

GUJARAT NARMADA VELLAY FERTILIZERS & CHEMICALS LIMITED

TDI PLANT, PLOT NO: - D/II/8 AT DAHEJ-II (NON-SEZ), INDUSTRIAL ESTATE,
AT. RAHIYAD, PO DAHEJ, TAL. VAGARA, DIST. BHARUCH

ENVIRONMENT CLEARANCE NO: SEIAA/GUJ/EC/5(e)/279/2009 dated 05/11/2009

PERIOD OF EC COMPLIANCE : July - 2020 to December-2020

| Sr. No | Specific conditions | Status of Compliance |
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| A1 | WATER | |
| 1 | No ground water shall be used for the project. Water supply for the project shall be sourced from GIDC only. | Complied. GIDC - Dahej is the only water source for the project. |
| 2 | Treated industrial waste water quantity of 2900 M3/day shall be utilized for gardening and green belt development and the balance quantity of 4101 m3/day after treatment will be discharged in to GIDC drain. | Total effluent generated from raw water treatment plant is reused in the treatment process. Average (April-20 to Sept-20) waste water discharge to GIDC remains only 1175 M3/Day against 4101M3/Day. |
| 3 | Unit shall provide metering facility at the inlet and outlet of the ETP and maintain records for the same. | Complied. Flow meters are provided at inlet (10 nos) & various stages of treatment (13 nos) including outlet of ETP and records are maintained in DCS system. |
| A2 | AIR | |
| 4 | High efficiency scrubber shall be provided for scrubbing process emissions. | Complied. |
| 5 | Online gas detections for phosgene, Cl ₂ , HCL, CO shall be provided. | Complied. |
| 6 | Gaseous emission at workplace shall be controlled and kept below the limit prescribed by the Factories Act and Rules. Their record shall be maintained. | Being Complied. Emission at workplace is controlled through good housekeeping and safe practices. |

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| 7 | The gaseous emissions and particulate matter from various process units shall conform to the standards prescribed by GPCB. At no time, the emissions level shall go beyond the stipulated standards. In event of failure of pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve prescribed standards. | Complied. CEMS system is installed for emission monitoring and its read time data are submitted to GPCB/CPCB Servers. |
| 8 | The ambient air quality shall be monitored in and around the project area, and the location of ambient air quality monitoring stations shall be reviewed in consultation with the GPCB and additional stations shall be installed, if required in the downwind direction as well as where maximum ground level concentrations are anticipated. | Complied Ambient air monitoring is carried out at 3 monitoring stations by third party as per guidelines. Reports are being submitted to Board on monthly basis |
| A3 | SOLIDS | |
| 9 | The unit must strictly comply with the Rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous waste (Management and Handling) Rules 2003. Authorization from GPCB must be obtained for collection/Treatment /storage/disposal of hazardous wastes. | Complied. GPCB has granted Consent Consolidated Consent & Authorization (CCA No: AWH 97433) valid up to 15.11.2023. Disposal of hazardous waste is being carried out as per Hazardous other Waste (Management and Transboundary Movement) Rules 2016. |
| A4 | SAFETY | |
| 10 | Stringent safety measure shall be provided for the handling of CO, phosgene, chlorine and all necessary clearances from Directorate of Industrial safety and health as well as the Chief Controller of Explosives shall be obtain in this regards. There shall be no intermittent storage of the CO, hydrogen, phosgene in the premises as proposed. | Complied. No storage facility for CO, Hydrogen and Phosgene in the premises. |
| 11 | Necessary flame proof fittings shall be provided in the manufacturing plant. | Complied. |
| 12 | Proper ventilation shall be provided in the work area. | Complied. |
| 13 | Storage and use of toxic chemicals shall be minimized | Complied. |

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| | to the extent possible. | All efforts are made to minimize high inventory of toxic chemicals. |
| 14 | During materials transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic waste and storm drain. | Complied. Separate systems are provided to collect accidental spillages, domestic waste and storm drain. |
| 15 | Acid shall be stored in MSRL tanks for safety purpose. Storage of hazardous chemicals shall be in multiple small capacity tank /container instead of one single large capacity tank to reduce risk. | Complied. |
| 16 | All venting equipment shall have vapor recovery system. All the pumps and other equipments where there is a likely hood of leakages shall be provided with Leak Detection and Repair (LDAR) system. Provision for immediate isolation of such equipments in case of leakage shall also be made. The detection sensitivity shall be in PPM levels. | Complied. About 260 sniffers are installed in the field for leak detection along with SAFER system and automatic start of curtain facility in some of the critical areas. The plant can also be stopped from DCS system in case of serious leakage incidence. |
| 17 | All the storage shall be fitted with appropriate control to avoid any leakages. Close handling system for chemicals shall be provided. Double mechanical seal shall be provided for pumps /agitators for reactors for reduction of fugitive emissions and leakages. Solvent traps shall be installed wherever necessary. | Complied. |
| 18 | PPE shall be provided for workers and its usage shall be ensured and supervised. | Being Complied. PPEs like Helmets, gum shoes, hand gloves, dust mask, gas mask etc are used extensively. Special care is also taken during critical job. |
| 19 | First Aid Box and relevant Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity at all the times. | Being Complied. A well equipped medical center is situated within the plant premises. Medical staff remains present round the clock in plant for any emergency. Antidotes are also available at plant. For DNT- Methylene Blue. For TDI & Phosgene – Hydrocort & |

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| | | Solbutmol injection |
| 20 | Training shall be given to all workers on safety and health aspects of handling chemicals. | Complied. |
| 21 | Occupational health surveillance of the worker shall be carried out on a regular basis and records shall be maintained as per the Factories Act and Rules. Pre employment and periodic medical examination for all workers shall be under taken as statutory requirement. | Being Complied. Every six month medical examination is carried out for employees and workers. |
| 22 | The project management shall strictly comply with provisions made in Manufacture Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals. Necessary approval from the Gov authorities shall be obtained before commissioning of the project, if applicable. | Complied GPCB has granted Consent Consolidated Consent & Authorization (CCA No: AWH 97433) valid up to 15.11.2023. |
| 23 | All transportation of hazardous chemicals as per the Motor vehicles Act & Rules. | Agreed. Transportation of hazardous chemicals is being carried out as per the Motor Vehicles Act & Rules. |
| 24 | Hazardous materials storage shall be at isolated designated locations, bund/ dyke wall shall be provided for storage tanks for hazardous chemicals. | Complied. Isolated storage areas with adequate dyke wall are provided for hazardous chemicals. |
| 25 | All the transporting routes within the factory premises shall have to paved roads to minimize splashes and spillages. | Complied. |
| 26 | The project management shall prepare a detailed Disaster Management Plan (DMP) for the project as per the guidelines of Directorate of Industrial safety and Health. | Complied. On site emergency plan is prepared and is in place. |
| A5 | NOISE | |
| 27 | The overall Noise level in and around the plant area shall be kept well within prescribed standards by providing noise control measures including acoustic insulations, Hoods, silencers , enclosures vibrations dampers etc. On all source of noise generation. The | Complied. Noise monitoring in various location of plant is done by third party at regular frequency. Reports |

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| | ambient noise level shall be confirmed to the standard prescribed under Environment (Protection) Act and Rules. Work place noise level for the worker shall be as per the Factories Act and Rules. | are being submitted to Board on monthly basis. |
| A6 | CLEANER PRODUCTION AND WASTE MINIMIZATIONS: | |
| 28 | The company shall under take following waste Minimization measures. | |
| i | Metering and control of quantities of active ingredients to minimize waste. | Complied. |
| ii | Reuse by products from the process as a raw materials or raw materials substitutes in other processes. | TDI tar waste product is supplied to Cement Industry for co-processing. |
| iii | Use automated and close filling to minimize spillage. | Complied. |
| iv | Use of close feed system into batch reactor. | Complied. |
| v | Venting equipment through vapor recovery system. | Complied. |
| vi | Use of high pressure hose for equipment cleaning to reduce wastewater generation. | Complied. |
| A7 | GREEN BELT AND OTHER PLANTATIONS. | |
| 29 | A thick green belt in at least three rows for varying height shall be developed by to curtain the residual effect of air pollutant. | Being complied. |
| 30 | Company shall develop green belt within premises as per the CPCB guidelines. However if sufficient land is not available within the premises , unit shall tie up with local agencies like gram panchayat, schools, social forestry office etc. for necessary plantation at available land near by area and submit the action plan for plantation for next three years to GPCB. | Greenbelt will be developed as per the guidelines of CPCB. GNFC Dahej unit has planted 143 41 trees in the plant premises so far. |
| B | GENERAL CONDITIONS | |
| 31 | A separate Environment Management cell equipped with full flanged laboratory facilities shall be set up to carry out the Environment management and | Environment Management cell with laboratory facility is in place at the Complex. |

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| | monitoring functions. | |
| 32 | The company shall under take Eco- development measures including community welfare program most useful in the project area for overall improvement of the environment. The eco development plan shall be submitted to GPCB within Three month of receipt of the EC. | Company has taken various community welfare program which in turn will improve the surrounding environment. |
| 33 | The unit shall develop rain water harvesting structure to harvest the runoff water for recharge of ground water. Also harvesting of surface as well as rainwater from the roof top of the building proposed in the project shall be under taken and same water shall be used for various activities of the projects to conserve fresh water. | The plant is located near the estuary zone and the soil has greater salinity level with less permeability. However, necessary efforts have been in place to explore possibility of rain water recharge and development of harvesting systems. |
| 34 | At no time, emissions shall exceed the prescribed limits in the event of failure of any pollution control system adopted by the unit; the unit shall immediately put out operation and shall not be restarted until the desired efficiency has been achieved. | Being Complied |
| 35 | The project management shall also comply with all the environment protection measure, risk mitigations measure and safeguards recommended in the EIA/EMP report as well as other proposal made by them. | Being complied |
| 36 | The applicant shall also comply with any additional condition that may be imposed by SEAC or the SEIAA or any other competent for the purpose of the environment protection and management. | Agreed. If any additional condition will be imposed by SEAC or SEIAA in the future, we shall comply with the same for the protection of environment. |
| 37 | No further expansions or modifications in the plant shall be carried out without prior approval of the MoEF/SEIAA, as the case may be. In the case of deviations or alterations in the project proposal from | Agreed. EC granted by SEIAA for 18 MW Cogeneration Power vide letter no: |

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| | those submitted to MoEF/SEIAA/SEAC for clearance, a fresh reference shall be made to SEIAA/SEAC to assess the adequacy imposed and to add additional environmental protection measure required, if any. | SEIAA/GUJ/EC/1(d)/789/2018 dated 23/02/2018 |
| 38 | The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedules for all conditions stipulated herein. The funds so provided shall not be diverted for any other purpose. | Complied. |
| 39 | The applicant shall inform the public that the project has been accorded environment clearance by the SEIAA and that the copies of the clearance letter are available with GPCB and also be seen at the Website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated within the regions, one of the, which shall be in Gujarati language and other in the English. A copy of each of the same shall be forward to the concerned Regional office of the ministry. | Complied. |
| 40 | It shall be mandatory for the project management to submit half-yearly compliance report in the respect of the stipulated prior environment clearance terms and conditions in the hard and soft copies to the regulatory authorities concerned, on the 1 st June and 1 st December of each calendar year. | Being Complied. |
| 41 | The project authorities shall also adhere to stipulations made by the GPCB. | Noted and complied |
| 42 | The project authorities shall inform the CPCB, RO of MoEF and SEIAA about financial closure and final approval of the project by the concerned authorities and the date of start of the project. | Agreed. |
| 43 | The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory. | Agreed. |

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| 44 | The company intimate bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if any same is found necessary. The above conditions will be enforced, inter-alia under the provisions of the Water(Preventions and Control of Pollutions)Act-1974, Air (Preventions and Control of Pollutions) Act 1981, The Environment (Protection) Act-1986, Hazardous waste (Management & handling) Rules - 2003 and Public liability insurance Act 1991 along with their amendment. | Noted. |
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