Alembic Pharmaceuticals Limited, API-1



M/s. Alembic Pharmaceuticals Limited

API Division-I, Panelav, Halol, Panchmahal, Gujarat.

ENVIRONMENT CLEARANCE COMPLIANCE REPORT

Compliance 75 MT

Jan - June'2023



Submitted to



Ministry of Environment, Forest & Climate Change (MoEFCC)

Gujarat Pollution Control Board

Environment Clearance Compliance Report

EC No.: SEIAA/GUJ/EC/5(f)/856/2020, Issued dtd. 07 July 2020

Period: Jan-23 to June-23 Date: 14/09/2023

A. SPECIFIC CONDITIONS

| SN | Conditions | Compliance | | | | | |
|-------|--|---|------------|--------|--------|--------|--|
| A1 Sp | ecific Conditions: | | | | | | |
| 1. | PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30 th September 2020, considered as per the provision in force at the time as mentioned in the Notification vide S.O. 1223 (E) dtd. 27/03/2020. | Noted and shall comply | | | | | |
| 2. | PP Shall carry out proposed project/activities in respect of Active Pharmaceuticals Ingredients (API) as per the amended EIA Notification vide S.O. 1233 (E) dtd. 27/03/2020 and any subsequent amendments. | Noted and compl | ied | | | | |
| 3. | PP Shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority. | Complying | | | | | |
| 4. | PP shall use natural gas for utilities | Noted and compl | y | | | | |
| | preferably but in case use of other fuel, PP shall put properly designed APCM with regular/ periodic stack monitoring | stack monitoring is done timely The results are as below: | | | | | |
| | system. | Parameters | Standard | Jan-23 | Feb-22 | Mar-23 | |
| | | SPM | 150 mg/NM3 | 78.54 | 69.53 | 71.57 | |
| | | SO ₂ | 100 ppm | 74.95 | 68.21 | 65.01 | |
| | | NOx | 50 ppm | 40.89 | 39.10 | 40.62 | |
| | | | | | | | |
| | | Parameters | Standard | Apr-23 | May-23 | Jun-23 | |
| | | SPM | 150 mg/NM3 | 73.30 | 65.24 | 69.48 | |
| | | SO ₂ | 100 ppm | 66.15 | 74.86 | 74.94 | |
| | | NOx | 50 ppm | 38.45 | 37.09 | 40.12 | |

| SN | Conditions | Compliance |
|------|--|--|
| 5. | Unit shall provide adequate treatment to effluent before feeding it to MEE in such a way that no pollutant get air borne during evaporation to avoid adverse impact on Human Health & Environment. | For adequate treatment of the effluent, Stripper is installed for solvent separation and the stripper bottom (High TDS) collected is send as MEE feed in combination with RO reject |
| 6. ` | Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapors in such a manner that recovery shall maximum and recovered solvent shall be reused in the process within premises. | Dual Condensers having chilling water and cooling water supply is connected to reactors Adequate safety measures like breather valves and/or flame arrestors has been installed on all tanks and condensers. |
| 7. | Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR log books shall be maintained. | • Complying. |
| 8. | Complete Zero Liquid Discharge (ZLD) status shall be maintained all the time and there shall be no drainage connection from the premises. | Complied Company is having complete Zero liquid discharge (ZLD) facility. To treat industrial effluent, company is having adequate operations and systems like; ETPs, RO plants, Stripper, MEE and ATFD. Industrial effluent is categorised under low COD and high COD streams from manufacturing plants. Effluent generated form the manufacturing process, being treated in the conventional Effluent Treatment Plant (ETP) followed by Reverse Osmosis (RO). Furthermore, RO permeate water is 100% recycled in Boiler feed water and cooling tower make-up. In turn, RO reject is fed into Multiple Effect Evaporator (MEE). High COD content effluent is sent to Stripper, mixed solvent is stripped out form the top, spent solvent recovered form stripper is sell to authorised recycler and stripper bottom fed to MEE blending with RO reject MEE concentrate goes to Agitated thin film dryer (ATFD) and MEE condensate fed to conventional ETP for further treatment. |
| 9. | Unit shall explore the possibilities for environmental friendly methods for disposal of Incinerable & land fillable waste before sending to CHWIF/TSDF sites respectively. | Complied The boiler fly-ash is sent for brick manufacturing for coprocessing. Also, we have installed screw press for sludge dewatering effectively which decreases water content in sludge. |
| 10. | All measures shall be taken to prevent soil and ground water contamination. | Complied The plant area is paved on the ground and provided with channels connecting to the collection tanks for collection of all the spillages and wash waters, which is further pumped to the |

| SN | Conditions | Compliance | | Compliance | | | | | |
|-----|--|---|--|--|--|---|--|--|--|
| | | ETP. | | | | | | | |
| | | • The hazardous waste generated from the project activities are being handled on the impervious surfaces having leachate collection system connected to Effluent Treatment Plant for its safe disposal. | | | | | | | |
| 11. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16 th November, 2009 shall be complied with. | quality mo purpose. A monitoring | lied dentified specification which dequate location were decided on to f Ambient A | servers to server to ser | he adequat out ambie is of "Guid | e monitoring ent air quality elines for the | | | |
| | | Parameters | Standard | Jan-23 | Feb-23 | Mar-23 | | | |
| | | PM 10 | $100 \mu g / m^3$ | 62.23 | 63.91 | 59.50 | | | |
| | | PM 2.5 | $60 \mu \text{g/m}^3$ | 34.09 | 35.50 | 30.64 | | | |
| | | SO ₂ | $80 \mu g/ m^3$ | 11.75 | 11.92 | 10.91 | | | |
| | | NOx | $80 \mu g/ m^3$ | 15.92 | 16.33 | 15.82 | | | |
| | | | | | | | | | |
| | | Parameters | Standard | Apr-23 | May-23 | Jun-23 | | | |
| | | PM 10 | $100 \mu g / m^3$ | 56.75 | 64.58 | 58.23 | | | |
| | | PM 2.5 | 60 μg/ m ³ | 33.39 | 35.48 | 34.74 | | | |
| | | SO ₂ | $80 \mu \text{g/m}^3$ | 12.81 | 14.97 | 11.92 | | | |
| | | NOx | $80 \ \mu g/\ m^3$ | 14.22 | 16.12 | 14.06 | | | |
| 12. | National Emission standards for Organic Chemical Manufacturing industry issues by the Ministry vide G.S.R. 608 (E) dtd 21/07/2010 and amended from time to time shall be followed. | Agreed and comp | plying | | | | | | |
| 13. | Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same. | Agree and shall Comply | | | | | | | |
| 14. | The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority. | Noted | | | | | | | |
| 15. | Unit shall install CEMS in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated | | continuous mon ed. Also, current | _ | | | | | |

| SN | Conditions | Compliance | | | | | | |
|------------|---|--|--|-------------|--------|---------------|--|--|
| | 05.02.2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangements shall also be done for reflecting the online monitoring | Summary of online data is given below. | | | | | | |
| | results on the company's server, which can be assessable by the GPCB/ CPCB on real time basis. | Parameters | Results (Std.) | Jan-23 | Feb-23 | Mar-23 | | |
| | on real time basis. | BOD | 30 mg/L | BDL | BDL | BDL | | |
| | | COD | 100 mg/L | 4 | 4.06 | 4.01 | | |
| | | pН | 6.5-8.5 | 7.13 | 8.23 | 8.85 | | |
| | | TSS | 100 mg/L | 8 | BDL | BDL | | |
| | | Parameters | Results (Std.) | Apr-23 | May-23 | Jun-23 | | |
| | | BOD | 30 mg/L | BDL | 10 | 1.9 | | |
| | | COD | 100 mg/L | 7.90 | 41 | 8.22 | | |
| | | pН | 6.5-8.5 | 8.48 | 9.16 | 7.33 | | |
| | | TSS | 100 mg/L | BDL | BDL | BDL | | |
| 16. 17. | Storm water shall not be allowed to mix with scrubber water and floor washings. Storm water shall be channelized through separate drains passing through a HDPE lined pit having holding capacity of 10 minutes (hourly average) of rainfall. SAFETY: | Noted and shall comply Noted and complied | | | | | | |
| 16. | | | | | | | | |
| a. | PP shall obtain PESO permission for the storage and handling of hazardous chemicals (if applicable). | of hazardo | nission is been ous chemicals. b. P/HQ/GJ/15 bto 31/12/2023. | /1399 (P109 | | | | |
| b. | Flame proof electrical fittings shall be provided in the plant premises, wherever applicable. | Complied and in | nspected. | | | | | |
| c. | Unit shall provide double earthing to solvent storage tanks/ area. | | olvent storage with breather va | | _ | ole earthing, | | |
| d. | 1. Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. | connected with breather valves and flame arrestor. Complied Company has adequate water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm. | | | | | | |

| SN | Conditions | Complian | ce | | | |
|-------------|---|--|--|-------------------------------------|---|------------------------|
| | 2. Unit shall provide adequate safety system such as water sprinklers, | | Details of fire-fig | hting syster | ms Quanti | |
| | water curtains, foam pouring system etc. to restrict cascade fire | | DCP/ ABC type for extinguishers | ire | 342 | |
| | emergency in solvent tank farm. | | CO ₂ Type Fire Ex | tinguishers | 440 | |
| | | | Foam Type Fire E | extinguishers | s 29 | |
| | | | Ammonia Cylinde | er leakage K | iit 2 | |
| | | | Fire Hydrant Poin | ts | 141 | |
| | | | Foam Monitor | | 15 | |
| | | | Sand Buckets | | 14 | |
| | | | Spill Control Kit | | 32 | |
| | | | Safety Showers | | 72 | |
| | | | ARAFFF Foam (l | it) | 5840 | 1 |
| | | | SCBA Sets | | 17 | |
| | | | Fix Type Detection | on System | 1 | |
| | | | O ₂ Detector | | 129 | |
| | | | H ₂ Detector | | 24 | |
| | | | NH ₃ Detector | | 4 | |
| | | | Smoke Detector | | 257 | |
| f. | Unit shall store Bromine bottle in cool dry separate area, out of direct sunlight. | Not Applicable | | | | |
| g. | Unit shall provide water sprinkler and bund/ dyke wall to ammonia storage tank. | | uate water sprinkl onia storage tank. | er system | and dyke w | all provided to |
| h. | Unit shall provide safety valve and rupture disc, as well as auto quench/ suppress system for nitrogen vessel safety. | Adequate safety valve and rupture disc provided and proper | | | | |
| <u>A2 V</u> | <u>VATER:</u> | | | | | |
| 19. | Total water requirement of the project | Noted and | | | | |
| | shall not exceed 2419 KLD. Unit shall reuse 1119 KLD of treated effluent (Ind.: | • Water | consumption data | is as belov | | Watan |
| | reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water | • Water | Fresh (Narmad | Water | Recycled (Boiler + C | Cooling |
| | reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within | | Fresh | Water | Recycled (Boiler + C | Cooling |
| | reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water requirement shall not exceed 1300 KLD and it shall be met through Narmada | Mo | Fresh V (Narmad Usage onth (KL/ | Water a river) Usage | Recycled (Boiler + Comments tower | Cooling r) Usage |
| | reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water requirement shall not exceed 1300 KLD and it shall be met through Narmada | Mo Jar Fel | Fresh \(\text{Narmad}\) Usage \(\text{(KL/}\) Month) | Water a river) Usage (KLD) | Recycled (Boiler + Control towe Usage (KL/Month) | Cooling r) Usage (KLD) |

| SN | Conditions | Com | pliance | | | | | |
|-----|---|------|--------------|--------------|-------------|--|-------|--|
| | | | Apr-23 | 4698 | 156.60 | 4230 | 141 | |
| | | | May-23 | 5829 | 188.03 | 4247 | 137 | |
| | | | Jun-23 | 5836 | 194.50 | 4611 | 153.7 | |
| 20. | Prior permission from the concerned authority shall be obtained for withdrawal of water. | • | water. Last | authorizatio | n was valid | ained for the up to 29/06/2017 has bee | 2022. | |
| 21. | The industrial effluent generation from the project shall not exceed 1085 KLD. | Agre | eed and comp | olying | | | | |
| 22. | The industrial effluent shall be segregated into two streams | Agre | ed and comp | olying | | | | |
| | (1) Low Concentration Effluent stream(2) High Concentration Effluent streamand it shall be managed as below: | | | | | | | |
| | Low Concentration Effluent stream (789 KLD): | | | | | | | |
| | a. Low concentration effluent 789 KLD (WTP-RO Reject 202 KLD, washing 419 KLD, Boiler 20 KLD, cooling 103 KLD, scrubber 45 KLD) along with MEE condensate 510 KLD shall be treated in adequate ETP-1 consist of primary, secondary, tertiary treatment units followed by RO system. | | | | | | | |
| | b. RO permeate 1009 KLD shall be reused in cooling, boiler, washing and scrubber. | | | | | | | |
| | c. RO reject 269 KLD shall be fed to MEE. | | | | | | | |
| | High Concentration Effluent stream (296 KLD): | | | | | | | |
| | a. High concentration effluent generated from manufacturing process 296 KLD shall be treated in ETP-2, solvent Stripper. Stripper bottom 266 KLD along with RO reject 269 KLD shall be fed to MEE. | | | | | | | |
| | b. MEE concentrate shall be fed to ATFD for drying. | | | | | | | |
| | c. MEE and ATFD condensate 510 KLD shall be sent to ETP-1 for | | | | | | | |

| SN | Conditions | Compliance |
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| | further treatment. | |
| 23. | Unit shall provide adequate capacity of ETP, RO, MEE, ATFD and it shall be operated regularly and efficient Zero Liquid Discharge (ZLD) conditions all the time. | Effluent generated from production is segregated in to High COD and Low COD stream. Low COD effluent is treated in conventional ETP (Primary, secondary, followed by RO system). High COD effluent is treated through stripper followed by MEE and ATFD. Effluent is 100% treated in-house. Final treated effluent is reused in utility like; cooling tower, boiler etc. |
| 24. | Domestic wastewater generation shall not exceed 110 KLD and it shall be treated in STP (P+S+T). Treated domestic wastewater shall be utilized on land for gardening/ plantation purpose within premises. | Domestic effluent does not exceed 110 KLD. We are having STP with MBR technology. Treated domestic effluent is used for gardening within premises. |
| 25. | The unit shall provide metering facility at the inlet and outlet of ETP-1, ETP-2, RO, and STP, reuse line and maintain record for the same. Record of fresh water consumption on day-to-day basis shall be maintained. | Complied |
| 26. | Proper log books of ETP-1, ETP-2, RO, and STP, chemical consumption in effluent treatment, quantity & quality of effluent send to MEE and reuse, power consumption etc. shall be maintained and shall be furnished to the GPCB time to time. | All log sheet are available and maintained on daily basis. |

SN Conditions Compliance

A3 AIR:

27. Unit shall not exceed fuel consumption in steam boiler, TFH, Incinerator and DG Set as mentioned below:

| # | Source of | Stack | Type of | Qty. of Fuel | Air | APCM |
|---|-------------|--------------|-----------|----------------|---------------------|------------|
| | emission | Height | Fuel | MT/Day | Pollutants | |
| | With | (m) | | | | |
| | Capacity | | | | | |
| 1 | Boiler-01 | 30 | LDO | 6.00 | PM, SO ₂ | Bag Filter |
| | (4tph) | | (Existing | (4.32 Existing | & NO _x | |
| | | | was FO) | + 1.68 | | |
| | | | | Addition) | | |
| 2 | Boiler-02 | 35 | Agro- | 24.36 | PM, SO ₂ | Bag Filter |
| | (5tph) | | waste / | (No change) | & NO _x | |
| | | | Briquette | | | |
| 3 | Boiler-03 | 35 | Coal | 36.00 | PM, SO ₂ | ESP + |
| | (10tph) | | | (No Change) | & NO _x | Wet |
| | | | | | | Scrubber |
| 4 | Incinerator | 30 | LDO | 3.00 | PM, | Scrubber |
| | (50 kg/h) | | (Existing | (0.36 Existing | SO_2 , NO_X , | + |
| | | | was FO) | + 2.64 | HF, HCl, | Quencher |
| | | | | Addition) | TOC, CO, | |
| | | | | | Dioxin & | |
| | | | | | Furans | |
| 5 | Boiler-04 | 35 | Briquette | 90 (Briquette) | PM, SO ₂ | ESP+ |
| | (15tph) | | + Coal | + 19.5 (Coal) | & NO _x | Wet |
| | | | | | | Scrubber |
| 6 | Boiler-05 | 35 | Briquette | 90 (Briquette) | PM, SO ₂ | ESP + |
| | (15tph) | | + Coal | + 19.5 (Coal) | & NO _x | Wet |
| | | | | | | Scrubber |

Complied

• Fuel consumption does not exceed from prescribed limit. Details of fuel consumption is mentioned as below:

| Month | Coal | FO/LDO | HSD |
|---------|--------|--------|--------|
| | (MT/M) | (KL/M) | (KL/M) |
| Jan-23 | 1114 | 0 | 2.20 |
| Feb-23 | 1004 | 0 | 1.150 |
| Mar-23 | 1110 | 0 | 0.9 |
| Apr-23 | 1070 | 0 | 5.062 |
| May-23 | 1178 | 0 | 3.583 |
| June-23 | 1075 | 0 | 1.949 |

| SN | Condi | ions | | Compliance | | | | | | |
|-----|---------|---|---|------------------|----------------------------|-----------------------------|---------------------------|----------|--------------|---------------|
| 28. | Unit sl | nall provide adequate APCM with | Complied. The generation of gases are analyzed regularly; | | | | | | | |
| | | | | | | Parameters | Standard | Jan-23 | Feb-23 | Mar-23 |
| | | | | | | PM | 150 ppm | 78.54 | 69.53 | 71.57 |
| | | | | | | SO_2 | 100 ppm | 74.95 | 68.21 | 65.01 |
| | | | | | | NOx | 50 ppm | 40.89 | 39.10 | 40.62 |
| | | | | | | Parameters | Standard | Apr-23 | May-23 | June-23 |
| | | | | | | PM | 150 ppm | 73.30 | 65.24 | 69.48 |
| | | | | | | SO ₂ | 100 ppm | 66.15 | 74.86 | 74.94 |
| | | | NOx | 50 ppm | 38.45 | 37.09 | 40.12 | | | |
| | # | Specific Source of emission (Name of the Product & Process) | Type of emission | Stack Ht. (m) | APCM | Unit has pro adequate he | ovided adequate eight. | APCM wit | th process g | as stack with |
| | 1 | Pilot Plant | HCl & Cl ₂ | 12 | Water & Alkali | | | | | |
| | | Existing | 1101000 | | Scrubber | | | | | |
| | 2 | Plant-1 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 3 | | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 4 | Plant-3 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 5 | Plant-5 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 6 | Plant-7 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 7 | Plant-8 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 8 | <u> </u> | HCl & Cl ₂ | 12 | Water & Alkali | | | | | |

| SN | Conditi | ons | | | | Compliance |
|----|---------|-----------------------------|------------------------|----|----------------|------------|
| | | Existing | | | Scrubber | |
| | 9 | Plant-1 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 10 | Plant-2 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 11 | Plant-7 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 12 | Plant-8 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 13 | Plant-1D (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 14 | Plant-2B (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 15 | Plant-2C (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 16 | Plant-9 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 17 | Plant-10 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 18 | Plant-11 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 19 | Plant-12 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 20 | Plant-3 (Reaction Vessels) | HBr, Br ₂ , | 12 | Water & Alkali | |
| | | Proposed | HCl, Cl ₂ & | | Scrubber | |
| | | | SO_2 | | | |
| | 21 | Acid Storage Tanks | HCl & SO ₂ | 12 | Water & Alkali | |
| | | Proposed | | | Scrubber | |
| | 22 | Plant-1D (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 23 | Plant-2B (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 24 | Plant-2C (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 25 | Plant-9 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |

| 1 | Condi | tions | | | | Compliance |
|---|-------|-------------------------------|-----------------|----|----------------|------------|
| | | Proposed | | | & Acidic Soln. | |
| | 26 | 6 Plant-10 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 27 | Plant-11 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 28 | Plant-12 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 29 | Plant-5 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 30 | Ware house (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| SN | Conditions | Compliance |
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| 30. | The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standard prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety and health). Following indicated guidelines shall also be followed to reduce the fugitive emission. Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. Air borne dust shall be controlled with water sprinklers at suitable locations in the plant. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission. | Internal roads are made up of concrete to prevent fugitive emission. We are having 51007.44 m2 green belt area. Adequate green belt is under development. This year, we have planted 1044+ saplings in our premises and surroundings. |
| 31. | Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air. | Work zone area and ambient air monitoring is half yearly done and records are maintained in FORM-37. |
| 32. | For control of fugitive emission, VOCs, following steps shall be followed: a. Closed handling and charging system shall be provided for chemicals. b. Reflux condenser shall be provided over Reactors/ Vessels. c. Pumps shall be provided with mechanical seals to prevent leakages. d. Air borne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures. | Close handling and vacuum charging system is available. Adequate condensers are provided over reactors / vessels. All pumps are having mechanical seal to prevent leakages. Effective vacuum charging system is available for transferring of powder. |
| 33. | Solvent management shall be carried out as follows: ✓ Measures shall be taken to reduce the process vapors emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapor recovery system. ✓ Reactors shall be connected to adequate chilling system to condensate solvent vapors and reduce solvent losses. ✓ Reactors and solvent handling pump shall | Dual Condensers are connected with reactors. Each Condensers are having cooling water and chilling water supply. All the equipment and solvent handling systems are having adequate mechanical seals. All the condensers and heat exchangers are provided with adequate HTA. Hence, 95% recovery is achieved. Proper earthing and bonding are provided to tanks, pumps and solvent handling systems. Adequate safety measures like breather valves and/or |

| SN | Conditions | Compliance | | | | |
|-----|--|--|---|---|--|---|
| | have mechanical seals to prevent leakages. ✓ The condensers shall be provided with sufficient HTA and residence time to so as to achieve maximum solvent recovery. ✓ Solvent shall be stored in a separate space specified with all safety measures. ✓ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. ✓ Solvent storage and handling area shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. | flame arres | stors has been | taken to al | l tanks and | condensers. |
| 34. | Regular monitoring of ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ , NO _X , NH ₃ , HCl, Cl ₂ , HBr and VOC shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standard stipulated by GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of | quality mo purpose. A quality m "Guideline Pollutants' | onitoring which Adequate location and to the west for the provided by the control of the control | ch servers cations to vere decided Measuren CPCB. | the adequate carry out led on the carry of A section to the carry of A section to the carry of t | of ambient air te monitoring ambient air the basis of Ambient Air |
| | monitoring shall be decided in consultation with the GPCB. | Parameters | Results | Jan-23 | Feb-23 | Mar-23 |
| | | PM_{10} | (Std.) 100 μg/m3 | 62.23 | 63.91 | 59.50 |
| | | PM2.5 | 60 μg/m3 | 34.09 | 35.50 | 30.64 |
| | | SO ₂ | 80 μg/m3 | 11.75 | 11.92 | 10.91 |
| | | NO ₂ | 80 μg/m3 | 15.92 | 16.33 | 15.82 |
| | | Parameters | Results (Std.) | Apr-23 | May-23 | Jun-23 |
| | | PM_{10} | 100 μg/m3 | 56.75 | 64.58 | 58.23 |
| | | PM _{2.5} | 60 μg/m3 | 33.39 | 35.48 | 34.74 |
| | | SO ₂ | 80 μg/m3 | 12.81 | 14.97 | 11.92 |
| | | NO ₂ | 80 μg/m3 | 14.22 | 16.12 | 14.06 |
| | | | | | | |

Alembic Pharmaceuticals Limited, API Division-1 SN **Conditions Compliance** A4 SOLID / HAZARDOUS WASTE: All the hazardous waste management shall be taken care as mentioned below: Complied 35. Type/ Name Specific • Process residue & waste sent for co-processing to Cat. & Quantity Management of Source of Schedof HW (MT/Annum) GPCB approved cement industry. Hazardous generation ule as Proposed (Name of the Existing **Total** waste per **Co-Incinerable Waste** Activity, HW**Sent to Co-processing Product etc.**) Rules. **Process** Used Oil Maintenance 5.1 8.76 21.24 30 Re-refiner 1 Date-Expired **Spent** residue 2 Process ML & 28.1 30960 2040 33000 Co-Month Material Carbon & Waste (in MT) Residue & residue from (in MT) processing & (in KL) Waste Process **CHWIF** 28.3 28.5 28.1 3 28.2 0 150 150 Spent Process Returned to Jan-23 9.430 433.575 23.470 Catalyst the Feb-23 9.715 274.915 21.370 manufacturer Mar-23 10.000 334.800 11.900 Spent carbon Process 28.3 180 420 600 Co-309.680 20.410 Apr-23 & Hy-flow processing & May-23 9.140 452.980 32.740 **CHWIF** Off What so Jun-23 9.340 447.780 25.400 5 Rejected 28.4 What so Co-Specification Material ever ever processing & 47.625 2253.73 135.29 Total Product **CHWIF** generated generated Date Expired 28.5 Co-Stores What so What so

ever

generated

82300

1100

ever

generated

13200

600

69100

500

28.6

33.1

processing &

35500 MTA Onsite and 46800 MTA Offsite SRP with Rule 9 &/or Coprocessing &/or CHWIF

CHWIF

Recycler

Product

Empty

barrels/

Spent Solvent

Process

Material

Handling

 Land filling wastes like; ETP sludge and evaporated salt is sent to TSDF site to GPCB approved landfilling site.

| (| Con | ditions | | | | | | | Coi | mpliance | | | |
|---|-----|-------------------------------|--|------|-----|-------------|-------------|--|-----|----------|----------------------------------|------------------------------|--|
| | | containers/ liners | | | | | _ | | | | | | |
| | 9 | Contaminated cotton rags & | Contaminated & oil | 33.2 | 0.5 | 4.5 | 5 | Co- processing & | | | | Vaste Sent to T | |
| | | other cleaning material | swabbed cotton and rags, PPEs used by | | | | | CHWIF | | Month | ETP sludge (in MT) 35.3 | Evaporated salt (in MT) 37.3 | Incineration Ash (in MT) 37.2 |
| | | | workers | | | | | | | Jan-23 | 80.035 | 153.020 | 0 |
| ╟ | 10 | ETP sludge | ETP | 35.3 | 650 | 6850 | 7500 | TSDF | | Feb-23 | 17.790 | 153.090 | 0 |
| | 11 | Oil and | ETP | 35.4 | 0 | 25 | 25 | Со- | | Mar-23 | 0 | 214.700 | 0 |
| | | grease | | | | | | processing & | | Apr-23 | 88.360 | 141.480 | 0 |
| | | skimming | | | | | | CHWIF | | May-23 | 46.700 | 158.500 | 0 |
| | 12 | Distillation | Spend | 36.1 | 360 | 1640 | 2000 | Co- | | Jun-23 | 47.250 | 0 | 0 |
| | | residue | Solvent Distillation | | | | | processing & CHWIF | | Total | 280.135 | 820.790 | 0 |
| | 13 | Filler & Filter Material | Process equipment | 36.2 | 300 | 300 | 600 | In-house Incineration & CHWIF | | | | | |
| | 14 | Sludge from wet scrubbers | Scrubber Bleed | 37.1 | 0 | 16425 KL | 16425 KL | To ETP and disposed along with ETP sludge | | | | | |
| | | | Solids and sludge removed during Periodic cleaning of scrubbing liquid tank | 37.1 | 0 | 100 | 100 | Disposed to Secured Landfill site at TSDF | | | | | |
| | 15 | Incinerator Ash | Incinerator | 37.2 | 100 | 175 | 275 | TSDF | | | | | |
| | 16 | Evaporated Salt | ATFD | 37.3 | 450 | 8675 | 9125 | TSDF | | | | | |

| SN | Conditions | Compliance |
|-----|---|---|
| 36. | Authorized end-users shall have permissions from the concerned authorities under Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. | Noted & Complied |
| 37. | Unit shall explore the possibilities for environmental friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively. | Complied We are sending majority of the waste for co-processing. |

| SN | Conditions | Compliance |
|-----|--|-------------------|
| | A5 OTHER: | |
| 38. | The project proponent shall allocate the separate fund of Rs. 2.64 Crores i.e. >0.75% of additional capital investment for the activities in accordance to the MoEFCC's office Memorandum No. F.No. 22-65/2017-IA III dtd. 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent. | Noted and agreed |
| 39. | All the environmental protection measures and safeguards proposed by project proponent and commitments made in application shall be strictly adhered to in letter and spirit. | Agreed and comply |

B. GENERAL CONDITIONS

| SN | Conditions | Compliance |
|-----|--|--|
| | B1 CONSTRUCTION PHASE: | |
| 40. | Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices. | Noted and complied |
| 41. | Project proponent shall ensure that surrounding environment shall not be affected due to construction activity. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission. | Complied |
| 42. | All required sanitary and hygienic measures shall be provided before starting construction activities and to be maintained throughout the construction phase. | Agreed and complied |
| 43. | First Aid box shall be readily available in adequate | Complied |
| | quantity at all the times. | Total 30 nos. first aid boxes are available in throughout the premises. |
| | | Antidotes like Methylene blue, Dexona, Avil, Adrinaline, Atropine, Pam, Deriphyllin, Snake antivenom, Vitamin K are readily available at site. |
| 44. | The project proponent shall strictly comply with the Building and other Construction Workers (Regulation of Employment & Condition of Services) Act 1996 and Gujarat rules made there under and their subsequent amendments. Local bye-laws of concern authority shall be complied in letter and spirit. | Agreed and complied |
| 45. | Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase. | Noted and shall complied |
| 46. | Use of DG sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA rules for air and noise emission standards. | Noted and shall complied |
| 47. | Safe disposal of waste water and municipal solid waste generated during the construction phase shall be | Noted and shall comply |

| SN | Conditions | Compliance |
|-----|--|------------------------|
| | ensured. | |
| 48. | All top soil excavated during construction activity shall be used in horticulture/ landscape development within the project site. | Noted and shall comply |
| 49. | Excavated earth to be generated during the construction phase shall be utilized within the premises to the max. Extent possible and balance quantity of excavated earth shall be dispose of with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighboring communities. | Agreed and complied |
| 50. | Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, and Ready mix concrete (RMC) and lead free paints in the project. | Noted and shall comply |
| 51. | Fly ash shall be used in construction wherever applicable as per provisions of fly ash Notification under the EPA 1986 and its subsequent amendments from time to time. | Complied |
| 52. | "Wind - breaker of appropriate height i.e. $1/3^{rd}$ of the building height and maximum up to 10m shall be provided". Individual building within the project site shall also be provided with barricades. | Noted and shall comply |
| 53. | "No uncovered vehicles carrying construction material and waste shall be permitted." | Noted and shall comply |
| 54. | No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured. | Agreed and complied |
| 55. | Roads leading to or at construction site must be paved and blacktopped (i.e. metallic roads) | Complied |
| 56. | No excavation of soil shall be carried out without adequate dust mitigation measures in place. | Noted and shall comply |
| 57. | Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing. | Noted and shall comply |

| SN | Conditions | Compliano | ee | | | |
|-------------|--|--|--|--|--|----------------------------------|
| 58. | Grinding and cutting of building materials in open area shall be prohibited. | Noted and s | Noted and shall comply | | | |
| 59. | Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited. | Agreed and shall comply | | | | |
| 60. | Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site (if applicable). | Not applical | Not applicable | | | |
| <u>B2 O</u> | PERATION PHASE: | | | | | |
| | B2.1 WATER: | | | | | |
| 61. | The water meter shall be installed and records of daily and monthly water consumption shall be maintained. | | resh water o | consumpti | on is not exce | |
| | | | Fresh V | Vater | Recycled V | Vater |
| | | Month | Usage (KL/ Month) | Usage (KLD) | Usage (KL/Month) | Usage (KLD) |
| | | Jan-23 | 4830 | 155.81 | 3630 | 117.10 |
| | | Feb-23 | 4424 | 158.00 | 3634 | 129.8 |
| | | Mar-23 | 4923 4698 | 158.80 156.60 | 4142 4230 | 133.6 |
| | | Apr-23 May-23 | 5829 | 188.03 | 4230 | 137 |
| | | Jun-23 | 5836 | 194.50 | 4611 | 153.7 |
| 62. | All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously strive to reduce, recycle and reuse the treated effluent. | new te recycling Compa by his companion | chnology to ng. nny is havin gh pressur- ny is in pi | o optimize ng effecti e RO to rocess fo | looking forware water consurve RO system or reduce reject installation at treatment. | nption and n followed ect. Also, |
| | B2.2 AIR: | | | | | |
| 63. | In case of use of spray dryer, the unit shall provide the adequate and efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party | Not Ap | pplicable. A | s no spray | dryers are use | ed. |

| SN | Conditions | Compliance |
|-----|--|---|
| | monitoring of the proposed Spray Dryer & it's APCM through the credible institutes and study report for impacts on Environment & human health shall be submitted to GPCB every year along with half yearly compliance report. | |
| 64. | Acoustic enclosure shall be provided to the DG Sets (if applicable) to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission | Complying.Adequate acoustic enclosures are provided to D.G. Sets to mitigate noise pollution. |
| | standards. | Month Noise level Permissible level (8 hrs.) dB(A) |
| | | Jan-23 68 90 |
| | | Feb-23 62 90 |
| | | Mar-23 64 90 |
| | | Apr-23 65 90 |
| | | May-23 67 90 |
| | | Jun-23 68 90 |
| 65. | Stacks/ Vents (whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/ process gas emission. | Complied Adequate stack/vent height is provided to prevent flue and process gas emission. |
| 66. | Flue gas emission and process gas emission (if any) shall confirm to the standards prescribed by the GPCB/CPCB/MoEFCC. At no time, emission level should go beyond the stipulated standards. | Flue gas stack and process gas stack emission has its emission level below the stipulated standards as analyzed by Third party. |
| 67. | All the reactors/ vessels used in the manufacturing process shall be closed to reduce the fugitive emission. | All the reactors and vessels used in the manufacturing process are under close loop operation and connected with adequate condenser/scrubber system to reduce fugitive emission. |
| | B2.3 HAZARDOUS/ SOLID WASTE: | |
| 68. | The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as may be amended from time to time. Authorization of the GPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes. | Company is strictly following the norms of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, for collection / treatment / storage / disposal of hazardous wastes. |

| SN | Conditions | Compliance |
|-----|--|--|
| 69. | Hazardous waste shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal. | Properly dried & packed waste are stored separately according to the category of the waste and sent for disposal. Effective leachate collection system is available to treat leachate. |
| 70. | The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (whichever is applicable) | Complied Permission / Agreement are available for TSDF, coprocessing and CHIWIF. |
| 71. | Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and the rules made there under. | Agree and complied |
| 72. | The design of the trucks/tankers shall be such that there is no spillage during transportation. | Agree and complied |
| 73. | All possible efforts shall be made for co-processing of the hazardous waste prior to disposal into TSDF/CHWIF. | We are giving prime priority to co-processing. Also, we are continuously trying to generate possible options to dispose hazardous waste to co-processing rather than TSDF/SHWIF. |
| 74. | Management of fly ash (if any) shall be as per the Fly Ash Notification 2009 and its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit. | We are sending our fly-ash for brick manufacturing. |
| 75. | B.2.4 SAFETY: The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963. | Noted and complied |
| 76. | The project authorities shall strictly comply with the provisions made in Manufacture, Storage, and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approval from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented. | On-site emergency plan available. |

| SN | Conditions | Compliance |
|-----|--|--|
| 77. | Main entry and exit shall be separate and clearly marked in the facility. | Complied |
| 78. | Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/emergency vehicle around the premises. | Complied |
| 79. | Storage of flammable chemicals shall be sufficiently away from the production area. | Complied |
| 80. | Sufficient numbers of fire extinguishers shall be provided near the plant and storage area. | Complied |
| 81. | All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic/hazardous chemicals. | Complied |
| 82. | All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained before commencing the expansion activities. | Complied |
| 83. | The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment Report. | Complied |
| 84. | Only flame proof electrical fittings shall be provided in the plant premises. | CompliedIn plant premises, flame proof fittings are available. |
| 85. | Storage of hazardous chemicals shall be minimized and | Complied |
| | it shall be in multiple small capacity tanks/containers instead of one single large capacity tank/containers. | Adequate storage of hazardous chemicals in tanks, having suitable safety measures. |
| 86. | All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for hazardous chemicals. | All storage tanks having appropriate controls to avoid any leakage/ spillage. Dyke wall is provided to hazardous chemical storage tanks. |
| 87. | Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs. | Handling and charging of the chemicals are done under close condition through vacuum transfer to avoid human intervention. |
| 88. | Tie up shall be done with nearby health care unit/doctor for seeking immediate medical attention in the | Complied • In case of any emergency, company has tide up with |

| SN | Conditions | Compliance |
|-----|---|--|
| | case of emergency. | nearby hospital and also Mutual-aid is done with nearby company. |
| 89. | Personal Protective Equipment (PPEs) shall be provided to workers and its usage shall be ensured and supervised. | Required PPE's are provided to all the employees and workers to ensure personnel safety at workplace. |
| 90. | First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity. | Complied Total 30 nos. first aid boxes are available in throughout the premises. Antidotes like Methylene blue, Dexona, Avil, Adrinaline, Atropine, Pam, Deriphyllin, Snake antivenom, Vitamin K are readily available at site |
| 91. | Training shall be imparted to all the workers on safety and health aspects of chemical handling. | Complied Training is imparted to workers, contractual employees and company employees. Training calendar for health, safety and Environment is prepared and followed accordingly. Total 2578 employees attend training during Jul-22 to Dec-22. |
| 92. | Occupational Health Surveillance of the workers shall be done and its records shall be maintained. Preemployment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules. | Complied Occupational health surveillance of all employee is carried out twice in a year (every six month). Last health surveillance is done in Jan-2023. Pre-employment is carried out of all the employees before joining of the company. Periodical medical examination carried out by Bhailal Amin General Hospital (BAGH), Vadodara. Total 1115 nos. employees were covered in the Last health surveillance. |
| 93. | Transportation of the hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules. | Complied All the hazardous substance are transport as per the provisions of the Motor Vehicle Act & Rules. Hazardous waste is transport as per the guideline by the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. |
| 94. | The company shall implement all preventive and mitigation measures suggested in the Risk Assessment | Complied |

| ecessary permissions from various statutory thorities like PESO, Factory Inspectorate and others all be obtained prior to commissioning of the project. | Complied • PESO certificate No. P/HQ/GJ/15/1399. Dated on- | | | |
|--|--|--|--|--|
| thorities like PESO, Factory Inspectorate and others | | | | |
| | 09/03/2021 is renewed upto 31/12/2023 | | | |
| 2.5 NOISE: | | | | |
| ne overall noise level in and around the plant area all be kept well within the standards by providing bise control measures including engineering controls are acoustic insulation hoods, silencers, enclosures, c. on all sources of noise generation. The ambient bise level shall confirm to the standards prescribed ader The Environment (Protection) Act, 1986 and alles. | • Adequate control measures are provided to reduce noise. Ambient Noise monitoring and source noise monitoring is carried out by third party. Refer Annexure-1 | | | |
| 2.6 CLEANER PRODUCTION & WASTE INIMISATION: | | | | |
| ne unit shall undertake Cleaner Production ssessment study through a reputed stitute/organization and shall form a CP team in the impany. The recommendations thereof along with the impliance shall be furnished to the GPCB. | | | | |
| ne company shall undertake waste minimization reasures such as: a. Metering & 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. c. Use of automated and close fittings to minimize the spillages. d. Use of closed feed system into batch reactors. e. Venting equipment through vapor recovery system. f. Use of high-pressure hoses for cleaning to reduce wastewater generation. g. Recycling of washes to subsequent batches. h. Recycling of steam condensate. | Close loop system and vacuum handling system is available to avoid spillage. High pressure jet nozzle is available for effective cleaning of reactors to reduce wastewater generation. Steam condensate is recycle in process. Floor cleaning is done through mopping to avoid effluent generation. Regular preventive maintenance system is available to reduce leakages/ spillages form equipment. Stripper column is available in the production unit to recover solvent form high COD contained effluent which reduces the quantity of effluent. | | | |
| The second of th | e overall noise level in and around the plant area ll be kept well within the standards by providing se control measures including engineering controls e acoustic insulation hoods, silencers, enclosures, on all sources of noise generation. The ambient se level shall confirm to the standards prescribed for The Environment (Protection) Act, 1986 and les. 2.6 CLEANER PRODUCTION & WASTE NIMISATION: E unit shall undertake Cleaner Production sessment study through a reputed bitute/organization and shall form a CP team in the inpany. The recommendations thereof along with the inpliance shall be furnished to the GPCB. E company shall undertake waste minimization assures such as: a. Metering & 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. c. Use of automated and close fittings to minimize the spillages. d. Use of closed feed system into batch reactors. e. Venting equipment through vapor recovery system. f. Use of high-pressure hoses for cleaning to reduce wastewater generation. g. Recycling of washes to subsequent batches. | | | |

| SN | Conditions | Compliance | | |
|--|--|--|--|--|
| | washing to avoid effluent generation.j. Regular preventive maintenance for avoiding leakages, spillages, etc. | | | |
| | B.2.7 GREEN BELT AND OTHER PLANTATION: | | | |
| 99. | The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC/GPCB and submit an action plan for next three years to the GPCB. | • We are having 51007.44 m ² green belt area. Adequate green belt is under development. This year, we have planted 1044+ saplings in our premises and surroundings. | | |
| 100. | Drip Irrigation/low-volume, low-angle sprinkler system shall be used for the green belt development within the premises. | Complied Low-angle sprinkler systems are available for effective irrigation. | | |
| | B3 OTHER CONDITION: | | | |
| 101. Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF & CC vide no. F No. 22-34/2018-IA.III dtd 09/08/2018 for Pharmaceuticals and Chemical Industries mentioned at (Sr. No. XX). | | Noted and agreed | | |
| 102. | The provision of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastic Waste Management Rules, 2016 shall be followed. | Shall comply | | |
| 103. | Rain water harvesting (off-site) shall be undertake to conserve fresh water as well as recharge ground water. Before recharging the surface run-off, pre-treatment must be done to remove suspended matter (applicable for units consuming ground water ≥50 KLD in-line with the prevailing guidelines of SPCB). | Total 21 nos. of recharge bore well in the campus are available. All the recharge bore wells have adequate filtration system for the removal of suspended matter. | | |
| 104. | The unit shall join and participate financially and technically for any common environmental facility/infrastructure as and when the same is taken up either by the Industrial Association or GIDC or GPCB or any such authority created for this purpose by the Govt./GIDC. | Noted and agreed | | |

| SN | Conditions | Compliance | | |
|------|---|---|--|--|
| 105. | Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision of solar water heating system shall also be provided. | Noted and shall comply | | |
| 106. | The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose. | | | |
| 107. | All the commitments/ undertaking given as to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to. | f | | |
| 108. | The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management. | C e e | | |
| 109. | In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved. | Noted and agreed | | |
| 110. | The project authorities must strictly adhere to the stipulations made by the GPCB, State Government and any statutory authority. | Noted and agreed | | |
| 111. | During the material transfer there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water. | Shall comply | | |
| 112. | Pucca flooring/ impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination. | Impervious layer is available in the work areas, storage areas and chemical handling areas to avoid any kind of soil contamination. | | |
| 113. | Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly. | f Noted and agreed | | |
| 114. | No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority. | be carried | | |

| SN | Conditions | Compliance |
|------|--|--|
| 115. | The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules. | Noted and agreed |
| 116. | The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014' and its amendments from time to time in a letter and spirit. | CSR Activities are carrying out by Alembic CSR Foundation under: Educational activities like school adaptation, Community outreach programs, school education development for students of school, run by Rural Development Society, Training & Workshop to Children & Teachers, education facilities, industrial training program, Women Empowerment etc. Health activities like; Blood Transfusion Centre, free cancer care, medical assistance & treatment to socially & economically backward persons etc. Community developments like; personal hygiene & sanitation by constructing toilets, Adoption of Children's homes (orphans & social/economically backward groups), Adoption of Government Institution for destitute, Village Development Programs, etc. Environmental conservations like; assess the aqua zones wherein 15 artificial recharge wells has been constructed for ground water recharge. An earthen dam with waste weir was constructed in Parekhpura village last year. The structure is expected to store 6.37 crore litres of water and infuse 1.91 crore litres of water into the ground water every year was assessed this year post monsoon |
| 117. | The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as | Noted and shall comply |

| SN | Conditions | Compliance | | | |
|------|---|--|--|--|--|
| | well as proposed by project proponent. | | | | |
| 118. | The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose. | Noted and agreed | | | |
| 119. | The applicant shall inform the public that the project has been accorded environment clearance by SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in Gujarati language and the other in English. A copy of each of them shall be forwarded to the concerned Regional Office of the ministry. | Advertisement for the environmental clearance was published in widely circulated daily newspaper like; (1) Indian Express-English language (2) Gujarat Samachar-Regional Language. | | | |
| 120. | It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in soft copies to the regulatory authority concerned, on 1 st June 1 st December of each calendar year. | • Last EC compliance report of EC No SEIAA/GUJ/EC/5(f)/856/2020 was submitted dated 14/02/2023 to MoEF, Bhopal Regional | | | |
| 121. | Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986. | Noted and agreed | | | |
| 122. | The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board. | Noted and agreed Company is following the condition given in CC&A and maintaining the same. The environmental statement for each FY is sending to GPCB in Form-V. Form-V of FY 2022-23 was submitted on 30/05/2023. | | | |
| 123. | The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory. | Noted and agreed | | | |

| SN | Conditions | Compliance |
|------|---|---|
| 124. | The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. | Noted and agreed The company shall adhere to the stipulations made by governing authority and shall implement the same. |
| 125. | The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of the start of project. | Noted |
| 126. | This environmental clearance is valid for seven years from the date of issue. | Noted |
| 127. | Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010. | Noted and agreed |
| 128. | Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes environment clearance cancelled. | Noted and agreed |

Alembic Pharmaceuticals Limited, API-1



M/s. Alembic Pharmaceuticals Limited

API Division-I, Panelav, Halol, Panchmahal, Gujarat.

ENVIRONMENT CLEARANCE COMPLIANCE REPORT

Compliance 250 MT

Jan - June'2023



Submitted to



Ministry of Environment, Forest & Climate Change (MoEFCC)

Gujarat Pollution Control Board

Environment Clearance Compliance Report

EC No.: SEIAA/GUJ/EC/5(f)/856/2020, Issued dtd. 07 July 2020

Period: Jan-23 to June-23 Date: 14/09/2023

A. SPECIFIC CONDITIONS

| SN | Conditions | Compliance | | | | |
|-------|--|---|------------|--------|--------|--------|
| A1 Sr | A1 Specific Conditions: | | | | | |
| 1. | PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30 th September 2020, considered as per the provision in force at the time as mentioned in the Notification vide S.O. 1223 (E) dtd. 27/03/2020. | Noted and shall o | comply | | | |
| 2. | PP Shall carry out proposed project/activities in respect of Active Pharmaceuticals Ingredients (API) as per the amended EIA Notification vide S.O. 1233 (E) dtd. 27/03/2020 and any subsequent amendments. | Noted and compl | ied | | | |
| 3. | PP Shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority. | | | | | |
| 4. | PP shall use natural gas for utilities | Noted and compl | y | | | |
| | preferably but in case use of other fuel, PP shall put properly designed APCM with regular/ periodic stack monitoring | stack monitoring is done timely The results are as below: | | | | |
| | system. | Parameters | Standard | Jan-23 | Feb-22 | Mar-23 |
| | | SPM | 150 mg/NM3 | 78.54 | 69.53 | 71.57 |
| | | SO ₂ | 100 ppm | 74.95 | 68.21 | 65.01 |
| | | NOx | 50 ppm | 40.89 | 39.10 | 40.62 |
| | | | | | | |
| | | Parameters | Standard | Apr-23 | May-23 | Jun-23 |
| | | SPM | 150 mg/NM3 | 73.30 | 65.24 | 69.48 |
| | | SO ₂ | 100 ppm | 66.15 | 74.86 | 74.94 |
| | | NOx | 50 ppm | 38.45 | 37.09 | 40.12 |

| SN | Conditions | Compliance |
|------|--|--|
| 5. | Unit shall provide adequate treatment to effluent before feeding it to MEE in such a way that no pollutant get air borne during evaporation to avoid adverse impact on Human Health & Environment. | For adequate treatment of the effluent, Stripper is installed for solvent separation and the stripper bottom (High TDS) collected is send as MEE feed in combination with RO reject |
| 6. ` | Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapors in such a manner that recovery shall maximum and recovered solvent shall be reused in the process within premises. | Dual Condensers having chilling water and cooling water supply is connected to reactors Adequate safety measures like breather valves and/or flame arrestors has been installed on all tanks and condensers. |
| 7. | Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR log books shall be maintained. | • Complying. |
| 8. | Complete Zero Liquid Discharge (ZLD) status shall be maintained all the time and there shall be no drainage connection from the premises. | Complied Company is having complete Zero liquid discharge (ZLD) facility. To treat industrial effluent, company is having adequate operations and systems like; ETPs, RO plants, Stripper, MEE and ATFD. Industrial effluent is categorised under low COD and high COD streams from manufacturing plants. Effluent generated form the manufacturing process, being treated in the conventional Effluent Treatment Plant (ETP) followed by Reverse Osmosis (RO). Furthermore, RO permeate water is 100% recycled in Boiler feed water and cooling tower make-up. In turn, RO reject is fed into Multiple Effect Evaporator (MEE). High COD content effluent is sent to Stripper, mixed solvent is stripped out form the top, spent solvent recovered form stripper is sell to authorised recycler and stripper bottom fed to MEE blending with RO reject MEE concentrate goes to Agitated thin film dryer (ATFD) and MEE condensate fed to conventional ETP for further treatment. |
| 9. | Unit shall explore the possibilities for environmental friendly methods for disposal of Incinerable & land fillable waste before sending to CHWIF/TSDF sites respectively. | Complied The boiler fly-ash is sent for brick manufacturing for coprocessing. Also, we have installed screw press for sludge dewatering effectively which decreases water content in sludge. |
| 10. | All measures shall be taken to prevent soil and ground water contamination. | Complied • The plant area is paved on the ground and provided with channels connecting to the collection tanks for collection of all the spillages and wash waters, which is further pumped to the |

| SN | Conditions | Compliance | | | | | | |
|-----|--|---|--|------------|-------------|---------------|--|--|
| | | ETP. | | | | | | |
| | | being hand | ous waste gener lled on the imposted ystem connected al. | pervious s | surfaces ha | ving leachate | | |
| 11. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16 th November, 2009 shall be complied with. | We have identify more purpose. A monitoring | We have identified specific 4 nos. locations of ambient air quality monitoring which servers the adequate monitoring purpose. Adequate locations to carry out ambient air quality monitoring were decided on the basis of "Guidelines for the Measurement of Ambient Air Pollutants" provided by CPCB. | | | | | |
| | | Parameters | Standard | Jan-23 | Feb-23 | Mar-23 | | |
| | | PM 10 | $100 \mu g / m^3$ | 62.23 | 63.91 | 59.50 | | |
| | | PM 2.5 | $60 \mu \text{g/m}^3$ | 34.09 | 35.50 | 30.64 | | |
| | | SO ₂ | $80 \mu g/ m^3$ | 11.75 | 11.92 | 10.91 | | |
| | | NOx | $80 \mu g/ m^3$ | 15.92 | 16.33 | 15.82 | | |
| | | | | | | | | |
| | | Parameters | Standard | Apr-23 | May-23 | Jun-23 | | |
| | | PM 10 | $100 \mu g / m^3$ | 56.75 | 64.58 | 58.23 | | |
| | | PM 2.5 | 60 μg/ m ³ | 33.39 | 35.48 | 34.74 | | |
| | | SO ₂ | $80 \mu \text{g/m}^3$ | 12.81 | 14.97 | 11.92 | | |
| | | NOx | $80 \ \mu g/\ m^3$ | 14.22 | 16.12 | 14.06 | | |
| 12. | National Emission standards for Organic Chemical Manufacturing industry issues by the Ministry vide G.S.R. 608 (E) dtd 21/07/2010 and amended from time to time shall be followed. | Agreed and comp | plying | | | | | |
| 13. | Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same. | Agree and shall | Comply | | | | | |
| 14. | The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority. | Noted | | | | | | |
| 15. | Unit shall install CEMS in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated | | continuous mon ed. Also, current | _ | | | | |

| SN | Conditions | Compliance | | | | | |
|------------|---|--|---|-------------|--------|---------------|--|
| | 05.02.2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangements shall also be done for reflecting the online monitoring | Summary of online data is given below. | | | | | |
| | results on the company's server, which can be assessable by the GPCB/ CPCB on real time basis. | Parameters | Results (Std.) | Jan-23 | Feb-23 | Mar-23 | |
| | on real time basis. | BOD | 30 mg/L | BDL | BDL | BDL | |
| | | COD | 100 mg/L | 4 | 4.06 | 4.01 | |
| | | pН | 6.5-8.5 | 7.13 | 8.23 | 8.85 | |
| | | TSS | 100 mg/L | 8 | BDL | BDL | |
| | | Parameters | Results (Std.) | Apr-23 | May-23 | Jun-23 | |
| | | BOD | 30 mg/L | BDL | 10 | 1.9 | |
| | | COD | 100 mg/L | 7.90 | 41 | 8.22 | |
| | | pН | 6.5-8.5 | 8.48 | 9.16 | 7.33 | |
| | | TSS | 100 mg/L | BDL | BDL | BDL | |
| 16. 17. | Storm water shall not be allowed to mix with scrubber water and floor washings. Storm water shall be channelized through separate drains passing through a HDPE lined pit having holding capacity of 10 minutes (hourly average) of rainfall. SAFETY: | Noted and shall Noted and comp | | | | | |
| 16. | | | | | | | |
| a. | PP shall obtain PESO permission for the storage and handling of hazardous chemicals (if applicable). | of hazardo | nission is been ous chemicals. b. P/HQ/GJ/15 bto 31/12/2023. | /1399 (P109 | | | |
| b. | Flame proof electrical fittings shall be provided in the plant premises, wherever applicable. | Complied and in | nspected. | | | | |
| c. | Unit shall provide double earthing to solvent storage tanks/ area. | | olvent storage with breather va | | _ | ole earthing, | |
| d. | 1. Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. | | Company has adequate water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent | | | | |

| SN | Conditions | Compliar | ice | | Compliance | | | | |
|-------------|--|-----------------|---|-------------------------------------|---|---------------------------|--|--|--|
| | 2. Unit shall provide adequate safety | | Details of fire-fig | hting syster | ms Quantit | У | | | |
| | system such as water sprinklers, water curtains, foam pouring system | | DCP/ ABC type f | re | (nos.) | | | | |
| | etc. to restrict cascade fire | | extinguishers CO ₂ Type Fire Ex | tinguishers | 440 | | | | |
| | emergency in solvent tank farm. | | Foam Type Fire E | | | | | | |
| | | | Ammonia Cylinde | | | | | | |
| | | | Fire Hydrant Poin | | 141 | | | | |
| | | | Foam Monitor | | 15 | | | | |
| | | | Sand Buckets | | 14 | | | | |
| | | | Spill Control Kit | | 32 | | | | |
| | | | Safety Showers | | 72 | | | | |
| | | | ARAFFF Foam (1 | it) | 5840 | | | | |
| | | | SCBA Sets | <u> </u> | 17 | | | | |
| | | | Fix Type Detection | on System | | | | | |
| | | | O ₂ Detector | | 129 | | | | |
| | | | H ₂ Detector | | 24 | | | | |
| | | | NH ₃ Detector | | 4 | | | | |
| | | | Smoke Detector | | 257 | | | | |
| f. | material/chemical together. Unit shall store Bromine bottle in cool dry separate area, out of direct sunlight. | Chart Not Appli | cable | | | | | | |
| g. | Unit shall provide water sprinkler and bund/ dyke wall to ammonia storage tank. | | uate water sprinkl onia storage tank. | er system | and dyke wa | ll provided to | | | |
| h. | Unit shall provide safety valve and rupture disc, as well as auto quench/suppress system for nitrogen vessel safety. | • Adec | Complied Adequate safety valve and rupture disc provided and proper safety system is provided for nitrogen vessel safety. | | | | | | |
| <u>A2 W</u> | | | | | | | | | |
| | VATER: | | | | | | | | |
| 19. | Total water requirement of the project shall not exceed 2419 KLD. Unit shall | | shall comply cr consumption data | is as belov | v: | ety. | | | |
| 19. | Total water requirement of the project shall not exceed 2419 KLD. Unit shall reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water | | | Water | | Water ooling | | | |
| 19. | Total water requirement of the project shall not exceed 2419 KLD. Unit shall reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within | • Wate | er consumption data | Water | v: Recycled \(\text{(Boiler + C)} \) | Water ooling | | | |
| 19. | Total water requirement of the project shall not exceed 2419 KLD. Unit shall reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water requirement shall not exceed 1300 KLD and it shall be met through Narmada | • Wate | Fresh V (Narmad Usage onth (KL/ | Water a river) Usage | v: Recycled V (Boiler + C tower Usage | Water ooling | | | |
| 19. | Total water requirement of the project shall not exceed 2419 KLD. Unit shall reuse 1119 KLD of treated effluent (Ind.: 1009 KLD, Dom: 110 KLD) within premises. Hence, fresh water requirement shall not exceed 1300 KLD and it shall be met through Narmada | • Wate | Fresh V (Narmad Usage (KL/ Month) | Water a river) Usage (KLD) | v: Recycled V (Boiler + C tower Usage (KL/Month) | Water ooling Usage (KLD) | | | |

| SN | Conditions | Com | pliance | | | | | |
|-----|---|------|--------------|--------------|-------------|---|-------|--|
| | | | Apr-23 | 4698 | 156.60 | 4230 | 141 | |
| | | | May-23 | 5829 | 188.03 | 4247 | 137 | |
| | | | Jun-23 | 5836 | 194.50 | 4611 | 153.7 | |
| 20. | Prior permission from the concerned authority shall be obtained for withdrawal of water. | • | water. Last | authorizatio | n was valid | nined for the up to 29/06/2017 has been | 2022. | |
| 21. | The industrial effluent generation from the project shall not exceed 1085 KLD. | Agre | eed and comp | olying | | | | |
| 22. | The industrial effluent shall be segregated into two streams | Agre | ed and comp | olying | | | | |
| | (1) Low Concentration Effluent stream(2) High Concentration Effluent streamand it shall be managed as below: | | | | | | | |
| | Low Concentration Effluent stream (789 KLD): | | | | | | | |
| | a. Low concentration effluent 789 KLD (WTP-RO Reject 202 KLD, washing 419 KLD, Boiler 20 KLD, cooling 103 KLD, scrubber 45 KLD) along with MEE condensate 510 KLD shall be treated in adequate ETP-1 consist of primary, secondary, tertiary treatment units followed by RO system. | | | | | | | |
| | b. RO permeate 1009 KLD shall be reused in cooling, boiler, washing and scrubber. | | | | | | | |
| | c. RO reject 269 KLD shall be fed to MEE. | | | | | | | |
| | High Concentration Effluent stream (296 KLD): | | | | | | | |
| | a. High concentration effluent generated from manufacturing process 296 KLD shall be treated in ETP-2, solvent Stripper. Stripper bottom 266 KLD along with RO reject 269 KLD shall be fed to MEE. | | | | | | | |
| | b. MEE concentrate shall be fed to ATFD for drying. | | | | | | | |
| | c. MEE and ATFD condensate 510 KLD shall be sent to ETP-1 for | | | | | | | |

| SN | Conditions | Compliance |
|-----|--|---|
| | further treatment. | |
| 23. | Unit shall provide adequate capacity of ETP, RO, MEE, ATFD and it shall be operated regularly and efficient Zero Liquid Discharge (ZLD) conditions all the time. | Effluent generated from production is segregated in to High COD and Low COD stream. Low COD effluent is treated in conventional ETP (Primary, secondary, followed by RO system). High COD effluent is treated through stripper followed by MEE and ATFD. Effluent is 100% treated in-house. Final treated effluent is reused in utility like; cooling tower, boiler etc. |
| 24. | Domestic wastewater generation shall not exceed 110 KLD and it shall be treated in STP (P+S+T). Treated domestic wastewater shall be utilized on land for gardening/ plantation purpose within premises. | Domestic effluent does not exceed 110 KLD. We are having STP with MBR technology. Treated domestic effluent is used for gardening within premises. |
| 25. | The unit shall provide metering facility at the inlet and outlet of ETP-1, ETP-2, RO, and STP, reuse line and maintain record for the same. Record of fresh water consumption on day-to-day basis shall be maintained. | Complied |
| 26. | Proper log books of ETP-1, ETP-2, RO, and STP, chemical consumption in effluent treatment, quantity & quality of effluent send to MEE and reuse, power consumption etc. shall be maintained and shall be furnished to the GPCB time to time. | All log sheet are available and maintained on daily basis. |

SN Conditions Compliance

A3 AIR:

27. Unit shall not exceed fuel consumption in steam boiler, TFH, Incinerator and DG Set as mentioned below:

| # | Source of | Stack | Type of | Qty. of Fuel | Air | APCM |
|---|-------------|--------------|-----------|----------------|---------------------|------------|
| | emission | Height | Fuel | MT/Day | Pollutants | |
| | With | (m) | | | | |
| | Capacity | | | | | |
| 1 | Boiler-01 | 30 | LDO | 6.00 | PM, SO ₂ | Bag Filter |
| | (4tph) | | (Existing | (4.32 Existing | & NO _x | |
| | | | was FO) | + 1.68 | | |
| | | | | Addition) | | |
| 2 | Boiler-02 | 35 | Agro- | 24.36 | PM, SO ₂ | Bag Filter |
| | (5tph) | | waste / | (No change) | & NO _x | |
| | | | Briquette | | | |
| 3 | Boiler-03 | 35 | Coal | 36.00 | PM, SO ₂ | ESP + |
| | (10tph) | | | (No Change) | & NO _x | Wet |
| | | | | | | Scrubber |
| 4 | Incinerator | 30 | LDO | 3.00 | PM, | Scrubber |
| | (50 kg/h) | | (Existing | (0.36 Existing | SO_2 , NO_X , | + |
| | | | was FO) | + 2.64 | HF, HCl, | Quencher |
| | | | | Addition) | TOC, CO, | |
| | | | | | Dioxin & | |
| | | | | | Furans | |
| 5 | Boiler-04 | 35 | Briquette | 90 (Briquette) | PM, SO ₂ | ESP+ |
| | (15tph) | | + Coal | + 19.5 (Coal) | & NO _x | Wet |
| | | | | | | Scrubber |
| 6 | Boiler-05 | 35 | Briquette | 90 (Briquette) | PM, SO ₂ | ESP + |
| | (15tph) | | + Coal | + 19.5 (Coal) | & NO _x | Wet |
| | | | | | | Scrubber |

Complied

• Fuel consumption does not exceed from prescribed limit. Details of fuel consumption is mentioned as below:

| Month | Coal | FO/LDO | HSD | |
|---------|--------|--------|--------|--|
| | (MT/M) | (KL/M) | (KL/M) | |
| Jan-23 | 1114 | 0 | 2.20 | |
| Feb-23 | 1004 | 0 | 1.150 | |
| Mar-23 | 1110 | 0 | 0.9 | |
| Apr-23 | 1070 | 0 | 5.062 | |
| May-23 | 1178 | 0 | 3.583 | |
| June-23 | 1075 | 0 | 1.949 | |

| SN | Condi | ions | Compliance | | | | | | | |
|-----|---------|---|-----------------------|---|----------------------------|-----------------------------|---------------------------|----------|--------------|---------------|
| 28. | Unit sl | nall provide adequate APCM with | ource as mentioned | Complied. The generation of gases are analyzed regularly; | | | | | | |
| | | | | | | Parameters | Standard | Jan-23 | Feb-23 | Mar-23 |
| | | | | | | PM | 150 ppm | 78.54 | 69.53 | 71.57 |
| | | | | | | SO_2 | 100 ppm | 74.95 | 68.21 | 65.01 |
| | | | | | | NOx | 50 ppm | 40.89 | 39.10 | 40.62 |
| | | | | | | Parameters | Standard | Apr-23 | May-23 | June-23 |
| | | | | | | PM | 150 ppm | 73.30 | 65.24 | 69.48 |
| | | | | | | SO ₂ | 100 ppm | 66.15 | 74.86 | 74.94 |
| | | | | | | NOx | 50 ppm | 38.45 | 37.09 | 40.12 |
| | # | Specific Source of emission (Name of the Product & Process) | Type of emission | Stack Ht. (m) | APCM | Unit has pro adequate he | ovided adequate eight. | APCM wit | th process g | as stack with |
| | 1 | Pilot Plant | HCl & Cl ₂ | 12 | Water & Alkali | | | | | |
| | | Existing | 1101000 | | Scrubber | | | | | |
| | 2 | Plant-1 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 3 | | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 4 | Plant-3 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 5 | Plant-5 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 6 | Plant-7 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 7 | Plant-8 (Reaction Vessels) Existing | HCl & Cl ₂ | 12 | Water & Alkali Scrubber | | | | | |
| | 8 | <u> </u> | HCl & Cl ₂ | 12 | Water & Alkali | | | | | |

| SN | Conditi | ons | | | | Compliance |
|----|---------|-----------------------------|------------------------|----|----------------|------------|
| | | Existing | | | Scrubber | |
| | 9 | Plant-1 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 10 | Plant-2 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 11 | Plant-7 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 12 | Plant-8 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Existing | | | & Acidic Soln. | |
| | 13 | Plant-1D (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 14 | Plant-2B (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 15 | Plant-2C (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 16 | Plant-9 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 17 | Plant-10 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 18 | Plant-11 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 19 | Plant-12 (Reaction Vessels) | HCl, Cl ₂ & | 12 | Water & Alkali | |
| | | Proposed | SO_2 | | Scrubber | |
| | 20 | Plant-3 (Reaction Vessels) | HBr, Br ₂ , | 12 | Water & Alkali | |
| | | Proposed | HCl, Cl ₂ & | | Scrubber | |
| | | | SO_2 | | | |
| | 21 | Acid Storage Tanks | HCl & SO ₂ | 12 | Water & Alkali | |
| | | Proposed | | | Scrubber | |
| | 22 | Plant-1D (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 23 | Plant-2B (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 24 | Plant-2C (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 25 | Plant-9 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |

| 1 | Condi | tions | | Compliance | | |
|---|-------|-------------------------------|-----------------|------------|----------------|--|
| | | Proposed | | | & Acidic Soln. | |
| | 26 | 6 Plant-10 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 27 | Plant-11 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 28 | Plant-12 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 29 | Plant-5 (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | 30 | Ware house (Reaction Vessels) | NH ₃ | 12 | Chilled Water | |
| | | Proposed | | | & Acidic Soln. | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| SN | Conditions | Compliance |
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| 30. | The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standard prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety and health). Following indicated guidelines shall also be followed to reduce the fugitive emission. Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. Air borne dust shall be controlled with water sprinklers at suitable locations in the plant. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission. | Internal roads are made up of concrete to prevent fugitive emission. We are having 51007.44 m2 green belt area. Adequate green belt is under development. This year, we have planted 1044+ saplings in our premises and surroundings. |
| 31. | Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air. | Work zone area and ambient air monitoring is half yearly done and records are maintained in FORM-37. |
| 32. | For control of fugitive emission, VOCs, following steps shall be followed: a. Closed handling and charging system shall be provided for chemicals. b. Reflux condenser shall be provided over Reactors/ Vessels. c. Pumps shall be provided with mechanical seals to prevent leakages. d. Air borne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures. | Close handling and vacuum charging system is available. Adequate condensers are provided over reactors / vessels. All pumps are having mechanical seal to prevent leakages. Effective vacuum charging system is available for transferring of powder. |
| 33. | Solvent management shall be carried out as follows: ✓ Measures shall be taken to reduce the process vapors emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapor recovery system. ✓ Reactors shall be connected to adequate chilling system to condensate solvent vapors and reduce solvent losses. ✓ Reactors and solvent handling pump shall | Dual Condensers are connected with reactors. Each Condensers are having cooling water and chilling water supply. All the equipment and solvent handling systems are having adequate mechanical seals. All the condensers and heat exchangers are provided with adequate HTA. Hence, 95% recovery is achieved. Proper earthing and bonding are provided to tanks, pumps and solvent handling systems. Adequate safety measures like breather valves and/or |

| SN | Conditions | Compliance | | | | |
|-----|--|--|---|---|--|---|
| | have mechanical seals to prevent leakages. ✓ The condensers shall be provided with sufficient HTA and residence time to so as to achieve maximum solvent recovery. ✓ Solvent shall be stored in a separate space specified with all safety measures. ✓ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. ✓ Solvent storage and handling area shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. | flame arres | stors has been | taken to al | l tanks and | condensers. |
| 34. | Regular monitoring of ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ , NO _X , NH ₃ , HCl, Cl ₂ , HBr and VOC shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standard stipulated by GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of | quality mo purpose. A quality m "Guideline Pollutants' | onitoring which Adequate location and to the west for the provided by the control of the control | ch servers cations to vere decided Measuren CPCB. | the adequate carry out led on the carry of A section to the carry of A section to the carry of t | of ambient air te monitoring ambient air the basis of Ambient Air |
| | monitoring shall be decided in consultation with the GPCB. | Parameters | Results | Jan-23 | Feb-23 | Mar-23 |
| | | PM_{10} | (Std.) 100 μg/m3 | 62.23 | 63.91 | 59.50 |
| | | PM2.5 | 60 μg/m3 | 34.09 | 35.50 | 30.64 |
| | | SO ₂ | 80 μg/m3 | 11.75 | 11.92 | 10.91 |
| | | NO ₂ | 80 μg/m3 | 15.92 | 16.33 | 15.82 |
| | | Parameters | Results (Std.) | Apr-23 | May-23 | Jun-23 |
| | | PM_{10} | 100 μg/m3 | 56.75 | 64.58 | 58.23 |
| | | PM _{2.5} | 60 μg/m3 | 33.39 | 35.48 | 34.74 |
| | | SO ₂ | 80 μg/m3 | 12.81 | 14.97 | 11.92 |
| | | NO ₂ | 80 μg/m3 | 14.22 | 16.12 | 14.06 |
| | | | | | | |

Alembic Pharmaceuticals Limited, API Division-1 SN **Conditions Compliance** A4 SOLID / HAZARDOUS WASTE: All the hazardous waste management shall be taken care as mentioned below: Complied 35. Type/ Name Specific • Process residue & waste sent for co-processing to Cat. & Quantity Management of Source of Schedof HW (MT/Annum) GPCB approved cement industry. Hazardous generation ule as Proposed (Name of the Existing **Total** waste per **Co-Incinerable Waste** Activity, HW**Sent to Co-processing Product etc.**) Rules. **Process** Used Oil Maintenance 5.1 8.76 21.24 30 Re-refiner 1 Date-Expired **Spent** residue 2 Process ML & 28.1 30960 2040 33000 Co-Month Material Carbon & Waste (in MT) Residue & residue from (in MT) processing & (in KL) Waste Process **CHWIF** 28.3 28.5 28.1 3 28.2 0 150 150 Spent Process Returned to Jan-23 9.430 433.575 23.470 Catalyst the Feb-23 9.715 274.915 21.370 manufacturer Mar-23 10.000 334.800 11.900 Spent carbon Process 28.3 180 420 600 Co-309.680 20.410 Apr-23 & Hy-flow processing & May-23 9.140 452.980 32.740 **CHWIF** Off What so Jun-23 9.340 447.780 25.400 5 Rejected 28.4 What so Co-Specification Material ever ever processing & 47.625 2253.73 135.29 Total Product **CHWIF** generated generated Date Expired 28.5 Co-Stores What so What so

ever

generated

82300

1100

ever

generated

13200

600

69100

500

28.6

33.1

processing &

35500 MTA Onsite and 46800 MTA Offsite SRP with Rule 9 &/or Coprocessing &/or CHWIF

CHWIF

Recycler

Product

Empty

barrels/

Spent Solvent

Process

Material

Handling

 Land filling wastes like; ETP sludge and evaporated salt is sent to TSDF site to GPCB approved landfilling site.

| (| Conditions | | | | | Coi | mpliance | | | | | | |
|---|------------|-------------------------------|--|------|-----|-------------|-------------|--|--|--------|----------------------------------|------------------------------|--|
| | | containers/ liners | | | | | _ | | | | | | |
| | 9 | Contaminated cotton rags & | Contaminated & oil | 33.2 | 0.5 | 4.5 | 5 | Co- processing & | | | | Vaste Sent to T | |
| | | other cleaning material | swabbed cotton and rags, PPEs used by | | | | | CHWIF | | Month | ETP sludge (in MT) 35.3 | Evaporated salt (in MT) 37.3 | Incineration Ash (in MT) 37.2 |
| | | | workers | | | | | | | Jan-23 | 80.035 | 153.020 | 0 |
| ╟ | 10 | ETP sludge | ETP | 35.3 | 650 | 6850 | 7500 | TSDF | | Feb-23 | 17.790 | 153.090 | 0 |
| | 11 | Oil and | ETP | 35.4 | 0 | 25 | 25 | Со- | | Mar-23 | 0 | 214.700 | 0 |
| | | grease | | | | | | processing & | | Apr-23 | 88.360 | 141.480 | 0 |
| | | skimming | | | | | | CHWIF | | May-23 | 46.700 | 158.500 | 0 |
| | 12 | Distillation | Spend | 36.1 | 360 | 1640 | 2000 | Co- | | Jun-23 | 47.250 | 0 | 0 |
| | | residue | Solvent Distillation | | | | | processing & CHWIF | | Total | 280.135 | 820.790 | 0 |
| | 13 | Filler & Filter Material | Process equipment | 36.2 | 300 | 300 | 600 | In-house Incineration & CHWIF | | | | | |
| | 14 | Sludge from wet scrubbers | Scrubber Bleed | 37.1 | 0 | 16425 KL | 16425 KL | To ETP and disposed along with ETP sludge | | | | | |
| | | | Solids and sludge removed during Periodic cleaning of scrubbing liquid tank | 37.1 | 0 | 100 | 100 | Disposed to Secured Landfill site at TSDF | | | | | |
| | 15 | Incinerator Ash | Incinerator | 37.2 | 100 | 175 | 275 | TSDF | | | | | |
| | 16 | Evaporated Salt | ATFD | 37.3 | 450 | 8675 | 9125 | TSDF | | | | | |

| SN | Conditions | Compliance |
|-----|---|---|
| 36. | Authorized end-users shall have permissions from the concerned authorities under Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. | Noted & Complied |
| 37. | Unit shall explore the possibilities for environmental friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively. | Complied We are sending majority of the waste for co-processing. |

| SN | Conditions | Compliance |
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| | A5 OTHER: | |
| 38. | The project proponent shall allocate the separate fund of Rs. 2.64 Crores i.e. >0.75% of additional capital investment for the activities in accordance to the MoEFCC's office Memorandum No. F.No. 22-65/2017-IA III dtd. 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent. | Noted and agreed |
| 39. | All the environmental protection measures and safeguards proposed by project proponent and commitments made in application shall be strictly adhered to in letter and spirit. | Agreed and comply |

B. GENERAL CONDITIONS

| SN | Conditions | Compliance |
|-----|--|--|
| | B1 CONSTRUCTION PHASE: | |
| 40. | Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices. | Noted and complied |
| 41. | Project proponent shall ensure that surrounding environment shall not be affected due to construction activity. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission. | Complied |
| 42. | All required sanitary and hygienic measures shall be provided before starting construction activities and to be maintained throughout the construction phase. | Agreed and complied |
| 43. | First Aid box shall be readily available in adequate | Complied |
| | quantity at all the times. | Total 30 nos. first aid boxes are available in throughout the premises. |
| | | Antidotes like Methylene blue, Dexona, Avil, Adrinaline, Atropine, Pam, Deriphyllin, Snake antivenom, Vitamin K are readily available at site. |
| 44. | The project proponent shall strictly comply with the Building and other Construction Workers (Regulation of Employment & Condition of Services) Act 1996 and Gujarat rules made there under and their subsequent amendments. Local bye-laws of concern authority shall be complied in letter and spirit. | Agreed and complied |
| 45. | Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase. | Noted and shall complied |
| 46. | Use of DG sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA rules for air and noise emission standards. | Noted and shall complied |
| 47. | Safe disposal of waste water and municipal solid waste generated during the construction phase shall be | Noted and shall comply |

| SN | Conditions | Compliance |
|-----|--|------------------------|
| | ensured. | |
| 48. | All top soil excavated during construction activity shall be used in horticulture/ landscape development within the project site. | Noted and shall comply |
| 49. | Excavated earth to be generated during the construction phase shall be utilized within the premises to the max. Extent possible and balance quantity of excavated earth shall be dispose of with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighboring communities. | Agreed and complied |
| 50. | Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, and Ready mix concrete (RMC) and lead free paints in the project. | Noted and shall comply |
| 51. | Fly ash shall be used in construction wherever applicable as per provisions of fly ash Notification under the EPA 1986 and its subsequent amendments from time to time. | Complied |
| 52. | "Wind - breaker of appropriate height i.e. $1/3^{rd}$ of the building height and maximum up to 10m shall be provided". Individual building within the project site shall also be provided with barricades. | Noted and shall comply |
| 53. | "No uncovered vehicles carrying construction material and waste shall be permitted." | Noted and shall comply |
| 54. | No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured. | Agreed and complied |
| 55. | Roads leading to or at construction site must be paved and blacktopped (i.e. metallic roads) | Complied |
| 56. | No excavation of soil shall be carried out without adequate dust mitigation measures in place. | Noted and shall comply |
| 57. | Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing. | Noted and shall comply |

| SN | Conditions | Compliano | ce | | | |
|-------------|--|--|--|---|---|----------------------------------|
| 58. | Grinding and cutting of building materials in open area shall be prohibited. | Noted and shall comply | | | | |
| 59. | Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited. | Agreed and | shall compl | ly | | |
| 60. | Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site (if applicable). | Not applical | ble | | | |
| B2 O | PERATION PHASE: | | | | | |
| | B2.1 WATER: | | | | | |
| 61. | The water meter shall be installed and records of daily and monthly water consumption shall be maintained. | Noted and shall comply Total fresh water consumption is not exceed 160 m³/day. Water consumption data is as b | | | | |
| | | | Fresh V | Vater | Recycled V | Vater |
| | | Month | Usage (KL/ Month) | Usage (KLD) | Usage (KL/Month) | Usage (KLD) |
| | | Jan-23 | 4830 | 155.81 | 3630 | 117.10 |
| | | Feb-23 | 4424 | 158.00 | 3634 | 129.8 |
| | | Mar-23 | 4923 4698 | 158.80 156.60 | 4142 4230 | 133.6 |
| | | Apr-23 May-23 | 5829 | 188.03 | 4230 | 137 |
| | | Jun-23 | 5836 | 194.50 | 4611 | 153.7 |
| 62. | All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously strive to reduce, recycle and reuse the treated effluent. | new terecycline Comparison by his comparison | chnology to ng. nny is havin gh pressure ny is in pr | o optimize ng effecti e RO to rocess for | looking forware water consurve RO system oreduce rejurce installation at treatment. | nption and n followed ect. Also, |
| | B2.2 AIR: | | | | | |
| 63. | In case of use of spray dryer, the unit shall provide the adequate and efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party | Not Ap | oplicable. A | s no spray | dryers are use | ed. |

| SN | Conditions | Compliance | | | |
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| | monitoring of the proposed Spray Dryer & it's APCM through the credible institutes and study report for impacts on Environment & human health shall be submitted to GPCB every year along with half yearly compliance report. | | | | |
| 64. | Acoustic enclosure shall be provided to the DG Sets (if applicable) to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards. | Complying. Adequate acoustic enclosures are provided to D.G. Sets to mitigate noise pollution. | | | |
| | standards. | Month Noise level Permissible level (8 hrs.) dB(A) | | | |
| | | Jan-23 68 90 | | | |
| | | Feb-23 62 90 | | | |
| | | Mar-23 64 90 | | | |
| | | Apr-23 65 90 | | | |
| | | May-23 67 90 | | | |
| | | Jun-23 68 90 | | | |
| 65. | Stacks/ Vents (whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/ process gas emission. | Complied Adequate stack/vent height is provided to prevent flue and process gas emission. | | | |
| 66. | Flue gas emission and process gas emission (if any) shall confirm to the standards prescribed by the GPCB/CPCB/MoEFCC. At no time, emission level should go beyond the stipulated standards. | Flue gas stack and process gas stack emission has its emission level below the stipulated standards as analyzed by Third party. | | | |
| 67. | All the reactors/ vessels used in the manufacturing process shall be closed to reduce the fugitive emission. | All the reactors and vessels used in the manufacturing process are under close loop operation and connected with adequate condenser/scrubber system to reduce fugitive emission. | | | |
| | B2.3 HAZARDOUS/ SOLID WASTE: | | | | |
| 68. | The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as may be amended from time to time. Authorization of the GPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes. | Company is strictly following the norms of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, for collection / treatment / storage / disposal of hazardous wastes. | | | |

| SN | Conditions | Compliance |
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| 69. | Hazardous waste shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal. | Properly dried & packed waste are stored separately according to the category of the waste and sent for disposal. Effective leachate collection system is available to treat leachate. |
| 70. | The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (whichever is applicable) | Permission / Agreement are available for TSDF, co- processing and CHIWIF. |
| 71. | Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and the rules made there under. | Agree and complied |
| 72. | The design of the trucks/tankers shall be such that there is no spillage during transportation. | Agree and complied |
| 73. | All possible efforts shall be made for co-processing of the hazardous waste prior to disposal into TSDF/CHWIF. | We are giving prime priority to co-processing. Also, we are continuously trying to generate possible options to dispose hazardous waste to co-processing rather than TSDF/SHWIF. |
| 74. | Management of fly ash (if any) shall be as per the Fly Ash Notification 2009 and its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit. | We are sending our fly-ash for brick manufacturing. |
| | B.2.4 SAFETY: | |
| 75. | The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963. | Noted and complied |
| 76. | The project authorities shall strictly comply with the provisions made in Manufacture, Storage, and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approval from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented. | On-site emergency plan available. |

| SN | Conditions | Compliance |
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| 77. | Main entry and exit shall be separate and clearly marked in the facility. | Complied |
| 78. | Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/emergency vehicle around the premises. | Complied |
| 79. | Storage of flammable chemicals shall be sufficiently away from the production area. | Complied |
| 80. | Sufficient numbers of fire extinguishers shall be provided near the plant and storage area. | Complied |
| 81. | All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic/hazardous chemicals. | Complied |
| 82. | All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained before commencing the expansion activities. | Complied |
| 83. | The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment Report. | Complied |
| 84. | Only flame proof electrical fittings shall be provided in the plant premises. | CompliedIn plant premises, flame proof fittings are available. |
| 85. | Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks/containers instead of one single large capacity tank/containers. | Complied Adequate storage of hazardous chemicals in tanks, having suitable safety measures. |
| 86. | All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for hazardous chemicals. | All storage tanks having appropriate controls to avoid any leakage/ spillage. Dyke wall is provided to hazardous chemical storage tanks. |
| 87. | Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs. | Handling and charging of the chemicals are done under close condition through vacuum transfer to avoid human intervention. |
| 88. | Tie up shall be done with nearby health care unit/doctor for seeking immediate medical attention in the | Complied • In case of any emergency, company has tide up with |

| SN | Conditions | Compliance |
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| | case of emergency. | nearby hospital and also Mutual-aid is done with nearby company. |
| 89. | Personal Protective Equipment (PPEs) shall be provided to workers and its usage shall be ensured and supervised. | Required PPE's are provided to all the employees and workers to ensure personnel safety at workplace. |
| 90. | First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity. | Complied Total 30 nos. first aid boxes are available in throughout the premises. Antidotes like Methylene blue, Dexona, Avil, Adrinaline, Atropine, Pam, Deriphyllin, Snake antivenom, Vitamin K are readily available at site |
| 91. | Training shall be imparted to all the workers on safety and health aspects of chemical handling. | Training is imparted to workers, contractual employees and company employees. Training calendar for health, safety and Environment is prepared and followed accordingly. Total 2578 employees attend training during Jul-22 to Dec-22. |
| 92. | Occupational Health Surveillance of the workers shall be done and its records shall be maintained. Preemployment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules. | Complied Occupational health surveillance of all employee is carried out twice in a year (every six month). Last health surveillance is done in Jan-2023. Pre-employment is carried out of all the employees before joining of the company. Periodical medical examination carried out by Bhailal Amin General Hospital (BAGH), Vadodara. Total 1115 nos. employees were covered in the Last health surveillance. |
| 93. | Transportation of the hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules. | Complied All the hazardous substance are transport as per the provisions of the Motor Vehicle Act & Rules. Hazardous waste is transport as per the guideline by the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. |
| 94. | The company shall implement all preventive and mitigation measures suggested in the Risk Assessment | Complied |

| SN | Conditions | Compliance | | |
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| | Report. | | | |
| 95. | Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project. | Complied • PESO certificate No. P/HQ/GJ/15/1399. Dated on- 09/03/2021 is renewed upto 31/12/2023 | | |
| | B.2.5 NOISE: | | | |
| 96. | The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 and Rules. | Adequate control measures are provided to reduce noise. Ambient Noise monitoring and source noise monitoring is carried out by third party. Refer Annexure-1 | | |
| | B.2.6 CLEANER PRODUCTION & WASTE MINIMISATION: | | | |
| 97. | The unit shall undertake Cleaner Production Assessment study through a reputed institute/organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB. | Noted and shall comply | | |
| 98. | The company shall undertake waste minimization measures such as: a. Metering & 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. c. Use of automated and close fittings to minimize the spillages. d. Use of closed feed system into batch reactors. e. Venting equipment through vapor recovery system. f. Use of high-pressure hoses for cleaning to reduce wastewater generation. g. Recycling of washes to subsequent batches. h. Recycling of steam condensate. | Close loop system and vacuum handling system is available to avoid spillage. High pressure jet nozzle is available for effective cleaning of reactors to reduce wastewater generation. Steam condensate is recycle in process. Floor cleaning is done through mopping to avoid effluent generation. Regular preventive maintenance system is available to reduce leakages/ spillages form equipment. Stripper column is available in the production unit to recover solvent form high COD contained effluent which reduces the quantity of effluent. | | |
| | h. Recycling of steam condensate.i. Sweeping/Mopping of floor instead of floor | | | |

| SN | Conditions | Compliance |
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| | washing to avoid effluent generation. j. Regular preventive maintenance for avoiding | |
| | leakages, spillages, etc. | |
| | B.2.7 GREEN BELT AND OTHER PLANTATION: | |
| 99. | The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC/GPCB and submit an action plan for next three years to the GPCB. | We are having 51007.44 m² green belt area. Adequate green belt is under development. This year, we have planted 1044+ saplings in our premises and surroundings. |
| 100. | Drip Irrigation/low-volume, low-angle sprinkler system shall be used for the green belt development within the premises. | Complied Low-angle sprinkler systems are available for effective irrigation. |
| | B3 OTHER CONDITION: | |
| 101. | Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF & CC vide no. F No. 22-34/2018-IA.III dtd 09/08/2018 for Pharmaceuticals and Chemical Industries mentioned at (Sr. No. XX). | Noted and agreed |
| 102. | The provision of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastic Waste Management Rules, 2016 shall be followed. | Shall comply |
| 103. | Rain water harvesting (off-site) shall be undertake to conserve fresh water as well as recharge ground water. Before recharging the surface run-off, pre-treatment must be done to remove suspended matter (applicable for units consuming ground water ≥50 KLD in-line with the prevailing guidelines of SPCB). | Total 21 nos. of recharge bore well in the campus are available. All the recharge bore wells have adequate filtration system for the removal of suspended matter. |
| 104. | The unit shall join and participate financially and technically for any common environmental facility/infrastructure as and when the same is taken up either by the Industrial Association or GIDC or GPCB or any such authority created for this purpose by the Govt./GIDC. | Noted and agreed |

| SN | Conditions | Compliance |
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| 105. | Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision of solar water heating system shall also be provided. | Noted and shall comply |
| 106. | The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose. | Noted and agreed |
| | | We have already marked existing and proposed green belt area. |
| 107. | All the commitments/ undertaking given as to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to. | Noted and agreed. |
| 108. | The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management. | Noted and agreed |
| 109. | In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved. | Noted and agreed |
| 110. | The project authorities must strictly adhere to the stipulations made by the GPCB, State Government and any statutory authority. | Noted and agreed |
| 111. | During the material transfer there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water. | Shall comply |
| 112. | Pucca flooring/ impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination. | Impervious layer is available in the work areas, storage areas and chemical handling areas to avoid any kind of soil contamination. |
| 113. | Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly. | Noted and agreed |
| 114. | No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority. | Noted |

| SN | Conditions | Compliance |
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| 115. | The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules. | Noted and agreed |
| 116. | The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014' and its amendments from time to time in a letter and spirit. | CSR Activities are carrying out by Alembic CSR Foundation under: Educational activities like school adaptation, Community outreach programs, school education development for students of school, run by Rural Development Society, Training & Workshop to Children & Teachers, education facilities, industrial training program, Women Empowerment etc. Health activities like; Blood Transfusion Centre, free cancer care, medical assistance & treatment to socially & economically backward persons etc. Community developments like; personal hygiene & sanitation by constructing toilets, Adoption of Children's homes (orphans & social/economically backward groups), Adoption of Government Institution for destitute, Village Development Programs, etc. Environmental conservations like; assess the aqua zones wherein 15 artificial recharge wells has been constructed for ground water recharge. An earthen dam with waste weir was constructed in Parekhpura village last year. The structure is expected to store 6.37 crore litres of water and infuse 1.91 crore litres of water into the ground water every year was assessed this year post monsoon |
| 117. | The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as | Noted and shall comply |

| SN | Conditions | Compliance |
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| | well as proposed by project proponent. | |
| 118. | The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose. | Noted and agreed |
| 119. | The applicant shall inform the public that the project has been accorded environment clearance by SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in Gujarati language and the other in English. A copy of each of them shall be forwarded to the concerned Regional Office of the ministry. | Advertisement for the environmental clearance was published in widely circulated daily newspapers like; (1) Indian Express-English language (2) Gujarat Samachar-Regional Language. |
| 120. | It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in soft copies to the regulatory authority concerned, on 1 st June 1 st December of each calendar year. | Omplied ■ Last EC compliance report of EC No. SEIAA/GUJ/EC/5(f)/856/2020 was submitted dated 14/02/2023 to MoEF, Bhopal Regional Office and CPCB. |
| 121. | Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986. | Noted and agreed |
| 122. | The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board. | Noted and agreed Company is following the condition given in CC&A and maintaining the same. The environmental statement for each FY is sending to GPCB in Form-V. Form-V of FY 2022-23 was submitted on 30/05/2023. |
| 123. | The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory. | Noted and agreed |

| SN | Conditions | Compliance |
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| 124. | The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. | Noted and agreed The company shall adhere to the stipulations made by governing authority and shall implement the same. |
| 125. | The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of the start of project. | Noted |
| 126. | This environmental clearance is valid for seven years from the date of issue. | Noted |
| 127. | Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010. | Noted and agreed |
| 128. | Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes environment clearance cancelled. | Noted and agreed |