expansion. Industry proposes to allocate Rs1.90 Crore @ of 0.75% towards CER.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Narmada is flowing at a distance of 7.02 km in direction.

Total water requirement is 661 m3/day of which fresh water requirement of 197 m3/day will be met from GIDC Supply. Effluent of 435 m3/day quantity will be treated through Primary ETP, Stripper, MEE facility and then sent to GIDC drain for the final disposal. Total water requirement will be 661.0 KL/Day (Fresh water = 197.0 KL/Day + Reused: 464.0 KL/Day). The wastewater generations will be 435.0 KL/Day (Industrial = 426.0 KL/Day + Domestic = 9.0 KL/Day). Low COD stream from process effluent (41 KL/Day) along with utilities effluent (39 KL/Day) (Boiler, cooling, washing, scrubber & others) will be treated in ETP and the final treated wastewater (80 KL/Day) will be sent to GIDC drain for the final disposal. High COD stream from process effluent (346 KL/Day) sent to Primary ETP followed by solvent stripper shall go to MEE for further treatment and MEE Condensate (335 KL/Day) will be reuse within plant premises. Domestic wastewater- 9 KL/Day will be treated in STP and reuse for gardening purpose.

The Power requirement after expansion will be 2500 KVA including existing and 2500 KVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 2Nos.of DG sets (1010 KVA & 380 KVA) capacity, no additionally DG sets are used as standby during power failure. Stack (height 30 m)will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 1 No. of 5 TPH boiler. Additionally 2 Nos. of 8TPH fired boiler, 2 Nos. of 2 TPH boiler & 1 No. of Thermic fluid (06 lacs Kcal) & Spray Dryer (150 KL/Day) will be installed. Multi cyclone separator/ bag filter, ESP + Water Scrubber with a stack of height, of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

**Details of Process emissions generation and its management.**

**Flue Gas Emission**

| Particulars | Stack height & Dia. | Fuel used with Qty. | Parameter | Permissible Limit | APCM |
|---|---|---|---|---|---|
| Existing | | | | | |
| Boiler | 30 m & 0.6 m | Agro Waste or FO/LDO= | SPM<br>$SO_2$ | 150 mg/$Nm^3$<br>100 ppm | Multi cyclone separator with bag filter |

| | | | | | |
|---|---|---|---|---|---|
| (Capacity: 5 TPH) | | 6 MT/Day or 1920 Lit/Day | $NO_x$ | 50 ppm | |
| DG Sets (1010 KVA) | 12 m & 0.2 m | HSD - 3000 Liter/Day | | | Adequate Stack Height |
| DG Set (380 KVA) | 12 m & 0.2 m | HSD - 3000 Liter/Day | | | Adequate Stack Height |
| Proposed | | | | | |
| Boiler (Capacity: 8 TPH) | 30 m & 1 m | Imported Coal/Briquettes -40 MT/Day | SPM $SO_2$ $NO_x$ | 150 mg/$Nm^3$ 100 ppm 50 ppm | ESP + Water Scrubber |
| Boiler (Capacity: 8 TPH)- Stand by | 30 m & 1 m | Imported Coal /Briquettes -40 MT/Day | | | ESP + Water Scrubber |
| Boiler (Capacity: 2 TPH) | 30 m & 0.2 m | Imported Coal/Briquettes - 10 MT/Day | | | Multi cyclone separator with bag filter |
| Boiler (Capacity: 2 TPH)- Stand by | 30 m & 0.2 m | Imported Coal/Briquettes - 10 MT/Day | | | Multi cyclone separator with bag filter |
| Thermic fluid 06 lacs Kcal | 30 m & 0.2 m | Imported Coal / Briquettes - 10 MT/Day | SPM $SO_2$ $NO_x$ | 150 mg/$Nm^3$ 100 ppm 50 ppm | Multi cyclone separator with bag filter |
| Spray dryer 150 KLD | 30 m & 0.2 m | - | SPM SO2 NOx | 150 mg/Nm3 100 ppm 50 ppm | Multi cyclone separator with bag filter |

**Process Gas Emission**

| S. No. | Stack attached to | Stack Height | Air Pollution Control System | Parameter | Permissible Limit |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Existing | | | | | |
| 1 | Process Vent – 1 (From Boscalid) | 11 m | Two stages scrubber | HCl $SO_2$ | 20 mg/$Nm^3$ 40 mg/$Nm^3$ |
| 2 | Process Vent – 2 (From Profenophos) | 11 m | | HCl HBr | 20 mg/$Nm^3$ 05 mg/$Nm^3$ |
| 3 | Process Vent – 3 | 11 m | | $SO_2$ | 40 mg/$Nm^3$ |
| Proposed | | | | | |
| 1 | Process Vent – 4 (From 4-Bromo Anisole) | 11 m | Two Stage Alkali Scrubber | HBr | 05 mg/$Nm^3$ |
| 2 | Process Vent – 5 (From 5-Nitro Isophthalic Acid) | 11 m | Two Stage Water Scrubber | $NO_x$ | 25 mg/$Nm^3$ |

**Details of Solid waste/ Hazardous waste generation and its management: 27 Categories of Hazardous/Solid Wastes shall be generated from this Unit**

| Sr. No. | Description | Source of wastes | Waste Cat. | Quantity | | | Mode of Disposal |
|---|---|---|---|---|---|---|---|
| | | | | Existing MT/Annum | Additional MT/Annum | Total MT/Annum | |
| 1. | Discarded Drums /Containers | Raw material storage area | 33.1 | 10 | 500 | 510 | Collection, Storage, Transportation, Decontamination & sold to authorized vendors |
| 2. | Discarded Bags | | | 0 | 100 | 100 | Collection, Storage, Transportation, Decontamination & sold to authorized vendors or Landfilling |
| 3. | Used Oil | Machine lubrication | 5.1 | 0.5 | 30 | 30.5 | Collection, Storage, Transportation & recycle to GPCB authorized recycler |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4. | Process Sludge/Process ML | In Process | 26.1 | 250 | 4750 | 5000 | Collection, Storage, Transportation & sent for co-processing in cement industries or incineration at Common Incineration facility |
| 5. | Distillation Residue | Distillation | 36.1 | 180 | 1820 | 2000 | Collection, Storage, Transportation & sent for co-processing in cement industries or incineration at Common Incineration facility |
| 6. | ETP Sludge | ETP | 35.3 | 300 | 6482 | 6782 | Collection, Storage, Transportation and Disposal at Nearest TSDF for Secured Landfill. |
| 7. | MEE Salt | ETP | 35.3 | 350 | 3488 | 3838 | Collection, Storage, Transportation & sent to common TSDF |
| 8. | Inorganic Salt | -- | -- | 1050 | 13716 | 14766 | Collection, Storage, Transportation & sent to common TSDF |
| 9. | Spent Sulphuric Acid | Process | -- | 350 | 1030 | 1380 | Collection, Storage, Transportation & sell to end user having rule -9 permission/Reused |
| 10. | Spent HCL (10 -35 % solution) | Process | 29.6 | 45 | 2040 | 2085 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 11. | Sodium Acetate Solution | Process | -- | 00 | 868 | 868 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 12. | Spent Nitric Acid Solution | Process | 29.6 | 00 | 160 | 160 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 13. | Spent Acetic Acid Solution | Process | -- | 00 | 558 | 558 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 14 | Spent Catalyst | Process | 29.5 | 00 | 2473 | 2473 | Collection, Storage, Transportation & sell to end user having rule -9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | permission. |
| 15 | Spent Solvent | Process | 29.4 | 00 | 74950 | 74950 | Collection, Storage & Distill in-house and reuse in plant premises or sell to end user having rule -9 permission. |
| 16 | Sodium Sulphate | Process | -- | 00 | 1000 | 1000 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 17 | NaBr/HBr/KBr Solution | Process & Scrubber | -- | 00 | 5600 | 5600 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 18 | $ALCL_3$ Solution | Process | -- | 81 | 729 | 810 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 19 | Potassium Chloride | Process | -- | 2180 | 00 | 2180 | Collection, Storage, Transportation & sell to end user having rule -9 permission. |
| 20 | Potassium Salt | Process | -- | 2180 | 00 | 2180 | Collection, Storage and sell to end user having rule -9 permission/ TSDF . |
| 21 | Battery Waste | IT | -- | 00 | 500 nos. | 500 nos. | Collection, Storage, Transportation & sent buy back to its supplier or sell as per rule |
| 22 | Bio Medical Waste | OHC | -- | 00 | 10 | 10 | Collection, Storage, Transportation & sent at TSDF /CHWIF |
| 23 | Used filter bag / Cloth | Process | -- | 00 | 10 | 10 | Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission |
| 24 | Filter media | Process | -- | 00 | 10 | 10 | Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission |
| 25 | Contaminate | Process | -- | 00 | 10 | 10 | Collection, Storage, |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | d oil socked cotton waste | | | | | | Transportation & sent to TSDF/CHWIF |
| 26 | E-Waste | IT /Electrical | -- | 00 | 10 | 10 | Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission |
| Non-Hazardous Waste | | | | | | | |
| 27 | Fly ash | Utility | -- | 00 | 2800 | 2800 | Collection, Storage, Transportation and sell to brick manufacturer/co processing/pre processing |

***Deliberations in the EAC:***

The EAC made detailed deliberations on the proposal. The Committee noted that the PP is yet to operate the existing EC and proposed for further expansion without providing any proper justification. The Committee also noted that the PP even not initiated any greenbelt development or undertaken any environmentally friendly initiatives in the complex and is least concerned about the environment. The Committee after detailed deliberations desired for additional information/inputs in respect of the following:

(i). Justification for not operating the existing EC, present status of the construction/installation and detailed plan on commencement of operation.

(ii). Latest six monthly compliance report submitted to the Regional Office of the Ministry.

(iii). Compliance of greenbelt development as per the existing EC along with photo/videos of the complex.

***The proposal was accordingly DEFERRED for the needful.***

**The meeting ended with thanks to the Chair.**

***

**ANNEXURE**

## GENERAL EC CONDITIONS

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

(iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iv) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(viii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB

and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

(ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(xi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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**Annexure-I**

**List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting**

| S. No. | Name of Members | Designation |
|---|---|---|
| 1. | **Prof. (Dr.) A.B. Pandit**<br>Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India<br>Email: ab.pandit@ictmumbai.edu.in | Interim EAC Chairman |
| 2. | **Dr. Ashok Kumar Saxena, IFS**<br>Bunglow No. 38, Sector-8A,<br>Gandhinagar, Gujarat – 382008<br>E-mail: ashoksaxena1159@gmail.com | Member |
| 3. | **Prof. (Dr.) S. N. Upadhyay**<br>Research Professor (Hon.),<br>Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi<br>E-mail: snupadhyay.che@iitbhu.ac.in | Member |
| 4. | **Shri Santosh Gondhalkar**<br>'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009<br>E-mail: santoshgo@gmail.com | Member |
| 5. | **Dr. Suresh Panwar**<br>House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com | Member |
| 6. | **Shri Dinabandhu Gouda**<br>Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032, E-mail: dinabandhu.cpcb@nic.in | Member |
| 7. | **Shri Tukaram M Karne**<br>"SHREYAS ORNATE" F-1,<br>95-Tulasibagwale Colony, Sahakarnagar-2,<br>PUNE: 411 009, Maharashtra<br>E-mail: tmkarne@gmail.com | Member |
| 8. | **Shri Sanjay Bisht**<br>Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003<br>E-mail: sanjay.bist@imd.gov.in | Member |

| | | |
|---|---|---|
| **9.** | **Dr. Rakesh Kushwaha**,<br>Sr. Scientist,<br>Central Ground Water Authority 18/11, Jamnagar House, Mansingh Road New Delhi - 110011<br>E-mail ID- kushwaha-cgwb@gov.in | Member |
| **10.** | **Dr. R. B. Lal**<br>Scientist 'E'/Additional Director<br>Ministry of Environment, Forest and Climate Change<br>Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003<br>Telefax: 011-24695362<br>E-mail: rb.lal@nic.in | Member Secretary |

| **MoEFCC** | | |
|---|---|---|
| 11. | **Dr. E.P. Nobi**<br>Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road,<br>New Delhi-110003 | Research Officer |
| 12. | **Mr. Ritin Raj**<br>Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road,<br>New Delhi-110003 | Research Assistant |

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**Annexure-III**

## Approval of EAC Chairman

**Email** **Additional Director MoEFCC Dr R B LAL**

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**Re: Zero Draft Minutes of the 16th EAC (Industry 3 Sector) meeting held during September 1-2, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.**

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**From :** ab pandit <ab.pandit@ictmumbai.edu.in> Wed, Sep 08, 2021 05:00 PM

**Subject :** Re: Zero Draft Minutes of the 16th EAC (Industry 3 Sector) meeting held during September 1-2, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

**To :** Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>, ashoksaxena1159@gmail.com, snupadhyay che <snupadhyay.che@iitbhu.ac.in>, dwivedisuneet@rediffmail.com, suneetdwivedi@gmail.com, santoshgo@gmail.com, pkmishra che <pkmishra.che@itbhu.ac.in>, drpkm18@gmail.com, spcppri@gmail.com, tmkarne@gmail.com, Dinabandhu Gouda <dinabandhu.cpcb@nic.in>, Sanjay Bist <sanjay.bist@imd.gov.in>, vmoholkar@iitg.ac.in, Rakesh kushwaha <kushwaha-cgwb@gov.in>

**Cc :** Dr. NOBI E. P <nobi.ep@nic.in>

Dear Dr. Lal,

Please find attached the signed draft. There was one spelling mistake, which I have corrected and signed the same.

The draft has been approved,

Thanks and Warm Regards
Pandit

**(Prof Aniruddha B Pandit)**

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