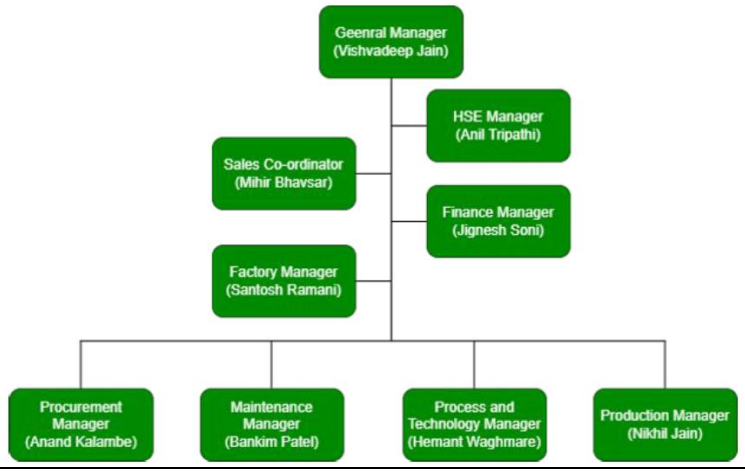
Anaven
Anaven LLP
Atul 396 020, Gujarat, India
contact@anaven.co.in | (+91 2632) 230000

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023
EC Identification No. EC22A021GJ120716

Project: Proposed expansion of Monochloro Acetic Acid (MCA) Manufacturing Unit by increase in production capacity from 32,000 TPA to 48,000 TPA and co-product (Hcl) from 41,600 TPA to 62,400 TPA and HE-Di-Chloro and Tri-chloro acetic acid from 448 TPA to 672.00 TPA

No.	Condition	Compliance Status
A	Specific Conditions:	
i	The PP shall develop Greenbelt over an area of at least 647 m2 by planting 140 trees inside the plant area and another 266 trees in close vicinity of plant. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be ₹ 2 Lakh and shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.	Complied Anaven has already developed greenbelt in an area of 9.8% i.e. 647 sqm inside the plant area. Additional 24% i.e. 1594 sqm greenbelt is developed at Atul village as suggested. Photographs are given below:    
ii	A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. The PP shall engage General manager- HSE manager- Maintenance manager. In addition, one safety & health officer as per the qualification	Noted and Compliance assured. We have EHS department having separate team of qualified persons having specialization in Environmental engineering and one safety & health officer as per the qualification given in Factories Act, 1948. Details of Environment management cell is as below:

<table>
<tr>
<td></td>
<td>given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.</td>
<td> 
</td>
</tr>
<tr>
<td>iii</td>
<td>The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 23.79 Lakh (Capital cost) and ₹ 7.29 Crore (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.</td>
<td>Complied.
All the environmental protection measures and safeguards proposed in the documents submitted to the ministry are in place. The recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project are being implemented and listed below:

❖ In-built mitigation measures:
• Total 06 vents (including 02 storage tanks vents of HCl and Acetic acid) are treated through scrubbers with appropriate scrubbing media and then released to safe locations. Also, all scrubbers are suitably designed. Details are given below:

<table>
<tr><th>Sr. No</th><th>Vent (Stack) Attached to</th><th>Pollutants</th><th>APCM</th></tr>
<tr><td>1</td><td>Chlorinator</td><td>Cl_2, HCl</td><td>Water and Caustic Scrubber</td></tr>
<tr><td>2</td><td>Hydrogenator</td><td>Hydrogen+ HCl</td><td>Water Scrubber</td></tr>
<tr><td>3</td><td>Vacuum pump</td><td>HCl</td><td>Water Scrubber</td></tr>
<tr><td>4</td><td>Flakers</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>5</td><td>HCl storage tank</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>6</td><td>Acetic acid storage tank</td><td>Traces of Acetic acid</td><td>Water Scrubber</td></tr>
</table>

❖ General Mitigation Measures for Air Quality Control during Operation Phase:
• Adequate stack height is provided to flue gas stack.</td>
</tr>
</table>

- Suitable air pollution control equipment is installed.
- Details of Stack, Height and APCM are given in the table below.

Flue gas stack	Type of Fuel	Stack Height
DG set (Capacity 500 KVA)	HSD	10 m

Process Stack:

Sr. No	Stack Attached to	Stack ht. m	Pollutants	APCM
1	Chlorinator	35	Cl_2, HCl	Water and Caustic Scrubber
2	Hydrogenator	35	Hydrogen + HCl	Water Scrubber
3	Vacuum pump	38	HCl	Water Scrubber
4	Flakers	45	Traces of HCl	Water Scrubber
5	HCl storage tank	18	Traces of HCl	Water Scrubber
6	Acetic acid storage tank	15	Traces of Acetic acid	Water Scrubber

Results of flue gas and process gas monitoring are well within the prescribed limit and attached as **Annexure 1.**

❖ **Mitigation measures for water and wastewater:**

- Unit is ZLD. The effluent generation from the unit is treated in ETP followed by RO and MEE.
- Online flow meters are installed to measure effluent at ETP.

- The total freshwater consumption details for the report period is given in below table:

Sr. No.	Month	Water Consumption KL/M	Avg. KLD
1	April 2023	4832	161.06
2	May 2023	5069	163.51
3	June 2023	4865	162.16
4	July 2023	4996	161.16
5	August 2023	4954	159.8
6	September 2023	4774	159.13

- The total Wastewater generation details for the report period is given in below table:

Sr. No.	Month	Wastewater Generation KL/M	Avg. KLD
1	April 2023	4943	164.7
2	May 2023	2285	73.7
3	June 2023	5959	198.6
4	July 2023	5295	170.8
5	August 2023	4608	148.6
6	September 2023	5154	171.8

❖ **Mitigation measures for Hazardous waste:**

Hazardous waste generated is collected in jumbo bags and kept at a separate storage area. It is disposed as per Authorization.

- Details of Hazardous waste generation and disposal given in below table

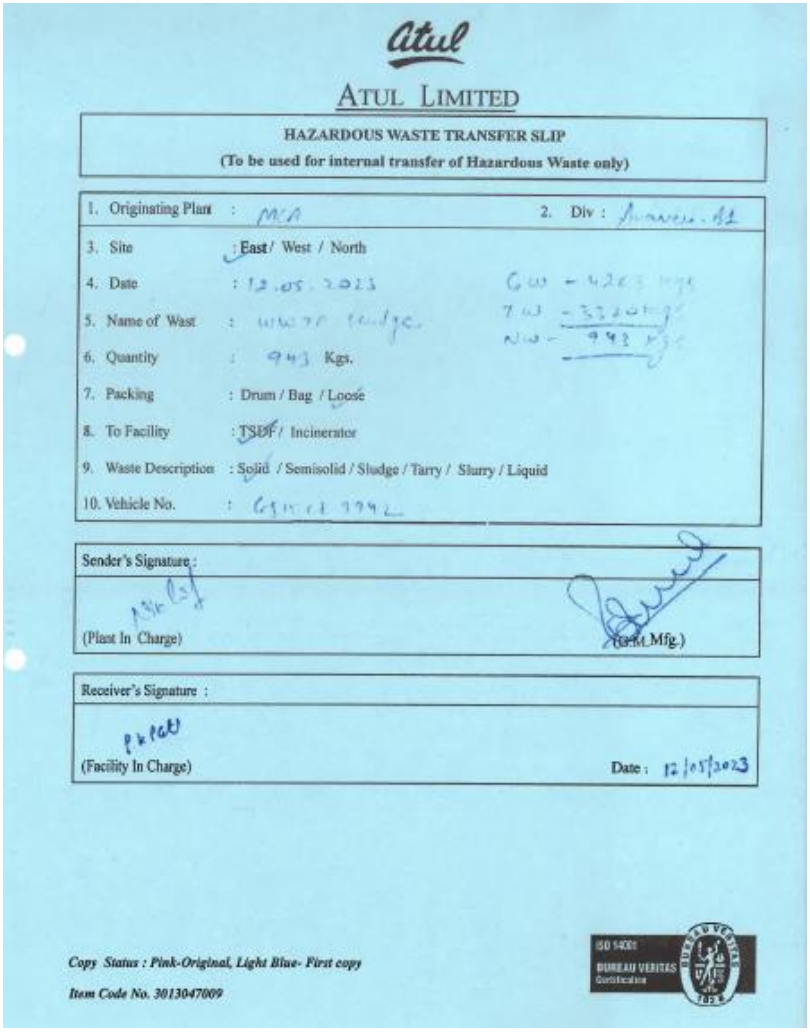
1) ETP sludge:

Sr. No.	Month	Generation (MT)	Disposal (MT)	Disposal mode
1	April 2023	4	4	Atul TSDF
2	May 2023	1	1	
3	June 2023	4	4	
4	July 2023	2	Haz waste storage during monsoon months as landfill is covered with tarpaulin	
5	August 2023	2		
6	September 2023	4		

2) MEE salt:

Sr. No.	Month	Generation (MT)	Disposal (MT)	Disposal mode
1	April 2023	3	3	Atul TSDF
2	May 2023	1	1	
3	June 2023	2	2	
4	July 2023	2	Haz waste storage during monsoon months as landfill is covered with tarpaulin	
5	August 2023	4		
6	September 2023	5		

Internal waste transfer slip is attached for ready reference:



Atul

ATUL LIMITED

HAZARDOUS WASTE TRANSFER SLIP
(To be used for internal transfer of Hazardous Waste only)

1. Originating Plant : MA 2. Div : Anaven-A2
3. Site : East / West / North
4. Date : 12.05.2023
5. Name of Wast : waste sludge
6. Quantity : 943 Kgs.
7. Packing : Drum / Bag / Loose
8. To Facility : TSDF / Incinerator
9. Waste Description : Solid / Semisolid / Sludge / Tarry / Slurry / Liquid
10. Vehicle No. : GJ 12 ...

Sender's Signature :
(Plant In Charge) (Gen. Mfg.)

Receiver's Signature :
(Facility In Charge) Date : 12/05/2023

Copy Status : Pink-Original, Light Blue- First copy
Item Code No. 3013047009

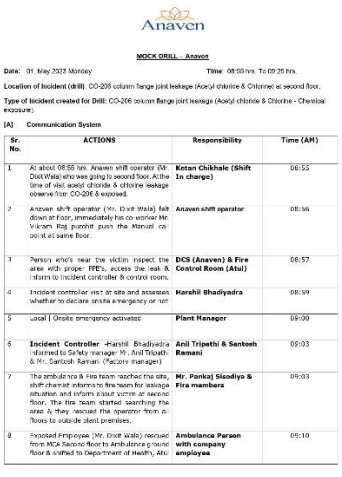
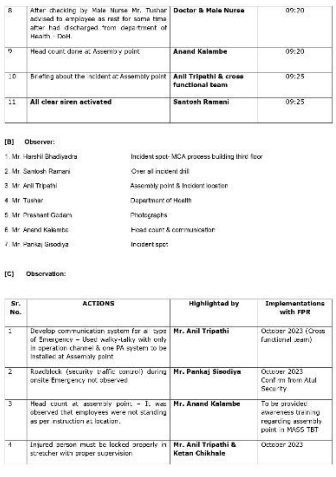
ISO 14001 BUREAU VERITAS Certification

Though HCl is given as co-product in EC, GPCB has given the same as Haz waste. Hence currently we are disposing HCl as

<table>
<tr><td></td><td></td><td>per Authorization condition through online manifest system.

<table>
<tr><th>Sr. No.</th><th>Month</th><th>Hazardous waste Generation</th><th>Hazardous waste Disposal</th><th>Disposal mode</th></tr>
<tr><td>1</td><td>April 2023</td><td>2103.4</td><td>2103.4</td><td rowspan="6">As per authorization by GPCB</td></tr>
<tr><td>2</td><td>May 2023</td><td>339.06</td><td>339.06</td></tr>
<tr><td>3</td><td>June 2023</td><td>1948.32</td><td>1948.32</td></tr>
<tr><td>4</td><td>July 2023</td><td>1173.29</td><td>1173.29</td></tr>
<tr><td>5</td><td>August 2023</td><td>1807.14</td><td>1807.14</td></tr>
<tr><td>6</td><td>September 2023</td><td>1687.48</td><td>1687.48</td></tr>
</table>

❖ Greenbelt:
• Anaven has already developed greenbelt in an area of 9.8% i.e. 647 sqm out of total area of the project. An additional 24% i.e. 1594 sqm greenbelt is developed at Atul village as mentioned in compliance of condition i.</td></tr>
<tr><td>iv</td><td>As committed by the PP, Industry shall not commence any activity or production for 20% expansion until & unless the committed green area density is achieved.</td><td>Noted and complied.
Company is aware of given condition and assure not to commence any activity or production for 20% expansion until & unless the committed green area density is achieved.</td></tr>
<tr><td>v</td><td>Total water requirement is 583 m3/day of which freshwater requirement of 290 m3/day will be met from Surface Water (Par River). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF &CC before 1st July of every. year for the activities carried out during the previous year.</td><td>Complied.
Fresh water consumption is well within the stipulated limit.
• The total freshwater consumption details for the report period is given in below table:
<table>
<tr><th>Sr. No.</th><th>Month</th><th>Water Consumption KL/M</th><th>Avg. KLD</th></tr>
<tr><td>1</td><td>April 2023</td><td>4832</td><td>161.06</td></tr>
<tr><td>2</td><td>May 2023</td><td>5069</td><td>163.51</td></tr>
<tr><td>3</td><td>June 2023</td><td>4865</td><td>162.16</td></tr>
<tr><td>4</td><td>July 2023</td><td>4996</td><td>161.16</td></tr>
<tr><td>5</td><td>August 2023</td><td>4954</td><td>159.8</td></tr>
<tr><td>6</td><td>September 2023</td><td>4774</td><td>159.13</td></tr>
</table></td></tr>
<tr><td>vi</td><td>No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the</td><td>Complied.
No raw material/solvent prohibited by the concerned regulatory authorities from time to time, is used.
No banned chemicals are manufactured by the unit. No banned raw materials are being used in the unit. The unit is complying with all the notifications/guidelines of the Government in this</td></tr>
</table>

	Government in this regard.	regard.
vii	The PP shall utilize modern technologies for capturing carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF & CC in this regard.	**Noted.**
viii	The project proponent shall comply with the environment norms for Organic Chemical Industry as notified by the Ministry of Environment, Forest, and Climate Change, vide GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.	**Complied.** The unit is ZLD and complying with GPCB prescribed norms.
ix	All necessary precautions shall be taken to avoid accidents and an action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage, and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.	**Complied.** We are taking utmost care and follow best engineering | safety practices to avoid accidents. Onsite emergency plan is in place and mock drills are done at regular interval. Last mock drill was conducted on May 01, 2023. Report of the mock drill is attached herewith for your ready reference.  

Anaven

MOCK DRILL - Anaven

Date: 01, May 2023 Monday **Time** 08:55 hrs. To 09:25 hrs.

Location of Incident (drill): CO-206 column flange joint leakage (Acetyl chloride & Chlorine) at second floor.

Type of Incident created for Drill: CO-206 column flange joint leakage (Acetyl chloride & Chlorine - Chemical exposure)

[A] Communication System

Sr. No.	ACTIONS	Responsibility	Time (AM)
1	At about 08:55 hrs. Anaven shift operator (Mr. Dixit Wala) who was going to second floor. At the time of visit acetyl chloride & chlorine leakage observe from CO-206 & exposed.	**Ketan Chikhale (Shift In charge)**	08:55
2	Anaven shift operator (Mr. Dixit Wala) fell down at floor, immediately his co-worker Mr. Vikram Raj panchit push the Manual call point at same floor.	**Anaven shift operator**	08:56
3	Person who's near the victim inspect the area with proper PPEs, access the leak & inform to Incident controller & control room.	**DCS (Anaven) & Fire Control Room (Atul)**	08:57
4	Incident controller visit at site and assesses whether to declare onsite emergency or not	**Harshil Bhadiyadra**	08:59
5	Local / Onsite emergency activated	**Plant Manager**	09:00
6	**Incident Controller** -Harshil Bhadiyadra informed to Safety manager Mr. Anil Tripathi & Mr. Santosh Ramani (Factory manager)	**Anil Tripathi & Santosh Ramani**	09:03
7	The ambulance & Fire team reached the site, shift chemist informs to fire team for leakage situation and inform about victim at second floor. The fire team started searching the area & they rescued the operator from all floors to outside plant premises.	**Mr. Pankaj Sisodiya & Fire mambers**	09:03
8	Rescued Employee (Mr. Dixit Wala) rescued from MCA Second floor to Ambulance ground floor & shifted to Department of Health, Atul	**Ambulance Person with company employee**	09:10
8	After checking by Male Nurse Mr. Tushar advised to employee as rest for some time after had discharged from department of Health - DoH.	**Doctor & Male Nurse**	09:20
9	Head count done at Assembly point	**Anand Kalambe**	09:20
10	Briefing about the incident at Assembly point	**Anil Tripathi & cross functional team**	09:25
11	**All clear siren activated**	**Santosh Ramani**	09:25

[B] Observer:

1. Mr. Harshil Bhadiyadra	Incident spot- MCA process building third floor
2. Mr. Santosh Ramani	Over all incident drill
3. Mr. Anil Tripathi	Assembly point & Incident location
4. Mr. Tushar	Department of Health
5. Mr. Prashant Gotam	Photographs
6. Mr. Anand Kalambe	Head count & communication
7. Mr. Pankaj Sisodiya	Incident spot

[C] Observation:

Sr. No.	ACTIONS	Highlighted by	Implementations with PPR
1	Develop communication system for all type of Emergency – Used walky-talky will only in operation channel & one PA system to be installed at Assembly point	**Mr. Anil Tripathi**	October 2023 (Cross functional team)
2	Roadblock (security traffic control) during onsite Emergency not observed	**Mr. Pankaj Sisodiya**	October 2023 Confirm from Atul Security
3	Head count at assembly point. – It was observed that employees were not standing as per instruction at location.	**Mr. Anand Kalambe**	To be provided awareness training regarding assembly point in MAGS TBT
4	Injured person must be locked properly in stretcher with proper supervision	**Mr. Anil Tripathi & Ketan Chikhale**	October 2023

		5 | Required Updating of manpower in duty | Mr. Nikhil Jain | Confirm from team leaders (D) Good Points: 1. All of the employees gathered at assembly point within time response. 2. Injured company employees found with all mandatory PPEs at location. 3. Fire tender & ambulance reached at site in time (Good response). 4. All the Anaven Employees found with necessary PPE's as per matrix classification.      End of the Report
x	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.	Complied. Below steps taken to control the VOCs| fugitive emissions: 1. We have a close loop system. 2. We have connected all 06 vents with appropriate scrubbers. 3. We have installed 18 nos of chlorine gas detectors in and around plant area. Photograph of Scrubber: 

Results of the same are given below:

S. No.	Stack details	Parameter	GPCB Limits	Value for the Period April 23 – September 2023		
				Min.	Max.	Avg.
1	HCL Storage tank	HCl	20 mg/Nm^3	4.3	9.4	6.85
2	Flaker stack	HCl	20 mg/Nm^3	5.9	9.1	7.5
3	Acetic acid storage tank	Acetic Acid	-	ND	ND	ND
4	Vacuum Pump stack	HCl	20 mg/Nm^3	5.7	9.3	7.5
5	Chlorinator stack	HCl	20 mg/Nm^3	6.3	9.7	8.0
		Chlorine as Cl_2	09 mg/Nm^3	1.3	3.4	2.35
6	Hydrogenation	HCl	20 mg/Nm^3	5.6	10.0	7.8

xi

As committed by the PP, zero liquid discharge shall be ensured, Effluent of 303 m3/day quantity will be treated through ETP, MEE and RO

Noted and complied.

Unit is ZLD. The effluent generation from the unit is treated in ETP followed by RO and MEE. There is no liquid discharge outside the premises.

- The total Wastewater generation details for the report period is given in below table:

Sr. No.	Month	Wastewater Generation KL/M	Avg. KLD
1	April 2023	4943	164.7
2	May 2023	2285	73.7
3	June 2023	5959	198.6
4	July 2023	5295	170.8
5	August 2023	4608	148.6
6	September 2023	5154	171.8

Photograph of Flow meter :

		
xii	The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the freshwater demand and waste disposal.	Noted and Complied. Unit is ZLD and treated water is recycled | reused in cooling tower make up.
xiii	A continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Complied. OCEMS installation work completed. The desired web camera and flow meters for effluent installed. Photographs are attached as Annexure 2. Our unit is ZLD. The desired web camera with night vision capability and flow meters in the channel | drain carrying effluent within the premises installed. Photograph of night vision camera installed in ZLD unit is given below:  

<table>
<tr>
<td>xiv</td>
<td>The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity. and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.</td>
<td>
Complied.

• Following chemicals are used and stored as per the best practice:

<table>
<tr><th>Sr. No.</th><th>Chemical</th><th>State</th><th>Means of Storage</th><th>Capacity of Storage Means</th><th>No. of Storage means</th><th>Total Capacity</th><th>Pressure</th><th>Temp.</th></tr>
<tr><td colspan="9">Raw Material</td></tr>
<tr><td>1</td><td>Acetic acid</td><td>Liquid</td><td>Tank</td><td>500 m3</td><td>1</td><td>500 m3</td><td>Atm</td><td>Amb</td></tr>
<tr><td>2</td><td>Acetic anhydride</td><td>Liquid</td><td>Tank</td><td>80 m3</td><td>1</td><td>80 m3</td><td>Atm</td><td>Amb</td></tr>
<tr><td>3</td><td>Catalyst</td><td>Solid</td><td>Drums</td><td>100 Kgs</td><td>10</td><td>1000 kgs</td><td>Atm</td><td>Amb</td></tr>
<tr><td colspan="9">Product</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">MCA</td><td>Solution</td><td>Tank</td><td>160 m3</td><td>1</td><td>160 m3</td><td>Atm</td><td>Amb</td></tr>
<tr><td>Flakes</td><td>Bag</td><td>25 Kgs, 1000 Kgs</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
</table>

Photograph of tank pharm, Dyke wall.

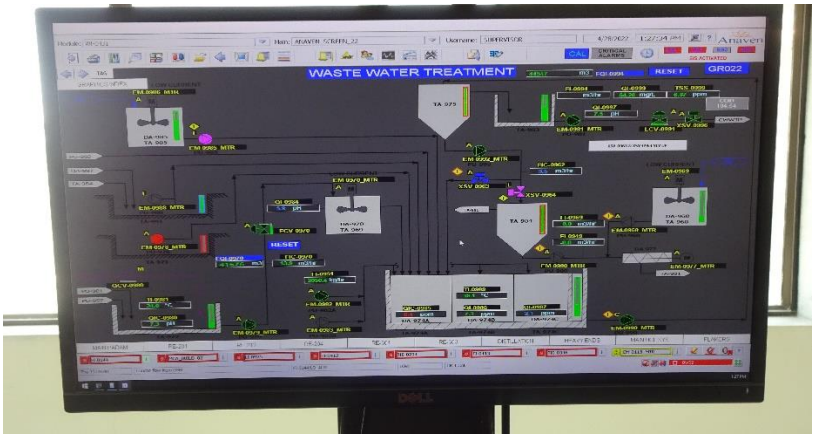

The best standard practices have been followed for hazardous chemicals storage.

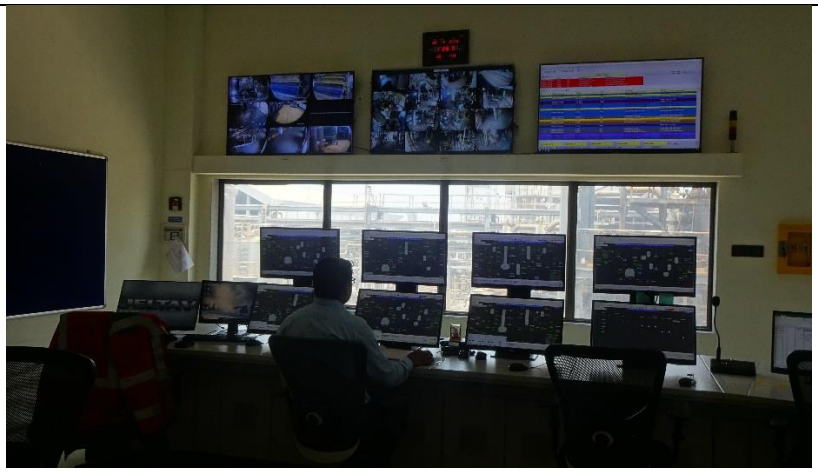
• Flame arresters are provided on tank farm, (Photograph)
</td>
</tr>
</table>

		 • Raw material and products are stored in leak proof containers. • Acid is being stored in above ground tanks equipped with adequate dyke.
xv	The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Noted and compliance assured. As the M/s. Anaven LLP is situated in the Atul Complex, a mutual aid agreement with partner company Atul Ltd is already done who is having well qualified resident doctors, whenever required instantly apart from nearby renowned hospitals.
xvi	Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.	Complied. Training is imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training has provided to employees. Action plan for mitigation measures has been implemented according to the safety and risk assessment studies. Training on Firefighting & SCBA Set given on dated August 08, 2023 and photographs of the training is given below:

		Training on Firefighting & SCBA Set on dated 08.08.2023        
xvii	The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	**Complied.** We have taken concrete steps for protection of possible fire hazards during the manufacturing process in material handling. Details of our Firefighting system is attached as **Annexure 3.**
xviii	The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and	**Not Applicable.** We are not using any solvent in our process.

	solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	
xix	The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.	**Complied.** We have installed a rainwater harvesting system. Rainwater from the roof area (admin building- 300 m^2 and flaker building- 500 m^2, Total 800 m^2) is collected in 3 KL capacity tank, from where it is transferred (through pump with pumping capacity 15 m^3/hr) to cooling tower as make up water and thus reuse. Collected rainwater is being reused within the premises. **Photograph:** 

		We have separate drain system for storm water to nullify the possibility of mixing process effluent	any wastewater with storm water. All the vent pipes are above the roof level. storm water channel photograph : 
xx	The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.	Noted & complied. We are committed to minimizing waste generation. Following steps are taken for same: a) Metering and controlling quantities of active ingredients to minimize waste. (b) Use of automated filling to minimize spillage. (d) Use of a closed feed system. 

		 (e) Venting equipment through vapor recovery system. (f) Use of high-pressure hoses for equipment through vapor recovery system. (g)Use of high-pressure hoses for equipment clearing to reduce wastewater generation
B	General Condition	
i	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted.
ii	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response)	Noted and compliance assured.

<table>
<tr><td></td><td>Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.</td><td></td></tr>
<tr><td>iii</td><td>The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.</td><td>Complied.
We have installed LED lights in and around plant area.
  </td></tr>
<tr><td>iv</td><td>The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (nighttime).</td><td>Complied.
Adequate noise control measures like acoustic hoods, silencers, enclosures etc. provided on all sources of noise generation.
We regularly monitor ambient noise level and it is found within the norms.
Noise results is attached as : Annexure 4.

Summary of Noise level monitoring is as below:
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Location</th><th rowspan="2">GPCB Limits</th><th colspan="3">Value for the Period April 23 – September 2023 (Day)</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>MCA Plant</td><td>75</td><td>65.9</td><td>70.2</td><td>68.05</td></tr>
<tr><td>2</td><td>Cooling tower pump area ground floor</td><td>75</td><td>64.1</td><td>66.9</td><td>65.5</td></tr>
<tr><td>3</td><td>Flaker ground floor</td><td>75</td><td>62.2</td><td>65.3</td><td>63.75</td></tr>
<tr><td>4</td><td>Flaker first floor</td><td>75</td><td>60.1</td><td>63.4</td><td>61.75</td></tr>
<tr><td>5</td><td>Flaker second floor</td><td>75</td><td>59.1</td><td>63.8</td><td>61.45</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Location</th><th rowspan="2">GPCB Limits</th><th colspan="3">Value for the Period April 22 – September 2023 (Night)</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>MCA Plant</td><td>70</td><td>57.7</td><td>59.3</td><td>58.5</td></tr>
<tr><td>2</td><td>Cooling tower pump area ground floor</td><td>70</td><td>57.4</td><td>59.7</td><td>58.55</td></tr>
<tr><td>3</td><td>Flaker ground floor</td><td>70</td><td>54.3</td><td>56.4</td><td>55.35</td></tr>
<tr><td>4</td><td>Flaker first floor</td><td>70</td><td>50.1</td><td>52.9</td><td>51.5</td></tr>
<tr><td>5</td><td>Flaker second floor</td><td>70</td><td>50.9</td><td>54.6</td><td>52.75</td></tr>
</table>
</td></tr>
<tr><td>v</td><td>The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.</td><td>Noted and complied.
Details are given as Annexure 5.</td></tr>
</table>

<table>
<tr>
<td>vi</td>
<td>The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.</td>
<td>Complied.
Total investment under EMS during reporting period: 4 lacs
Recurring cost: A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities.

Total expenditure for the report period is given in below table:
<table>
<tr><th>Sr. No.</th><th>Parameter</th><th>Recurring cost (Rs. In lacs) for the report period (April 23 to September 2023)</th></tr>
<tr><td>1</td><td>Air Pollution control management</td><td>102</td></tr>
<tr><td>2</td><td>Wastewater pollution control</td><td>107.25</td></tr>
<tr><td>3</td><td>Environment monitoring and management</td><td>1.43</td></tr>
<tr><td>4</td><td>Solid waste disposal</td><td>4.14</td></tr>
<tr><td colspan="2">Total</td><td>214.82</td></tr>
</table>
</td>
</tr>
<tr>
<td>vii</td>
<td>A copy of the clearance letter shall be sent by the project proponent to be concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.</td>
<td>Complied.
The details mentioned in stated condition have been circulated | sent to concern panchayat, Zilla parishad/Municipal Corporation while processing the proposal.</td>
</tr>
<tr>
<td>viii</td>
<td>The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.</td>
<td>Complied.
We regularly submit six monthly compliance report and also uploading on company’s web site.</td>
</tr>
</table>

ix	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.	**Complied.** Environmental statement for FY: 2022-2023 has been submitted to GPCB on September 20, 2023. The copy of the same is attached as **Annexure 6.**
x	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at the Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	**Complied.** The details mentioned in stated condition have been circulated | sent to concern authority as well as advertised in local newspaper while processing the proposal.
xi	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	**Noted.**
xii	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any,	**Noted.**

	as may be applicable to this project.	

Annexure -1
Results of process stack and Flue gas stack

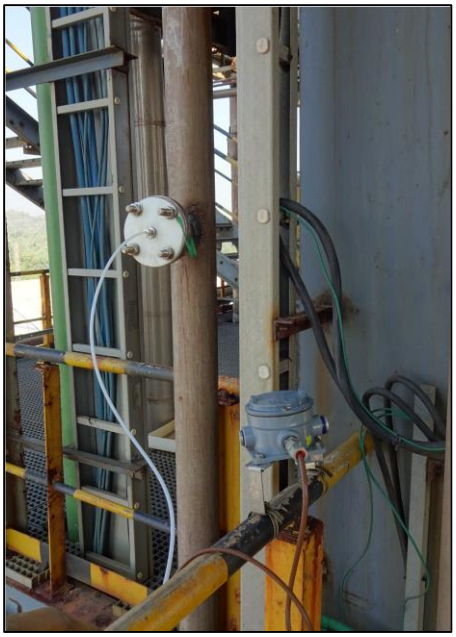
Details of Process & flue stack									
Sr. No.	Stack Details	Parameter	Permissible limits	Obtained value					
				April 2023	May 2023	June 2023	July 2023	August 2023	September 2023
1	HCL Storage tank	HCl	20 mg/Nm3	14.5	14.0	12.9	14.6	9.9	8.6
2	Flaker stack	HCl	20 mg/Nm3	13.9	12.3	11.0	13.4	9.7	10.8
3	Acetic acid storage tank	Acetic acid	---	ND	ND	ND	ND	ND	ND
4	Vacuum Pump stack	HCl	20 mg/Nm3	12.6	11.4	10.8	11.4	10.4	11.9
5	Chlorinator stack	HCl	20 mg/Nm3	13.6	14.1	13.8	14.4	13.6	14.2
		Chlorine as Cl_2	09 mg/Nm3	5.3	6.4	6.0	6.6	4.6	4.3
6	Hydrogenation	HCl	20 mg/Nm3	9.8	8.8	9.1	8.8	6.7	6.1
7	DG set stack	PM	150 mg/Nm3	82	88	91	75	78	75
		SO_2	100 ppm	16.5	18	19	23	26	28
		NO_X	50 ppm	33.9	41.3	40.1	32.7	29.4	30.9

Annexure- 2

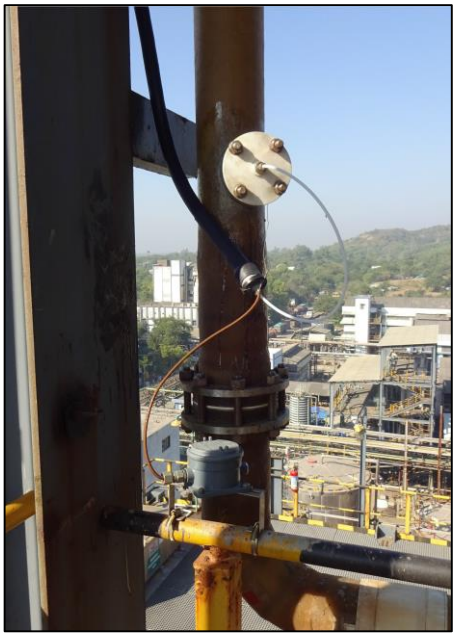
Photograph of OCEMS (Installed)

OCEMS Panel

Cylinder



Tapping @Hydrogenation



Tapping @Chlorination

Annexure -3
Details of our Firefighting system

Details of fire extinguisher installed in various locations are as below:

Fire extinguisher type	Qty.
ABC - 6 Kg	72
ABC - 50 Kg	5
CO2 - 4.5 Kg	06
CO2 - 6.5 Kg	10

FIRE FIGHTING AND OTHER ARRANGEMENTS FOR OFF-SITE EMERGENCY

2. AVAILABILITY OF FIRE FIGHTING FACILITES:

HYDRANT SYSTEM:

Detailed Hydrant System drawing, pipeline layout, hydrant post locations along with isolation valve positions displayed in all ECC as well as fire stations and plant control rooms.

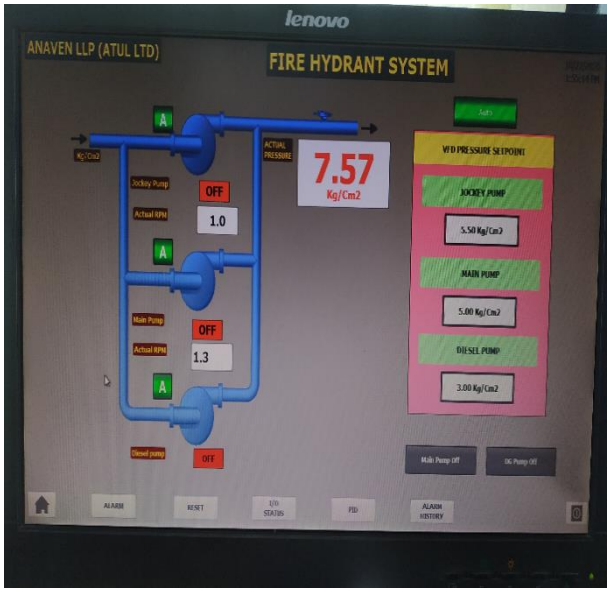
1) Anaven

Fire water pumps	:	273 KL/hr. –1 Nos. (Elect)
Jockey pump	:	10.8 KL/hr. –1 Nos.
Diesel Driven Fire Pump	:	273 KL/hr. –1 Nos.

2) East Side Fire water reservoir (Atul water Reservior): 46000KL

Fire water pumps	:	410 KL/hr. –2 Nos. (Elect)
Jockey pump (Atul Water Reservoir)	:	30 KL/hr. –2 Nos.
Diesel Driven Fire Pump	:	410 KL/hr. –2 Nos.

Fire pumps operation / status indication panel provided at on automatic with audio / visual alarm



3. FIRE HYDRANT NETWORK DETAILS:

Single Hydrant points	: 15 Nos
Double Hydrant points	: 00 Nos
Riser fire escape hydrant points	: 24 Nos.
High velocity long range monitor:	05 Nos.
Hose boxes (FEH)	: 39 Nos.
Hose pipes: 15 Mts.	: 78 Nos.
Hose pipes 7.5 Mts.	: 00 Nos.
Branch pipes (Jet types)	: 10 Nos.
Branch pipes (Triple purpose)	: 39 Nos.
Foam making branch pipes	: 03 Nos.

4. FIRE TENDER:

Three fire tenders are available at Atul site.

Details are as under

One fire tender having 1800ltr water capacity,

2nd Multipurpose fire tender having 5000-liter water and 500ltr foam.

3rd Multipurpose fire tender having facility of 500 kg DCP, 500ltr foam & 45000ltr water capacity.

5. FIRE DETECTION SYSTEM:

Automatic detection of fire is essential especially for high hazard, sensitive and unmanned areas. We have provided an automatic fire detection system which includes heat and smoke detector to give audio / visual alarm / signal locally as well as in the permanently manned area. This in turn helps in early detection of fire and to start firefighting activity at an early stage.

Area	Method of Detection	Warning indication
Anaven Admin	Smoke detector	On fire alarm panel
MCA Control room	Smoke detector	On fire alarm panel

8.1.4 FIRE ALARM:

A combined fire alarm system is available (conventional and addressable) with manual call points and detectors provided in the entire plant, on activation of MCP, siren will blow as mentioned below pattern.

SR.NO.	PLANT	Nos. of MCP
1	MCA	12
2	Flaker	12
3	Admin	5
4	MCC	6
5	Utility	2
6	Tank farm	2
7	WWTP	3

The fire alarm system is tested every Monday at 09:00 am from the plant in rotation manner and record is maintained.

Annexure – 4

Noise Report

Sr. No.	Location	Noise Level, dBA												Permissible Limits, dBA
		April 2023		May 2023		June 2023		July 2023		August 2023		September 2023		
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
1	MCA plant ground floor	70.2	59.3	69.6	58.3	68.0	57.7	68.9	58.9	65.9	57.8	66.9	58.3	75 Day | 70 Night
2	Cooling tower pump area ground floor	66.9	58.7	65.0	59.7	64.1	58.0	65.4	57.4	63.8	58.8	64.3	59.6	75 Day | 70 Night
3	Flaker ground floor	62.9	56.4	63.3	55.1	62.2	54.3	63.8	55.1	65.3	54.3	64.8	55.9	75 Day | 70 Night
4	Flaker first floor	63.4	51.2	62.7	52.9	62.0	51.6	60.1	52.7	61.7	51.7	62.9	50.1	75 Day | 70 Night
5	Flaker second floor	61.1	53.6	63.8	54.6	61.9	53.3	59.8	51.9	60.8	50.9	59.1	51.3	75 Day | 70 Night

Annexure – 5

CER activity for the year 2023-24

List of activities identified for year 23-24:

CER 2023-24						
Sr. No.	Name of the Activity	Qty.	Sectors | Area	Village	Estimated cost (□lakh)	Remarks
1	Model Anganwadi Project 2023-24	6	Education	Anjlav, Balda, Pardi,Pariya, Kanjanhari	32	civil work, Painitng, Art Painting and Structural work.
2	RCC road from Atul gram Panchayat to Atul Foundation Health Center – Juna Nayakwad	1	Infrastructure	Atul	31.94	.....
3	Rainwater Harvesting	15	Conservation	Nearby villages	15	Survey completed and Estimates prepared
				Total	**78.94**	

Annexure - 6

Environmental Statement : Form V (FY : 2022-2023)

Nouryon

Anaven

Atul

Anaven LLP

Atul 396 020, Gujarat, India
contact@anaven.co.in | (+91 2632) 230000

Anaven | GPCB | FormV
ID: 60407
September 20, 2023

To,
Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 – A
GANDHINAGAR - 382 010

Subject: Submission of Form V

Dear Sir,
We are enclosing herewith duly filled form – V for the financial year ending March 31, 2023.

Kindly receive the same.

Thanking you,
Yours faithfully,
For Anaven LLP,

ANAVEN LLP ANAVEN Atul

Authorized signatory
C.C.
Regional officer,
GPCB, Vapi (Dist: Valsad)

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2023

Part – A

(i)	Name and address of the owner/occupier of the industry operation or process	:	Mr. Gopi Kannan Rengachari Occupier, Anaven LLP Survey No.33/P1 P.O. Atul -396020 District –Valsad Gujarat
(ii)	Industry category Primary (STC code) Secondary (STC code)	:	Red- Chemical Manufacturing Industry
(iii)	Production Capacity	:	Please refer **Annexure - 1**
(iv)	Year of establishment	:	2017
(v)	Date of last environmental Statement submitted	:	September 15, 2022

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process : 72 kl/day
Cooling : 97 kl/day
Domestic : 8 kl/day

Sr. No.	Name of products	Process water consumption per unit of product output	
		During the previous financial year	During the current financial year
		(1)	(2)
1.	Monochloro Acetic Acid (MCA)	3.44 KL / MT	3.19 KL / MT

(2) Raw material consumption

*Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
Please refer Annexure - 2			

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

Part - C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
a) Water	Industrial waste water is being treated into the ETP followed by RO and final treatment by MEE. Hence, unit is maintaining zero liquid discharge system (ZLD).		NIL
b) Air	Cl_2 : 2.825 mg/NM^3 (Avg.) HCl: 8.075 mg/NM^3 (Avg.)		

Part - D

Hazardous Wastes
[as specified under Hazardous Wastes (Management & Handling) Rules, 2016 and amendment thereof]

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year	During the current Financial year
From process	20155.31	26755
From pollution control facilities	113	160.42

Part - E

Solid Wastes

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process (Fly Ash)	Not Applicable	Not Applicable
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilized within the unit		
(2) Sold		
(3) Disposed		

Part – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Description of waste	Physical form	Biodegradability	Mode of Disposal
Spent Catalyst	Solid	--	Selling to Regenerator
ETP Sludge	Solid	Biodegradable	TSDF of Atul Ltd. Or Send to authorized TSDF sites
Liners/bags Used Containers Drums/HDPE Carboys	Solid	Non-Biodegradable	Selling to authorized registered recycler.
Used Oil	Liquid	Biodegradable	Selling to registered recycler
Hydrochloric Acid*	Liquid	Non-Biodegradable	Selling to those units who having permission of Rule 9.
Salt From MEE/MVR	Solid	Non-Biodegradable	TSDF of Atul Ltd.

Part – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Water conservation:

Rainwater harvesting system is developed in the project area and collected water is being used in the process | utilities of the unit.

Energy conservation:

We have a set-up timer in LED light which operates at desired timeline (Evening-On & morning -Off).

Part – H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

- Industrial waste water is being treated into the ETP followed by RO and final treatment by MEE. Hence, unit is maintaining zero liquid discharge system (ZLD).
- For ZLD, the desired web camera with night vision capability and flow meters in the channel | drain carrying effluent within the premises installed.

- Details of Investment and/or recurring cost towards Environment Protection for the year 2022-2023;

Sr. No.	Parameter	Recurring Cost per annum (Rs. in lacs)
1	Environmental monitoring and management	2.87

Part – I

Any other particulars for improving the quality of the environment.

Please refer **Annexure 3**

Annexure – 1

Product List

Serial No.	Name of products	Production Capacity (MT/Annum)
1	Monochloro Acetic Acid (MCA)	32,000
2	HE- dichloro and trichloro acetic acid	448

Annexure: 2

Details of raw material consumption

Sr No.	Name of Raw Materials	FY: 2022-23
1	Acetic acid	12193311 Kg
2	Acetic anhydride	892372 Kg
3	Liquid chlorine	16453552 Kg
4	Hydrogen	1427575 Nm3
5	Caustic soda (32%)	421428 Kg

Annexure: 3

Details of Actions taken for improvement of quality of Environment and measures taken for pollution abatement and resource conservation.

We are committed to improve quality of Environment and related following actions are taken:

1) Unit has installed online continuous emission monitoring system.
2) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
3) Use of automated filling to minimize spillage.
4) Metering and control of quantities of active ingredients to minimize waste.
5) We have installed LED lights in and around plant area.
6) Use of close feed system into batch reactors.
7) Venting equipment through vapour recovery system

Anaven
Anaven LLP
Atul 396 020, Gujarat, India
contact@anaven.co.in | (+91 2632) 230000

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Project: Expansion of Monochloro Acetic Acid (MCA) manufacturing unit from 5100 TPA to 32000 TPA

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td>A</td><td colspan="2">Specific Conditions:</td></tr>
<tr><td>i</td><td>The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.</td><td>Complied.
All the environmental protection measures and safeguards proposed in the documents submitted to the ministry are in place. The recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project are being implemented and listed below:

❖ In-built mitigation measures:
• Total 06 vents (including 02 storage tanks vents of HCl and Acetic acid) are treated through scrubbers with appropriate scrubbing media and then released to safe locations. Also, all scrubbers are suitably designed. Details are given below:

<table>
<tr><th>S. No</th><th>Vent (Stack) Attached to</th><th>Pollutants</th><th>APCM</th></tr>
<tr><td>1</td><td>Chlorinator</td><td>Cl_2, HCl</td><td>Water and Caustic Scrubber</td></tr>
<tr><td>2</td><td>Hydrogenator</td><td>Hydrogen+ HCl</td><td>Water Scrubber</td></tr>
<tr><td>3</td><td>Vacuum pump</td><td>HCl</td><td>Water Scrubber</td></tr>
<tr><td>4</td><td>Flakers</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>5</td><td>HCl storage tank</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>6</td><td>Acetic acid storage tank</td><td>Traces of Acetic acid</td><td>Water Scrubber</td></tr>
</table>

❖ General Mitigation Measures for Air Quality Control during Operation Phase:
• Adequate stack height is provided to flue gas stack. Suitable air pollution control equipment is installed.
• Details of Stack, Height and APCM is given in below table

<table>
<tr><th>Flue gas stack</th><th>Type of Fuel</th><th>Stack Height</th></tr>
<tr><td>DG set (Capacity 500 KVA)</td><td>HSD</td><td>10 m</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td></td><td></td><td>
Process Stack:
<table>
<tr><th>S. No</th><th>Stack Attached to</th><th>Stack ht. m</th><th>Pollutants</th><th>APCM</th></tr>
<tr><td>1</td><td>Chlorinator</td><td>35</td><td>Cl_2, HCl</td><td>Water and Caustic Scrubber</td></tr>
<tr><td>2</td><td>Hydrogenator</td><td>35</td><td>Hydrogen + HCl</td><td>Water Scrubber</td></tr>
<tr><td>3</td><td>Vacuum pump</td><td>38</td><td>HCl</td><td>Water Scrubber</td></tr>
<tr><td>4</td><td>Flakers</td><td>45</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>5</td><td>HCl storage tank</td><td>18</td><td>Traces of HCl</td><td>Water Scrubber</td></tr>
<tr><td>6</td><td>Acetic acid storage tank</td><td>15</td><td>Traces of Acetic acid</td><td>Water Scrubber</td></tr>
</table>
Results of flue gas and process gas monitoring are well within the prescribed limit and attached as Annexure-1.

❖ Mitigation measures for water and wastewater:
• Unit is ZLD. The effluent generation from the unit is treated in ETP followed by RO and MEE.
• Online flow meters are installed to measure effluent at ETP.

• The total freshwater consumption details for the report period is given in below table:
<table>
<tr><th>Sr. No.</th><th>Month</th><th>Water Consumption KL/M</th><th>Avg. KLD</th></tr>
<tr><td>1</td><td>April 2023</td><td>4832</td><td>161.06</td></tr>
<tr><td>2</td><td>May 2023</td><td>5069</td><td>163.51</td></tr>
<tr><td>3</td><td>June 2023</td><td>4865</td><td>162.16</td></tr>
</table>
</td></tr>
</table>

Sr. No.	Condition	Compliance Status

4	July 2023	4996	161.16
5	August 2023	4954	159.8
6	September 2023	4774	159.13

- The total Wastewater generation details for the report period is given in below table:

Sr. No.	Month	Wastewater Generation KL/M	Avg. KLD
1	April 2023	4943	164.7
2	May 2023	2285	73.7
3	June 2023	5959	198.6
4	July 2023	5295	170.8
5	August 2023	4608	148.6
6	September 2023	5154	171.8

❖ **Mitigation measures for Hazardous waste:**

Hazardous waste generated is collected in jumbo bags and kept at a separate storage area. It is disposed as per Authorization.

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status

- Details of Hazardous waste generation and disposal given in below table

1) ETP sludge:

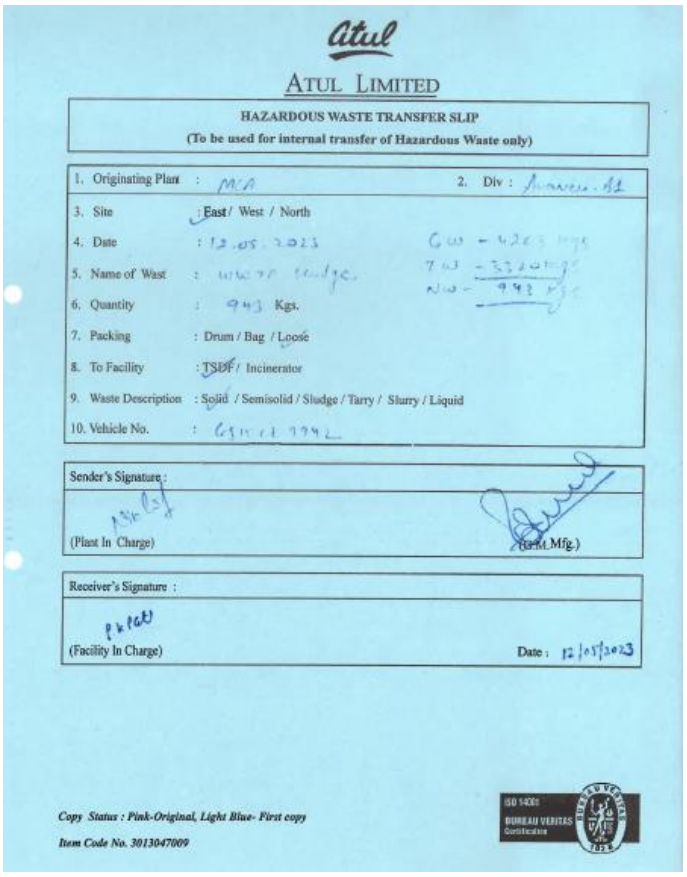
Sr. No.	Month	Generation (MT)	Disposal (MT)	Disposal mode
1	April 2023	4	4	Atul TSDF
2	May 2023	1	1	
3	June 2023	4	4	
4	July 2023	2	Haz waste storage during monsoon months as landfill is covered with tarpaulin	
5	August 2023	2		
6	September 2023	4		

2) MEE salt:

Sr. No.	Month	Generation (MT)	Disposal (MT)	Disposal mode
1	April 2023	3	3	Atul TSDF
2	May 2023	1	1	
3	June 2023	2	2	
4	July 2023	2	Haz waste storage during monsoon months as landfill is covered with tarpaulin	
5	August 2023	4		
6	September 2023	5		

Internal waste transfer slip is attached for ready reference:

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status
		

Atul

ATUL LIMITED

HAZARDOUS WASTE TRANSFER SLIP
(To be used for internal transfer of Hazardous Waste only)

1. Originating Plant : MCA 2. Div : Anaven-II
3. Site : East / West / North
4. Date : 12.05.2023
5. Name of Wast : WW TP sludge
6. Quantity : 943 Kgs.
7. Packing : Drum / Bag / Loose
8. To Facility : TSDF / Incinerator
9. Waste Description : Solid / Semisolid / Sludge / Tarry / Slurry / Liquid
10. Vehicle No. :

Sender's Signature :
(Plant In Charge) (Asst. Mfg.)

Receiver's Signature :
(Facility In Charge) Date : 12/05/2023

Copy Status : Pink-Original, Light Blue- First copy
Item Code No. 3013047009

Though HCl is given as co-product in EC, GPCB has given the same as Haz waste. Hence currently we are disposing HCl as per Authorization condition through online manifest system.

Sr. No.	Month	Hazardous waste Generation	Hazardous waste Disposal	Disposal mode
1	April 2023	2103.4	2103.4	As per authorization by GPCB
2	May 2023	339.06	339.06	
3	June 2023	1948.32	1948.32	
4	July 2023	1173.29	1173.29	
5	August 2023	1807.14	1807.14	
6	September 2023	1687.48	1687.48	

Sample Manifest is attached for your ready reference.

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status

SHREE SAI INDUSTRIES [69138]
(Hazardous Waste Manifest)

Manifest No: 2210452 29/09/2023 **Copy 1**

To be forwarded by To be forwarded by the occupier to the State Pollution Control Board or Committee.

Sender's Details			
Sender Name	**ANAVEN LLP [60407]**		
Address	Anaven LLP,Survey no. 33/P1, Atul Taluka :VAL Distict:VAL Pin no:396020		
Contact Details	9723551316 hriday_desai@atul.co.in	**GPS Coordinates**	**Lat** :20.537649479737844 **Long** :72.944150413424 52
Receiver's Details			
State	Gujarat	**Type of Facility**	Actual user (within state)
Facility Details	SHREE SAI INDUSTRIES [69138]		
Contact Details	9979858713 dollycorporation11@yahoo.com	**GPS Coordinates**	**Lat** :20.288395812450073 **Long**:72.85143311216845
Address	Plot No. 5/21, Opp. Fire Station Road, Sarigam GIDC, Sarigam, Taluka :SAR Distict:SAR Pin no:396195		
Waste Details			
Waste Details	0~8~B15~Inorganic Acids (Spent Acids)		
Waste Intended for	Recycling	**Total Qty**	24.450MT **Consistency** liquid
Transporter Details			
Name	SHREE SAI INDUSTRIES	**Contact Details**	9979858713 patelpraveshl89@yahoo.com
Address	1st floor, Shree Sainath Complex-1 District :Valsad-Sarigam Taluka :Umbergaon		
Vehicle Details			
Vehicle no	GJ15AV7776 (IMEI No :861100063957878)	**GPS Enabled**	Yes **Type of Vehicle** Tanker
Driver name	Anil Kumar	**Driver Contact No**	9119935625
Waste Transportation Details			
Vehicle Depart.	29/09/2023 12:00PM	**Number of Drums**	0 **Loose Waste** 24.450
Remarks	Hydrochloric Acid - HCl 36% supply to Shree Sai Industries, Sarigam, GIDC, Vapi	**No of bags**	0

Sender's Declaration :
1. I hereby declare that contents of the consignment are fully and accurate described above by proper shipping name and are categorized , packed, marked , and labeled , and are all in all respects in proper condition for transport by road according to applicable national government regulations.
2. I hereby declare that we have obtained membership of common facility / carried out agreement with actual user for disposal/ actual use of hazardous waste.

Name and stamp of sender: **Date:** **Signature:**

Transporter's Acknowledgement of Receipt of waste
Stamp: **Date:** **Signature:**

Receiver's Certification of Receipt of Hazardous waste

In Principal Approval Details :Accepted - 29/09/2023 9:32AM - Remarks :Hydrochloric acid

Stamp: **Date:** **Signature:**

By scanning QR code, copy of transporter will be display. (All copy has same information)
Print by 60407 @ 29/09/2023 09:59:58 AM 004165c4-b05c-4dfd-9009-4fae28d0cb57 **Page 1 of 1**

❖ Greenbelt:

- Anaven has already developed greenbelt in an area of 9.8% i.e. 647 sqm out of total area of the project. An additional 24% i.e. 1594 sqm greenbelt is developed at Atul village.
- Photograph of green belt:

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status
		 

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status
		 

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

Sr. No.	Condition	Compliance Status
ii	As already committed by the project proponent, zero liquid discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the wastewater to be collected and to be reused after treatment.	**Complied.** Unit is ZLD. The effluent generation from the unit is treated in ETP followed by RO and MEE. There is no liquid discharge outside the premises. **Details for wastewater generation is given in above condition (i).** **Photograph of Flow meter :** 
iii	No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.	**Complied.** No raw material/solvent prohibited by the concerned regulatory authorities from time to time, is used.
Iv	Solvent management shall be carried out as follows:(a) reactor shall be connected to chilled brine condenser system. (b)Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c)Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flameproof. The solvent storage tanks shall be provided with breather valves to prevent losses.(f) All the solvent storage tanks shall be connected with vent	**Not Applicable.** We are not using any solvent in our process.

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td></td><td>condensers with chilled brine circulation.</td><td></td></tr>
<tr><td>v</td><td>Volatile organic compounds (VOCs)/fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.</td><td>Complied.
Below steps taken to control the VOCs | fugitive emissions:
1. We have a close loop system.
2. We have connected all 06 vents with appropriate scrubbers.
3. We have installed 18 nos of chlorine gas detectors in and around plant area.
<table>
<tr><th>Sr. No.</th><th>Tag No.</th><th>Type</th><th>Area</th></tr>
<tr><td>1</td><td>QI-0140</td><td>Gas Explosion Detector</td><td>HAC TF</td></tr>
<tr><td>2</td><td>QT-0257A</td><td>Chlorine gas detector</td><td>MCA 4 Floor</td></tr>
<tr><td>3</td><td>QT-0257B</td><td>Chlorine gas detector</td><td>MCA 4 Floor</td></tr>
<tr><td>4</td><td>QT-0257C</td><td>Chlorine gas detector</td><td>MCA 4 Floor</td></tr>
<tr><td>5</td><td>QT-0257D</td><td>Chlorine gas detector</td><td>MCA 4 Floor</td></tr>
<tr><td>6</td><td>QT-0257E</td><td>Chlorine gas detector</td><td>MCA 2 FLOOR</td></tr>
<tr><td>7</td><td>QT-0257F</td><td>Chlorine gas detector</td><td>MCA 3 Floor</td></tr>
<tr><td>8</td><td>QT-0257G</td><td>Chlorine gas detector</td><td>DCS HVAC System</td></tr>
<tr><td>9</td><td>QT-0257H</td><td>Chlorine gas detector</td><td>MCA 4 Floor</td></tr>
<tr><td>10</td><td>QT-0257I</td><td>Chlorine gas detector</td><td>MCA 3 Floor</td></tr>
<tr><td>11</td><td>QT-0257J</td><td>Chlorine gas detector</td><td>MCA 3 Floor</td></tr>
<tr><td>12</td><td>QT-0257K</td><td>Chlorine gas detector</td><td>MCA 3 Floor</td></tr>
<tr><td>13</td><td>QI-0908</td><td>Chlorine detector with Sample System</td><td>MCA 8 Floor</td></tr>
<tr><td>14</td><td>QIZ-0909</td><td>Chlorine detector with Sample System</td><td>MCA 8 Floor</td></tr>
<tr><td>15</td><td>QI-2004</td><td>Chlorine gas detector</td><td>MCA 0 Floor</td></tr>
<tr><td>16</td><td>QI-2003</td><td>Chlorine gas detector</td><td>MCA 0 Floor</td></tr>
<tr><td>17</td><td>QI-2005</td><td>Chlorine gas detector</td><td>Near DG Room</td></tr>
<tr><td>18</td><td>QI-2006</td><td>Chlorine gas detector</td><td>B/H Flaker Building</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td>vi</td><td>To control source and the fugitive emissions (at 99.997%), suitable and adequate pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.</td><td>
Complied.
We have installed suitable and adequate pollution control devices to meet the prescribed norms and| or the NAAQS. The gaseous emissions are dispersed through stack of adequate height as per CPCB | SPCB guidelines. Stack emission monitoring is done through NABL approved third party.
Photograph of Scrubber:

Results of the same are given below:
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Stack details</th><th rowspan="2">Parameter</th><th rowspan="2">GPCB Limits</th><th colspan="3">Value for the Period April 23 – September 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>HCL Storage tank</td><td>HCl</td><td>20 mg/Nm^3</td><td>8.6</td><td>14.6</td><td>11.6</td></tr>
<tr><td>2</td><td>Flaker stack</td><td>HCl</td><td>20 mg/Nm^3</td><td>9.7</td><td>13.9</td><td>11.8</td></tr>
<tr><td>3</td><td>Acetic acid storage tank</td><td>Acetic Acid</td><td>-</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>4</td><td>Vacuum Pump stack</td><td>HCl</td><td>20 mg/Nm^3</td><td>10.4</td><td>12.6</td><td>11.5</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Chlorinator stack</td><td>HCl</td><td>20 mg/Nm^3</td><td>13.6</td><td>14.4</td><td>14.0</td></tr>
<tr><td>Chlorine as Cl_2</td><td>09 mg/Nm^3</td><td>4.3</td><td>6.6</td><td>5.45</td></tr>
<tr><td>6</td><td>Hydrogenation</td><td>HCl</td><td>20 mg/Nm^3</td><td>6.1</td><td>9.8</td><td>7.95</td></tr>
</table>
DG set stack Results:
<table>
<tr><th>Test Parameter</th><th>Unit</th><th>Min.</th><th>Max.</th><th>Average</th><th>Permissible Limit</th></tr>
<tr><td>Particulate Matter</td><td>mg/ Nm^3</td><td>75</td><td>91</td><td>83</td><td>150</td></tr>
</table>
</td></tr>
</table>

Sr. No.	Condition	Compliance Status
		SO_2 | PPM | 16.5 | 28 | 22.25 | 100 NO_X | PPM | 29.4 | 41.3 | 35.35 | 50
vii	Rainwater harvesting system shall be developed in the project area and collected water shall be used in the process/utilities of the unit.	**Complied.** We have installed a rainwater harvesting system. Rainwater from the roof area (admin building- 300 m^2 and flaker building- 500 m^2, Total 800 m^2) is collected in 3 KL capacity tank, from where it is transferred (through pump with pumping capacity 15 m^3/hr) to cooling tower as make up water and thus reuse. Collected rainwater is being reused within the premises. **Photograph:** 

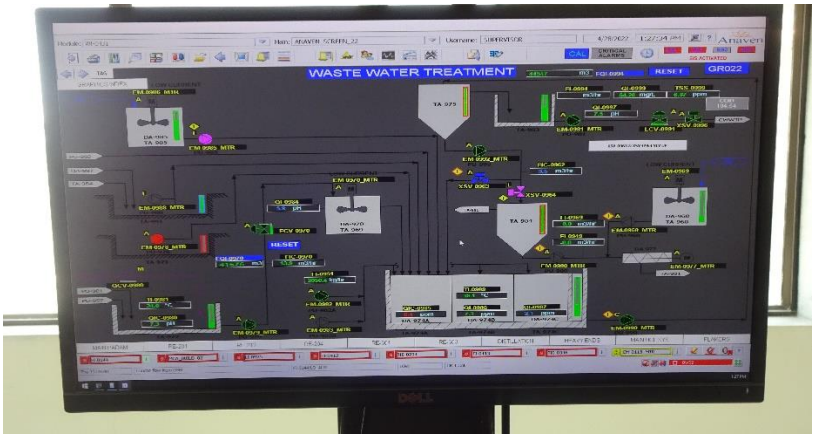
<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td>Viii</td><td>Total freshwater requirement shall not exceed 186.1 cum/day, proposed to be met from river par. Necessary permission shall be obtained in this regard from concerned regulatory authority. The freshwater demand shall be reduced by 10% using rain water harvesting system.</td><td>Complied.
Details for freshwater consumption are given in above specific condition (i).
Fresh water consumption is well within the stipulated limit. Rainwater harvesting system is provided as mentioned in the point no. vii.</td></tr>
<tr><td>ix</td><td>Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.</td><td>Complied.
We have a separate drain system for storm water to nullify the possibility of mixing process effluent | any wastewater with storm water.
All the vent pipes are above the roof level.

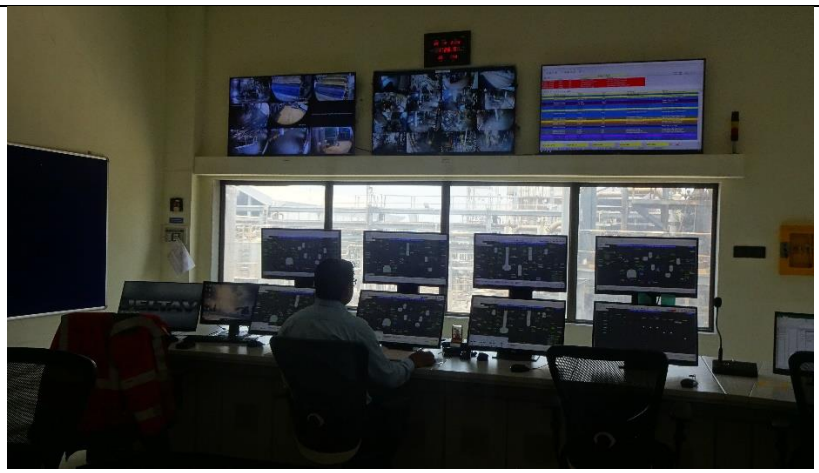
(storm water photograph) :
  </td></tr>
<tr><td>x</td><td>Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leakproof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.</td><td>Complied.
• Following chemicals are used and stored as per the best practice:
<table><tr><th>Sr. No.</th><th>Chemical</th><th>State</th><th>Means of Storage</th><th>Capacity of Storage Means</th><th>No. of Storage means</th><th>Total Capacity</th><th>Pressure</th><th>Temp.</th></tr><tr><td colspan="9">Raw Material</td></tr><tr><td>1</td><td>Acetic acid</td><td>Liquid</td><td>Tank</td><td>500 m3</td><td>1</td><td>500 m3</td><td>Atm</td><td>Amb</td></tr><tr><td>2</td><td>Acetic anhydride</td><td>Liquid</td><td>Tank</td><td>80 m3</td><td>1</td><td>80 m3</td><td>Atm</td><td>Amb</td></tr><tr><td>3</td><td>Catalyst</td><td>Solid</td><td>Drums</td><td>100 Kgs</td><td>10</td><td>1000 kgs</td><td>Atm</td><td>Amb</td></tr></table></td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td colspan="9">Product</td></tr>
<tr><td>1</td><td>MCA</td><td>Solution</td><td>Tank</td><td>160 m3</td><td>1</td><td>160 m3</td><td>Atm</td><td>Amb</td></tr>
<tr><td></td><td></td><td>Flakes</td><td>Bag</td><td>25 Kgs, 1000 Kgs</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
</table>

Photograph of tank pharm, Dyke wall

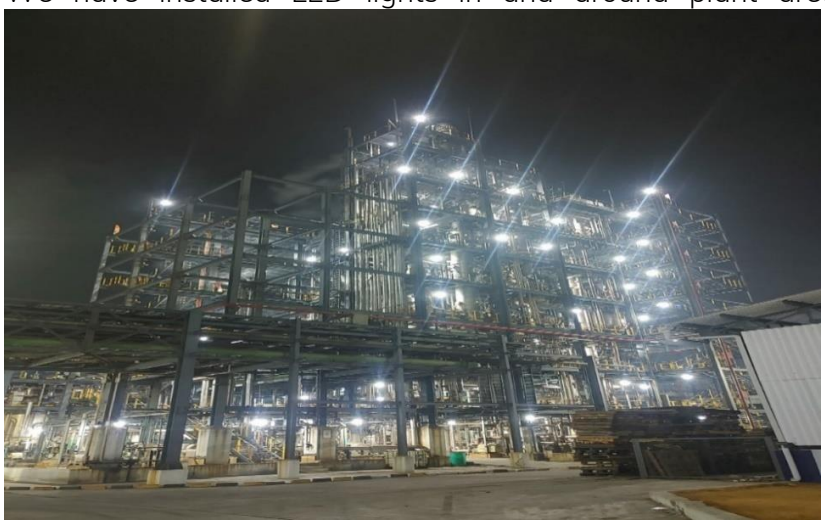
 
The best standard practices have been followed for hazardous chemicals storage.
• Flame arresters are provided on tank farm, (Photograph)
 
• Raw material and products are stored in leakproof containers.
• Acid is being stored in above ground tanks equipped with adequate dyke.</td></tr>
<tr><td>xi</td><td>Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.</td><td>Complied.
No process organic residue | spent carbon generated.
For ETP sludge and MEE salt we have also taken membership of a common facility approved by GPCB; apart from using Atul Ltd.'s own TSDF.
Membership with Detox India (Safe Enviro Pvt Ltd) is attached</td></tr>
</table>

Sr. No.	Condition	Compliance Status
		for your ready reference.  DETOX INDIA operated by VEOLIA "Certificate" Certificate No.:104097 To Whomsoever it may concern This is to certify that ANAVEN LLP PLOT NO. 33/P1, ATUL, VALSAD is a valid member of SAFE ENVIRO PRIVATE LIMITED SEPL - Magnad for Integrated Common Hazardous Waste Management Facility membership is valid for a period of 05 Years Date of issue : 24-03-2022 Date of expiration : 24-03-2027 Place of issue : Surat For, Safe Enviro Private Limited Director SUBJECT TO SURAT JURISDICTION Safe Enviro Private Limited Survey No. 868, Village - Magnad, Tal. - Jambusar, Dist. - Bharuch - 392150 (Guj.) INDIA Corporate Office : Detox House, Opp. Gujarat Samachar Press, Udhna Darwaja, Ring Road, Surat-395 002 (Guj.) INDIA Ph. : +91 261 2351248, 2346181	E-mail : info.safeenviro@veolia.com	CIN : U51101GJ2015PTC085257 **Details for hazardous waste generation & Disposal is given in specific condition (i).**
xii	The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste;(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c)Use of automated filling to minimize spillage. (d) Use of close feed system into batch reactors. (e) Venting equipment through vapors recovery system. (f) Use of high-pressure hoses for equipment through vapors recovery system. (g)Use of high-pressure hoses for equipment clearing to reduce wastewater generation.	**Noted & complied.** We are committed to minimizing waste generation. Following steps are taken for same: a) Metering and controlling quantities of active ingredients to minimize waste. (b) Use of automated filling to minimize spillage. (d) Use of a closed feed system. 

Sr. No.	Condition	Compliance Status
		 (e) Venting equipment through vapor recovery system. (f) Use of high-pressure hoses for equipment through vapor recovery system. (g)Use of high-pressure hoses for equipment clearing to reduce wastewater generation
xiii	As proposed, a green belt of at least 10-20 m width shall be developed mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the state forest department. As committed by the project proponent, the greenbelt area shall be developed and maintained in an area of 33% out of the total project area.	**Complied.** Anaven has already developed greenbelt in an area of 9.8% i.e. 647 sqm out of total area of the project. An additional 24% i.e. 1594 greenbelt is developed at Atul village. **Photographs are provided in specific condition no. i**
Xiv	All the commitments made during public hearings shall be implemented in a timely manner. Preference shall be given to local villagers (70-80%) for employment in the unit.	**Complied.** The concern of people was regarding local employment and proper mitigation measures to control air, water pollution and hazardous waste. Status: 1. Local employment: We give preference in employment to the local people based on educational qualification and experience. Currently we have 88 % local employment. 2. Mitigations measures: • Water pollution: Our unit is ZLD, hence there is no discharge of effluent.

Sr. No.	Condition	Compliance Status
		• Air pollution: There is only one DG set which is operated during power failure only. Process vents are provided with proper air pollution control equipment and automatic process control interlocks with an online continuous emission monitoring system. • Hazardous Waste: Hazardous waste is disposed off as per the prevailing rules and authorization. Detailed action taken report on public hearing points was already submitted with last EC compliance report submission.
xv	As proposed Rs.3.31 crores shall be allocated towards Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for addressing the issues raised during public consultation/hearing including drinking water facility/skill development/solar lights, etc., and shall be completed within 5 years. The amount proposed in CER shall be spent during execution of the project and shall not be linked with the CSR.	**Noted and compliance assured.** Please see **Annexure -2**
Xvi	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	**Complied.** DG set of 500 kVA is used as stand by during power failure. Stack height provided as per CPCB norms. Acoustic enclosure is provided to DG set for controlling the noise pollution.  
Xvii	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	**Complied.** We have taken concrete steps for protection of possible fire hazards during the manufacturing process in material handling. Details of our Firefighting system is attached as **Annexure 3.**

Sr. No.	Condition	Compliance Status
xviii	A continuous online (24*7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	**Complied.** OCEMS installation work is installed. The desired web camera and flow meters for effluent installed. Photographs are attached as **Annexure 4.** Our unit is ZLD. The desired web camera with night vision capability and flow meters in the channel| drain carrying effluent within the premises installed. Photograph of night vision camera installed in ZLD unit.  
xix	Project proponent has to do the monitoring within the zone of influence (within 2 km, West, SW, and east direction) of the plant boundary in downwind directions. The results shall be submitted in six-monthly EC compliance report to the RO-MoEFCC.	**Complied.** We are regularly doing Ambient air monitoring monitoring NABL approved third party. There is no time that result exceed the limit prescribed in valid CCA We have started measuring ambient air monitoring as suggested. We have started monitoring AAQM at the following stations. 1. At site: Near Main gate 2. West site of plant: At opposite Shed D 3. SW of plant: At Haria water tank 4. East site of plant: At 66 KV substation. **AAQM results is attached as Annexure - 5**
B	**General Condition**	
i	No further expansion or modification in the plant, other than mentioned in the EIA notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest	**Noted.**

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td></td><td>and Climate change/SEIAA, as applicable. In case of deviations or alternations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to access the adequacy of conditions imposed and to add additional environmental protection measures required, if any.</td><td></td></tr>
<tr><td>ii</td><td>The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.</td><td>Complied.
We have installed LED lights in and around plant area.
  </td></tr>
<tr><td>Iii</td><td>The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).</td><td>Complied.
Adequate noise control measures like acoustic hoods, silencers, enclosures etc. provided on all sources of noise generation.
We regularly monitor ambient noise level, and it is found within the norms.
Noise results is attached as: Annexure 6
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Location</th><th rowspan="2">GPCB Limits</th><th colspan="3">Value for the Period April 23 – September 2023 (Day)</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>MCA Plant</td><td>75</td><td>65.9</td><td>70.2</td><td>68.05</td></tr>
<tr><td>2</td><td>Cooling tower pump area ground floor</td><td>75</td><td>64.1</td><td>66.9</td><td>65.5</td></tr>
<tr><td>3</td><td>Flaker ground floor</td><td>75</td><td>62.2</td><td>65.3</td><td>63.75</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>4</td><td>Flaker first floor</td><td>75</td><td>60.1</td><td>63.4</td><td>61.75</td></tr>
<tr><td>5</td><td>Flaker second floor</td><td>75</td><td>59.1</td><td>63.8</td><td>61.45</td></tr>
<tr><td>S No.</td><td>Location</td><td>GPCB Limits</td><td colspan="3">Value for the Period April 23 – September 2023 (Night)</td></tr>
<tr><td></td><td></td><td></td><td>Min.</td><td>Max.</td><td>Avg.</td></tr>
<tr><td>1</td><td>MCA Plant</td><td>70</td><td>57.7</td><td>59.3</td><td>58.5</td></tr>
<tr><td>2</td><td>Cooling tower pump area ground floor</td><td>70</td><td>57.4</td><td>59.7</td><td>58.55</td></tr>
<tr><td>3</td><td>Flaker ground floor</td><td>70</td><td>54.3</td><td>56.4</td><td>55.35</td></tr>
<tr><td>4</td><td>Flaker first floor</td><td>70</td><td>50.1</td><td>52.9</td><td>51.5</td></tr>
<tr><td>5</td><td>Flaker second floor</td><td>70</td><td>50.9</td><td>54.6</td><td>52.75</td></tr>
</table>
</td></tr>
<tr><td>iv</td><td>The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.</td><td>Noted and will be complied with as committed.
Details given in above specific condition (xv).</td></tr>
</table>

EC No. F. No. J-11011/286/2018-IA II(I) Period: April 2023 to September 2023

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td>V</td><td>The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate change as the state government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.</td><td>Complied.
Total investment under EMS during reporting period: 4.0 lacs
Recurring cost: A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities.

Total expenditure for the report period is given in below table:
<table>
<tr><th>Sr. No.</th><th>Parameter</th><th>Recurring cost (Rs. In lacs) for the report period (April 23 to September 2023)</th></tr>
<tr><td>1</td><td>Air Pollution control management</td><td>102</td></tr>
<tr><td>2</td><td>Wastewater pollution control</td><td>107.25</td></tr>
<tr><td>3</td><td>Environment monitoring and management</td><td>1.43</td></tr>
<tr><td>4</td><td>Solid waste disposal</td><td>4.14</td></tr>
<tr><td colspan="2">Total</td><td>214.82</td></tr>
</table></td></tr>
<tr><td>vi</td><td>A copy of the clearance letter shall be sent by the project proponent to concern panchayat, Zilla parishad/Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.</td><td>Complied.
The details mentioned in stated condition have been circulated | sent to concern panchayat, Zilla parishad/Municipal Corporation while processing the proposal.</td></tr>
<tr><td>vii</td><td>The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective regional office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.</td><td>Complied.
We regularly submit six monthly compliance report and also uploading on company’s web site.</td></tr>
</table>

Sr. No.	Condition	Compliance Status
Viii	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (protection) rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective regional offices of MoEF & CC by e-mail.	**Complied.** Environmental statement for FY: 2022-2023 has been submitted to GPCB on September 20, 2023. The copy of the same is attached as **Annexure 7.**
Ix	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/committee and may also be seen at Website of the Ministry and at http://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned regional office of the ministry.	**Complied.** We have published the advertisement in vernacular language newspaper on August 15, 2020, and in English on August 17, 2020. We have informed about this to your good office vide our letter dated September 03, 2020.
x	The project authorities shall inform the regional office as well as the ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	**Noted.**
Xi	This environmental clearance is granted subject to final outcome of Hon'ble suprema court of India, Hon'ble High court, Hon'ble NGT and any other court of law, if any, as any be applicable to this project.	**Noted.**

Sr. No.	Condition	Compliance Status
16	The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.	Noted.
17	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.
18	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.
19	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & control of pollution Act, 1974 the Air (Prevention & control of Pollution) Act, 1981, The Environment (Protection) Act, 1986, The hazardous waste (Management, Handling and Transboundary Movement) Rules, 2016 and the public liability Insurance Act, 1991 read with subsequent amendments therein.	Noted.
20	This issues with the approval of the competent authority.	Noted.

Annexure -1
Results of process stack and Flue gas stack

Details of Process & flue stack									
Sr. No.	Stack Details	Parameter	Permissible limits	Obtained value					
				April 2023	May 2023	June 2023	July 2023	August 2023	September 2023
1	HCL Storage tank	HCL	20 mg/Nm3	14.5	14.0	12.9	14.6	9.9	8.6
2	Flaker stack	HCL	20 mg/Nm3	13.9	12.3	11.0	13.4	9.7	10.8
3	Acetic acid storage tank	Acetic acid	---	ND	ND	ND	ND	ND	ND
4	Vacuum Pump stack	HCL	20 mg/Nm3	12.6	11.4	10.8	11.4	10.4	11.9
5	Chlorinator stack	HCL	20 mg/Nm3	13.6	14.1	13.8	14.4	13.6	14.2
		Chlorine as Cl2	09 mg/Nm3	5.3	6.4	6.0	6.6	4.6	4.3
6	Hydrogenation	HCL	20 mg/Nm3	9.8	8.8	9.1	8.8	6.7	6.1
7	DG set stack	PM	150 mg/Nm3	82	88	91	75	78	75
		SO2	100 ppm	16.5	18	19	23	26	28
		NOx	50 ppm	33.9	41.3	40.1	32.7	29.4	30.9

Annexure -2

CER activity for the year 2023-24

List of activities identified for the year 23-24:

CER 2023-24						
Sr. No.	Name of the Activity	Qty.	Sectors | Area	Village	Estimated cost (lakh)	Remarks
1	Model Anganwadi Project 2023-24	6	Education	Anjlav, Balda, Pardi,Pariya, Kanjanhari	32	civil work, Painitng, Art Painting and Structural work.
2	RCC road from Atul gram Panchayat to Atul Foundation Health Center – Juna Nayakwad	1	Infrastructure	Atul	31.94	.....
3	Rainwater Harvesting	15	Conservation	Nearby villages	15	Survey completed and Estimates prepared
				Total	**78.94**	

Annexure -3
Details of our Firefighting system

Details of fire extinguisher installed in various locations are as below:

Fire extinguisher type	Qty.
ABC - 6 Kg	72
ABC - 50 Kg	5
CO2 - 4.5 Kg	06
CO2 - 6.5 Kg	10

FIRE FIGHTING AND OTHER ARRANGEMENTS FOR OFF-SITE EMERGENCY

2. AVAILABILITY OF FIRE FIGHTING FACILITES:

HYDRANT SYSTEM:

Detailed Hydrant System drawing, pipeline layout, hydrant post locations along with isolation valve positions displayed in all ECC as well as fire stations and plant control rooms.

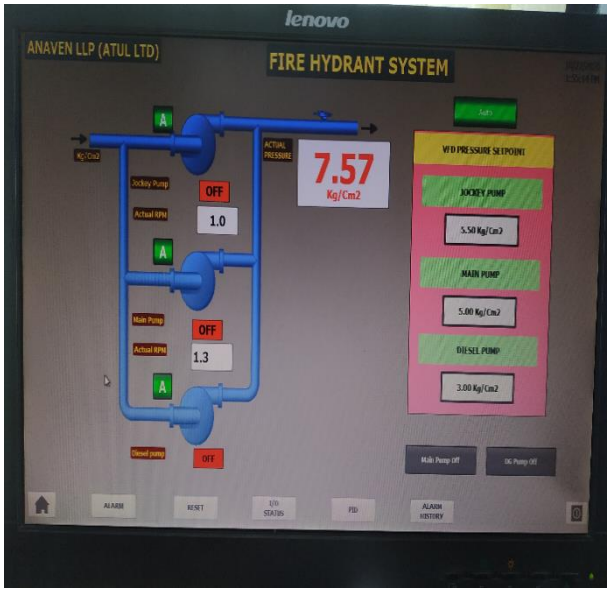
1) Anaven

Fire water pumps	:	273 KL/hr. –1 Nos. (Elect)
Jockey pump	:	10.8 KL/hr. –1 Nos.
Diesel Driven Fire Pump	:	273 KL/hr. –1 Nos.

2) East Side Fire water reservoir (Atul water Reservior): 46000KL

Fire water pumps	:	410 KL/hr. –2 Nos. (Elect)
Jockey pump (Atul Water Reservoir)	:	30 KL/hr. –2 Nos.
Diesel Driven Fire Pump	:	410 KL/hr. –2 Nos.

Fire pumps operation / status indication panel provided at on automatic with audio / visual alarm



3. FIRE HYDRANT NETWORK DETAILS:

Single Hydrant points	: 15 Nos
Double Hydrant points	: 00 Nos
Riser fire escape hydrant points	: 24 Nos.
High velocity long range monitor:	05 Nos.
Hose boxes (FEH)	: 39 Nos.
Hose pipes: 15 Mts.	: 78 Nos.
Hose pipes 7.5 Mts.	: 00 Nos.
Branch pipes (Jet types)	: 10 Nos.
Branch pipes (Triple purpose)	: 39 Nos.
Foam making branch pipes	: 03 Nos.

4. FIRE TENDER:

Three fire tenders are available at Atul site.

Details are as under

One fire tender having 1800ltr water capacity,

2nd Multipurpose fire tender having 5000-liter water and 500ltr foam.

3rd Multipurpose fire tender having facility of 500 kg DCP, 500ltr foam & 45000ltr water capacity.

5. FIRE DETECTION SYSTEM:

Automatic detection of fire is essential especially for high hazard, sensitive and unmanned areas. We have provided an automatic fire detection system which includes heat and smoke detector to give audio / visual alarm / signal locally as well as in the permanently manned area. This in turn helps in early detection of fire and to start firefighting activity at an early stage.

Area	Method of Detection	Warning indication
Anaven Admin	Smoke detector	On fire alarm panel
MCA Control room	Smoke detector	On fire alarm panel

8.1.4 FIRE ALARM:

A combined fire alarm system is available (conventional and addressable) with manual call points and detectors provided in the entire plant, on activation of MCP, siren will blow as mentioned below pattern.

SR.NO.	PLANT	Nos. of MCP
1	MCA	12
2	Flaker	12
3	Admin	5
4	MCC	6
5	Utility	2
6	Tank farm	2
7	WWTP	3

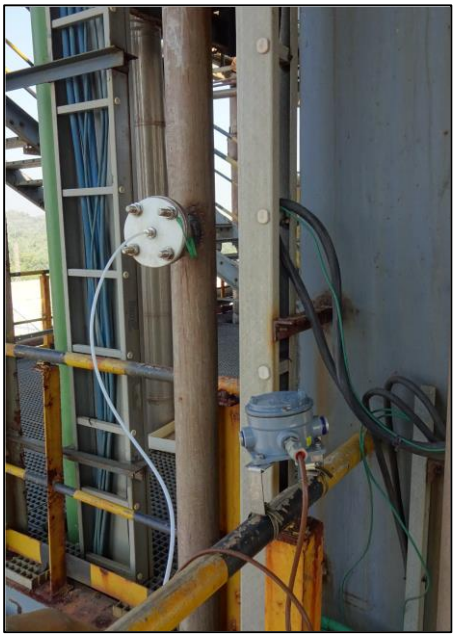
The fire alarm system is tested every Monday at 09:00 am from the plant in rotation manner and record is maintained.

Annexure- 4

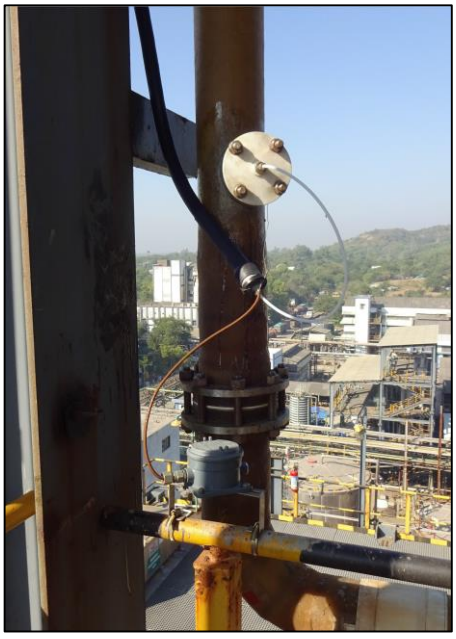
Photograph of OCEMS (Installed)

OCEMS Panel

Cylinder



Tapping @Hydrogenation



Tapping @Chlorination

Annexure -5
AAQM Report

Station	Parameter	Limit µg/NM³	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023
66 KV	$PM_{2.5}$	60	50	49	26	22	26	27
	PM_{10}	100	59	82	50	48	58	60
	SO_2	80	24.4	18.4	13.3	15.7	19.7	20.7
	NO_2	80	30.7	22.9	18.2	26.5	29.1	30.4
Opposite Shed -D	$PM_{2.5}$	60	32.4	51.7	32.6	32.9	32.8	31.9
	PM_{10}	100	52.3	89.6	55.5	53.6	60.8	60.8
	SO_2	80	23.9	24.6	16.7	20.7	19.3	16.9
	NO_2	80	30.5	30.5	22.2	29.7	28.9	29.8
Haria water tank	$PM_{2.5}$	60	32.6	51.3	29.4	30.6	35.6	30.8
	PM_{10}	100	56.6	84.6	52.6	55.9	57.1	52.9
	SO_2	80	30.2	23.6	17.1	17.8	18.1	18.3
	NO_2	80	26.6	29.8	20.3	24.1	29.8	27.9
Near Main Gate	$PM_{2.5}$	100	60.8	77	72	63	65	68
	PM_{10}	60	31	41	39	32	28	26
	SO_2	80	23.6	19.3	18.5	23.4	16.7	14.8
	NO_2	80	19.4	26.1	25.8	21.4	26.8	29.6

Annexure – 6

Noise Report

Sr. No.	Location	Noise Level, dBA												Permissible Limits, dBA
		April 2023		May 2023		June 2023		July 2023		August 2023		September 2023		
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
1	MCA plant ground floor	70.2	59.3	69.6	58.3	68.0	57.7	68.9	58.9	65.9	57.8	66.9	58.3	75 Day | 70 Night
2	Cooling tower pump area ground floor	66.9	58.7	65.0	59.7	64.1	58.0	65.4	57.4	63.8	58.8	64.3	59.6	75 Day | 70 Night
3	Flaker ground floor	62.9	56.4	63.3	55.1	62.2	54.3	63.8	55.1	65.3	54.3	64.8	55.9	75 Day | 70 Night
4	Flaker first floor	63.4	51.2	62.7	52.9	62.0	51.6	60.1	52.7	61.7	51.7	62.9	50.1	75 Day | 70 Night
5	Flaker second floor	61.1	53.6	63.8	54.6	61.9	53.3	59.8	51.9	60.8	50.9	59.1	51.3	75 Day | 70 Night

Annexure – 7

Environmental Statement: Form V (FY : 2022-2023)

Nouryon

Anaven

Atul

Anaven LLP

Atul 396 020, Gujarat, India
contact@anaven.co.in | (+91 2632) 230000

Anaven | GPCB | FormV
ID: 60407
September 20, 2023

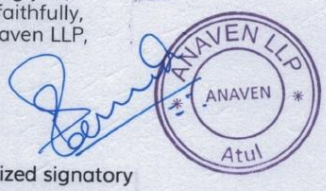
To,
Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 – A
GANDHINAGAR - 382 010

Subject: Submission of Form V

Dear Sir,
We are enclosing herewith duly filled form – V for the financial year ending March 31, 2023.

Kindly receive the same.

Thanking you,
Yours faithfully,
For Anaven LLP,



Authorized signatory
C.C.
Regional officer,
GPCB, Vapi (Dist: Valsad)

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2023

Part – A

(i)	Name and address of the owner/occupier of the industry operation or process	:	Mr. Gopi Kannan Rengachari Occupier, Anaven LLP Survey No.33/P1 P.O. Atul -396020 District –Valsad Gujarat
(ii)	Industry category Primary (STC code) Secondary (STC code)	:	Red- Chemical Manufacturing Industry
(iii)	Production Capacity	:	Please refer **Annexure - 1**
(iv)	Year of establishment	:	2017
(v)	Date of last environmental Statement submitted	:	September 15, 2022

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process : 72 kl/day
Cooling : 97 kl/day
Domestic : 8 kl/day

Sr. No.	Name of products	Process water consumption per unit of product output	
		During the previous financial year	During the current financial year
		(1)	(2)
1.	Monochloro Acetic Acid (MCA)	3.44 KL / MT	3.19 KL / MT

(2) Raw material consumption

*Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
Please refer Annexure - 2			

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

Part - C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
a) Water	Industrial waste water is being treated into the ETP followed by RO and final treatment by MEE. Hence, unit is maintaining zero liquid discharge system (ZLD).		NIL
b) Air	Cl_2 : 2.825 mg/NM^3 (Avg.) HCl: 8.075 mg/NM^3 (Avg.)		

Part - D

Hazardous Wastes
[as specified under Hazardous Wastes (Management & Handling) Rules, 2016 and amendment thereof]

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year	During the current Financial year
From process	20155.31	26755
From pollution control facilities	113	160.42

Part - E

Solid Wastes

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process (Fly Ash)	Not Applicable	Not Applicable
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilized within the unit		
(2) Sold		
(3) Disposed		

Part – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Description of waste	Physical form	Biodegradability	Mode of Disposal
Spent Catalyst	Solid	--	Selling to Regenerator
ETP Sludge	Solid	Biodegradable	TSDF of Atul Ltd. Or Send to authorized TSDF sites
Liners/bags Used Containers Drums/HDPE Carboys	Solid	Non-Biodegradable	Selling to authorized registered recycler.
Used Oil	Liquid	Biodegradable	Selling to registered recycler
Hydrochloric Acid*	Liquid	Non-Biodegradable	Selling to those units who having permission of Rule 9.
Salt From MEE/MVR	Solid	Non-Biodegradable	TSDF of Atul Ltd.

Part – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Water conservation:

Rainwater harvesting system is developed in the project area and collected water is being used in the process | utilities of the unit.

Energy conservation:

We have a set-up timer in LED light which operates at desired timeline (Evening-On & morning -Off).

Part – H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

- Industrial waste water is being treated into the ETP followed by RO and final treatment by MEE. Hence, unit is maintaining zero liquid discharge system (ZLD).
- For ZLD, the desired web camera with night vision capability and flow meters in the channel | drain carrying effluent within the premises installed.

- Details of Investment and/or recurring cost towards Environment Protection for the year 2022-2023;

Sr. No.	Parameter	Recurring Cost per annum (Rs. in lacs)
1	Environmental monitoring and management	2.87

Part – I

Any other particulars for improving the quality of the environment.

Please refer **Annexure 3**

Annexure – 1

Product List

Serial No.	Name of products	Production Capacity (MT/Annum)
1	Monochloro Acetic Acid (MCA)	32,000
2	HE- dichloro and trichloro acetic acid	448

Annexure: 2

Details of raw material consumption

Sr No.	Name of Raw Materials	FY: 2022-23
1	Acetic acid	12193311 Kg
2	Acetic anhydride	892372 Kg
3	Liquid chlorine	16453552 Kg
4	Hydrogen	1427575 Nm3
5	Caustic soda (32%)	421428 Kg

Annexure: 3

Details of Actions taken for improvement of quality of Environment and measures taken for pollution abatement and resource conservation.

We are committed to improve quality of Environment and related following actions are taken:

1) Unit has installed online continuous emission monitoring system.
2) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
3) Use of automated filling to minimize spillage.
4) Metering and control of quantities of active ingredients to minimize waste.
5) We have installed LED lights in and around plant area.
6) Use of close feed system into batch reactors.
7) Venting equipment through vapour recovery system