

S. J. PANDIT, IFS (Retd.)  
MEMBER SECRETARY  
SEIAA (GUJARAT)



STATE LEVEL ENVIRONMENT  
IMPACT ASSESSMENT  
AUTHORITY  
GUJARAT

Government of Gujarat

No. SEIAA/GUJ/EC/5(f)/965/2021

Date:

24 JUN 2021

By R P A D  
Time Limit

Sub: Environment Clearance to M/s. Atul Bioscience Ltd for setting up of expansion in manufacturing plant of 'Synthetic Organic Chemicals' [API and API Intermediates] at Plot No. 33p, 35-37p, Village: Atul-396020, Taluka & District: Valsad, Gujarat. In Category 5(f) of Schedule annexed with EIA Notification dated 14/09/2006.

Ref: Your Proposal No. SIA/GJ/IND2/172395/2020.

Dear Sir,

This has reference to your application along with Form-1 dated 05/11/2020 submitted to SEIAA, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006.

The proposal is for Environmental Clearance to M/s. Atul Bioscience Ltd for setting up of expansion in manufacturing plant of 'Synthetic Organic Chemicals' [API and API Intermediates] at Plot No. 33p, 35-37p, Village: Atul-396020, Taluka & District: Valsad, Gujarat. It is an existing unit for manufacturing following products, which falls in the category - 5(f) of the schedule of the EIA Notification-2006:

| Sr. No.        | Name of the Products                                     | CAS No.     | Quantity, MT/Month |          |       | Quantity MT/Annum | End-use of the products* |
|----------------|--|-------------|--------------------|----------|-------|-------------------|--------------------------|
|                |  |             | Existing           | Proposed | Total |                   |                          |
| <b>Group-1</b> |  |             |                    |          |       |                   |                          |
| 1              | 4-Methoxy Acetophenone (4 MAP)                           | 100-06-1    | 100                | 0        | 100   | 1200              | Intermediate             |
| 2              | 4-(2-methoxyethyl) phenol (4- MEP)                       | 56718-71-9  | 0                  | 25       | 25    | 300               | Intermediate             |
| <b>Group-2</b> |  |             |                    |          |       |                   |                          |
| 3              | 4-(2,3-Epoxypropoxyl)-9H-carbazole (4-EPC)               | 51997-51-4  | 18.5               | 0        | 18.5  | 222               | Intermediate             |
| 4              | R(+)-2-(Diphenylhydroxymethyl)-Pyrolidine (RADPP)        | 22348-32-9  | 1                  | 0        | 1     | 12                | Intermediate             |
| 5              | Diphenolprolinol CBS                                     | 112022-83-0 | 0.5                | 0        | 0.5   | 6                 | Intermediate             |
| <b>Group-3</b> |  |             |                    |          |       |                   |                          |
| 6              | Chloro Ethyl Ethyl carbonate (CEEC)                      | 50893-36-2  | 130                | 50       | 180   | 2160              | Intermediate             |
| 7              | 1-Chloro Ethyl Isopropyl Carbonate (1-CEIC)              | 98298-66-9  |                    |          |       |                   |                          |
| 8              | Chloro Ethyl Cyclohexyl Carbonate (CECC)                 | 99464-83-2  |                    |          |       |                   |                          |
| 9              | Chloro Methyl Isopropyl Carbonate (CMIC)                 | 35180-01-9  | 20                 | 50       | 70    | 840               | Intermediate             |
| 10             | Diphenyl Carbonate (DPC)                                 | 102-09-0    | 0                  | 20       | 20    | 240               | Intermediate             |
| 11             | 4-Nitrophenyl (5-thiazolylmethyl) carbonate (4-NPTC)     | 144163-97-3 | 0                  | 5        | 5     | 60                | Intermediate             |
| 12             | Sodium Tert Butyl Carbonate                              | 32793-04-7  | 0                  | 25       | 25    | 300               | Intermediate             |
| <b>Group-4</b> |  |             |                    |          |       |                   |                          |
| 13             | DBED Diacetate (N,N'-Dibenzylethylenediaminediacetate)   | 122-75-8    | 110                | -70      | 40    | 480               | Intermediate             |
| <b>Group-5</b> |  |             |                    |          |       |                   |                          |
| 14             | 2-Cyano 4-methylbiphenyl (OTBN)                          | 114772-53-1 | 60                 | 0        | 60    | 720               | Intermediate             |
| 15             | Z-Valine [N-(Benzyloxycarbonyl)-L-valine (CBZ-L-VALINE)] | 1149-26-4   |                    |          |       |                   |                          |
| 16             | L-Valine Methyl Ester (LVME HCl)                         | 6306-52-1   | 10                 | 15       | 25    | 300               | Intermediate             |



|          |   |                          |     |        |         |          |              |
|----------|---|--------------------------|-----|--------|---------|----------|--------------|
| 50       | 2S,3S,5S)-2-Amino-3-Hydroxy-5-(Tert-Butyloxy Carbonyl) Amino-1,6-Diphenyl Hemi Succinic Acid Salt (Succinate salt_Ritonavir intermediate) | 183388-64-9              | 0   | 5      | 5       | 60       | Intermediate |
| 51       | 1-Hydroxycyclohexyl(4-methoxyphenyl) acetonitrile (Venla-1)   | 93413-76-4               | 0   | 25     | 25      | 300      | Intermediate |
| 52       | [1-[2-amino-1-(4-methoxyphenyl)ethyl]cyclohexyl] acetate (Venla-II acetate   hydrochloride)   | 839705-03-2 /130198-05-9 | 0   | 25     | 25      | 300      | Intermediate |
| 53       | Iminostilbene   | 256-96-2                 | 0   | 21     | 21      | 252      | Intermediate |
| 54       | (S)-2-Benzothiazolyl (Z)-2-(2-aminothiazole-4-yl)-2-methoxycarbonylmethoxyimino thioacetate (MICA ester)                                  | 89605-09-4               | 0   | 65     | 65      | 780      | Intermediate |
| 55       | (Z)-2-Methoxyimino-2-furanacetic acid ammonium salt (SMIA)  | 97148-39-5               | 0   | 25     | 25      | 300      | Intermediate |
| 56       | 10-Methoxy Iminostilbene  | 4698-11-7                | 0   | 21     | 21      | 252      | Intermediate |
| 57       | Ethyl 2-(2-aminothiazol-4-yl)-2-methoxyiminoacetate(MAEM ester)   | 60846-15-3               | 0   | 25     | 25      | 300      | Intermediate |
| 58       | Mercapto Benzothiazole-4-YL-2 (2-Amino Thiazolyl) Methoxyimino Acetate (MAEM)   | 80756-85-0               | 0   | 25     | 25      | 300      | Intermediate |
| Group-10 |   |                          |     |        |         |          |              |
| 59       | N-Ethyl ethylene diamine (NEED)   | 110-72-5                 | 0   | 20     | 20      | 240      | Intermediate |
| 60       | 4-Ethyl-2, 3-dioxopiperazine (EDP)  | 59702-31-7               | 0   | 15     | 15      | 180      | Intermediate |
| 61       | 5-Hydroxy methyl thiazole (5-HMT)   | 38585-74-9               | 0   | 5      | 5       | 60       | Intermediate |
| Group-11 |   |                          |     |        |         |          |              |
| 62       | Thiophene 2-Carboxaldehyde (2-TC)   | 98-03-3                  | 0   | 30     | 30      | 360      | Intermediate |
| 63       | Thiophene-2-Ethyl Amine   | 30433-91-1               | 0   | 5      | 5       | 60       | Intermediate |
| 64       | 4,5,6,7-Tetrahydrothio[3,2-c]Pyridine (TTP)   | 54903-50-3               | 0   | 5      | 5       | 60       | Intermediate |
| 65       | Aminoguanidine Bicarbonate (AGC)  | 2582-30-1                | 0   | 16.66  | 16.66   | 199.92   | Intermediate |
| Group-12 |   |                          |     |        |         |          |              |
| 66       | Acyclovir   | 59277-89-3               | 0   | 5      | 5       | 60       | API          |
| Total    |   |                          | 470 | 914.16 | 1384.16 | 16609.92 |              |

The project activity is covered in 5(f) and is of 'B' Category. Since, the proposed project is categorized as B2 category project by SEAC and as per the MoEF&CC's amended EIA Notification vide S.O. 1223(E) dated 27.03.2020, public consultation is not required as per paragraph 7(i) (III) (i) (b)&(e) of the Environment Impact Assessment Notification-2006.

The SEAC, Gujarat vide their letter dated 11/06/2021 had recommended to the SEIAA, Gujarat, to grant the Environment Clearance for the above-mentioned project based on its meeting held on 28/01/2021. The proposal was considered by SEIAA, Gujarat in its meeting held on 12/06/2021 at Gandhinagar. After careful consideration, the SEIAA hereby accords Environmental Clearance to above project under the provisions of EIA Notification dated 14<sup>th</sup> September, 2006 subject to the compliance of the following conditions.

**A. CONDITIONS:**

**A.1 SPECIFIC CONDITION:**

1. PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30th March 2021, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020 and S.O. 3636 (E) dated 15/10/2020.
2. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
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. Wastewater shall be fed to in-house MEE only after providing adequate treatment in such a way that no pollutant get air borne during evaporation to avoid adverse impact on Human Health & Environment.
5. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a

manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.

6. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
7. PP shall maintain Complete Zero Liquid Discharge [ZLD] status all the time after expansion and there shall be no drainage connection from the premises and no wastewater discharge outside premises by any means.
8. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.
9. PP shall obtain raw water permission for proposed expansion project from competent authority before start expansion production activity.
10. PP shall not dig bore well within premises as per details submitted by PP and shall abstract raw water from ground water source. i.e. bore well within premises after obtain permission from CGWA.
11. PP shall strictly adhere and complying agreement made by PP for power and steam requirement for proposed project, from nearby sister concern unit M/s Atul Ltd as per agreement submitted by PP.
12. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water in case of any shut down of MEE.
13. The PP shall develop green belt within premises (12855 m<sup>2</sup> i.e. 33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.
14. Unit shall obtain all required permissions from the Narcotics Control Bureau for manufacturing, storage and handling of Acetic Anhydride & any such chemicals.

**15. Safety & Health:**

- a) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- b) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- c) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- d) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- e) PP shall obtain PESO permission for the storage and handling of hazardous chemicals. (If applicable)
- f) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- g) PP shall install adequate fire hydrant system within premises and separate storage of water for the same shall be ensured by PP.
- h) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
  - i) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
  - j) Unit shall provide water sprinkler to the ammonia storage cylinder.
  - k) Unit shall provide safety valve and rupture disc, as well as auto dump or autos quench/, suppress system for exothermic reaction vessel safety.
  - l) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.
  - m) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety
  - n) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.
  - o) Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.

**A. 2 WATER:**

16. Total water requirement for the project shall not exceed 598 KLD. Unit shall reuse 399.20 KLD treated wastewater. Hence fresh water shall not exceed 198.80 KLD. It shall be met through from River water (Par River) and from nearby municipal STPs. Prior permission from the concerned authority shall be obtained for withdrawal of water.
17. The industrial effluent generation from the project shall not exceed 450.50 KLD after expansion.
18. Industrial effluent shall be segregated into two streams (1) High COD and TDS effluent (2) Low COD and TDS effluent and it shall be managed as below.
  - **High COD and TDS effluent (147 KLD)**
    - 147 KLD, high COD effluent from process shall be treated in primary ETP followed by solvent stripper and then it shall be evaporated in in-house MEE cum ATFD. 137 KLD, MEE condensate shall be further treated

in Low COD stream ETP.

• **Low COD and TDS effluent (303.50 KLD):**

- 303.50 KLD, Low COD and TDS effluent from utility along with 137 KLD, MEE condensate shall be treated in ETP consist of primary, secondary and tertiary ETP units. Treated effluent shall be further passed through ultra filtration/RO plant and 399.20 KLD, RO permeate shall be reused back in process while 44.30 KLD, RO reject shall be evaporated in in-house MEE.

19. Domestic wastewater generation shall not exceed 10 KL/Day for proposed project and it shall be treated in STP. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.
20. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be stored within premises. There shall be no discharge of waste water outside the premises in any case.
21. Unit shall feed wastewater to in-house MEE only after ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
22. The unit shall provide metering facility at the inlet and outlets of ETP, RO, MEE and maintain records for the same.
23. Proper logbooks of ETP; chemical consumption in Effluent treatment; quantity & quality of effluent sent to MEE; quantity & quality of effluent recycle back in process, power consumption etc shall be maintained and shall be furnished to the GPCB from time to time.

**A.3 AIR:**

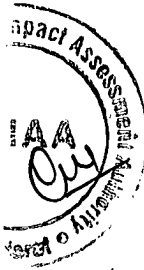
24. Unit shall not exceed fuel consumption for D. G. Set as mentioned below:

| Sr. no.                               | Source of emission With Capacity      | Stack Height (meter) | Type of Fuel | Quantity of Fuel MT/Day | Type of emissions i.e. Air Pollutants | Air Pollution Control Measures (APCM) |
|---------------------------------------|---------------------------------------|----------------------|--------------|-------------------------|---------------------------------------|---------------------------------------|
| Existing                              |                                       |                      |              |                         |                                       |                                       |
| 1                                     | Steam from Co-gen CPP of Atul Limited | --                   | --           | --                      | --                                    | --                                    |
| 2                                     | DG Set (50 kVA) (Stand by)            | 11                   | HSD          | 12 Lit/Hrs              | Adequate Stack height                 | PM, SO <sub>2</sub> , NO <sub>x</sub> |
| Proposed                              |                                       |                      |              |                         |                                       |                                       |
| No additional Flue gas stack proposed |                                       |                      |              |                         |                                       |                                       |

25. Unit shall provide adequate APCM with flue gas generation sources as mentioned above.
26. Unit shall provide adequate APCM with process gas generation sources as mentioned below:

| Sr. no.                           | Specific Source of emission (Name of the Product & Process) | Type of emissions i.e. Air Pollutants (SO <sub>2</sub> , HCl, Cl etc.) | Stack/Vent Height (meter) | Air Pollution Control Measures (APCM) |
|-----------------------------------|---|--|---------------------------|---------------------------------------|
| Existing                          |   |  |                           |                                       |
| 1                                 | MPP1  | HCl, SO <sub>2</sub>   | 12                        | Water & Alkaline Scrubber             |
| Proposed addition after expansion |   |  |                           |                                       |
| 2                                 | MPP2  | HCl, SO <sub>2</sub> , NH <sub>3</sub>                                 | 12                        | Water & Alkaline Scrubber             |
| 3                                 | MPP3  | HCl, SO <sub>2</sub> , NH <sub>3</sub>                                 | 12                        | Water & Alkaline Scrubber             |
| 4                                 | MPP4  | HCl, SO <sub>2</sub> , NH <sub>3</sub>                                 | 12                        | Water & Alkaline Scrubber             |
| 5                                 | MPP5  | HCl, SO <sub>2</sub> , NH <sub>3</sub>                                 | 12                        | Water & Alkaline Scrubber             |

27. The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health). Following indicative 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.
28. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.
29. 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.
30. Solvent management shall be carried out as follows:



- ✓ Measures shall be taken to reduce the process vapours emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapour recovery system
- ✓ Reactor shall be connected to adequate chilling system to condensate solvent vapours and reduce solvent losses.
- ✓ Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
- ✓ The condensers shall be provided with sufficient HTA and residence time so as to achieve maximum solvent recovery.
- ✓ Solvents shall be stored in a separate space specified with all safety measures.
- ✓ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
- ✓ Solvent storage and handling area shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

31. Regular monitoring of ground level concentration of PM10, PM2.5, SO<sub>2</sub>, NO<sub>x</sub>, HCl, NH<sub>3</sub> and VOC shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the 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 monitoring shall be decided in consultation with the GPCB.

#### A.4 SOLID / HAZARDOUS WASTE:

32. All the hazardous waste management shall be taken care as mentioned below:

| Sr. No. | Type/ Name of Hazardous waste         | Specific Source of generation (Name of the Activity, Product etc.) | Category No. as per HWM rules, 2016 | Quantity                               |   |   | Method of Disposal   |
|---------|---------------------------------------|--|-------------------------------------|--|---|---|--|
|         |                                       |  |                                     | Existing                               | Proposed                                | Total                                   |  |
| 1.      | ETP Waste                             | ETP  | 35.3                                | 0.0*                                   | 1200<br>MT/Annum                        | 1200<br>MT/Annum                        | Collection, storage & disposal at TSDF site approved by GPCB.                                      |
| 2.      | MEE Salt                              | MEE  | 35.3                                | 0.0**                                  | 8767<br>MT/Annum                        | 11326<br>MT/Annum                       |  |
| 3.      | Distillation residue-Process          | Process  | 28.1                                | 20.64<br>MT/Annum                      | 4002.36<br>MT/Annum                     | 4023<br>MT/Annum                        | Collection, storage & disposal at CHWIF or co-processing.  |
| 4.      | Distillation residue-Stripper         | Process  | 28.1                                | 0.0***                                 | 624<br>MT/Annum                         | 936<br>MT/Annum                         |  |
| 5.      | Inorganic salt                        | Process  | 28.1                                | 0.0                                    | 1144<br>MT/Annum                        | 1144<br>MT/Annum                        | Collection, storage & disposal at TSDF site approved by GPCB.                                      |
| 6.      | Used Activated carbon                 | Process  | 28.3                                | 0.0                                    | 78<br>MT/Annum                          | 78<br>MT/Annum                          | Collection, storage & disposal at CHWIF or co-processing.  |
| 7.      | Spent catalyst                        | Process  | 28.2                                | 0.0                                    | 30<br>MT/Annum                          | 30<br>MT/Annum                          | Collection, storage & return back to supplier for regeneration.                                    |
| 8.      | Spent solvent                         | Process  | 28.6                                | ---                                    | 66264<br>MT/Annum                       | 66264<br>MT/Annum                       | Collection, storage, Distillation and reuse in process/selling to actual user                      |
| 9.      | Discarded containers/ barrels/ Liners | Storage & handling of Raw Materials                                | 33.1                                | 6000<br>Nos./Annum<br>26.4<br>MT/Annum | 18000<br>Nos./Annum<br>79.2<br>MT/Annum | 2400<br>Nos./Annum<br>105.6<br>MT/Annum | Collection, storage and reuse for packing of products or disposal by selling to approved recycler. |
| 10.     | Off Specific Products                 | --   | 28.4                                | Whatsoever generation                  |   |   | Collection, storage & disposal at CHWIF.   |
| 11.     | Date expired product                  | --   | 28.5                                | Whatsoever generation                  |   |   |  |
| 12.     | Used Lubricating Oil                  | D G Sets & other machineries                                       | 5.1                                 | 0.5<br>KL/Annum                        | 0.5<br>KL/Annum                         | 0.5<br>KL/Annum                         | Collection, storage & use within premises as lubricant/sell to registered recycler.                |
| 13.     | Scrubber Blow Down                    | Scrubber   | --                                  | 780<br>KL/Annum                        | 3120<br>KL/Annum                        | 3900<br>KL/Annum                        | Collection, storage and treated in ETP   |
| 14.     | Aluminum                              | Process of 4   | --                                  | --                                     | 402                                     | 402                                     | Collection, storage,   |

|  |                   |   |    |    |       |       |   |
|--|-------------------|---|----|----|-------|-------|---|
|  | Hydroxide         | MAP, 4 MEP  |    |    |       |       | transportation and disposal by selling to actual users under Rule-9 of Haz. waste |
| 15   | Zinc Carbonate    | Process of 5 HMT  | -- | -- | 209.6 | 209.6 |   |
| 16   | Calcium Phosphate | Process of N-Methy-1[2-(Propane-2YL)-1,3-Thiazole-4-YL]Methanamine  | -- | -- | 91.2  | 91.2  |   |
| 17   | Benzyl Alcohol    | Process of (2S,3S,5S)-2-Amino-3-Hydroxy-5-(Tert-Butyloxy Carbonyl) Amino-1,6-Diphenyl Hemi Succinic Acid Salt | -- | -- | 456   | 456   |   |
| 18   | 4-Nitro Phenol    | Process of 4 NPTC   | -- | -- | 37.5  | 37.5  |   |
| <p>* Existing effluent treated at Central Side ETP with other industrial effluent generated by other units of Atul Complex. Hence ETP sludge not consider in CC&amp;A of Atul Bioscience Limited.</p> <p>** There is no MEE for existing set up and after expansion, total high COD/TDS effluent going to MEE after stripper hence expansion quantity and total quantity of Salt is differ.</p> <p>*** There is no stripper for existing set up and after expansion, total high COD effluent going to stripper hence expansion quantity and total quantity of Residue is differ.</p> |                   |   |    |    |       |       |   |

33. Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
34. Unit shall explore the possibilities for environment friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively.

#### A. 5 OTHER:

35. The project proponent shall allocate the separate fund of Rs. 76.50 Lakhs as committed before SEAC. The entire activities proposed under CER shall be part of the Environment Management Plan (EMP) as per the MoEF& CC's OM no. F. No. 22-65/2017-IA.III dated 30.09.2020. This 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 the District Collector. The monitoring report shall be posted on the website of the project proponent.
36. All the environmental protection measures and safeguards proposed in the Form-1 & PFR submitted by the project proponent and commitments made in their application shall be strictly adhered to in letter and spirit.

#### B. GENERAL CONDITIONS:

##### B.1 CONSTRUCTION PHASE:

37. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.
38. 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.
39. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
40. First Aid Box shall be made readily available in adequate quantity at all the times.
41. The project proponent shall strictly comply with the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) 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.
42. 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.
43. Use of Diesel Generator (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.
44. Safe disposal of waste water and municipal solid wastes generated during the construction phase shall be ensured.
45. All topsoil excavated during construction activity shall be used in horticultural / landscape development within the project site.
46. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent

- possible and balance quantity of excavated earth shall be disposed off 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 neighbouring communities.
47. Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete [RMC] and lead free paints in the project.
  48. Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time.
  49. "Wind – breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided. Individual building within the project site shall also be provided with barricades.
  50. "No uncovered vehicles carrying construction material and waste shall be permitted."
  51. "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."
  52. Roads leading to or at construction site must be paved and blacktopped (i.e. – metallic roads).
  53. No excavation of soil shall be carried out without adequate dust mitigation measures in place.
  54. Dust mitigation measure shall be displayed prominently at the construction site for easy public viewing.
  55. Grinding and cutting of building materials in open area shall be prohibited.
  56. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
  57. Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site. (If applicable).

## **B.2 OPERATION PHASE:**

### **B.2.1 WATER:**

58. The water meter shall be installed and records of daily and monthly water consumption shall be maintained.
59. 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.

### **B.2.2 AIR:**

60. In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & it's APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.
61. 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.
62. Stack/Vents (Whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission.
63. Flue gas emission & Process gas emission (If any) shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards.
64. All the reactors / vessels used in the manufacturing process shall be closed to reduce the fugitive emission.

### **B.2.3 HAZARDOUS/SOLID WASTE:**

65. 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.
66. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
67. The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (Whichever is applicable)
68. Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
69. The design of the Trucks/tankers shall be such that there is no spillage during transportation
70. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
71. Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

### **B.2.4 SAFETY:**

72. The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963
73. 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 approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be



prepared and implemented.

74. Main entry and exit shall be separate and clearly marked in the facility.
75. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises.
76. Storage of flammable chemicals shall be sufficiently away from the production area.
77. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
78. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
79. 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.
80. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
81. Only flame proof electrical fittings shall be provided in the plant premises.
82. 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.
83. 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.
84. Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.
85. Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.
86. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
87. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
88. Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
89. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
90. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
91. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.
92. Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.

#### **B.2.5 NOISE:**

93. 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 conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

#### **B.2.6 CLEANER PRODUCTION AND WASTE MINIMISATION:**

94. The unit shall undertake the 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.
95. The company shall undertake various waste minimization measures such as :
  - a. Metering and control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw materials substitutes.
  - c. Use of automated and close filling to minimize spillages.
  - d. Use of close feed system into batch reactors.
  - e. Venting equipment through vapour 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.
  - i. Sweeping / mopping of floor instead of floor washing to avoid effluent generation.
  - j. Regular preventive maintenance for avoiding leakage, spillage etc.

#### **B.2.7 GREEN BELT AND OTHER PLANTATION:**

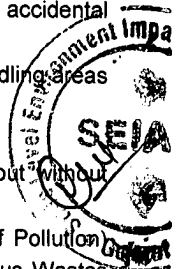
96. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.
97. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

#### **B.3 OTHER CONDITION:**

98. 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 dated 09/08/2018 for Pharmaceutical and Chemical industries mentioned at (Sr. no. XX).



99. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
100. Rain water harvesting (Off-site) shall be undertaken to conserve fresh water as well as to recharge ground water. Before recharging the surface run off, pre-treatment must be done to remove suspended matter. (Applicable for units consuming ground water  $\geq$  50 KLD in line with the prevailing guidelines of SPCB).
101. 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.
102. Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision for solar water heating system shall also be provided.
103. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.
104. All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to.
105. 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.
106. 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.
107. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.
108. During material transfer there shall be no spillages and a drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
109. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
110. Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly.
111. 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.
112. 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.
113. 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.
114. 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 well as proposed by project proponent.
115. 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.
116. The applicant shall inform the public that the project has been accorded environmental clearance by the 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 the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
117. 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 1st June and 1st December of each calendar year.
118. 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.
119. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
120. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
121. 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.
122. 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 start of the project.
123. This environmental clearance is valid for seven years from the date of issue.



124. 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.
125. Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.

With regards,  
Yours sincerely,



**(S. J. PANDIT)**  
**Member Secretary**

**Issued to:**  
**Atul Bioscience Ltd,**  
**Atul Ltd.,**  
**Atul,**  
**Valsad,**  
**Gujarat**



SEIAA