Atul Ltd

Project: CRZ clearance for proposed 4.0 km long treated effluent discharge pipeline in Par estuary, Dist. Valsad.
CRZ Compliance Report for CRZ Clearance no. ENV-1097-2942-P, dated January 17, 1998.
Report Period: October 2022 – March 2023

<table>
<tr><th>Sr No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td>1</td><td>The Company shall strictly adhere to all the provisions of CRZ notification of 1991 and subsequent amendments.</td><td>Complied.
Details are given below in the table:
<table>
<tr><th>Sr No.</th><th>Clause under CRZ notification</th><th>Compliance</th></tr>
<tr><td>1</td><td>Imposes the given restrictions in setting up and expansion of industries, operations or processes in CRZ.</td><td>Noted</td></tr>
<tr><td>2</td><td>List of prohibited activities within CRZ.</td><td>Noted</td></tr>
<tr><td>3</td><td>Guideline for regulation of permissible activities.</td><td>Noted</td></tr>
<tr><td>4</td><td>Procedure for monitoring and enforcement.</td><td>Applicable to Ministry</td></tr>
<tr><td>Ann. 1</td><td>Classification of costal regular zone.</td><td>Noted</td></tr>
<tr><td>Ann. 2</td><td>Guidelines for development of beach/ resort/ hotels.</td><td>NA</td></tr>
<tr><td>Ann. 3</td><td>List of petroleum products permitted in storage in CRZ except CRZ-1.</td><td>NA</td></tr>
</table></td></tr>
<tr><td>2</td><td>The company shall strictly adhere to the conditions stipulated by the Gujarat Pollution Control Board in their Consent order.</td><td>Complied.
The company complies with all stipulated norms under various acts. Stipulation made in CCA by GPCB are being complied and the same is certified by the external agency, i.e. our Environmental auditors appointed by GPCB.</td></tr>
<tr><td>3</td><td>The company shall discharge the treated effluent meeting the norms prescribed by GPCB</td><td>Complied.
The discharged effluent is meeting with standards stipulated by GPCB and values of various parameters of treated effluent is given in Table1
The maximum values during the report period confirms that at no time the emission went beyond the stipulated standards.

Summary is given below:
<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Parameter</th><th rowspan="2">Limit Mg/l</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
</table></td></tr>
</table>

1	pH	5.5 to 9.0	6.9	7.5	7.2
2	Temperature	40 oC	29.0	30.2	29.6
3	Colour (pt. co. scale)in units	---	30.0	50.0	38.3
4	Suspended solids	100	32.0	58.0	47.5
5	Oil and Grease	10	3.8	6.9	5.0
6	Phenolic Compounds	5	0.7	1.0	0.8
7	Cyanides	0.2	ND	ND	ND
8	Fluorides	2	0.7	1012.0	169.3
9	Sulphides	2	0.5	0.9	0.7
10	Ammonical Nitrogen	50	7.3	12.4	10.0
11	Arsenic	0.2	ND	ND	ND
12	Total Chromium	2	0.1	0.2	0.1
13	Hexavelent Chromium	1	ND	ND	ND
14	Copper	3	0.2	0.3	0.2
15	Lead	2	ND	ND	ND
16	Mercury	0.01	ND	ND	ND
17	Nickel	5	0.1	0.2	0.1
18	Zinc	15	0.3	0.7	0.5
19	Cadmium	2	ND	ND	ND
20	Phosphate	5	1.3	1.9	1.6
21	BOD (3 days at 27oC)	100	43.0	68.0	53.0
22	COD	250	198.0	238.0	224.0
23	Insecticide/Pesticide	Absent	ND	ND	ND
24	Sodium Absorption Ratio	26	3.7	9.0	6.5
25	Manganese	2	0.1	0.2	0.1
26	Tin	0.1	ND	ND	ND
27	Bio Assay Test	90% survival of fish after 96 hrs. in 100% effluent %	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent

The treated effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB.

The river water quality at the discharge point is also regularly being monitored by GPCB. Agencies like NIO, Pollucon Laboratories Pvt. Ltd- MoEF approved agency, Envision Enviro Technologies Pvt. Ltd, Kadam Environment consultancy –NABET accredited have also done the monitoring during the years.

		GPCB also monitor the treated effluent quality at intervals. Recent result by GPCB is attached as **Annexure 1.**
	The company shall keep records of the quality of effluents being discharge during the tides as per the recommendations of N.I.O.	**Complied**. We are keeping the records of quality effluents being discharged during the tides in soft copy as per the recommendations of N.I.O.
4	**The company shall submit the quarterly progress report of compliance of conditions.**	**Complied**. We have submitted progress reports to the Forest and Environment Department of Gujarat during the pipe line installation work. Couple of reports were already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.
5	**The company shall bear all the cost of the agency to be appointed by the Government for overseeing/monitoring the project activities during construction/operational phases.**	Noted and will be complied as and when it will come.
6	**The company shall comply with all the recommendations, additional conditions and environmental safeguards prescribed in the report of NIO dated March, 1997.**	**Complied**. Compliance to NIO recommendations are being followed. Copy of compliance report submitted to Forest and Environment Department of Gujarat was already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.
7	**The company shall submit an Environmental Audit Report every year.**	Complied. Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.
8	**The company shall obtain the necessary permissions from different Government department/agencies under different laws/Acts.**	**Complied**. We have received GPCB approval for operating 4Km line vide its consent letter no. 16399 dated December 22, 1998. Copy already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.
9	**Any additional conditions which may imposed from time to time.**	Noted and will be complied.

Table 1: Quality of treated effluent

Sr No.	Parameter	Results						GPCB Limits Mg/l
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	pH	7.21	7.45	6.93	7.14	7.09	7.29	5.5 to 9.0
2	Temperature	29.3	29	29.4	29.5	29.9	30.2	40 °C
3	Colour (pt. co. scale)in units	50	40	30	40	30	40	---
4	Suspended solids	42	53	58	47	32	53	100
5	Oil and Grease	3.8	4.8	3.9	5.6	4.9	6.9	10
6	Phenolic Compounds	0.87	0.72	0.84	0.79	0.84	0.95	5
7	Cyanides	ND	ND	ND	ND	ND	ND	0.2
8	Fluorides	0.82	0.65	0.79	1012	0.93	0.81	2
9	Sulphides	0.94	0.8	0.64	0.46	0.56	0.74	2
10	Ammonical Nitrogen	10.78	12.4	9.13	9.75	10.79	7.25	50
11	Arsenic	ND	ND	ND	ND	ND	ND	0.2
12	Total Chromium	0.083	0.056	0.075	0.089	0.16	0.095	2
13	Hexavelent Chromium	ND	ND	ND	ND	ND	ND	1
14	Copper	0.216	0.172	0.19	0.27	0.23	0.19	3
15	Lead	ND	ND	ND	ND	ND	ND	2
16	Mercury	ND	ND	ND	ND	ND	ND	0.01
17	Nickel	0.124	0.088	0.11	0.15	0.19	0.13	5
18	Zinc	0.43	0.32	0.57	0.72	0.68	0.45	15
19	Cadmium	ND	ND	ND	ND	ND	ND	2
20	Phosphate	1.73	1.25	1.62	1.62	1.92	1.74	5
21	BOD (3 days at 27°C)	52	45	53	43	57	68	100
22	COD	215	198	236	219	238	238	250
23	Insecticide/Pesticide	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Sodium Absorption Ratio	9.03	8.9	3.7	6.27	5.49	5.51	26
25	Manganese	0.136	0.075	0.15	0.12	0.091	0.075	2
26	Tin	ND	ND	ND	ND	ND	ND	0.1
27	Bio Assay Test	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	90% survival of fish after 96 hrs. in 100% effluent %
	Note: ND is Not Detected.							

Annexure 1: GPCB results for treated effluent water

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:369431 - Analysis Completion:06/02/2023

Dyes and Dye- Intermediates / LAB Inward : 60358

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele: (0260) 2432089

TEST REPORT

Test Report No. : 60358 **Date: 06/02/2023**

1. Name of the Customer	**: Atul Limited - 23158**
2. Address	**: 5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample	**: REP-Representative/Grab, (Insp Type : APP-On Application)**
4. Sample Collected By	**: C.C Patel,SO**
5. Quantity of Sample Received	**: 5 lit**
6. Code No. of the Sample	**: 369431**
7. Date & Time of Collection & Inwarding	**: 24/01/2023 , (1425 to 1425) & 25/01/2023**
8. Date of Start & Completion of Analysis	**: 25/01/2023 & 06/02/2023**
9. Sampling Point	**: ## Final Outlet of the ETP ~ From final outlet of Central ETP**
10. Flow Details (Remarks)	**: Yes**
11. Mode of Disposal	**: Estuary zone of river par**
12. Ultimate Receiving Body	**: Estuary zone of river par**
13. Temperature on Collection	**: 31 & pH Range on pH Strip :@7-8 on pH Strip**
14. Carboys Nos for	**: Barcode & Color & Appearance :Brownish**
15. Water Consumption & W.W.G (KLPD)	**: Ind :27956.000 , Dom :938.000 & Ind :23774.000 , Dom :939.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	31
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2012	1 – 14 pH value As or	7.01
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	120
4	Fixed Dissolved Solids	mg/l	Gravimetric method (2540 E APHA Standard Method	2 – 200000 mg/L	3220
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	24
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	14.14
7	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-2(	5.0- 50000 mg/l	238
8	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	2.4
9	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.61
10	Sulphide	mg/l	APHA (23rd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	1.2
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	65

Laboratory Remarks : Freeze By:279-R.O_279 Dt.: 06/02/2023

R. N. Patel, SSO

Field Observation :

Note : 1. * - These parameters are NOT covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

11/02/2023 11:02:46

Atul Ltd

Project: Expansion of agro-chemicals (Pesticides/Herbicides) and bulk drug and pharmaceuticals manufacturing unit.
EC Compliance Report for EC F. No. J -11011/48/2003-IA II (I) dated February 20, 2004.
Report period: October 2022 – March 2023

<table>
<tr><th>Sr No</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific Conditions :</td></tr>
<tr><td>i</td><td>The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units should confirm to the standards prescribed by the concerned authorities from time to time.</td><td>Complied.
The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units confirms to the standards prescribed by GPCB through CCA.
Details are given in below Table:
Summary of Process Stack results:
<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>SO_2</td><td>40</td><td>mg/Nm^3</td><td>7.1</td><td>30.6</td><td>18.81</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.62</td><td>0.82</td><td>0.72</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>11.6</td><td>23.8</td><td>18.26</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>2.5</td><td>15.2</td><td>5.93</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>4.9</td><td>56.8</td><td>37.27</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>5.96</td><td>16.24</td><td>10.04</td></tr>
</table>
Summary of flue gas stack results :
<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>PM</td><td>100</td><td>mg/Nm^3</td><td>41.6</td><td>60.4</td><td>50.01</td></tr>
<tr><td>2</td><td>PM (New Boiler 50 TPH)</td><td>50</td><td>mg/Nm^3</td><td>29.4</td><td>43.9</td><td>36.2</td></tr>
<tr><td>3</td><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>281</td><td>399</td><td>321.50</td></tr>
<tr><td>4</td><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>271</td><td>310</td><td>292.06</td></tr>
<tr><td>5</td><td>NOx (New Boiler)</td><td>300</td><td>mg/Nm^3</td><td>250</td><td>296</td><td>277</td></tr>
</table>
Details of stack results for the compliance period is given in Table 1.</td></tr>
<tr><td></td><td>At no time, the emission levels should go beyond the stipulated standards.</td><td>Complied.
Monthly monitoring is being done by GPCB approved, NABL approved agencies.
At no time, the emissions exceeded the prescribed limits during report period.
Summary of stack results given in specific condition no. i as above.</td></tr>
</table>

<table>
<tr><td></td><td>In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.</td><td>Complied.
No such case happened during compliance period.</td></tr>
<tr><td>ii</td><td>Ambient air quality monitoring Station should be set up in down wind direction as well as where max. Ground level concentration of SPM anticipated in consultation with the state pollution control board.</td><td>Complied.
10 Ambient air quality monitoring atation have been set up in down wind direction as well as where max. ground level concentration of SPM anticipated in consultation with GPCB. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.
List of our ambient air monitoring stations is given below:
<table><tr><th>Sr No.</th><th>Location</th></tr><tr><td>1</td><td>66 KVA GEB substation</td></tr><tr><td>2</td><td>Opposite shed D</td></tr><tr><td>3</td><td>West site ETP</td></tr><tr><td>4</td><td>North site ETP</td></tr><tr><td>5</td><td>Near TSDF</td></tr><tr><td>6</td><td>Near main guest house</td></tr><tr><td>7</td><td>At wyeth colony</td></tr><tr><td>8</td><td>Gram panchayat hall</td></tr><tr><td>9</td><td>Near main office, North site</td></tr><tr><td>10</td><td>Haria water tank</td></tr></table></td></tr>
<tr><td>iii</td><td>Fugitive emission in work zone environment, product, raw material storage areas must be regularly monitored.</td><td>Complied.
Fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by NABL approved third party.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:
<table><tr><th rowspan="2">Plant</th><th rowspan="2">Area</th><th rowspan="2">Parameter</th><th rowspan="2">Prescribed Limit Mg/nm3</th><th colspan="3">Values of VOCs in Milligram per NM^3 for the period October 2022 – March 2023</th></tr><tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr><tr><td>2,4 D</td><td>Reactor</td><td>Phenol</td><td>19</td><td>ND</td><td>ND</td><td>ND</td></tr><tr><td></td><td>Buffer tank</td><td>Chlorine</td><td>3</td><td>1.4</td><td>2.1</td><td>1.8</td></tr><tr><td>Resorcinol</td><td>Benzene storage tank area near vent</td><td>Benzene</td><td>15</td><td>0.4</td><td>0.6</td><td>0.5</td></tr><tr><td></td><td>Near Extraction/scrubber unit</td><td>Butyl acetate</td><td>-</td><td>90.0</td><td>132.0</td><td>104.0</td></tr></table></td></tr>
</table>

		Pharma	At second floor work area	Ammonia	18	4.5	8.5	6.4
			Ammonia recovery area	Ammonia	18	3.9	8.4	5.5
		Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.3	6.3	3.9
			At vessel POS 1208 G.F	ECH	10	3.5	5.2	4.5
		Shed H	At second floor work area	Nitrobenzene	5	1.4	2.0	1.7
		Shed N	Ground Floor	SO2	3	1.4	2.8	2.2
		Results for the compliance period is given in **Table 2.**						
	The company should install alkali scrubbers for scrubbing of HCl.	**Complied**. Alkali scrubbers for scrubbing of HCl have been installed. In fact we have installed dual scrubbing system i.e. combination of caustic and water scrubber system for scrubbing of HCl in majority of plants like 2,4 D plant, Shed H, Shed N, etc.						
	pH of the scrubber tank should be monitored regularly.	**Complied**. pH of the scrubber tank is monitored regularly and logged. It is a regular operating practice.						
	Liquid effluent generated from the scrubber should be sent to effluent treatment plant.	**Complied**. Liquid effluent generated from the scrubber is being sent to ETP along with plant effluent stream.						
	All the process equipment/reaction vessels should be connected with central exhaust system.	**Complied**. Central exhaust system has been provided at strategic locations and the critical operations evolving the hazardous gases are routed through multiple stage scrubbing system.						
	Further measures should be taken to reduce the losses of solvents.	**Complied**. Reactors are connected to chilled brine condenser system. Breather valves have been provided to all solvent storage tanks.						

<table>
<tr><td></td><td>Cooling arrangement should be made for all the solvent storage tanks to minimize evaporation losses.</td><td>Complied.
Our most of solvent storage tanks are underground. All the storage tanks are in close loop which is connected to condenser to minimize evaporation losses.</td></tr>
<tr><td></td><td>The company should monitor VOCs from the incinerator and data submitted regularly to SPCB and Ministry of Environment and forests.</td><td>Complied.
We send our Hazardous waste to pre|co-processing units as per the valid Authorization granted by GPCB and only nonhazardous light | paper waste is incinerated at our Incinerator and hence VOC generation is nullified. However, Incinerator stack has been regularly monitored and data submitted regularly to GPCB and MoEF through six monthly EC compliance report. Details of stack results for the compliance period is given in Table 1.</td></tr>
<tr><td>iv</td><td>The effluent generation should not exceed 1191 m3/day (936 m3/d of process effluent and 255 m3/d of domestic effluent).</td><td>Complied.
However, since we have another EC granted in 2021 for expansion& addition of new products. we request to consider latest figures given in same.
According to specific condition of EC F No. J 11011/108/2015-IA-II-(I) dated August 03, 2021, Industrial waste water generation shall not exceed 20,514 m³/d.
The average wastewater generation for the report period is 8796 m³/day only which is well within the limit. Detail break up is given below:

<table>
<tr><th>Wastewater generation m³</th><th>October 2022</th><th>November 2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr>
<tr><td>Month wise</td><td>270120</td><td>254993</td><td>240442</td><td>271134</td><td>246851</td><td>317613</td></tr>
<tr><td>Per day</td><td>8714</td><td>8500</td><td>7756</td><td>8746</td><td>8816</td><td>10246</td></tr>
</table>

The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated standards. Summary is given below:

<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>20514</td><td>7756</td><td>10246</td><td>8796</td></tr>
</table>
</td></tr>
<tr><td></td><td>The effluent should be segregated at source of generation.</td><td>Complied.
Concentrated effluent is segregated and chemicals are being retrieved through recovery process/distillation.</td></tr>
<tr><td></td><td>The Concentrated effluent stream should be incinerated and non-concentrated effluent after tertiary treatment should be discharged into the CETP.</td><td>Complied.
Among the referred expansion project, only one stream from 2, 4 D is concentrated. We have installed distillation plant where the stream is distilled and product so obtained are sold. After recovery of product, lean effluent is sent to ETP where it is treated without any difficulty. Hence no incineration is required.</td></tr>
</table>

	The treated effluent should be discharged into estuary zone of river Par through 4.0 km long HDPE pipe line only after it meets the standards stipulated by the Gujarat Pollution Control Board/EPA rules.	**Complied**. The discharged effluent is meeting the standards stipulated by state pollution control board limits and values of various parameters of treated effluent is given in **Table 3**. The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr No.	Parameter	Limit Mg/l	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	pH	5.5 to 9.0	6.9	7.5	7.2
2	Temperature	40 oC	29.0	30.2	29.6
3	Colour (pt. co. scale)in units	---	30.0	50.0	38.3
4	Suspended solids	100	32.0	58.0	47.5
5	Oil and Grease	10	3.8	6.9	5.0
6	Phenolic Compounds	5	0.7	1.0	0.8
7	Cyanides	0.2	ND	ND	ND
8	Fluorides	2	0.7	1012.0	169.3
9	Sulphides	2	0.5	0.9	0.7
10	Ammonical Nitrogen	50	7.3	12.4	10.0
11	Arsenic	0.2	ND	ND	ND
12	Total Chromium	2	0.1	0.2	0.1
13	Hexavelent Chromium	1	ND	ND	ND
14	Copper	3	0.2	0.3	0.2
15	Lead	2	ND	ND	ND
16	Mercury	0.01	ND	ND	ND
17	Nickel	5	0.1	0.2	0.1
18	Zinc	15	0.3	0.7	0.5
19	Cadmium	2	ND	ND	ND
20	Phosphate	5	1.3	1.9	1.6
21	BOD (3 days at 27oC)	100	43.0	68.0	53.0
22	COD	250	198.0	238.0	224.0
23	Insecticide/Pesticide	Absent	ND	ND	ND
24	Sodium Absorption Ratio	26	3.7	9.0	6.5
25	Manganese	2	0.1	0.2	0.1
26	Tin	0.1	ND	ND	ND

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>27</td><td>Bio Assay Test</td><td>90% survival of fish after 96 hrs. in 100% effluent %</td><td>100% survival of fish after 96 hrs. in 100% effluent</td><td>100% survival of fish after 96 hrs. in 100% effluent</td><td>100% survival of fish after 96 hrs. in 100% effluent</td></tr>
</table>
</td></tr>
<tr><td></td><td>The domestic waste water should be disposed off through septic tank / soak pit system.</td><td>Complied.
Domestic waste water goes to septic tank and subsequently in to ETP for further treatment.
Detail of Domestic effluent generation is given in below table:

<table>
<tr><th>Domestic Wastewater generation m^3</th><th>October 2022</th><th>November 2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr>
<tr><td>Month wise</td><td>9395</td><td>8869</td><td>8363</td><td>9430</td><td>8952</td><td>9847</td></tr>
<tr><td>Per day</td><td>303</td><td>286</td><td>270</td><td>304</td><td>289</td><td>318</td></tr>
</table>

The maximum, minimum and average values are given below:

<table>
<tr><th rowspan="2">Domestic Wastewater generation</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Domestic Wastewater generation m^3/d</td><td>270</td><td>318</td><td>295</td></tr>
</table>
</td></tr>
<tr><td>v</td><td>The Company should also Set up a separate online fish pond using treated effluent, to ensure that the quality of treated effluent discharged into the par estuary does not have any adverse impact on the aquatic life.</td><td>Complied.
We have set up a separate online fish pond using treated effluent at our ETP.</td></tr>
<tr><td></td><td>The effluent quality at the discharge point must also be monitored periodically by an independent agency authorized by CPCB and report of the independent agency should be submitted to the Ministry's Regional office at Bhopal/CPCB/GPCB</td><td>Complied.
The effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB.

GPCB also monitor the treated effluent quality at regular intervals. Recent Monitoring results of GPCB is attached as Annexure 1.

The river water quality at the discharge point is regularly being monitored by GPCB. Agencies like NIO, Pollucon Laboratories Pvt. Ltd- MoEF approved agency, Envision Enviro Technologies Pvt. Ltd, Kadam environment consultants –both NABET accredited have also done the monitoring during the years.</td></tr>
</table>

vi	As reflected in the EIA/EMP report, the solid waste and ETP sludge should be incinerated and incinerator ash should be disposed off in the landfill facility within the plant premises.	Complied. ETP waste is disposed into our TSDF instead of incineration for which we have taken permission from MoEF vide letter dated May 6, 2004 and same is also approved by GPCB through our CCA. We also send our incinerable waste for co-processing as per GPCB approval given through our CCA.
	The ground water quality in and around the unit and the hazardous waste storage site should be regularly monitored and the data recorded to ensure that there is no contamination of the groundwater.	Complied. Ground water quality is being checked regularly for in and around the unit and the hazardous waste storage site. Groundwater analysis study is done by MoEF approved agency Pollucon Pvt. Ltd for the last year and no contamination is observed.
vii	The destructive efficiency of the incinerator should be assessed by an agency like CPCB and a report submitted to the Ministry.	Complied. The destructive efficiency of the incinerator was assessed by M/s. SGS, a reputed agency in field on environmental monitoring. Report already submitted vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.
viii	The company should comply with the provisions of coastal Regulation Zone Notification of 1991 and Coastal Zone Management Plan of Gujarat.	Complied.
	Further, specific conditions stipulated by the Forest and Environment Department, Government of Gujarat vide its letter No. ENV-1097-2942-P dated 27th Januaryuary, 1998 for laying of pipe line for discharge of treated effluents through the estuary zone of the River Par Zone should be strictly adhered to.	Complied. Detailed compliance report is already submitted to the Ministry vide our letter our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.

<table>
<tr>
<td>ix</td>
<td>Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.</td>
<td>Complied.
Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act. Details for report period is shown in below table:
Medical Check-Up:
<table>
<tr><th>Sr No.</th><th>Employee</th><th>Nos. during report period</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1459</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>
</td>
</tr>
<tr>
<td>x</td>
<td>The company should develop rainwater harvesting structures to the harvest the run-off water from the rooftops and by laying a separate storm water drains system for recharge of ground water and to reduce the drawl from the river Par.</td>
<td>Complied.
Company has expanded its harvesting pond capacity to 14000 KL capacity pond to harvest rain water. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We are also constructing temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.
Company has harvest 468355 KL rain water during 2022</td>
</tr>
<tr>
<td>xi</td>
<td>The project authorities may undertake a survey to assess the impact of gaseous emissions/pollutants on the health including respiratory and digestive system of the population within and vicinity of the plant and report submitted to the State Government and to this Ministry within six months.</td>
<td>Complied.
The survey was carried out to assess the impact of emission/pollutants on the health including respiratory & digestive systems of population within & vicinity of the plant. So far no major illness have been identified. Report submitted vide our letter ref. Atul/MoEF/Reg/4 dated August 16, 2004.</td>
</tr>
</table>

<table>
<tr><td>xii</td><td>The Company should developed a green belt in a 25% of the plant area as per the CPCB guidelines.</td><td>Complied.
Company has already developed more than 36 % of greenbelt in Atul complex
Total Industrial Plot area: 1126078.27 sq.mt
Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)
We planted approximately 39850 trees of difference species in report period at different location given in below table

<table><tr><th>Location</th><th>Nos. of trees</th></tr><tr><td>Near river bank Ghat</td><td>21350</td></tr><tr><td>Parnera Hill, Chichwada road</td><td>7300</td></tr><tr><td>Hill side colony 5 & Outside area</td><td>2000</td></tr><tr><td>Secure landfill site Yard</td><td>9200</td></tr><tr><td>Total</td><td>39850</td></tr></table>
   </td></tr>
<tr><td>xiii</td><td>As per the policy decision taken vide this Ministry's circular no. J-21011/8/98- IA II (I) dated 14th May 2002 and 23rd June, 2003, the company shall earmark a separate fund i.e. 1% of the total cost of the project (Rs. 25 Crores) for eco-development measures including community welfare measures in the project area.</td><td>Complied.
We had submitted the Eco fund earmarked for eco development to GPCB with an intimation to MoEF vide our letter NRK/ECC/GPCB/3 dated May 17, 2004. Action plan related to Eco-fund also made as per process and communicated to authority wide our letter Atul/ECC/GPCB/ECO-fund/2 dated November 2, 2004. Copy of same again submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.</td></tr>
<tr><td></td><td>The amount shall be deposited within three months in a separate account to be maintained by GPCB.</td><td>Complied.
We had submitted the Eco fund earmarked for eco development to GPCB with an intimation to MoEF vide our letter NRK/ECC/GPCB/3 dated May 17, 2004.</td></tr>
<tr><td></td><td>The plans in this regard should be submitted to the SPCB as well as to the Ministry within three months of issue of this letter.</td><td>Complied.
Action plan related to Eco-fund also made as per process and communicated to authority vide our letter Atul/ECC/GPCB/ECO-fund/2 dated November 2, 2004.</td></tr>
<tr><td></td><td>After approval of the action plan by GPCB, the amount deposited will be released to the project authorities in two</td><td>Complied.</td></tr>
</table>

<table>
<tr><td></td><td>installments based on the progress of implementation.</td><td></td></tr>
<tr><td colspan="3">A. General Conditions</td></tr>
<tr><td>i</td><td>The project authorities must strictly adhere to stipulations made by GPCB.</td><td>Complied.
The company adheres to the compliances and has not exceeded the stipulation. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year.
Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.</td></tr>
<tr><td rowspan="2">ii</td><td>At no time, the emissions should not go beyond standards.</td><td>Complied.
Monthly monitoring is being done by NABL approved third party.
At no time, the emissions exceeded the prescribed limits during report period.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards.
Summary of stack results given in specific condition no. i as above.</td></tr>
<tr><td>In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.</td><td>Complied.
No such incident happened during compliance period.</td></tr>
<tr><td rowspan="2">iii</td><td>The overall noise level in and around the plant area shall be kept well within the standard by providing noise control measures including acoustic hoods silencers, enclosures etc. on all source of noise generation.</td><td>Complied.
Acoustic hood, silencer and acoustic enclosures and insulation are provided at appropriate high noise area like turbine, DG set, vents etc.</td></tr>
<tr><td>The ambient noise levels should confirm to the standards prescribed under EPA Rules, 1989, viz. 75 (daytime) and 70bBA(night time)</td><td>Complied.
The ambient noise level is regularly monitored and its data are given in Table 4 and 5.
The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summary is given below:

Noise level monitoring data (Day Time):
<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Location</th><th>Permissible Limits, dBA</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>75</th><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>66KVA substation</td><td>75</td><td>60.5</td><td>65.3</td><td>63.0</td></tr>
<tr><td>2</td><td>Opposite shed D</td><td>75</td><td>60.7</td><td>65.4</td><td>62.7</td></tr>
</table>
</td></tr>
</table>

3	ETP West site	75	63.5	68.3	66.0
4	ETP North site	75	59.2	63.7	61.4
5	Near TSDF	75	63.2	66.2	64.6
6	Near Main guest house	75	61.2	66.9	64.8
7	At Wyeth Colony	75	60.7	63.5	62.1
8	Gram Panchayat Hall	75	65.4	67.5	66.5
9	Near Main Office North site	75	60.8	66.2	63.7
10	Haria Water tank	75	63.0	67.3	65.5

Noise level monitoring data (Night Time)

Sr No.	Location	Permissible Limits, dBA	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	70	52.9	56.3	54.4
2	Opposite shed D	70	44.4	49.3	47.5
3	ETP West site	70	50.4	53.2	51.8
4	ETP North site	70	50.0	53.9	51.5
5	Near TSDF	70	55.3	59.6	57.4
6	Near Main guest house	70	54.9	61.6	58.4
7	At Wyeth Colony	70	48.7	55.3	51.6
8	Gram Panchayat Hall	70	51.3	57.3	54.5
9	Near Main Office North site	70	51.8	56.7	53.9
10	Haria Water tank	70	54.8	60.2	56.5

iv The project authorities will provide adequate funds to recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.

Complied.
EMP measures are already implemented by 2010.
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.

Sr No.	Parameter	Recurring Cost (Rs. In lacs) For the report period October 2022 – March 2023
1	Air Pollution Control	1874
2	Liquid Pollution Control	
3	Environmental Monitoring and Management	32
4	Solid waste Disposal	159
5	Occupational health	20
6	Green belt	15
Total		**2100**

v	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.	Complied. The company complies with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. We have valid authorization under our current CCA No. AWH-105110 for handling, storage and disposal of hazardous waste. Stipulation made in CCA by GPCB are being complied. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year. Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.
	Authorization from the GPCB must be obtained for collections /treatment/ storage/ disposal of hazardous waste.	Complied. We have valid authorization under our current CCA No. AWH-105110 for handling, storage and disposal of hazardous waste.
vi	The stipulated conditions will be monitored by the Regional office of this Ministry at Bhopal/ GPCB.	Noted.
	A six monthly compliance report and the monitored data should be submitted to them regularly.	Complied. Six monthly compliance report and the monitored data are regularly submitted to the Regional office of MoEF&CC at integrated regional office, Gandhinagar through mail and hard copy with copy marked to GPCB regularly.
vii	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 of Environment and Forest at http://www.envfor.ni.in.	Complied. We informed the public through advertisement and by sending our EC to local Panchayat, Zila parishad, District Industrial Centre for further actions at their end.

	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper 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 Ministry's Regional office at Bhopal.	Complied. Advertisement was published as directed and copy of the same was submitted to Ministry.
3.0	The ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located at Bhopal.	Noted.
4.0	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.
5.0	Any other conditions or alternation in the above conditions will have to be implemented by the project authorities in a time bound manner.	Noted.
6.0	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air ((Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Amendment	Noted.

	Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	

Table: 1 Stack results

				OCT. 2022	NOV. 2022	DEC. 2022	JAN. 2023	FEB. 2023	MAR. 2023
Details of Process and Flue stack									
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site									
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	23.6	31.7	40.6	23.8	18.3	11.3
2	Reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Caustic Chlorine Plant									
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	4.5	5.5	4.6	6.1	5.66	4.54
		HCl	20.0 mg/Nm3	4.62	5.65	4.73	6.27	5.82	4.66
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	5.9	3.9	3.4	5.2	4.32	3.96
		HCl	20.0 mg/Nm3	6.06	4	3.49	5.39	4.4	4.07
FCB Paint									
5	Foul Gas Scubber	SO_2	40.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
		NOx	25.0 mg/Nm3						
Sulfuric Acid (East Site)									
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	0.7	0.81	0.75	0.65	0.72	0.66
		Acid Mist	50.0 mg/Nm3	14.8	11.3	14.6	16.3	18.3	17.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.6	4.1	6.2	6.44	4.4	4.72
		HCl	20.0 mg/Nm3	4.7	4.21	6.37	6.62	4.52	4.85
Resorcinol Plant									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	30.1	22.7	24.9	19.7	28.3	37.2
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	14.8	16.2	20.4	16.3	21.6	27
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	51.1	41.6	58.8	48.7	36.9	48.3
		SO_2	40.0 mg/Nm3	13.6	10.7	10.6	8.4	12.8	7.1
		NOx	25.0 mg/Nm3	20.1	17.2	14.9	18.2	21.6	18.2
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	17.1	14.8	18.4	30.6	Not in use	26.4
		NOx	25.0 mg/Nm3	22.8	20.3	23.8	17.1		21.7
2,4-D Plant									
12	Common Scrubber 2,4D Plant	Cl_2	9.0 mg/Nm3	7.58	4.48	5.8	4.9	6.2	4.1
		HCl	20.0 mg/Nm3	7.8	4.36	6.96	5.03	6.37	4.21
		Phenol	--	ND	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.1	13.62	10.8	10.05	10.8	16.24
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	9.3	7.84	11.9	11.9	7.5	13.08
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	7.4	5.06	7.2	Not running	6.89	10.25
NBD Plant.									
18	Spray Dryer	PM	150.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
19	Scrubber S-902	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	8.8	9.1	4.5	3.9	8.3	12.4
		NOx	25.0 mg/Nm3	13.4	21.6	17.6	14.1	11.6	16.3

Sr No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant									
21	MCPA	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM³						
		SO_2	40 mg/NM³						
22	Fipronil	SO_2	40 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
23	Imidacloprid	NH_3	175 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
25	Stock at Amine Plant	NH_3	175 mg/Nm3	56.2	72.6	99	82.4	124	102
MPSL Plant									
26	Phosgene Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
NICO plant									
28	Central scrubber at Nico Plant	Acetonyoyle, IPA	---	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Ester Plant									
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
31	MPP plant scrubber	HCl	20 mg/Nm3	11.7	8.2	7.1	8.4	11.6	7.9
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	5.1
		HCl	20 mg/NM³						5.24
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.5	3.9	3.1	5.24	7.6	5.5
		HCl	20.0 mg/Nm3	5.65	4	3.19	5.38	7.8	5.7
34	Shed B18/02/24	SO_2	40 mg/NM³	20.3	23.4	18.4	21.8	28.3	23.3
		Cl_2	9 mg/NM³	4.5	4.96	3.25	4.2	7.1	6.2
		HCl	20 mg/NM³	4.62	5.09	3.34	4.31	7.3	6.37
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	4.5	3.86	4.9	6.4	Not Running	Not Running
		HCl	20.0 mg/Nm3	4.62	3.76	5.04	6.58		
36	Shed D Nira Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	39.1	Not Running	45.1	Not Running	Not Running
37	Shed D Nira Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running		
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.9	4.8	6.3	5.98	8.1	4.3
		HCl	20.0 mg/Nm3	6.06	4.93	6.47	4.09	6.27	4.42
40	Shed G 10/8/1 (reactor)	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	7.5	5.5	7.09	6.1	3.12	6.3
		HCl	20.0 mg/Nm3	7.6	11.41	7.25	6.27	15.2	11.3
42	Shed KK-13/3/4 Final of Sulfuric acid	SO_2	2.0 kg/T	0.82	ND	0.7	Not Running	0.82	0.78
		Acid Mist	50.0 mg/Nm3	21.6	14.5	27.4		20.6	24.3
43	Shed J 15/09/25	HBr	--	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40 mg/NM³						

Sr. No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/3	SO_2	40 mg/NM^3	Not Running	27.4	Not Running	22.4	Not Running	17.6
		Cl_2	9.0 mg/Nm3		4.2		3.35		3.4
		HCl	20.0 mg/Nm3		4.51		3.35		3.5
45	Shed J12/01/3	SO_2	40 mg/NM^3	ND	13.2	Not Running	Not Running	12.2	13.2
		HCl	20.0 mg/Nm3	7.4	2.5			9.3	14.6
46	Shed N Scrubber Fan N20/03/24	Cl_2	9 mg/NM^3	3.4	8.1	5.8	6.2	6.4	7.4
		HCl	20 mg/NM^3	3.49	6.6	5.96	6.37	ND	ND
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	21.6	16.5	Not Running	20.1	4.8	5.06
48	Sulfer Black Pla	H_2S	--	ND	ND	ND	ND	4.78	5.2
		NH_3	175 mg/NM^3	110	106	125	102	27.8	21.8
49	Sulfer Dyes pla	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	43	58.2	35.6	49.2	45	54.7
50	Flavors & Frag	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-PDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	400.0 mg/Nm3						
		NOx	250.0 mg/Nm3						
		Formaldehyde	10.0 mg/Nm3						
52	PHN Plant	Phosgene	0.1 ppm	Not Running	Not Running	Not Running	Not Running	Not Running	ND
53	PHN-II Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	40.8	30.4	25	18	35	46
55	SPIC II Plant (DCDPS)	SO_2	---	ND	ND	ND	ND	20.6	16.3
56	SPIC I Plant	NH_3	175 mg/Nm3	140	120	90	112	128	104
57	SPIC IV Plant	NH_3	175 mg/NM^3	130	105	87	94	76	98
		SO_2	---	ND	ND	ND	ND	14.8	17.2

Flue gas stack

Sr. No.	Stack Details	Parameter	Permissible Limits	OCT. 2022	NOV. 2022	DEC. 2022	JAN. 2023	FEB. 2023	MAR. 2023
East site									
1	FBC boiler E1	PM	100 mg/Nm3	41.6	47.1	Not Running	44.2	49.7	60.4
		SO_2	600 mg/Nm3	314	366		344	385	294
		NOx	600 mg/Nm3	295	286		310	292	288
2	FBC boiler E2	PM	100 mg/Nm3	49.6	Not Running	53.8	Not Running	Not Running	Not Running
		SO_2	600 mg/Nm3	308		399			
		NOx	600 mg/Nm3	290		274			
3	FBC boiler E3	PM	100 mg/Nm3	Not Running	49.6	47.9	61.3	53.7	42.4
		SO_2	600 mg/Nm3		298	284	330	358	312
		NOx	600 mg/Nm3		308	288	293	303	284
4	Hot Oil Unit (Resorcinol Plant)	PM	150.0 mg/Nm3	44.6	30.1	44.6	39.4	47.8	41.2
		SO_2	100 ppm	5.5	3.94	4.9	6.1	5.2	6.4
		NOx	50 ppm	16.3	17.2	21.8	23.9	20.6	24.3
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm3	40.1	33.4	44.8	39.8	33.7	41.7
		SO_2	100 ppm	6.3	5.5	6.84	5.3	6.2	4.9
		NOx	50 ppm	30.8	29.6	24.6	21.2	26.2	23.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	Not Running	Not Running	Not Running	66.4	46.6	Not Running
		SO_2	600 mg/Nm3				281	294	
		NOx	600 mg/Nm3				294	271	
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	56.3	47.1	52.6	44.8	47.8	41.2
		SO_2	100 ppm	7.4	6.66	7.25	10.6	6.2	6.4
		NOx	50 ppm	30.8	24.2	21.9	24.2	20.6	24.3
8	Oil burner Shed B	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
	(Stand By)	SO_2	100 ppm						
		NOx	50 ppm						
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	29.4	34.1	30.6	39.6	43.9	33.6
		SO_2	600 mg/Nm3	306	396	312	282	284	281
		NOx	300 mg/Nm3	242	260	264	289	296	286
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	44.9	4.9	41.7	44.8	33.7	41.7
		SO_2	100 ppm	7.2	27.2	6.4	5.68	6.2	4.9
		NOx	50 ppm	27.2	33.4	22.9	20.7	26.2	23.4
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	44.6	35.6	30.4	35.9	46.3	34.2
		SO_2	100 ppm	10.8	7.8	6.1	7.1	11.2	6.6
		NOx	50 ppm	23.6	19	12.5	17.8	23.6	27.3

Table 2: Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit Mg/Nm3	Results of VOCs in Milligram per NM³					
				October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
2,4 D	Reactor	Phenol	19	ND	ND	ND	ND	ND	ND
	Buffer tank	Chlorine	3.0	2.1	1.9	1.4	2	1.78	1.64
Resorcinol	Benzene storage tank area near vent	Benzene	15	0.6	0.51	0.35	0.45	0.48	0.35
	Near Extraction/scrubber unit	Butyl acetate	-	90.8	106	90	93	132	112
Pharma	At second floor work area	Ammonia	18	5.8	4.45	6.2	7.2	8.48	6.3
	Ammonia recovery area	Ammonia	18	8.4	6.1	3.9	4.3	5.12	4.95
Epoxy - I	At vacuum pump 2nd floor	ECH	10	6.3	4.9	3.1	3.06	2.34	3.65
	At vessel POS 1208 G.F	ECH	10	4.92	3.51	4.6	5.1	3.53	5.2
Shed H	At second floor work area	Nitrobenzene	5	1.95	1.71	1.55	1.36	1.64	1.82
Shed N	Ground Floor	SO2	3	2.26	2.4	2.84	2.15	1.86	1.44

Table 3: Quality of treated effluent

Sr No.	Parameter	Results						GPCB Limits Mg/l
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	pH	7.21	7.45	6.93	7.14	7.09	7.29	5.5 to 9.0
2	Temperature	29.3	29	29.4	29.5	29.9	30.2	40 °C
3	Colour (pt. co. scale)in units	50	40	30	40	30	40	---
4	Suspended solids	42	53	58	47	32	53	100
5	Oil and Grease	3.8	4.8	3.9	5.6	4.9	6.9	10
6	Phenolic Compounds	0.87	0.72	0.84	0.79	0.84	0.95	5
7	Cyanides	ND	ND	ND	ND	ND	ND	0.2
8	Fluorides	0.82	0.65	0.79	1012	0.93	0.81	2
9	Sulphides	0.94	0.8	0.64	0.46	0.56	0.74	2
10	Ammonical Nitrogen	10.78	12.4	9.13	9.75	10.79	7.25	50
11	Arsenic	ND	ND	ND	ND	ND	ND	0.2
12	Total Chromium	0.083	0.056	0.075	0.089	0.16	0.095	2
13	Hexavelent Chromium	ND	ND	ND	ND	ND	ND	1
14	Copper	0.216	0.172	0.19	0.27	0.23	0.19	3
15	Lead	ND	ND	ND	ND	ND	ND	2
16	Mercury	ND	ND	ND	ND	ND	ND	0.01
17	Nickel	0.124	0.088	0.11	0.15	0.19	0.13	5
18	Zinc	0.43	0.32	0.57	0.72	0.68	0.45	15
19	Cadmium	ND	ND	ND	ND	ND	ND	2
20	Phosphate	1.73	1.25	1.62	1.62	1.92	1.74	5
21	BOD (3 days at 27°C)	52	45	53	43	57	68	100
22	COD	215	198	236	219	238	238	250
23	Insecticide/Pesticide	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Sodium Absorption Ratio	9.03	8.9	3.7	6.27	5.49	5.51	26
25	Manganese	0.136	0.075	0.15	0.12	0.091	0.075	2
26	Tin	ND	ND	ND	ND	ND	ND	0.1
27	Bio Assay Test	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	90% survival of fish after 96 hrs. in 100% effluent %
	Note: ND is Not Detected.							

Table 4: Noise level monitoring data (Day Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	63.3	62.5	60.5	62.3	63.9	65.3	75
2	Opposite shed D	60.7	61.5	62.8	61.8	65.4	63.7	75
3	West site ETP	64.9	65.2	67.4	68.3	66.7	63.5	75
4	North site ETP	59.2	60.7	61.5	60.9	62.3	63.7	75
5	Near TSDF	63.4	64.8	63.2	66.2	65.9	64.1	75
6	Near main guest house	66.9	65.9	66.3	65.3	63.3	61.2	75
7	At wyeth colony	61.7	62.4	63.5	61.7	60.7	62.3	75
8	Gram panchayat hall	66.1	67.5	65.5	66.9	67.4	65.4	75
9	Near main office North site	65.3	66.2	63.6	60.8	62.1	63.9	75
10	Haria water tank	63	64.2	66.2	67.3	65.8	66.5	75

Table 5: Noise level monitoring data (Night Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	53.3	55.1	56.3	55.3	53.6	52.9	70
2	Opposite shed D	44.4	46.2	48.4	48.7	47.9	49.3	70
3	West site ETP	51.9	50.4	52.6	51.2	53.2	51.3	70
4	North site ETP	50.3	51.8	50.7	53.9	52.4	50.0	70
5	Near TSDF	58.0	55.4	57.3	58.7	59.6	55.3	70
6	Near main guest house	54.9	56.3	58.1	59.3	60.2	61.6	70
7	At wyeth colony	55.3	53.8	52.2	50.3	48.7	49.4	70
8	Gram panchayat hall	51.3	52.7	54.4	55.4	56.1	57.3	70
9	Near main office North site	51.8	56.7	53.7	52.1	53.2	55.6	70
10	Haria water tank	56.0	54.8	57.1	55.0	56.0	60.2	70

Annexure 1: GPCB results for treated effluent water

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:369431 - Analysis Completion:06/02/2023

Dyes and Dye- Intermediates / LAB Inward : 60358

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele: (0260) 2432089

TEST REPORT

Test Report No. : 60358 **Date: 06/02/2023**

1. Name of the Customer	**: Atul Limited - 23158**
2. Address	**: 5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample	**: REP-Representative/Grab, (Insp Type : APP-On Application)**
4. Sample Collected By	**: C.C Patel,SO**
5. Quantity of Sample Received	**: 5 lit**
6. Code No. of the Sample	**: 369431**
7. Date & Time of Collection & Inwarding	**: 24/01/2023 , (1425 to 1425) & 25/01/2023**
8. Date of Start & Completion of Analysis	**: 25/01/2023 & 06/02/2023**
9. Sampling Point	**: ## Final Outlet of the ETP ~ From final outlet of Central ETP**
10. Flow Details (Remarks)	**: Yes**
11. Mode of Disposal	**: Estuary zone of river par**
12. Ultimate Receiving Body	**: Estuary zone of river par**
13. Temperature on Collection	**: 31 & pH Range on pH Strip :@7-8 on pH Strip**
14. Carboys Nos for	**: Barcode & Color & Appearance :Brownish**
15. Water Consumption & W.W.G (KLPD)	**: Ind :27956.000 , Dom :938.000 & Ind :23774.000 , Dom :939.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	31
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi 2012	1 – 14 pH value As or	7.01
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	120
4	Fixed Dissolved Solids	mg/l	Gravimetric method. (2540 E APHA Standard Method	2 – 200000 mg/L	3220
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	24
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	14.14
7	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-2(	5.0- 50000 mg/l	238
8	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	2.4
9	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.61
10	Sulphide	mg/l	APHA (23rd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	1.2
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05--50000 mg/l	65

Laboratory Remarks : Freeze By:279-R.O_279 Dt.: 06/02/2023

R. N. Patel, SSO

Field Observation :

Note : 1. * - These parameters are NOT covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

11/02/2023 11:02:46

Project: Expansion of Pesticide and Synthetic Organic Chemicals manufacturing unit

EC Compliance Report for EC F. No. J - 11011/85/2009 - IA II (I) dated May 13, 2009

Report Period: October 2022 – March 2023

<table>
<tr><th>Sr No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific Conditions</td></tr>
<tr><td>i</td><td>Industrial Waste water generation shall not exceed 17,283 m³/d.</td><td>Complied.
However, since we have another EC granted in 2021 for expansion& addition of new products. we request to consider latest figures given in same.
According to specific condition of EC F No. J 11011/108/2015-IA-II-(I) dated August 03, 2021, Industrial waste water generation shall not exceed 20,514 m³/d.

The average wastewater generation for the report period is 8796 m³/day only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Wastewater generation m³</th><th>October 2022</th><th>November 2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr>
<tr><td>Month wise</td><td>270120</td><td>254993</td><td>240442</td><td>271134</td><td>246851</td><td>317613</td></tr>
<tr><td>Per day</td><td>8714</td><td>8500</td><td>7756</td><td>8746</td><td>8816</td><td>10246</td></tr>
</table>
The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summary is given below:
<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>20514</td><td>7756</td><td>10246</td><td>8796</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td>23 m³/d High COD effluent shall be incinerated.</td><td>Complied.
Since we have another EC granted in 2021 for expansion& addition of new products. we request to consider latest figures given in same. According to No. 6 of EC F No. J 11011/108/2015 - IA - II - (I) dated August 03, 2021. “High TSD effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator. Low COD, low TDS effluent is 27143 KLD; out of which 19379 KLD will be treated in ETP and 7764 KLD will further passed through RO after treatment followed by MEE ” Accordingly the High TDS and High COD waste water quantity are now 443 KLD and 99 KLD respectively.

We have been segregating high COD streams (COD >50000 ppm) and same is being taken for recovery to get economic benefit. Rest lean effluent of COD <2000 ppm is finally sent to ETP for treatment.

All the high COD streams are being diverted to recovery system rather than incineration. Streams containing Ammonia, Methanol, Copper, Solvents, Phenolics, etc. are taken for the recovery of the same and reused. Hence, there is no High COD Waste water stream remaining and therefore no incineration was done during this period.</td></tr>
<tr><td></td><td>97 m³/d High TDS effluent shall be evaporated through MEE.</td><td>Complied.

As stated above, the High TDS effluent quantity is now 443 KLD. The average 142 KLD high TDS waste water was evaporated in MEE during report period. Detail break up is given in below table:

<table>
<tr><th colspan="5">Break up of effluent Kl/Day</th></tr>
<tr><th>Sr No.</th><th>Month</th><th>High TDS/COD</th><th>Low TDS/COD</th><th>Total Effluent generation</th></tr>
<tr><td>1</td><td>October - 2022</td><td>145</td><td>8569</td><td>8714</td></tr>
<tr><td>2</td><td>November -2022</td><td>155</td><td>8345</td><td>8500</td></tr>
<tr><td>3</td><td>December - 2022</td><td>155</td><td>7601</td><td>7756</td></tr>
<tr><td>4</td><td>January - 2023</td><td>123</td><td>8623</td><td>8746</td></tr>
<tr><td>5</td><td>February - 2023</td><td>137</td><td>8679</td><td>8816</td></tr>
<tr><td>6</td><td>March - 2023</td><td>137</td><td>10109</td><td>10246</td></tr>
</table></td></tr>
<tr><td></td><td>Total quantity of 17283 m³/d shall be treated at company’s own effluent treatment plant.</td><td>Complied.
According to specific condition of EC F No. J 11011/108/2015-IA-II-(I) dated August 03, 2021, Industrial waste water generation shall not exceed 20,514 m³/d.
The average 8796 m³/day wastewater was treated in the company’s own effluent treatment plant during the reporting period which is well within the limit.</td></tr>
<tr><td></td><td>Final Discharge of Treated effluent is being discharge into river par through 4 km line constructed by M/s</td><td>Complied.
Final discharged effluent meeting with standards stipulated by state pollution control board is being discharged into river Par through 4 km line.</td></tr>
</table>

Atul.	
Ammonia bearing effluent shall be subject to ammonia recovery before mixing with normal effluent stream.	Complied. Ammonia bearing effluent streams generated from 4,4 DDS production is recovered by stripping in series of packed column. The ammonia contained water from the stripper is condensed in condenser and recovered ammonia is being recycled back in production of 4,4 DDS. Details are given in below table:

Recover Ammonia	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
(MT)	147	345	116	268	334	295

Phenol will be recovered from phenol containing effluent.	Complied. 20 Kg phenol is recovered from effluent per one MT of 2,4 D production. A distillation column has been installed for phenol recovery. Resin tower are installed to recover phenol. Data is given in below table:

	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
DCP crude distilled	1628	1765	1796	1414	1683	1710
2,4DCP recovered	1431	1553	1599	1218	1477	1502
2,6DCP recovered	100	111	115	88	108	109
OCP/ Residue	97	100	82	108	97	99

The treated effluent shall confirm the discharge norms.	Complied. The treated effluent is meeting with standards stipulated by state pollution control board's discharge norms and values of various parameters of treated effluent is given in Table 1. The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr No.	Parameter	Limit Mg/l	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	pH	5.5 to 9.0	6.9	7.5	7.2
2	Temperature	40 oC	29.0	30.2	29.6
3	Colour (pt. co. scale)in units	---	30.0	50.0	38.3
4	Suspended solids	100	32.0	58.0	47.5
5	Oil and Grease	10	3.8	6.9	5.0
6	Phenolic Compounds	5	0.7	1.0	0.8
7	Cyanides	0.2	ND	ND	ND
8	Fluorides	2	0.7	1012.0	169.3

9	Sulphides	2	0.5	0.9	0.7
10	Ammonical Nitrogen	50	7.3	12.4	10.0
11	Arsenic	0.2	ND	ND	ND
12	Total Chromium	2	0.1	0.2	0.1
13	Hexavelent Chromium	1	ND	ND	ND
14	Copper	3	0.2	0.3	0.2
15	Lead	2	ND	ND	ND
16	Mercury	0.01	ND	ND	ND
17	Nickel	5	0.1	0.2	0.1
18	Zinc	15	0.3	0.7	0.5
19	Cadmium	2	ND	ND	ND
20	Phosphate	5	1.3	1.9	1.6
21	BOD (3 days at 27oC)	100	43.0	68.0	53.0
22	COD	250	198.0	238.0	224.0
23	Insecticide/Pesticide	Absent	ND	ND	ND
24	Sodium Absorption Ratio	26	3.7	9.0	6.5
25	Manganese	2	0.1	0.2	0.1
26	Tin	0.1	ND	ND	ND
27	Bio Assay Test	90% survival of fish after 96 hrs. in 100% effluent %	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent

<table>
<tr><td></td><td>The domestic effluent shall be disposed off through septic tank / soak pit.</td><td>Complied.
Domestic waste water goes to septic tank and subsequently in to ETP for further treatment.

Detail of Domestic effluent generation is given in below table:

<table>
<tr><th>Domestic Wastewater generation m^3</th><th>October 2022</th><th>November 2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr>
<tr><td>Month wise</td><td>9395</td><td>8869</td><td>8363</td><td>9430</td><td>8952</td><td>9847</td></tr>
<tr><td>Per day</td><td>303</td><td>286</td><td>270</td><td>304</td><td>289</td><td>318</td></tr>
</table>

The maximum, minimum and average values are given below:
<table>
<tr><th rowspan="2">Domestic Wastewater generation</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Domestic Wastewater generation m^3/d</td><td>270</td><td>318</td><td>295</td></tr>
</table>
</td></tr>
<tr><td>ii</td><td>The process emissions (SO_2, NH_3, Cl_2, and HCl, shall be scrubbed with Scrubbers.</td><td>Complied.
All the SO_2, NH_3, Cl_2, and HCl vents are being routed through adequate and properly designed scrubbing system. Furthermore, most of the process and flue gas stacks have been monitored through online monitoring system and also connected to GPCB and CPCB website.</td></tr>
<tr><td></td><td>The emission shall be dispersed through stack of adequate height as per CPCB standard.</td><td>Complied.
The emission is dispersed through adequate height of stacks as per CPCB standard as given below:
For Incinerator: Minimum stack height shall be 30 meters above ground.
For Boilers : Stack Height $H=14(Q)^{0.3}$

Details of stack results along with its height data is given in Table 2. Gaseous emissions from process units are monitored regularly on monthly basis.
During the report period no case varies from standard.</td></tr>
<tr><td></td><td>The gaseous emission from the DG sets shall be dispersed through stack of adequate height as per CPCB standards.</td><td>Complied.
The gaseous emission from the DG sets is being dispersed through stack of adequate height as per CPCB standards given below:
The minimum height of stack is provided using the following formula (ref. CPCB):

$H = h+0.2x\sqrt{KVA}$

H =Total height of stack in meter

h =Height of the building in meters where the generator set is installed

KVA = Total generator capacity of the set in KVA

However, DG sets are being used only during emergency startups.</td></tr>
</table>

	Acoustic enclosures shall be provided to the DG set to control the noise pollution.	Complied. All DG sets are having inbuilt acoustic enclosures to control the noise pollution and meeting the prescribed norms.
iii	The company shall upload the status of compliance of stipulated environmental clearance conditions including results of monitored data on its web site.	Complied. The status of compliance of stipulated environmental clearance conditions including results of monitored data is posted on our web site www.atul.co.in
	Status of compliance of stipulated environmental clearance conditions to be sent to Regional office of MoEF, the respective Zonal office of CPCB and the state pollution control board.	Complied. Compliance status report to the stipulated environmental clearance conditions are regularly submitted to the regional office of MoEF, zonal office of CPCB and state pollution control board.
	The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as Stack emissions) or critical sectorial parameters like VOC, indicated for the project shall be monitored and displayed at a convenient location near the main gate of company in the public domain.	Complied. The critical pollutants parameters namely; SPM, RSPM, SO_2, NOx are monitored regularly on monthly basis and displayed at board at the company entrance.

Atul Ltd, Atul

Display Board at gate:

Details of stack results, ambient air monitoring and VOC measured in fugitive emission is given in **Table 2, 3 and 4** respectively.
The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Summary of Process Stack results:

Sr No.	Parameter	Standard values as per CCA	Unit	Values for the period October 2022 – March 2023		
				Min.	Max.	Avg.
1	SO2	40	mg/Nm^3	7.1	30.6	18.81
2	SO2 (kg/T)	2	kg/T	0.62	0.82	0.72
3	NOx	25	mg/Nm^3	11.6	23.8	18.26
4	HCl	20	mg/Nm^3	2.5	15.2	5.93
5	PM	150	mg/Nm^3	4.9	56.8	37.27
6	PM with Pesticide compound	20	mg/Nm^3	5.96	16.24	10.04

Summary of flue gas stack results:

Sr No.	Parameter	Standard values as per CCA	Unit	Values for the period October 2022 – March 2023		
				Min.	Max.	Avg.
1	PM	100	mg/Nm^3	41.6	60.4	50.01
2	PM (New Boiler 50 TPH)	50	mg/Nm^3	29.4	43.9	36.2
3	SO2	600	mg/Nm^3	281	399	321.50
4	NOx	600	mg/Nm^3	271	310	292.06
5	NOx (New Boiler)	300	mg/Nm^3	250	296	277

Summary of Ambient Air Quality results:

Station	Parameter	Limit micro - gm/NM^3	Values for the period October 2022– March 2023		
			Min.	Max.	Avg.
66 KV	PM2.5	60	31.0	46.0	37.8
	PM10	100	50.0	63.0	54.0
	SO_2	80	19.1	26.4	21.6
	NO_2	80	23.4	29.7	27.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Opposite Shed D	PM2.5	60	22.4	57.6	34.0
	PM10	100	46.2	56.2	51.1
	SO_2	80	14.8	26.7	19.5
	NO_2	80	18.3	30.1	24.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
West site ETP	PM2.5	60	28.0	35.0	31.2
	PM10	100	43.0	50.0	46.7
	SO_2	80	20.5	29.6	24.4
	NO_2	80	23.2	31.4	26.2
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
North site ETP	PM2.5	60	29.0	35.0	32.5
	PM10	100	36.0	49.0	44.2
	SO_2	80	16.7	21.3	18.6
	NO_2	80	24.7	27.8	26.3
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
TSDF	PM2.5	60	25.0	32.0	28.5

	PM10	100	49.0	61.0	54.0
	SO_2	80	20.3	24.0	22.3
	NO_2	80	29.4	33.4	30.8
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Main Guest House	PM2.5	60	24.2	33.4	29.4
	PM10	100	40.3	54.3	50.8
	SO_2	80	15.1	26.9	19.2
	NO_2	80	16.3	27.8	23.1
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Wyeth Colony	PM2.5	60	26.0	32.0	29.7
	PM10	100	50.0	60.0	55.7
	SO_2	80	14.8	21.6	16.9
	NO_2	80	24.6	40.2	34.3
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Gram panchayat hall	PM2.5	60	23.8	31.2	27.1
	PM10	100	36.7	56.1	51.1
	SO_2	80	14.2	29.4	20.0
	NO_2	80	16.9	28.7	23.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Main office, North site	PM2.5	60	19.7	31.7	26.1
	PM10	100	46.2	56.9	51.6
	SO_2	80	14.3	25.4	18.9
	NO_2	80	21.2	29.8	24.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Haria water tank	PM2.5	60	18.4	32.8	27.0
	PM10	100	45.3	57.8	53.7
	SO_2	80	13.4	26.9	21.0
	NO_2	80	20.3	29.7	23.7
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND

Summary of VOC results :

Plant	Area	Parameter	Prescribed Limit Mg/nm3	Values of VOCs in Milligram per NM^3 for the period October 2022 – March 2023		
				Min.	Max.	Avg.
2,4 D	Reactor	Phenol	19	ND	ND	ND
	Buffer tank	Chlorine	3	1.4	2.1	1.8

			Resorcinol	Benzene storage tank area near vent	Benzene	15	0.4	0.6	0.5
				Near Extraction/scrubber unit	Butyl acetate	-	90.0	132.0	104.0
			Pharma	At second floor work area	Ammonia	18	4.5	8.5	6.4
				Ammonia recovery area	Ammonia	18	3.9	8.4	5.5
			Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.3	6.3	3.9
				At vessel POS 1208 G.F	ECH	10	3.5	5.2	4.5
			Shed H	At second floor work area	Nitrobenzene	5	1.4	2.0	1.7
			Shed N	Ground Floor	SO2	3	1.4	2.8	2.2
v	The company shall obtain Authorization for Collection; Storage and Disposal of Hazardous waste under the hazardous waste management (Handling and trans boundary movement rule - 2008) for management of hazardous waste and prior permission from GPCB shall be obtained for disposal of solid waste in the TSDF.	Complied. We have obtained authorization for our own TSDF through GPCB notification no. GPCB/HAZ/GEN - 55/9647 dated March 13, 2000 and NOC no. CTE - 65621 dated November 19, 2004. Also we have valid authorization under our current CCA No. AWH - 105110 for handling, storage and disposal of hazardous waste.							

	The concerned company shall undertake measures for the firefighting facility in case of emergency.	Compiled. A well designed Fire hydrant system is adequate and as per standards. Fire hydrant Network details: • Four full - fledged fire hydrant system in the company Water Storage Capacity - 50 million Liters • Total length of hydrant line – 15 km • Fire Fighting Equipment o DCP1350 o CO_2 776 Foam : 05Trolly • Fire Tenders o One fire tender having 1800 Lit water capacity o Second multipurpose fire tenders having 5000 Lit water &500Foam o Third Multipurpose tender having facility of DCP - 500 Kg, Foam – 500 lit and Water – 4500 Lit. • SCBA sets – 35nos. • Emergency alarm system – 532 nos. points spread across the company. • Fire station manned round the clock with Siren and Annunciation System. • Regular Testing on every Monday. • Smoke detectors in the office and labs. • Auto water deluging system at critical reactors. • Auto water sprinkler system at tank farms.
vi	The project authorities shall strictly comply with the rules and guidelines under manufacturing, storage and import of hazardous chemicals rule 1989 as amended in Octoberober, 1994 and January, 2000.	Complied. We are complying with all the requirement of MSIHC rule 1989 as amended in Octoberober, 1994 and January, 2000 and having proper storage and handling system, Onsite emergency plan, Licenses, reporting, etc. The company complies with all stipulated norms of act made in CCA by GPCB are being complied. Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.
	All Transportation of Hazardous chemicals shall be as per the MVA, 1989.	Complied. Transportation of Hazardous chemicals are being done as per the MVA rule 1989. TREM (Transport Emergency) card and MSDS of chemicals are provided to transporter.
vii	The company shall undertake waste minimization measures : Metering and control of quantities of active ingredients to minimize waste.	Complied. All the liquid ingredients are being charged through measure vessels and/or flow meters to control on quantity as per the stoichiometry. All the solid ingredients are charged after proper weighment only. All these meters and weighing machines are calibrated and records are maintained.

	Reuse of by products from the process as raw materials or as raw material substitutes in other processes.	Complied. Sodium sulfate, sodium thio sulphate, brine, MEE salt, sodium hypochlorite, copper hydroxide, spent acid, etc. are few by - products from the process which are being sold for using the same either as raw material or as substitute to raw materials. Also, fly ash and gypsum are being used as raw material for brick manufacturing. Sodium hypochlorite, sodium hydro sulfide, etc. are being used as raw material in other processes.
	Use of automated filling to minimize spillage.	Complied. Automated filling system for our agro products, polymers, resorcinol, and dyes for small and bulk packing is provided to minimize spillage.
	Use of 'close feed' system into batch system.	Complied. Chemicals and solvents are handled in close handling system through pipe lines only.
	Venting equipment through vapor recovery system.	Complied. All the reactors are equipped with vents/stacks, which are connected to either vapor recovery system consisting of condensers, ejector/vacuum pumps and/or scrubbers. Genoscorb technology for solvent vapor recovery is also installed and working perfectly.
	Use of high pressure hoses for equipment cleaning to reduce wastewater generation.	Complied. Many equipment like reactors, spray dryers, condenser wherever necessary are being cleaned with high pressure sprayer / jet to reduce waste water generation.
viii	Fugitive emissions in the work zone environment, product, raw material storage area shall be regularly monitored. The emission shall conform to the limits imposed by l.	Complied. Fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by NABL approved third party. Data for the reporting period is given in Table 4. Besides this online monitors in work area for parameters like Chlorine, HCl and Phosgene are also installed. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Summary is given in specific condition iii.
ix	The project authority shall provide chilled brine solution in secondary condenser for condensation of the VOCs.	Complied. All the VOCs/solvent recovery systems are attached with chilled brine solution in secondary condenser for condensation of VOCs.

	The project authority shall ensure that solvent recovery shall not be less than 95%	Complied. On an average solvent recovery is 96%.
	The VOC monitoring shall be carried in the solvent storage area and data submitted to the Ministry.	Complied. We are monitoring VOC as well as other chemicals in work area as per Factories Act and records are being maintained in Form No. 37. VOC monitoring in solvent storage area is being done and data are submitted through EC compliance report. Data for the report period is given in **Table 4.**
x	Solvent management shall be as follows: Reactor shall be connected to chilled brine condenser system.	Complied. All the reactors handling solvent are connected/attached with chilled brine condenser for solvent recovery.
	Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied. All the reactors and pumps handling solvent are equipped with mechanical seals to prevent leakages.
	The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.	Complied. The condensers provided are properly designed with respect to HTA and Residence time to achieve more than 95 % recovery. As mentioned above, average 96 % solvent recovery is being achieved.
	Solvents shall be stored in a separate space specified with all safety measures.	Complied. Solvents are stored in tank farms in separate tanks with proper earthing, flame arresters, lightening arresters, fencing, Fire hydrant system, Fire extinguishers, flame proof equipment, etc. safety measures.
	Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.	Complied. Double earthing is provided and regular checking and testing of the same is being done and recorded.
	Entire plant shall be flame proof.	Complied. Plants are equipped with Jumpers, flame proof electrical fittings and proper earthing as per the Hazardous area classification of PESO.

<table>
<tr><td></td><td>The solvent storage tanks shall be provided with breather valve to prevent loses.</td><td>Complied.
Breather valves have been provided to all the solvent storage tanks to minimize the loses.</td></tr>
<tr><td>xi</td><td>Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc.</td><td>Complied.
Hazardous chemicals are being stored in tanks, drums and carboys considering the storage quantity and chemical stored.</td></tr>
<tr><td></td><td>Company shall develop an area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.</td><td>Complied.
Company has already developed more than 36 % of greenbelt in Atul complex
Total Industrial Plot area: 1126078.27 sq.mt
Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)
We planted approximately 39850 trees of difference species in report period at different location given in below table
<table>
<tr><th>Location</th><th>Nos. of trees</th></tr>
<tr><td>Ghat</td><td>21350</td></tr>
<tr><td>Parnera Hill, Chichwada road</td><td>7300</td></tr>
<tr><td>Hill side colony 5 & Outside area</td><td>2000</td></tr>
<tr><td>Secure landfill site Yard</td><td>9200</td></tr>
<tr><td>Total</td><td>39850</td></tr>
</table>

 </td></tr>
<tr><td>xii</td><td>The company shall harvest surface as well as rain water from the roof tops of the building and storm water drain to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.</td><td>Complied.
Company has expanded its harvesting pond capacity to 14000 KL capacity pond to harvest rain water

We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water.

We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.
In addition to above, surface runoff water and roof top water is used to recharge bore wells.

Company has harvest 468355 KL rain water during 2022.</td></tr>
</table>

<table>
<tr><td>xiii</td><td>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</td><td>Complied.
Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act. Details for the report period is shown in below table:

Medical Check - Up:
<table><tr><th>Sr No.</th><th>Employee</th><th>Nos. during report period</th></tr><tr><td>1</td><td>Staff</td><td rowspan="3">1459</td></tr><tr><td>2</td><td>Operators</td></tr><tr><td>3</td><td>Workers</td></tr></table></td></tr>
<tr><td colspan="3">B. General Conditions:</td></tr>
<tr><td>i</td><td>The project authorities shall strictly adhere to the stipulations made by the State Pollution Control Board.</td><td>Complied.
The company adheres to the compliances and has not exceeded the stipulation. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year.

Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.</td></tr>
<tr><td>ii</td><td>No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.</td><td>Complied.
Any expansion will be done only after getting EC.</td></tr>
</table>

iii	At no time, the emissions shall exceed the prescribed limits.	Complied. Monthly monitoring is being done by NABL approved third party. At no time, the emissions exceeded the prescribed limits during report period. Summary of stack results given in specific condition no. iii.
	In the event of failure of any pollution control system adopted by the units, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Complied. No such case happened during compliance period. Whenever such incident of failure of pollution control system happened, we will stop the operation and rectify the problem and then only restart.
iv	The Gaseous emission (NOx, HCl, SO2 and SPM) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time.	Complied. The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units confirms to the standards prescribed by GPCB through CCA. Details of stack results for the compliance period is given in Table 2.
	At no time, the emission levels shall go beyond the stipulated standards.	Complied. We will ensure that at no time emission will go beyond the standards. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Summary of stack results given in specific condition no. ii.
	In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restricted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO_2, NOx and SPM shall	Complied. No such case happened during compliance period. Stack monitoring for SO_2, NOx and SPM has been carried out and details given in Table 2. Whenever such incident of failure of pollution control system happened, we will stop the operation and rectify the problem and then only restart.

<table>
<tr><td></td><td>be carried.</td><td></td></tr>
<tr><td>v</td><td>The Location of ambient air quality monitoring stations shall be decided in consultation with state pollution control Board and it shall be ensured that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated.</td><td>Complied.
The Location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.

List of our ambient air monitoring station is given below:
<table><tr><th>No.</th><th>Location</th></tr><tr><td>1</td><td>66 KVA GEB substation</td></tr><tr><td>2</td><td>Opposite shed D</td></tr><tr><td>3</td><td>West site ETP</td></tr><tr><td>4</td><td>North site ETP</td></tr><tr><td>5</td><td>Near TSDF</td></tr><tr><td>6</td><td>Near main guest house</td></tr><tr><td>7</td><td>At wyeth colony</td></tr><tr><td>8</td><td>Gram panchayat hall</td></tr><tr><td>9</td><td>Near main office, North site</td></tr><tr><td>10</td><td>Haria water tank</td></tr></table>Details of ambient air quality results is given in Table 3.</td></tr>
<tr><td rowspan="2">vi</td><td>Dedicated Scrubbers and stacks of appropriate height as per the central pollution control board guideline shall be provided to control the emission from various vents.</td><td>Complied.
Dedicated scrubbers with stacks of appropriate height (as per the central pollution control board guideline) have been provided to control the emission from various vents. Details of stack results along with its height data is given in Table 2.</td></tr>
<tr><td>The scrubber water shall be sent to ETP for further treatment or sell to actual end users.</td><td>Complied.
The scrubber water is being sent to ETP for further treatment.</td></tr>
<tr><td>vii</td><td>The overall noise level in and around the plant area shall be kept well within the standard by providing noise control measures including acoustic hoods silencers, enclosures etc. on all source of noise generation.</td><td>Complied.
In built acoustic enclosure, silencer and insulation are provided on all source of noise generation to keep over all noise level within the stipulated standards like turbine, DG set, etc.</td></tr>
</table>

	The ambient noise level shall confirm to the standards prescribed under Environment(Protection) Act - 1986 Rules,1989 viz 75 dBA (day time) and 70 dBA (night time)	Complied. The ambient noise level confirm to the standard prescribed under EPA. The same is being regularly monitored and its details are given in **Table 5 and 6**. The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summary is given below: **Noise level monitoring data (Day Time):**

Sr No	Location	Permissible Limits, dBA	Values for the period October 2022 – March 2023		
		75	Min.	Max.	Avg.
1	66KVA substation	75	60.5	65.3	63.0
2	Opposite shed D	75	60.7	65.4	62.7
3	ETP West site	75	63.5	68.3	66.0
4	ETP North site	75	59.2	63.7	61.4
5	Near TSDF	75	63.2	66.2	64.6
6	Near Main guest house	75	61.2	66.9	64.8
7	At Wyeth Colony	75	60.7	63.5	62.1
8	Gram Panchayat Hall	75	65.4	67.5	66.5
9	Near Main Office North site	75	60.8	66.2	63.7
10	Haria Water tank	75	63.0	67.3	65.5

Noise level monitoring data (Night Time):

Sr No.	Location	Permissible Limits, dBA	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	70	52.9	56.3	54.4
2	Opposite shed D	70	44.4	49.3	47.5
3	ETP West site	70	50.4	53.2	51.8
4	ETP North site	70	50.0	53.9	51.5
5	Near TSDF	70	55.3	59.6	57.4
6	Near Main guest house	70	54.9	61.6	58.4
7	At Wyeth Colony	70	48.7	55.3	51.6
8	Gram Panchayat Hall	70	51.3	57.3	54.5
9	Near Main Office North site	70	51.8	56.7	53.9
10	Haria Water tank	70	54.8	60.2	56.5

viii	Training shall be imparted to all employees on safety and health aspects of chemicals handling.	Complied. Company is imparting training to all new employees as well as regular employees at regular intervals on safety and health aspects of chemicals handling. Safety precautions and hazards are also being communicated through display boards at appropriate places in the plants.

	Pre - employment and routine periodical medical examination for all employees shall be undertaken on regular basis.	**Complied**. Pre-medical checkup and routine medical checkup for the employees is being done on regular basis. **Summary of medical checkup given in specific condition no. xiii.**
ix	Usage of PPE's by employee/ workers shall be ensured.	**Complied**. Company have PPE policy in place and is strictly followed. Company is providing adequate PPEs to all the employees.
x	The project proponent shall also comply with all the environmental protection measures and safeguards proposed in project report submitted to the ministry.	**Complied**. Company has complied with all the environmental protection measures and safeguards proposed in the report apart from the recommendations made their in.
	All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	Since ToR didn't suggest for EIA or public hearing, no such recommendations mentioned. However, recommendations made in respect of adequacy report for the referred project are complied and compliance report submitted vide our letter dated December 19, 2020
xi	The company will undertake all relevant measures for improving the socio economic condition for the surrounding area, CSR activities will be undertaken by involving local villages and administration:	**Complied**. Company is doing CSR activities for up gradation of surrounding area and well fare of nearby localities. List of CSR activities is given in **Table 7.**
xii	The company shall undertake eco developmental measures including community welfare	**Complied** as mentioned in xi above.

<table>
<tr><td></td><td>measures in the project area for the overall improvement of the environment.</td><td></td></tr>
<tr><td>xiii</td><td>A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.</td><td>Complied.
Company is having separate Environmental Management Cell equipped with full - fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is also established for research work for the study of various aspects related to environment and its remedial measures.

Company has developed a separate laboratory equipped with equipment such as pH meter, TDS meter, COD meter, Glass ware, gas chromatography system, and oven, muffle furnace, etc. to carry out testing of routine parameters. However sampling and testing is carried out by GPCB approved and company appointed consultant also. Currently the parameters measured in - house are pH, COD, TDS, MLVSS and MLSS.</td></tr>
<tr><td>xiv</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.</td><td>Complied.
EMP measures are implemented by 2010.

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
October 2022 – March 2023</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">1874</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>32</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>159</td></tr>
<tr><td>5</td><td>Occupational health</td><td>20</td></tr>
<tr><td>6</td><td>Green belt</td><td>15</td></tr>
<tr><td colspan="2">Total</td><td>2100</td></tr>
</table>
</td></tr>
</table>

xv	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation. Urban local body and the local NGO, if any, from who suggestions/representation, if any, were received while processing the proposal.	Complied. Latest submission to the Panchayat, Zila parishad, District Industrial Centre was distributed on 11.11.2016. Copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.
	The clearance letter shall also be put on the web site of the company by the proponent.	Complied. Available at company's website at www.atul.co.in
xvi	The implementation of the project vis - à - vis environmental action plan shall be monitored by Ministry's Regional office at Bhopal / SPCB / CPCB.	Complied. SPCB and MoEF is monitoring through their regular visits.

xvii	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 of Environment and Forest at http://www.envfor.ni.in.	Complied. We informed the public through advertisement and by sending our EC to local Panchayat, Zila parishad, District Industrial Centre for further actions at their end.
	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper 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 Ministry's Regional office at Bhopal.	Complied. Advertisement was published as directed and copy of the same was submitted to Ministry vide our letter dated November 14, 2009.

xviii	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and final approval of the project by the concerned authorities and the date of start of the project.	Complied. Start date: May 2009 Completion date : May 2010 Final approval: We have obtained NOC and CCA from GPCB. Company has funded the project internally and hence not submitted the financial closure details.
8	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.
9	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted.
10	Any appeal against this Environment clearance shall lie with the national appellate authority, if preferred, within a period of 30 days as prescribed under section 11 of National Environment Appellate Authority Act, 1997.	Noted.

11	The above conditions will be enforced, inter - alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air ((Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

Table1: Quality of treated effluent

Sr No.	Parameter	Results						GPCB Limits Mg/l
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	pH	7.21	7.45	6.93	7.14	7.09	7.29	5.5 to 9.0
2	Temperature	29.3	29	29.4	29.5	29.9	30.2	40 °C
3	Colour (pt. co. scale)in units	50	40	30	40	30	40	---
4	Suspended solids	42	53	58	47	32	53	100
5	Oil and Grease	3.8	4.8	3.9	5.6	4.9	6.9	10
6	Phenolic Compounds	0.87	0.72	0.84	0.79	0.84	0.95	5
7	Cyanides	ND	ND	ND	ND	ND	ND	0.2
8	Fluorides	0.82	0.65	0.79	1012	0.93	0.81	2
9	Sulphides	0.94	0.8	0.64	0.46	0.56	0.74	2
10	Ammonical Nitrogen	10.78	12.4	9.13	9.75	10.79	7.25	50
11	Arsenic	ND	ND	ND	ND	ND	ND	0.2
12	Total Chromium	0.083	0.056	0.075	0.089	0.16	0.095	2
13	Hexavelent Chromium	ND	ND	ND	ND	ND	ND	1
14	Copper	0.216	0.172	0.19	0.27	0.23	0.19	3
15	Lead	ND	ND	ND	ND	ND	ND	2
16	Mercury	ND	ND	ND	ND	ND	ND	0.01
17	Nickel	0.124	0.088	0.11	0.15	0.19	0.13	5
18	Zinc	0.43	0.32	0.57	0.72	0.68	0.45	15
19	Cadmium	ND	ND	ND	ND	ND	ND	2
20	Phosphate	1.73	1.25	1.62	1.62	1.92	1.74	5
21	BOD (3 days at 27°C)	52	45	53	43	57	68	100
22	COD	215	198	236	219	238	238	250
23	Insecticide/Pesticide	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Sodium Absorption Ratio	9.03	8.9	3.7	6.27	5.49	5.51	26
25	Manganese	0.136	0.075	0.15	0.12	0.091	0.075	2
26	Tin	ND	ND	ND	ND	ND	ND	0.1
27	Bio Assay Test	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	90% survival of fish after 96 hrs. in 100% effluent %
	Note: ND is Not Detected.							

Table: 2 Stack Results

				OCT. 2022	NOV. 2022	DEC. 2022	JAN. 2023	FEB. 2023	MAR. 2023
Details of Process and Flue stack									
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site									
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	23.6	31.7	40.6	23.8	18.3	11.3
2	Reactor (Phosgene plant - New)	CO	---	ND	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Caustic Chlorine Plant									
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	4.5	5.5	4.6	6.1	5.66	4.54
		HCl	20.0 mg/Nm3	4.62	5.65	4.73	6.27	5.82	4.66
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	5.9	3.9	3.4	5.2	4.32	3.96
		HCl	20.0 mg/Nm3	6.06	4	3.49	5.39	4.4	4.07
FCB Point									
5	Foul Gas Scubber	SO_2	40.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
		NOx	25.0 mg/Nm3						
Sulfuric Acid (East Site)									
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	0.7	0.81	0.75	0.65	0.72	0.66
		Acid Mist	50.0 mg/Nm3	14.8	11.3	14.6	16.3	18.3	17.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.6	4.1	6.2	6.44	4.4	4.72
		HCl	20.0 mg/Nm3	4.7	4.21	6.37	6.62	4.52	4.85
Resorcinol Plant									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	30.1	22.7	24.9	19.7	28.3	37.2
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	14.8	16.2	20.4	16.3	21.6	27
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	51.1	41.6	55.8	44.7	36.9	48.3
		SO_2	40.0 mg/Nm3	13.6	10.7	10.6	8.4	12.8	7.1
		NOx	25.0 mg/Nm3	20.1	17.2	14.9	18.2	21.6	18.1
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	17.1	14.8	18.4	30.6	Not in use	26.4
		NOx	25.0 mg/Nm3	22.8	20.3	23.8	17.1		21.7
2,4-D Plant									
12	Common Scrubber 2,4D Plant	O_2	9.0 mg/Nm3	7.58	4.48	5.8	4.9	6.2	4.1
		HCl	20.0 mg/Nm3	7.8	4.36	5.98	6.03	6.37	4.21
		Phenol	--	ND	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.1	13.62	10.8	10.05	10.8	16.24
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	9.3	7.84	11.9	11.9	7.5	13.08
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	7.4	5.06	7.2	Not running	6.89	10.25
NBD Plant.									
18	Spray Dryer	PM	150.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
19	Scrubber S-802	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	8.8	9.1	4.5	3.9	8.3	12.4
		NOx	25.0 mg/Nm3	13.4	21.6	17.6	14.1	11.6	16.3

Sr No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant									
21	MCPA	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM³						
		SO_2	40 mg/NM³						
22	Fipronil	SO_2	40 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
23	Imidacloprid	NH_3	175 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
25	Stack of Amine Plant	NH_3	175 mg/Nm3	56.2	72.6	95	82.4	124	102
MPSL Plant									
26	Phosgene Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
NICO plant									
28	Central scrubber at Nico Plant	Acetonyoyle, IPA	---	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Ester Plant									
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
31	MPP plant scrubber	HCl	20 mg/Nm3	11.7	8.2	7.1	8.4	11.6	7.9
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	5.1
		HCl	20 mg/NM³						5.24
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.5	3.9	3.1	5.24	7.9	5.5
		HCl	20.0 mg/Nm3	5.65	4	3.19	5.38	7.9	5.7
34	Shed B18/02/24	SO_2	40 mg/NM³	20.3	23.4	18.4	21.8	28.3	23.3
		Cl_2	9 mg/NM³	4.5	4.96	3.25	4.2	7.1	6.2
		HCl	20 mg/NM³	4.62	5.09	3.34	4.31	7.3	6.37
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	4.5	3.86	4.9	6.4	Not Running	Not Running
		HCl	20.0 mg/Nm3	4.62	3.76	5.04	6.58		
36	Shed D Nira Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	39.1	Not Running	45.1	Not Running	Not Running
37	Shed D Nira Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running		
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.9	4.8	6.3	8.38	8.1	4.3
		HCl	20.0 mg/Nm3	6.06	4.93	6.47	4.09	6.27	4.42
40	Shed G 10/8/1 (reactor)	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	7.5	9.5	7.09	6.1	3.12	6.3
		HCl	20.0 mg/Nm3	7.6	11.41	7.25	6.27	15.2	11.3
42	Shed KK-13/3/4 Final of Sulfuric acid	SO_2	2.0 kg/T	0.82	ND	0.7	Not Running	0.82	0.78
		Acid Mist	50.0 mg/Nm3	21.6	14.5	27.4		20.6	24.3
43	Shed J15/09/25	HBr	--	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40 mg/NM³						

Sr. No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/4	SO_2	40 mg/NM^3	Not Running	27.4	Not Running	22.4	Not Running	17.6
		Cl_2	9.0 mg/Nm3		4.2		5.26		3.4
		HCl	20.0 mg/Nm3		4.31		5.35		3.5
45	Shed J12/03/5	SO_2	40 mg/NM^3	ND	13.2	Not Running	Not Running	12.2	13.2
		HCl	20.0 mg/Nm3	7.4	2.5			9.3	14.6
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/ NM^3	3.4	8.1	5.8	6.2	6.4	7.4
		HCl	20 mg/NM^3	3.49	8.6	5.96	6.37	ND	ND
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	21.6	16.6	Not Running	20.1	4.8	5.06
48	Sulfer Black Pla	H_2S	--	ND	ND	ND	ND	4.73	5.2
		NH_3	175 mg/NM^3	110	106	125	102	27.8	21.8
49	Sulfer Dyes pla	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	43	58.7	35.6	49.2	45	54.7
50	Flavors & Frag	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-PDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40.0 mg/Nm3						
		NOx	25.0 mg/Nm3						
		Formaldehyde	10.0 mg/Nm3						
52	PHN Plant	Phosgene	0.1 ppm	Not Running	Not Running	Not Running	Not Running	Not Running	ND
53	PHN-II Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	40.8	30.4	25	18	35	46
55	SPIC II Plant (DCDPS)	SO_2	---	ND	ND	ND	ND	20.6	16.3
56	SPIC I Plant	NH_3	175 mg/Nm3	140	120	90	112	128	104
57	SPIC IV Plant	NH_3	175 mg/NM^3	130	105	87	94	76	98
		SO_2	---	ND	ND	ND	ND	14.8	17.2

Flue gas stack

Sr. No.	Stack Details	Parameter	Permissible Limits	OCT. 2022	NOV. 2022	DEC. 2022	JAN. 2023	FEB. 2023	MAR. 2023
East site									
1	FBC boiler E1	PM	100 mg/Nm3	41.6	47.1	Not Running	44.2	49.7	60.4
		SO_2	600 mg/Nm3	314	360		344	385	294
		NOx	600 mg/Nm3	295	286		310	292	288
2	FBC boiler E2	PM	100 mg/Nm3	49.6	Not Running	53.8	Not Running	Not Running	Not Running
		SO_2	600 mg/Nm3	308		399			
		NOx	600 mg/Nm3	290		274			
3	FBC boiler E3	PM	100 mg/Nm3	Not Running	49.6	47.9	61.3	53.7	42.4
		SO_2	600 mg/Nm3		298	284	330	358	312
		NOx	600 mg/Nm3		308	288	293	303	284
4	Hot Oil Unit (Resorcinol Plant)	PM	150.0 mg/Nm3	44.6	30.1	44.6	39.4	47.8	41.2
		SO_2	100 ppm	5.5	3.94	4.9	6.1	5.2	6.4
		NOx	50 ppm	16.2	17.2	21.8	23.9	20.6	24.3
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm3	40.1	33.4	44.8	39.8	33.7	41.7
		SO_2	100 ppm	6.3	5.5	6.84	5.3	6.2	4.9
		NOx	50 ppm	30.8	29.6	24.6	21.2	26.2	23.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	Not Running	Not Running	Not Running	66.4	46.6	Not Running
		SO_2	600 mg/Nm3				281	294	
		NOx	600 mg/Nm3				294	271	
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	56.3	47.1	52.6	44.8	47.8	41.2
		SO_2	100 ppm	7.4	6.06	7.25	10.6	6.2	6.4
		NOx	50 ppm	30.8	24.2	21.9	24.2	20.6	24.3
8	Oil burner Shed B	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
	(Stand By)	SO_2	100 ppm						
		NOx	50 ppm						
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	29.4	34.1	30.6	39.6	43.9	38.6
		SO_2	600 mg/Nm3	306	396	312	282	284	281
		NOx	300 mg/Nm3	242	260	264	289	296	286
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	44.9	4.9	41.7	44.8	33.7	41.7
		SO_2	100 ppm	7.2	27.2	6.4	5.68	6.2	4.9
		NOx	50 ppm	27.2	33.4	22.9	20.7	26.2	23.4
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	44.6	35.6	30.4	35.9	46.3	34.2
		SO_2	100 ppm	10.8	7.8	6.1	7.1	11.2	6.6
		NOx	50 ppm	23.6	19	12.5	17.8	23.6	27.3

Table 3: Ambient Air Monitoring details

Station	Parameter	Limit micro gm/NM³	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
66 KV	PM 2.5	60	31	31	38	40	41	46
	PM10	100	56	52	50	53	50	63
	SO_2	80	19.1	20.5	21.2	20.8	21.4	26.4
	NO_2	80	28.9	29.3	27.9	23.4	25.4	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30.1	57.6	26.2	30.7	36.7	22.4
	PM10	100	46.7	53.8	50.8	52.9	56.2	46.2
	SO_2	80	14.8	17.2	15.2	21	22	26.7
	NO_2	80	18.3	22.8	24.1	25.8	30.1	23
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	28	31	34	30	29	35
	PM10	100	48	50	46	45	43	48
	SO_2	80	20.9	22.7	20.5	25.6	26.9	29.6
	NO_2	80	24.1	26.1	23.2	25.6	26.7	31.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	35	33	32	31	35	29
	PM10	100	43	48	44	45	49	36
	SO_2	80	16.7	17.6	18.1	17.8	19.8	21.3
	NO_2	80	26	27.8	25.4	26.7	24.7	26.9
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	26	25	27	30	31	32
	PM10	100	49	51	55	53	55	61
	SO_2	80	20.3	21	24	23	24	21.3
	NO_2	80	29.7	30.5	31.4	33.4	30.6	29.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	28.8	26.8	24.2	30.4	32.5	33.4
	PM10	100	40.3	51.7	50.9	54.3	54.3	53.2
	SO_2	80	21.7	16.1	15.6	15.1	19.7	26.9
	NO_2	80	16.3	23.5	24.2	26.4	27.8	20.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	29	32	30	29	32	26
	PM10	100	50	54	56	58	60	56
	SO_2	80	14.8	16.3	15.1	16.3	17.4	21.6
	NO_2	80	33.6	35	37.1	40.2	35.1	24.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	28.9	24.9	24.8	23.8	31.2	29.1
	PM10	100	36.7	52.4	54.9	50.3	56.1	56.1
	SO_2	80	14.9	14.2	16.7	20.3	24.3	29.4
	NO_2	80	16.9	24.7	24.2	22.3	28.7	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Main office, North site	PM 2.5	60	19.7	25.7	26.8	26	31.7	26.9
	PM10	100	47.6	51.2	56.9	52.1	55.6	46.2
	SO_2	80	18.7	15.9	16.7	14.3	22.6	25.4
	NO_2	80	22.3	22.9	21.2	26.8	29.8	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	18.4	27.4	26.8	24.1	32.8	32.4
	PM10	100	45.3	53.2	53.7	56.3	57.8	55.9
	SO_2	80	13.4	17.6	16.3	26.4	25.6	26.9
	NO_2	80	20.3	22.7	20.7	21.7	26.9	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Table 4: Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit Mg/Nm3	Results of VOCs in Milligram per NM^3					
				October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
2,4 D	Reactor	Phenol	19	ND	ND	ND	ND	ND	ND
	Buffer tank	Chlorine	3.0	2.1	1.9	1.4	2	1.78	1.64
Resorcinol	Benzene storage tank area near vent	Benzene	15	0.6	0.51	0.35	0.45	0.48	0.35
	Near Extraction/scrubber unit	Butyl acetate	-	90.8	106	90	93	132	112
Pharma	At second floor work area	Ammonia	18	5.8	4.45	6.2	7.2	8.48	6.3
	Ammonia recovery area	Ammonia	18	8.4	6.1	3.9	4.3	5.12	4.95
Epoxy - I	At vacuum pump 2nd floor	ECH	10	6.3	4.9	3.1	3.06	2.34	3.65
	At vessel POS 1208 G.F	ECH	10	4.92	3.51	4.6	5.1	3.53	5.2
Shed H	At second floor work area	Nitrobenzene	5	1.95	1.71	1.55	1.36	1.64	1.82
Shed N	Ground Floor	SO2	3	2.26	2.4	2.84	2.15	1.86	1.44

Table 5: Noise level monitoring data (Day Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	63.3	62.5	60.5	62.3	63.9	65.3	75
2	Opposite shed D	60.7	61.5	62.8	61.8	65.4	63.7	75
3	West site ETP	64.9	65.2	67.4	68.3	66.7	63.5	75
4	North site ETP	59.2	60.7	61.5	60.9	62.3	63.7	75
5	Near TSDF	63.4	64.8	63.2	66.2	65.9	64.1	75
6	Near main guest house	66.9	65.9	66.3	65.3	63.3	61.2	75
7	At wyeth colony	61.7	62.4	63.5	61.7	60.7	62.3	75
8	Gram panchayat hall	66.1	67.5	65.5	66.9	67.4	65.4	75
9	Near main office North site	65.3	66.2	63.6	60.8	62.1	63.9	75
10	Haria water tank	63	64.2	66.2	67.3	65.8	66.5	75

Table 6 : Noise level monitoring data (Night Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	53.3	55.1	56.3	55.3	53.6	52.9	70
2	Opposite shed D	44.4	46.2	48.4	48.7	47.9	49.3	70
3	West site ETP	51.9	50.4	52.6	51.2	53.2	51.3	70
4	North site ETP	50.3	51.8	50.7	53.9	52.4	50.0	70
5	Near TSDF	58.0	55.4	57.3	58.7	59.6	55.3	70
6	Near main guest house	54.9	56.3	58.1	59.3	60.2	61.6	70
7	At wyeth colony	55.3	53.8	52.2	50.3	48.7	49.4	70
8	Gram panchayat hall	51.3	52.7	54.4	55.4	56.1	57.3	70
9	Near main office North site	51.8	56.7	53.7	52.1	53.2	55.6	70
10	Haria water tank	56.0	54.8	57.1	55.0	56.0	60.2	70

Table7: CSR Activities

CSR activity done in 2022-23

(₹ lakhs)

No.	Name of project	Budget	Expense
1	Enhancement of educational practices in Kalyani Shala	63.00	63.00
2	Improve teaching methodology for primary school children - Adhyapika project	85.30	85.30
3	Support to Eklavya Model Residential School -Atul Vidyamandir	14.50	14.50
4	Support to develop a school in a tribal area	1.90	1.90
5	Provision of scholarships to needy and meritorious students	4.00	4.00
6	Provide assistance to lesser privileged children	6.90	6.90
7	Provision of education kits to children	9.40	9.40
8	Conservation of manuscripts	32.50	32.50
9	Provide assistance to children with special needs	1.20	1.20
10	Promote learning and life skills among children	1.00	1.00
11	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3.50	3.50
12	Develop a computer lab in a school (West Bengal)	4.00	4.00
13	Support to a school for rennovation of toilets and boundary wall (Uttar Pradesh)	5.00	5.00
14	Support to develop a library	1.50	1.50
	Total education budget (a)	**233.70**	**233.70**
15	Skill training to youth as an apprentices	104.35	104.35
16	Empowerment of women | youth through various vocational training courses	39.50	39.50
17	Develop micro-entrepreneurs to provide sustainable livelihood	15.30	15.30
18	Create livelihood opportunities for tribal families by providing cows	15.60	15.60
19	Empower women through self-help groups- Atul Uttara project	21.60	21.60
20	Support to Industrial Training Institute (ITI)	17.80	17.80
	Total empowerment budget (b)	**214.15**	**214.15**
21	Enhancement of rural health through health camps	41.50	41.50
22	Establish Atul Healthcare Centre	415.00	415.00

23	Promote health and well-being of adolescents and women- Sampoorna project	32.40	32.40
24	Provision of blood units to the needy and deserted patients	2.40	2.40
25	Upgradation of sports infrastructure and equipment	68.00	68.00
26	Promote Fit@50+ Women's Trans Himalayan Expedition	5.00	5.00
	Total health budget (c)	**564.30**	**564.30**
27	Provision of medical treatment to needy patients	23.00	23.00
28	Support to flood affected people in Valsad	5.40	5.40
	Total relief budget (d)	**28.40**	**28.40**
29	Develop community infrastructure in Atul village	160.00	160.00
30	Infrastructure development in Atul and surrounding villages	33.70	33.70
31	Construction of toilet blocks in a school (Maharashtra)	10.30	10.30
	Total infrastructure budget (e)	**204.00**	**204.00**
32	Establishment of solid waste management system in Atul village- Ujjwal Atul	35.60	35.60
33	Initiate solid waste management project in five villages	13.40	13.40
34	Initiate natural resource management project to conserve soil and water	30.60	30.60
35	Conserve energy through solar system	45.60	45.60
36	Set up nature-based wastewater recycling systems	65.00	65.00
37	Conserve water through various interventions	17.00	17.00
38	Enhance green cover- Tree plantation project	39.30	39.30
39	Protection of animals	14.80	14.80
40	Conserve energy through Biogas project	2.50	2.50
	Total conservation budget (f)	263.80	263.80
Total CSR budget (a+b+c+d+e+f)		**1,508.35**	**1,508.35**
Administrative overheads (OH)		74.20	74.20
Total for Atul Limited (CSR budget + OH)		**1582.55**	**1582.55**

Project: Setting up of an additional captive power plant of 22 MW within the existing chemical manufacturing complex at post Atul, Dist. Valsad.
EC Compliance Report for EC No. SEIAA|GUJ|EC|1(d)|340|2016
Report period: October 2022 – March 2023

<table>
<tr><th>Sr No.</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td colspan="3">A. Conditions :</td></tr>
<tr><td colspan="3">A.1 Specific Condition:</td></tr>
<tr><td>1.</td><td>Unit shall comply the emission standards mentioned in the Notification by MoEF & CC vide S.O. 3305(E) dated 07/12/2015.</td><td>Complied.
We ensure that at no time the emission level will go beyond the stipulated standards | prescribed limits. In such cases | occurrences we will intimate to the board & authority time to time. In event of failure of APCM, the unit shall not restart until the control measures are rectified to achieve efficiency.

We have installed Online Continuous Emission Monitoring System (OCEMS) in all the Boiler stacks as per CPCB guideline and the same is connected with CPCB and GPCB server. Apart from continuous online monitoring, flue gas stack analysis is also monitored offline at regular interval (Monthly) for ensuring the compliance. The testing Lab appointed for flue gas analysis is GPCB approved (schedule - II) M/s. Pollucon Laboratories Pvt. Ltd, Surat which also has NABL approval

The maximum value (SPM, SO_2 & NO_x) during the report period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

<table>
<tr><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>PM</td><td>100</td><td>mg/Nm^3</td><td>41.6</td><td>60.4</td><td>50.01</td></tr>
<tr><td>PM (New Boiler)</td><td>50</td><td>mg/Nm^3</td><td>29.4</td><td>43.9</td><td>36.2</td></tr>
<tr><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>281</td><td>399</td><td>321.50</td></tr>
<tr><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>271</td><td>310</td><td>292.06</td></tr>
<tr><td>NOx (New Boiler)</td><td>300</td><td>mg/Nm^3</td><td>250</td><td>296</td><td>277</td></tr>
</table>

Flue gas stack results for the report period is attached as Annexure I.</td></tr>
</table>

D.G.SET STACK
(D.G.SET)

The Ambient Air Quality is being monitored at regular interval for ensuring the compliance. The testing lab appointed is M/s. Royal Environment Auditing & Consultancy Service, Rajkot NABL Approved. The maximum value (PM2.5, PM10, SO_2, NO_2, Ammonia, and HCl) during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Ambient air monitoring Reports:

Station	Parameter	Limit micro - gm/NM^3	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
66 KV	PM2.5	60	31.0	46.0	37.8
	PM10	100	50.0	63.0	54.0
	SO_2	80	19.1	26.4	21.6
	NO2	80	23.4	29.7	27.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Opposite Shed D	PM2.5	60	22.4	57.6	34.0
	PM10	100	46.2	56.2	51.1
	SO_2	80	14.8	26.7	19.5
	NO2	80	18.3	30.1	24.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Near West Site ETP	PM2.5	60	28.0	35.0	31.2
	PM10	100	43.0	50.0	46.7
	SO_2	80	20.5	29.6	24.4
	NO2	80	23.2	31.4	26.2
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Near North ETP	PM2.5	60	29.0	35.0	32.5
	PM10	100	36.0	49.0	44.2
	SO_2	80	16.7	21.3	18.6
	NO2	80	24.7	27.8	26.3
	Ammonia	400	ND	ND	ND

	HCl	200	ND	ND	ND
TSDF	PM2.5	60	25.0	32.0	28.5
	PM10	100	49.0	61.0	54.0
	SO_2	80	20.3	24.0	22.3
	NO2	80	29.4	33.4	30.8
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Main Guest House	PM2.5	60	24.2	33.4	29.4
	PM10	100	40.3	54.3	50.8
	SO_2	80	15.1	26.9	19.2
	NO2	80	16.3	27.8	23.1
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Wyeth Colony	PM2.5	60	26.0	32.0	29.7
	PM10	100	50.0	60.0	55.7
	SO_2	80	14.8	21.6	16.9
	NO2	80	24.6	40.2	34.3
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Gram Panchayat Hall	PM2.5	60	23.8	31.2	27.1
	PM10	100	36.7	56.1	51.1
	SO_2	80	14.2	29.4	20.0
	NO2	80	16.9	28.7	23.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Main Office North Site	PM2.5	60	19.7	31.7	26.1
	PM10	100	46.2	56.9	51.6
	SO_2	80	14.3	25.4	18.9
	NO2	80	21.2	29.8	24.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Haria Water Tank	PM2.5	60	18.4	32.8	27.0
	PM10	100	45.3	57.8	53.7
	SO_2	80	13.4	26.9	21.0
	NO2	80	20.3	29.7	23.7
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND

The results are below permissible emission standards mentioned in the Notification by MOEF&CC vide S.O. 3305(E) dated December 07, 2015 during the report period is attached as **Annexure II.**

<table>
<tr><td>2.</td><td>All measures shall be taken to prevent soil and ground water contamination</td><td>Complied.
Kindly note that we are not extracting ground water as a source of water for the referred project. We have adequate control measured for any leakages from the plant to prevent groundwater contamination. We are ensuring that solid waste is stored in identified solid hazardous waste storage area, provided with covered shed, impervious flooring and leachate collection facility to prevent soil contamination.

We are regularly monitoring ground water and soil quality through reputed institute (M/s. Pollucon Laboratories Pvt. Ltd, Surat) to access the impacts on soil and ground water quality. The study shows that there is no soil and ground water contamination found.</td></tr>
<tr><td>3.</td><td>The project proponent shall submit the detailed study report to Gujarat Pollution Control Board (GPCB) at least once in a year, through the reputed institute or university to assess the impacts on soil and ground water quality, if any due to application of waste water generation from the CPP and shall adopt the additional mitigation measures as may be suggested through such studies.</td><td>Complied.
Ground water and soil quality is being checked regularly for in and around the unit by reputed and NABL approved agency M/s. Pollucon Laboratories Pvt. Ltd, Surat.</td></tr>
<tr><td colspan="3">A.2: WATER:</td></tr>
<tr><td>4.</td><td>The fresh water requirement for the proposed expansion shall not exceed 2095 KL/day and it shall be met through the existing water supply system from River par.</td><td>Complied.
The average water consumption for the report period is 1152 KL/day only which is well within the permissible limit of 2095 KL/Day.
Detailed break up is given in below table:

<table>
<tr><th>Sr No.</th><th>Month</th><th>Quantity (KL/Month)</th><th>Avg. Quantity. (KL/Day)</th></tr>
<tr><td>1</td><td>October - 2022</td><td>35268</td><td>1138</td></tr>
<tr><td>2</td><td>November -2022</td><td>33380</td><td>1113</td></tr>
<tr><td>3</td><td>December - 2022</td><td>33956</td><td>1095</td></tr>
<tr><td>4</td><td>January - 2023</td><td>34247</td><td>1105</td></tr>
<tr><td>5</td><td>February - 2023</td><td>32668</td><td>1167</td></tr>
<tr><td>6</td><td>March - 2023</td><td>40158</td><td>1295</td></tr>
</table>

The maximum value during the report period confirms that at no time the water consumption went beyond the stipulated value. Fresh water requirement is met through the existing water supply system from river Par.</td></tr>
</table>

<table>
<tr>
<td>5.</td>
<td>Metering of water shall be done and its records shall be maintained. No ground water shall be tapped in any case for meeting the project requirements.</td>
<td>Complied:
Magnetic water flow meter is attached at inlet line of ETP and reuse line (outlet) at RO permeate line. Its records are regularly maintained. We are not using ground water tapped in any case for meeting the project requirements. Our source of water is river Par.

 
Water meter @inlet line

 
Water meter @reuse line</td>
</tr>
<tr>
<td>6.</td>
<td>The industrial effluent generation from the proposed expansion shall not exceed 270 KL/day and entire quantity of effluent shall be utilized for ash quenching, dust suppression, fire hydrant make up, gardening plants, floor cleaning.</td>
<td>Complied.
Waste water generation is not exceeding prescribed limit of 270 KL/Day during report period. The average wastewater generation for the report period is 78 KL/day only which is well within the prescribed limit of 270 KL/Day and entire waste water quantity is utilized / reused after giving neutralization & RO treatment.

Entire quantity of waste water is being utilized in ash quenching, coal storage yard to attend coal smoldering, dust suppression, fire hydrant make up, gardening plants floor cleaning and no waste water discharged to ETP. Detail break up is given in below table.

<table>
<tr><th>Sr No.</th><th>Month</th><th>Waste Water Generation (KL/Month)</th><th>Avg. Waste Water Generation | Reused Quantity (KL/Day)</th></tr>
<tr><td>1</td><td>October - 2022</td><td>3406</td><td>110</td></tr>
<tr><td>2</td><td>November -2022</td><td>2858</td><td>95</td></tr>
<tr><td>3</td><td>December - 2022</td><td>581</td><td>19</td></tr>
<tr><td>4</td><td>January - 2023</td><td>2558</td><td>83</td></tr>
<tr><td>5</td><td>February - 2023</td><td>3691</td><td>132</td></tr>
<tr><td>6</td><td>March - 2023</td><td>846</td><td>27</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr><td>7.</td><td>There shall be no discharge of industrial effluent from the proposed project in any case.</td><td>Complied.
Industrial waste water generation is not exceeding prescribed limit of 270 KL/Day during report period. Neutralization pit has been put in service for waste water generated from D.M. Plant followed by RO system. RO permeate is recycled back and reject is utilized in ash quenching and coal storage yard to attend coal smoldering, dust suppression, fire hydrant make up, Gardening plants, floor cleaning.
Please refer table of waste water generation (KLD) in point no.6.

Hence, Our CPP unit is achieved ZLD. No Discharge of industrial effluent from the project in any case.</td></tr>
<tr><td>8.</td><td>Domestic waste water generation shall not exceed 1 KL/day Which shall be disposed of into soak system.</td><td>Complied.
Domestic water generation in not exceeding the prescribed limit of EC during report period.

The average wastewater generation for the report period is 0.54 KL/day only which is well within the limit. Domestic waste water disposed through septic tank system.

<table>
<tr><th>Sr No.</th><th>Month</th><th>Domestic Waste Water Generation (KL/Day)</th></tr>
<tr><td>1</td><td>October - 2022</td><td>0.66</td></tr>
<tr><td>2</td><td>November -2022</td><td>0.53</td></tr>
<tr><td>3</td><td>December - 2022</td><td>0.39</td></tr>
<tr><td>4</td><td>January - 2023</td><td>0.55</td></tr>
<tr><td>5</td><td>February - 2023</td><td>0.69</td></tr>
<tr><td>6</td><td>March - 2023</td><td>0.44</td></tr>
</table>
</td></tr>
<tr><td>9.</td><td>The unit shall provide metering facility at the inlets and outlets of the collection cum reuse system of waste water and maintain records of the same.</td><td>Complied.
Magnetic Flow Meter is provided at the inlet of the collection tank and reuse system of waste water and records are being maintained.
Photograph of water meter is shown below:

  
Water meter @Inlet line Water meter @Reuse line
We are reusing treated waste water in ash quenching, coal storage yard to attend coal smoldering, dust suppression, fire hydrant make up, Gardening plants & floor cleaning. Hence, we are achieving ZLD. No waste water discharge to ETP from our 22 MW Captive power plant.</td></tr>
</table>

<table>
<tr><td>10.</td><td>Proper logbooks of waste water reuse system showing quantity and quality of effluent reused shall be maintained and furnished the GPCB from time to time.</td><td>Complied.
We are properly maintaining logbook of water consumption, waste water generation & reuse data showing quantity and quality of effluent. The data is furnished through EC compliance reports to GPCB.</td></tr>
<tr><td>11.</td><td>Rain water harvesting of rooftop rain water shall be undertaken as proposed in the EIA report of the project and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water through percolation wells. Before recharging the rain water, pre - treatment must be done to remove suspended matter.</td><td>Complied.
Rooftop rain water from Coal sheds and New TG building is collected in well - constructed pond and used as make up water for cooling tower.

We have already three numbers of check dams in natural storm water drains to collect and harvest rain water in monsoon season after giving necessary pre - treatment to remove suspended matter as we have pumped these rain water to clarifloculator units to remove suspended matter. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water from river during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par. In addition to above, surface runoff water and roof top water is used to recharge bore wells.

Total No. of Pond: 2 Nos.
Capacity of Pond: (1 Nos. x 12000 KL) & (1 Nos. x 2000 KL)
Company has harvest 468355 KL rain water during 2022.</td></tr>
<tr><td colspan="3">A.3 Air:</td></tr>
<tr><td>12.</td><td>Existing two coal fired steam boilers shall be replaced with two AFBC Boilers having capacity 50 TPH each.</td><td>Complied.
The old coal fired steam boilers are replaced with higher efficiency AFBC boilers with adequate APC facility (4 field ESP).</td></tr>
<tr><td>13.</td><td>Fuel (Indian coal/and or Imported coal and or Lignite) to the tune of 16725 MT/M shall be used for proposed boilers.</td><td>Complied.
The average fuel consumption (coal | lignite) for the report period is 12937.5 MT/M only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Sr No.</th><th>Month</th><th>Fuel consumption MT</th></tr>
<tr><td>1</td><td>October - 2022</td><td>15328</td></tr>
<tr><td>2</td><td>November -2022</td><td>14025</td></tr>
<tr><td>3</td><td>December - 2022</td><td>13242</td></tr>
<tr><td>4</td><td>January - 2023</td><td>8876</td></tr>
<tr><td>5</td><td>February - 2023</td><td>11317</td></tr>
<tr><td>6</td><td>March - 2023</td><td>14837</td></tr>
</table>
The maximum values during the compliance period confirm that at no time the fuel consumption went beyond the stipulated value.</td></tr>
</table>

<table>
<tr><td>14.</td><td>Sulfur and ash content of the fuel to be used shall be analyzed and its record shall be maintained.</td><td>Complied.
We are using Indian coal or Imported coal and lignite in different proposition as per availability. We are regularly monitor and analyze the proximate & ultimate analysis of coal | Lignite which show % Ash content, GCV, Sulphur content and heavy metal present in coal |lignite.

Ash Content: 30 - 35 % (Indian Coal), 10 - 12% (Imported coal)
Sulphur Content: <0.1% (Indian Coal), <0.2% (Imported coal)</td></tr>
<tr><td>15</td><td>A Long term study of radio activity and heavy metal contents in coal/ lignite to be used shall be carried out through a reputed institute and results thereof analyzed regularly and reported along with monitoring reports. Thereafter mechanism for an in - built continuous monitoring for radio activity and heavy metals in coal/lignite and Fly ash (Including bottom ash) shall be put in place.</td><td>Complied.
The radio activity and heavy metal contents in coal | lignite had been carried out and report submitted vide our letter Atul/SHE/EC Compliance/03 dated June 30, 2018.

Further to your letter no. F. No. 18 - A - 30/2019(SEAC)/201, It may please be noted that we are in discussion with recommended institute for carrying out above analysis and report will be submitted.

We have not found the inbuilt continuous monitoring for radio activity and heavy metal in coal | lignite anywhere in India as well as abroad. Even though we have still continued our search for agencies supplying such online system and we will install the same as soon as we get the same.</td></tr>
<tr><td>16.</td><td>Height of flue gas stacks attached to boilers shall be minimum 74.58 meters.</td><td>Complied.
Height of the stack is 106 meters. The emission is dispersed through adequate height of stacks as per CPCB standard as given below:

<table><tr><th>Stack No.</th><th>Stack attached to</th><th>Stack Height In meter</th><th>APCM</th></tr><tr><td>1</td><td>Boiler (50 TPH x 2Nos.)</td><td>106</td><td>ESP with 4 field</td></tr></table>
For Boilers: Stack Height $H=14(Q)^{0.3}$
Height of the stack is 106 meters, which is actually higher than norms.</td></tr>
<tr><td rowspan="2">17.</td><td>A flue gas stack of 74.58m height shall be provided with online monitoring system to proposed steam boiler.</td><td>Complied.
Height of the stack is 106 meters attached to Boiler (50 TPH × 2 Nos.). We have installed online monitoring system to boiler for SPM, SO_2 and NOx and the same is connected to CPCB server.</td></tr>
<tr><td>Mercury gas emission from stacks shall also be monitored on periodic basis.</td><td>Complied.
Mercury emission is also monitored on monthly basis by NABL approved agency.
For Mercury stack emission data please refer specific condition No.1.
No Mercury is detected in Flue gas stack in the monitoring results.</td></tr>
</table>

18.	High efficiency Electro static precipitators (ESP) with efficiency not less than 99.9% shall be installed for control of flue gas emission from the proposed Boilers.	**Complied.** We have installed high efficiency Electro Static Precipitator (ESP) (4 field) with 99.9% efficiency to control of flue gas emission within the permissible limit. The monitoring reports shows that average SPM emission is identify 43.6 mg/Nm^3 which is below permissible limit of 50mg/Nm^3. Photograph of ESP is shown below:  ESP
	The ESP shall be operated efficiently to ensure that particulate matter emission does not exceed the GPCB norms.	**Complied.** GPCB Permissible limit for PM is 50 mg/NM^3. Particulate matter emission did not exceed the GPCB norms during report period Which shows that ESP is working efficiently (99.9%). For PM stack emission data please refer specific condition No.1
	The control system shall be designed and integrated in plant DCS in such a way that amended from ESP exceeds the specified standard prescribed in the Environment (protection) Rules 1986 as amended from time to time, utilization of boiler capacity shall so that flue gas emission from the stack meets with the specified standards or boiler shall shut down totally.	**Complied.** We have designed and integrated in Plant DCS in such a way that in event of ESP in working not efficiently or something found fault or operation issue due to which flue gas emission go beyond the specified standard prescribed in the Environment (protection) Rules 1986 as amended from time to time than in such cases / occurrence we will intimate to board & authority to stop the operation plant or decrease the load of power plant. We will not restart or increase the load until the control measures are rectified to achieve the 100 percent efficiency. Flue gas emission from the stack meets with the specified standards prescribed in the Environment (protection) Rules1986 as amended from time to time for the report period. For stack emission data please refer specific condition No.1
19.	Third party monitoring of the functioning of ESP along with efficiency shall be carried out once in a year through a reputed institute / organization.	**Complied.** We are regularly monitoring the functioning of ESP along with efficiency once in a year through NABL accredited and MoEF approved agency. The monitoring has been carried out by GPCB approved (schedule - II) M/s. Pollucon Laboratories Pvt.Ltd, Surat NABL approved. ESP efficacy found satisfactory (i.e. 99.9% efficiency).
20.	Lime stone injection	**Complied.**

<table>
<tr><td></td><td>technology shall be adopted to control SO_2 and it shall be ensured that SO_2 levels in the ambient air do not exceed the prescribed standards.</td><td>We already have lime injection system to control SO_2 emission. Ambient Air quality analysis report shows that SO_2 levels is below the prescribed standards during the report period.

For Ambient Air quality data please refer specific condition No.1</td></tr>
<tr><td>21.</td><td>The company shall prepare schedule and carry out regular preventive maintenance of mechanical and electrical parts of ESPS and assign responsibility of preventive maintenance to the senior officer of the company.</td><td>Complied.
Our company is ISO 14001 certified company and regular preventive maintenance of all the critical equipment is a part of our system. We have standard preventive maintenance schedule | activities (monthly, By monthly, yearly) of mechanical and electrical parts or equipment's of ESPS. We have recorded the percentage completion of preventive maintenance assigned work as per schedule. These schedules has been prepared and reviewed | approved by senior officer of the company.</td></tr>
<tr><td>22.</td><td>Diesel to the tune of 300 Lit/hr shall be used as a fuel in stand –by D. G. Set (1500 KVA)</td><td>Complied.
Diesel consumption during report period is given in below table:
<table><tr><th>Sr No.</th><th>Month</th><th>Diesel Consumption (KL/Month)</th></tr><tr><td>1</td><td>October - 2022</td><td>0.05</td></tr><tr><td>2</td><td>November -2022</td><td>0.6</td></tr><tr><td>3</td><td>December - 2022</td><td>0</td></tr><tr><td>4</td><td>January - 2023</td><td>0.025</td></tr><tr><td>5</td><td>February - 2023</td><td>0.515</td></tr><tr><td>6</td><td>March - 2023</td><td>4.1</td></tr></table></td></tr>
<tr><td rowspan="2">23.</td><td>The flue gas emission from DG set shall be dispersed through adequate stack height as per CPCB standards. At no time the emissions levels shall go beyond the stipulated standards.</td><td>Complied.
Adequate stack height of 11mt of DG set (1500 KVA) and 10mt of D.G. set (1010 KVA) as per CPCB standards.</td></tr>
<tr><td>Acoustic enclosure be provided to DG set to mitigate the noise pollution.</td><td>Complied.
We have provided acoustic enclosure to both DG sets to mitigate the noise pollution in day time and night time</td></tr>
</table>

24.	Online monitoring system shall be installed to monitor the SOx, NOx and SPM in the flue gas stack.	**Complied.** Online monitoring system for SPM, SO_2 and NOx is already been made and connected to CPCB server. OCEMS Online monitoring system for SPM, SOx and NOx is already been made and connected to CPCB server. Photograph of online monitoring system (CEMS) connected to the CPCB server  Historical Data LOGO Plant Name : ATUL LTD VALSAD Plant Address : ATUL LTD. VALSAD (GUJARAT) Station Name : Stack 1_30 TPH BOILER From Date : 01-01-2023 00:00:00 To Date : 31-01-2023 08:50:00 Interval : Daily Function : Average Legends : < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under stroner, B - Bad data, H - High load record, L - Low permissible load record

		8/1/22, 9:17 AM about:blank 03-07-2022 00:00:00 63 105 112 04-07-2022 00:00:00 62 105 117 05-07-2022 00:00:00 62 105 121 06-07-2022 00:00:00 62 111 116 07-07-2022 00:00:00 63 112 132 08-07-2022 00:00:00 61 110 125 09-07-2022 00:00:00 61 120 128 10-07-2022 00:00:00 62 101 132 11-07-2022 00:00:00 62 98 123 12-07-2022 00:00:00 61 99 132 13-07-2022 00:00:00 62 105 125 14-07-2022 00:00:00 60 106 128 15-07-2022 00:00:00 64 108 113 16-07-2022 00:00:00 63 109 117 17-07-2022 00:00:00 60 104 122 18-07-2022 00:00:00 61 106 120 19-07-2022 00:00:00 61 105 123 20-07-2022 00:00:00 62 107 128 21-07-2022 00:00:00 61 107 124 22-07-2022 00:00:00 61 106 119 23-07-2022 00:00:00 62 106 154 24-07-2022 00:00:00 63 106 90 25-07-2022 00:00:00 63 106 98 26-07-2022 00:00:00 61 111 90 27-07-2022 00:00:00 63 108 99 28-07-2022 00:00:00 63 114 95 about:blank 2/2
	An arrangement shall also be done for reflecting the online monitoring result on the company's server, which can be assessable by the constructed.	Complied. We have arrangement of reflecting the online monitoring result on the company's server, which can be accessible by the constructed.

25.	Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No pond shall be constructed.	**Complied.** We have not constructed ash pond for the CPP unit. We have closed three silo of 200 MT and Two silo of 300 MT capacity of each, total 1200 MT capacity, which is well enough for our average generation of report period 65TPD. We dispatch the fly ash daily from these silos so we have not prepare ash pond. Fly ash / bottom ash generation and disposal data for report period is shown in below table: **Photograph of Closed silos for Fly ash / Bottom ash:**

Fly Ash	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
Generation (MT)	1651	1128	1037	591	2448	5023
Disposal (MT)	1651	1128	1037	591	2448	5023

26.	Handling of the fly ash shall be through a closed pneumatic system.	Complied. We are handling of fly ash through a closed pneumatic system which is shown below:  **Dense phase pneumatic ash handling system**
27.	Ash shall be handled only in dry state.	Complied. We are handling ash only in dry state. Sold to cement and brick manufacturer.
28.	The unit shall strictly comply with the fly ash Notification under the EPA and it shall ensure that there is 100% utilization of fly ash to be generated from the unit.	Complied. We are strictly complying fly ash notification under EPA and we are doing 100 % utilization of fly ash to be generated from the unit. For Fly ash / bottom ash generation and disposal data please refer condition No. 25.
29.	The fugitive emission in the work zone environment shall be monitored. The emission shall confirm to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health) Following Indicative guidelines shall be also be followed to reduce the fugitive emission.	Complied. We are regularly (once in month) monitoring fugitive emission in work zone environment to confirm the standard prescribed by the concerned authorities from time to time. And indicative guidelines are strictly followed to reduce the fugitive emission. Measures adopted to control fugitive emission: • All process pumps shall be provided trays to collect probable leakage. • More weight age on selection of MoC of piping shall be given to avoid leakage/spillage. • Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow. • De - dusting system is provided at coal storage area, closed silo system is available to collect fly ash. Covered conveyer belt system is available for transfer of coal. Water sprinkle system is available to control dust fugitive emission. • Proper system is provided for decontamination and effective cleaning of drums. • All transfer points are fully enclosed. • All roads are RCC & paved on which movement of raw materials or products are take place. • Maintenance of air pollution control equipment are to be done regularly. • All the workers are working with proper PPE's. i.e. boiler suit,

		dust mask, safety goggles, face shield, safety shoes etc. • Adequate green belt is developed around the plant to arrest the fugitive emissions.
	All handing & transport of coal & Lignite shall be exercised through covered coal conveyors only.	Complied. All handing & transport of coal & Lignite is done through covered coal conveyors only.  
	Enclosure shall be provided at coal / lignite loading and uploading operations.	Noted and Complied. Enclosure is provided at coal | Lignite loading and uploading operations.
	Water shall be sprinkled on coal / Lignite stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission.	Complied. We are regularly sprinkled water on coal | Lignite stock piles to retain some moisture in top layer and also while compacting to reduce the fugitive emission.   Close Shed for coal storage
	All transfer enclosed.	Noted and Complied. We have on road coal conveying system through covered coal trucks and in plant coal transferring system through closed conveying system. All transfer points are fully enclosed. Fly ash in terms of closed silos shall be provided at site. Handling of the fly ash shall be through a closed pneumatic system.
	Adequate dust suppression / extraction system at crusher house as well as for the coal/ Lignite stock yard and other vulnerable areas shall be provided to abate dust nuisance.	Complied. We have provided adequate dust extraction system (Dust collector) at crusher house is provided While dust suppression system (water sprinkler system) the coal/ lignite unloading areas to abate dust nuisance.
	Accumulated coal dust / fly ash on the ground and surfaces shall be removed / swept regularly and water the area after sweeping.	Complied. We have adopt practice for coal dust | fly ash is being cleaned regular basis as per schedule that we have set. We are also ensuring that coal dust and fine particles are being loaded to coal handling plant after spraying water on it.

	Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.	Complied. Paver blocks have been provided in the ESP and some internal area of power plant. Concrete Road have been built in the surrounding area of Power Plant to reduce fugitive emissions during vehicle movement.  Concrete road at Captive Power Plant
	Air borne dust shall be controlled with water sprinkles at suitable locations in the plant. Coal / Lignite shall be transported through covered trucks only whereas fly ash shall be transported through closed trucks only.	Complied. Waste water of neutralization pit is being used for dust suppression in coal plant and fly ash handling units. Covered trucks | closed bulkers are being utilized for handling coal and fly ash. 

<table>
<tr><td></td><td>A green belt shall be developed all around the plant boundary and also the roads to mitigate fugitive & transport dust emission.</td><td>Complied.
Complied.
Company has already developed more than 36 % of greenbelt in Atul complex
Total Industrial Plot area: 1126078.27 sq.mt
Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)
We planted approximately 39850 trees of difference species in report period at different location given in below table

<table><tr><th>Location</th><th>Nos. of trees</th></tr><tr><td>Ghat</td><td>21350</td></tr><tr><td>Parnera Hill, Chichwada road</td><td>7300</td></tr><tr><td>Hill side colony 5 & Outside area</td><td>2000</td></tr><tr><td>Secure landfill site Yard</td><td>9200</td></tr><tr><td>Total</td><td>39850</td></tr></table>
   </td></tr>
<tr><td>30.</td><td>Regular Monitoring of ground level concentration of PM2.5, PM10, NO2, SO2 and Hg shall in the impact zone and its records shall be maintained.</td><td>Complied.
We are regularly monitoring ground level concentration of $PM_{2.5}$, PM_{10}, NO_2, and SO_2 in ambient air of impact zone and its records are maintained as per schedule.</td></tr>
<tr><td></td><td>Ambient air quality levels shall not exceed the standards stipulated by GPCB.</td><td>Complied.
The location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentration are anticipated. This also covers the impact, if any, of the project plant. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.

The maximum values during the report period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given in condition no.1.</td></tr>
<tr><td></td><td>If at any stage these levels are found to exceed the prescribed limits necessary additional control measures shall be taken be decided in consultation with the GPCB.</td><td>Complied.
No such case found till date. We have designed and integrated in-plant DCS. In event of ESP is not working efficiently or operation issue, due to which flue gas emission goes beyond the specified standard prescribed in the Environment (protection) Rules 1986 as amended from time to time, then in such cases | occurrence we will intimate to board & authority and stop the operation plant or decrease the load of power plant. We will not restart or increase the load until the control measures are rectified to achieve the 100 percent efficiency.</td></tr>
</table>

A.4 SOLID/ HAZARDOUS WASTE:		
31.	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance from time to time.	Complied There is only one Hazardous waste from the project i.e. Used oil. The The same was given to GPCB authorized vendors only in line with the regulation.
	Authorization from the GPCB shall be obtained for collection /treatment /storage disposal of hazardous waste	Complied. We have CCA Amendment No. AWH – 105110, dated November 16, 2019
32.	Hazardous waste sludge shall be packed stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal.	Complied There is only one Hazardous waste from the project i.e. Used oil. It is stored in drum. The same was given to GPCB authorized vendors only in line with the regulation.
33.	The used oil shall be sold to only to the registered recyclers / refiners.	Complied. Used oil is being sold to GPCB authorized vendor.
34.	The discarded containers / barrels /bags/ liners shall be sold only to the registered recycler.	Complied. No bags / liners are being utilized for Power Plant.
35.	For storage of fly ash closed silos of adequate capacity shall be provided.	Complied. We have three closed silo of 200 MT and Two silo of 300 MT capacity of each, total 1200 MT capacity, which is well enough for our average generation of 65 TPD.
	No ash pond shall be construed in the project.	Complied. No ash pond is construed in the project.
36.	The fly ash shall be supplied to the manufacturers of fly ash based products such as cement, concrete blocks, bricks, panels, etc.	Complied. Fly ash is being given to cement and bricks manufacturers and also being used for our own bricks manufacturing unit.

<table>
<tr><td></td><td>The unit shall strictly comply with the Fly Ash Notification under EPA and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.</td><td>Complied.
We are strictly complying fly ash notification under EPA and we are ensuring that that is 100 % utilization of fly ash to be generated from the unit.

Fly ash / bottom ash generation data for report period is shown in below table:

<table><tr><th>Fly Ash</th><th>October 2022</th><th>Novembe r2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr><tr><td>Generation (MT)</td><td>1651</td><td>1128</td><td>1037</td><td>591</td><td>2448</td><td>5023</td></tr><tr><td>Disposal (MT)</td><td>1651</td><td>1128</td><td>1037</td><td>591</td><td>2448</td><td>5023</td></tr></table>
We have done agreement with Ambuja Cement for supply of dry ash.</td></tr>
<tr><td>37.</td><td>All possible efforts shall be made for co - processing of the Hazardous waste prior to disposal into TSDF/CHWIF.</td><td>Complied
There is only one Hazardous waste from the project i.e. Used oil. It is stored in drum. The same was given to GPCB authorized vendors only in line with the regulation.</td></tr>
<tr><td colspan="3">A.5 SAFETY:</td></tr>
<tr><td>38.</td><td>The project management shall strictly comply with the provisions made in the Factories Act, 1948 as well as manufacturer, storage and Impact of Hazardous chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals.</td><td>Complied.
We are complying all the provisions of Factories act, all the rules and regulation led by MSIHC, 1989.</td></tr>
<tr><td>39.</td><td>Necessary precautions like continuous monitoring of hot spot (ignite lignite) using temperature detection systems water sprinklers, avoiding stacking of lignite near stream pipeline etc. shall be made for storing lignite to prevent fire hazard</td><td>Complied.
Lignite is usually used on the same day of its receiving at site as far as possible. Lignite is not being stored for not more than 3 - 4 Days. However, water spray and fire hydrant system is available for the fuel storage sheds.</td></tr>
<tr><td>40.</td><td>All the risk mitigation measures, general & specific recommendations mentioned in risk Assessments Report shall be implemented.</td><td>Complied.

All the risk mitigation measures, general & specific recommendations mentioned in risk assessments report are implemented.</td></tr>
</table>

<table>
<tr><td>41.</td><td>A well designed fire hydrants system shall be installed as per the prevailing standards</td><td>Complied.
A well designed tender hydrant system is adequate and as per standards.

Fire hydrant Network details:

Single Hydrant point: 192Nos.
Double hydrant point: 07 Nos.
Fixed monitor: 11Nos.
Hose boxes: 30 Nos.
Central hose station: 10 Nos.
Hose pipe: 15 mts. 250 Nos.
Branch pipes (jet type): 50 Nos.
Foam making branch pipe: 03 Nos.
Foam compound: 200 liter
Foam generator with high expansion foam: 2 Nos.</td></tr>
<tr><td>42.</td><td>Personal protective Equipment shall be provided to worker and its usage shall be ensured and supervised.</td><td>Complied.
PPEs like nose masks, safety goggles, chemical resistive aprons, fire proof apron, Hand gloves, safety helmet, welding goggles, ear mugs, safety shoes etc. are provided to the workers and utilization of the PPEs is followed strictly in Power Plant.</td></tr>
<tr><td>43.</td><td>First Aid Box and required antidotes for the chemical used in the unit shall be readily available in adequate quantity at all the times</td><td>Complied.
First aid box are kept in each plant and at strategic locations whereas antidotes are kept in the medical Centre.</td></tr>
<tr><td>44.</td><td>Occupational health surveillance of the workers shall be done its records shall be maintained. Pre - employment and periodical medical examination for all the worker shall be undertaken as per the Factories Act &rules.</td><td>Complied.
Being done on regular basis as per the Factories Act & rules.
Occupational health surveillance of the workers is carried out on a regular basis as per section - 41 C of the Factories Act and rule - 68T of Gujarat Factories Rules and records are maintained. Regular Medical Checkup of all employees are done by in - house doctors in following manner;

The following medical checkup has been completed during report period:

Medical Check - Up:

<table>
<tr><th>Sr No.</th><th>Employee</th><th>Nos. during report period</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1459</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>

Various types of tests being performed are as below;

A. Pre - employment check - up:

1. Vision
2. Colour blindness
3. CBC
4. Urine</td></tr>
</table>

5. Height
6. Weight
7. B/P
8. Pulse
9. Habit
10. Personal History
11. Family History
12. Identification Mark

B. Annual Checkup:

1. Physical checkup
2. Vision
3. Blood
4. Urine
5. PFT
6. ECG

Our occupational health center & pathology lab is equipped with necessary facilities under supervision of factory medical officer with trained three EHS persons.

Medical Facilities:

- First Aid boxes in all plants.
- Central Ambulance Room in the middle of the factory.
- Two Ambulance Vans. Out of which one is equipped with ICU facilities.
- Medical Center.
- Three full time AFIH certified doctors.
- Equipped with 3 Beds.
- Full equipped Pathological lab with advanced diagnostic equipment.
- ECG Equipment.
- Cardiac monitor.
- Defibrillator.
- Finger pulse Oxymeter.
- Pulmonary Function Test Apparatus.
- 02Administration.
- Antidotes with routine Important and Vital lifesaving Drugs.
- Tie - up with Kasturba Hospital, Valsad, and Pardi Hospital, Pardi, respectively 7 kms and 3 kms away from Atul.

		We also have tie up with external two hospitals (Pardi Hospital and Kasturba Hospital). We have medical checkup schedule once in quarter for Insecticide plant's employees Other necessary items including First - aid medicines, antidotes and equipment as prescribed in the schedule the under Rule - 68 U (b) of the Gujarat factories rules are also been provided. **Remark:** All employs were found medically fit to work, no contiguous diseases were observed.
45.	Flameproof fittings shall be provided at the proposed power plant.	**Complied**. Flame proof fittings are provided.
46.	Adequate firefighting facilities shall be provided at the proposed power plant	**Complied.** Firefighting facilities are adequate. The risk to people after a fire has started shall largely depends on the adequacy and maintenance of means to escape, the alarm system, training of the workforce in fire routine and evacuation procedures at Atul Ltd management has proposed to employ well - resourced and adequate firefighting network. Details regarding the firefighting capacity of the unit are given below: ❑ Four full - fledged fire hydrant system in the company ❑ Water Storage Capacity - 50 million Liters ❑ Total hydrant post/ monitors –780 ❑ Total length of hydrant line – 15km ❑ Fire Fighting Equipment ▪ DCP 1350 ▪ CO_2 776 ▪ Foam 05Trolly ❑ Fire Tenders ▪ One fire tender having 1800 Lit water capacity ▪ Second multipurpose fire tenders having 5000 Lit water & 500 Foam ▪ Third Multipurpose tender having facility of DCP - 500 Kg, Foam– 500 lit and Water – 4500Lit. ❑ SCBA sets – 35nos. ❑ Emergency alarm system – 532 nos. points spread across the company. ❑ Fire station manned round the clock with Siren and Annunciation System. ❑ Regular Testing on every Monday. ❑ Smoke detectors in the office and labs. ❑ Auto water deluging system at critical reactors. ❑ Auto water sprinkler system at tank farms Onsite mock drill and firefighting Training.
47.	Proper ventilation shall be provide in the work area.	**Complied.** Proper ventilation provided in work area.

48.	All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages.	Complied. The roads inside factory are either of cement concrete or Bitumen concrete.
49.	The project management shall prepare a details Disaster management plan (DMP) for the project as the guidelines from Directors of Industrial safety and Health.	Complied. Detailed disaster management plan is already prepared and submitted to your good office vide letter Ref. Atul/SHE/EC Compliance/01 dated December 19, 2019 for the project as the guidelines from Directors of Industrial safety and health.
A.6 NOISE:		
50.	To minimize the noise pollution the following noise control measures shall be implemented.	Complied. We are regularly implemented noise control measures to minimize the noise pollution.
	Selection of any new plant equipment shall be made with specifications of low levels.	Complied. All steam vents have attached with silencers. Low noise level is considered as one of the prime specifications while selecting new machines in power plant. For example, replacement of reciprocating type noisy air compressors by low noise emitting screw air compressors.
	Manufacturer / supplier of major noise generating machines / equipment like air compressor. Feeder pumps, turbine generators, etc. shall be instructed to make required design modifications wherever possible regulatory norms with respect to noise generation for individual units.	Complied. We are always acknowledge or take care when purchasing of major noise generating machines / equipment like air compressor, feeder pumps, turbine generators, etc., strictly instructed or emphasized to supplier to give less noise generating equipment's as much as possible to regulatory norms with respect to noise generation for individual units.
	Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact.	Complied. We have routine and preventive maintenance schedule of machinery / equipment and vehicles to be undertaken to reduce the noise impact.
	Noise suppression measures such as enclosures, buffers and / or protective measures shall be provided.	Complied. Acoustic enclosures are provided on DG sets. Silencers have been provided on main steam vent valves of Boilers.
	Employees shall be provided with ear protection measures like earplugs or earmuffs.	Complied. We have provided ear protection measures like earplugs or ear muffs to all employees on regular basis.

	Proper oiling lubrication and preventive maintenance shall be carried out of the machinery and equipment to reduce noise generation.	Complied. Proper oiling lubrication and preventive maintenance is carried out of the machinery and equipment to reduce noise generation.
	Construction equipment generating minimum noise vibration shall be chosen.	Noted & Complied. We always use minimum noise vibration generation construction equipment.
	Ear plugs and / muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment.	Complied. Our company has well laid down OHS policy to use Proper PPE's by all employees in plant area. Ear plugs and / muffs are compulsory for the construction workers working near the noise generating activities / machines / equipment.
	Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate.	Noted & Complied. We are permitted those vehicles and construction equipment with internal combustion engines with proper silencer and spark arrestor.
	Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.	Noted & Complied. We are only using construction equipment meeting the norms specified by EP Act, 1986.
	Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas.	Noted & Complied. We do take care of Noise control equipment and baffling will be employed on generators especially when they are operated near the residential and sensitive areas.
	Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment.	Noted &Complied. We are using mufflers on all motorized equipment to reduce noise levels.
51.	The overall noise level in and around the plant area shall be kept well within the prescribed standard by providing noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration, dampers etc. on all sources of noise generation.	Complied. The overall noise level in and around the plant area to be kept well within the prescribed standard by providing noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration, dampers etc. on all sources of noise generation provided.
	The ambient noise levels shall confirm to the standards prescribed under the Environment	Complied. The ambient and workplace noise level confirms to the standard prescribed under EPA. The same is being regularly monitored.

	(protection) Act and Rules. Workplace noise levels for workers shall be as per the factories Act and Rules.	The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Noise monitoring data of report period is attached as **Annexure III.** Summary is given below: **Noise level monitoring data (Day Time)**

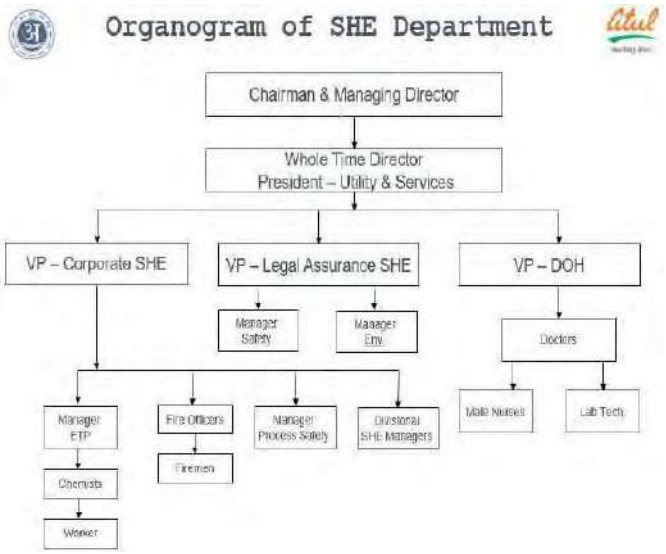
Sr No.	Location	Permissible Limits	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	75	60.5	65.3	63.0
2	Opposite shed D	75	60.7	65.4	62.7
3	ETP West site	75	63.5	68.3	66.0
4	ETP North site	75	59.2	63.7	61.4
5	Near TSDF	75	63.2	66.2	64.6
6	Near Main guest house	75	61.2	66.9	64.8
7	At Wyeth Colony	75	60.7	63.5	62.1
8	Gram Panchayat Hall	75	65.4	67.5	66.5
9	Near Main Office North site	75	60.8	66.2	63.7
10	Haria Water tank	75	63.0	67.3	65.5

Noise level monitoring data (Night Time)

Sr No.	Location	Permissible Limit	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	70	52.9	56.3	54.4
2	Opposite shed D	70	44.4	49.3	47.5
3	ETP West site	70	50.4	53.2	51.8
4	ETP North site	70	50.0	53.9	51.5
5	Near TSDF	70	55.3	59.6	57.4
6	Near Main guest house	70	54.9	61.6	58.4
7	At Wyeth Colony	70	48.7	55.3	51.6
8	Gram Panchayat Hall	70	51.3	57.3	54.5
9	Near Main Office North site	70	51.8	56.7	53.9
10	Haria Water tank	70	54.8	60.2	56.5

A.7 GREEN BELT AND OTHER PLANTATION:

52.	The unit shall develop green belt in at least 68000 sq. area within the premises. Green belt shall comprises of rows of varying height tall native trees with thick foliage in the periphery of the factory premises	Complied. Green belt is developed and we plant more than 50000 plants every year. Green belt is comprised of at least minimum 3 to 4 raw plantation with minimum height of native trees is 5 to 6 Mtr with thick foliage in the periphery of the factory premises. Proper plantation is done all around the plant boundary and also the roads to mitigate fugitive & transport dust emission. Total Industrial area: 1126078.27 sq.mt Total Green belt area: 409030.00 sq.mt (approx. 36% of total industrial plot area)
53.	The unit shall also take up adequate plantation at suitable open land on road sides and other open areas in nearby villages or schools in consultation with the Gram panchayat / GPCB and submit an action plan for the same for next three years to the GPCB.	Complied. We plant more than 50000 plants every year on road sides and other open areas in nearby villages or schools in consultation with the Gram panchayat.
B.OTHER CONDITIONS:		
54.	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved	Complied. No such case during the repot period. However, if such case happens we ensure to close down the unit.
55.	All the recommendation, mitigation measures, environments protection measures and safeguard proposed in the EIA report of the project prepared by M/s ; Eco chem Sales &Service, Surat & submitted vide letter no NIL dated 03/11/2015 and commitments made during presentation before SEAC, proposed in the EIA report shall be strictly adhered to in letter and spirit.	Complied. All environmental protection measures and safeguards proposed in the project report has been fully complied and report submitted to your good office vide letter Atul/SHE/EC Compliance/06 dated December 19, 2019.

56.	All the recommendation of CREP guidelines as may be applicable from time to time shall be following vigorously.	**Complied**. Company is following strictly recommendations mentioned in CREP guidelines and compliance status is given as **Annexure IV.**
57.	A separate environment management cell with qualified staff shall be set up for implementation of stipulated environmental safeguards	**Complied**. Implementation of stipulated environmental safeguards were ensured by the Company's SHE department. 
58.	The project authorities must strictly adhere to stipulations made by the Gujarat Pollution Control Board (GPCB), state government and statutory authority.	**Noted & Complied** We are strictly adhere to stipulations made by the Gujarat Pollution Control Board (GPCB), state government and statutory authority.
59.	No further expansion or modification in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	**Complied**. No further expansion or modification in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
60.	The above conditions will be enforced, inter - all under the provisions of water (prevention &Control or pollution) Act, 1974, Air (prevention & Control of pollution) Act, 1981, the Environment (Protection) Act, 1986,	**Noted.**

<table>
<tr><td></td><td>Hazardous & other wastes (Management and Trans boundary Movements) Rules 2016 and the public liability insurance Act, 1991 along with their amendments and rules.</td><td></td></tr>
<tr><td>61</td><td>The project proponent shall comply all the conditions mentioned in ' The Companies (Corporate Social Responsibility Policy) Rules, 2014 and its amendments from time to time in a letter and spirit.</td><td>Complied.
Details of CSR projects done during report period is given in Annexure - V.</td></tr>
<tr><td>62.</td><td>The project proponent shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk
.Assessments study report as well as proposed by project proponent.</td><td>Complied.
All the recommendations suggested in the EMP report and Risk assessments study report as well as proposed by us have been implemented.</td></tr>
<tr><td>63.</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as GPCB along with the implementation scheduled for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.</td><td>Complied.
EMP measures for the project are implemented and investment details submitted vide our letter Atul/SHE/EC Compliance/06 dated December 19, 2019.
Further, 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 made for EMS compliance during 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
October 2022- March 2023</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">1874</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>32</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>159</td></tr>
<tr><td>5</td><td>Occupational health</td><td>20</td></tr>
<tr><td>6</td><td>Green belt</td><td>10</td></tr>
<tr><td colspan="2">Total</td><td>2095</td></tr>
</table>
</td></tr>
</table>

64.	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and May also be seen at website of SEIAA / SEAC/ GPCB.	Complied. We have informed the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and also be seen at website of SEIAA/SEAC/GPCB.
	This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarat.	Complied. We have given advertisement dated 29.05.2016 in local newspapers that are widely circulated in the region, one of which is given in the Gujarati language and the other in English.
	A copy each of the same shall be forwarded to the concerned Regional office of the Ministry.	Complied. A copy each of the same forwarded to the concerned Regional office of the ministry vide our letter dated January 27, 2017.
65.	The project proponent shall also comply with additional conditions that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	Complied. No additional conditions so far imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
66.	It shall be mandatory for the project management to submit half - yearly compliance report in respect of the stipulated prior environmental clearance terms and condition in hard and soft copies to the regulatory authority concerned on 1st June and 1st December of each calendar year.	Complied. We regularly submit the half - yearly compliance report. The implementation of the project along with environmental actions plans are monitored by the authority time to time. We are regularly submitting half yearly compliance reports to the authority & same is being updated on website.

67.	Concealing factual data or submission of false / fabricated data and failure to comply with any of conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
68.	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Complied.
69.	The SEIAA may revoke or suspend the clearance. If implementation of any of the above conditions is not found satisfactory.	Noted
70.	The company in a time bound manner shall implement these conditions. The SEIAA reserves the stipulate additional conditions, if the same is found Necessary.	Noted.
71.	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied. We have communicated with the regional officer of MoEF & CC towards the status of work and financial closure time to time. We have also submitted six monthly EC Compliance report periodically in which said information were updated time to time.
72.	This environmental clearance is valid for seven years from the date of issue.	Noted.
73.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 day as prescribed under section 16 of the National Green Tribunal Act, 2010.	Noted.

Annexure I: Flue Gas Stack Results

Flue gas stack

Sr. No.	Stack Details	Parameter	Permissible Limits	OCT. 2022	NOV. 2022	DEC. 2022	JAN. 2023	FEB. 2023	MAR. 2023
East site									
1	FBC boiler EI	PM	100 mg/Nm3	41.6	47.1	Not Running	44.2	49.7	60.4
		SO_2	600 mg/Nm3	314	368		344	385	294
		NOx	600 mg/Nm3	295	296		310	292	288
2	FBC boiler E2	PM	100 mg/Nm3	49.6	Not Running	53.8	Not Running	Not Running	Not Running
		SO_2	600 mg/Nm3	308		399			
		NOx	600 mg/Nm3	290		274			
3	FBC boiler E3	PM	100 mg/Nm3	Not Running	49.6	47.8	51.3	53.7	48.4
		SO_2	600 mg/Nm3		298	284	330	358	312
		NOx	600 mg/Nm3		308	288	298	303	284
4	Hot Oil Unit (Resorcinol Plant)	PM	150.0 mg/Nm3	44.6	30.1	44.6	39.4	47.8	41.2
		SO_2	100 ppm	5.5	3.94	4.9	6.1	5.2	6.4
		NOx	50 ppm	16.3	17.2	21.8	23.9	20.6	24.3
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	40.1	33.4	44.8	39.8	33.7	41.7
		SO_2	100 ppm	6.3	5.5	6.84	5.3	6.2	4.9
		NOx	50 ppm	30.8	29.6	24.6	21.2	26.2	28.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	Not Running	Not Running	Not Running	56.4	46.6	Not Running
		SO_2	600 mg/Nm3				281	294	
		NOx	600 mg/Nm3				294	271	
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	56.3	47.1	52.6	44.8	47.8	41.2
		SO_2	100 ppm	7.4	6.06	7.25	10.6	5.2	6.4
		NOx	50 ppm	30.8	24.2	21.9	24.2	20.6	24.3
8	Oil burner Shed B	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
	(Stand By)	SO_2	100 ppm						
		NOx	50 ppm						
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	29.4	34.1	30.6	39.6	43.9	39.6
		SO_2	600 mg/Nm3	306	396	312	282	284	281
		NOx	300 mg/Nm3	242	250	264	289	296	286
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	44.9	4.9	41.7	44.8	33.7	41.7
		SO_2	100 ppm	7.2	27.2	6.4	5.68	6.2	4.9
		NOx	50 ppm	27.2	33.4	22.9	20.7	26.2	28.4
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	44.6	35.6	30.4	36.9	46.3	34.2
		SO_2	100 ppm	10.8	7.8	6.1	7.1	11.2	6.8
		NOx	50 ppm	23.6	19	12.5	17.8	23.6	27.3

Annexure II: Ambient Air monitoring Results

Station	Parameter	Limit micro gm/NM³	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
66 KV	PM 2.5	60	31	31	38	40	41	46
	PM10	100	56	52	50	53	50	63
	SO_2	80	19.1	20.5	21.2	20.8	21.4	26.4
	NO_2	80	28.9	29.3	27.9	23.4	25.4	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30.1	57.6	26.2	30.7	36.7	22.4
	PM10	100	46.7	53.8	50.8	52.9	56.2	46.2
	SO_2	80	14.8	17.2	15.2	21	22	26.7
	NO_2	80	18.3	22.8	24.1	25.8	30.1	23
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	28	31	34	30	29	35
	PM10	100	48	50	46	45	43	48
	SO_2	80	20.9	22.7	20.5	25.6	26.9	29.6
	NO_2	80	24.1	26.1	23.2	25.6	26.7	31.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	35	33	32	31	35	29
	PM10	100	43	48	44	45	49	36
	SO_2	80	16.7	17.6	18.1	17.8	19.8	21.3
	NO_2	80	26	27.8	25.4	26.7	24.7	26.9
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	26	25	27	30	31	32
	PM10	100	49	51	55	53	55	61
	SO_2	80	20.3	21	24	23	24	21.3
	NO_2	80	29.7	30.5	31.4	33.4	30.6	29.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	28.8	26.8	24.2	30.4	32.5	33.4
	PM10	100	40.3	51.7	50.9	54.3	54.3	53.2
	SO_2	80	21.7	16.1	15.6	15.1	19.7	26.9
	NO_2	80	16.3	23.5	24.2	26.4	27.8	20.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	29	32	30	29	32	26
	PM10	100	50	54	56	58	60	56
	SO_2	80	14.8	16.3	15.1	16.3	17.4	21.6
	NO_2	80	33.6	35	37.1	40.2	35.1	24.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	28.9	24.9	24.8	23.8	31.2	29.1
	PM10	100	36.7	52.4	54.9	50.3	56.1	56.1
	SO_2	80	14.9	14.2	16.7	20.3	24.3	29.4
	NO_2	80	16.9	24.7	24.2	22.3	28.7	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND

	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	19.7	25.7	26.8	26	31.7	26.9
	PM10	100	47.6	51.2	56.9	52.1	55.6	46.2
	SO_2	80	18.7	15.9	16.7	14.3	22.6	25.4
	NO_2	80	22.3	22.9	21.2	26.8	29.8	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	18.4	27.4	26.8	24.1	32.8	32.4
	PM10	100	45.3	53.2	53.7	56.3	57.8	55.9
	SO_2	80	13.4	17.6	16.3	26.4	25.6	26.9
	NO_2	80	20.3	22.7	20.7	21.7	26.9	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Annexure III: Noise Data

Noise level monitoring data (Day Time):

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	63.3	62.5	60.5	62.3	63.9	65.3	75
2	Opposite shed D	60.7	61.5	62.8	61.8	65.4	63.7	75
3	West site ETP	64.9	65.2	67.4	68.3	66.7	63.5	75
4	North site ETP	59.2	60.7	61.5	60.9	62.3	63.7	75
5	Near TSDF	63.4	64.8	63.2	66.2	65.9	64.1	75
6	Near main guest house	66.9	65.9	66.3	65.3	63.3	61.2	75
7	At wyeth colony	61.7	62.4	63.5	61.7	60.7	62.3	75
8	Gram panchayat hall	66.1	67.5	65.5	66.9	67.4	65.4	75
9	Near main office North site	65.3	66.2	63.6	60.8	62.1	63.9	75
10	Haria water tank	63	64.2	66.2	67.3	65.8	66.5	75

Noise level monitoring data (Night Time):

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	53.3	55.1	56.3	55.3	53.6	52.9	70
2	Opposite shed D	44.4	46.2	48.4	48.7	47.9	49.3	70
3	West site ETP	51.9	50.4	52.6	51.2	53.2	51.3	70
4	North site ETP	50.3	51.8	50.7	53.9	52.4	50.0	70
5	Near TSDF	58.0	55.4	57.3	58.7	59.6	55.3	70
6	Near main guest house	54.9	56.3	58.1	59.3	60.2	61.6	70
7	At wyeth colony	55.3	53.8	52.2	50.3	48.7	49.4	70
8	Gram panchayat hall	51.3	52.7	54.4	55.4	56.1	57.3	70
9	Near main office North site	51.8	56.7	53.7	52.1	53.2	55.6	70
10	Haria water tank	56.0	54.8	57.1	55.0	56.0	60.2	70

Annexure IV: CREP Compliance

Activity Code No.	Action Point	Compliance Status	Remarks
1	Implementation of Environmental Standards	Complied	APCM are already in place and maintained. We ensured that at no time the emission level will go beyond the stipulated standards | prescribed limits.
2	Particulate matter emission reduction	Complied	We have installed high efficiency electro static precipitator (4 field) with 99.9% efficiency to control of flue gas emission (particulate matter emission) within the permissible limit.
3	New / expansion power projects to be accorded Environment Clearance	Complied	EC awarded for setting up an additional power plant of 22 MW, Dated May 20, 2016 EC No. SEIAA/GUJ/EC/1(d)/340/2016
4	Development of SO2 & NOx emission standards.	NA	Action by CPCB
	Development standards for of guide mercury lines / & other	NA	Action by CPCB
	Review of stack height requirement	NA	Action by CPCB
5	Install / activate meters / continuous monitoring systems with calibration system.	Complied	The boiler stack is equipped with online continuous monitoring and also kept in CC TV camera surveillance.
	Use of beneficiated coal	As soon as it is viable option with respect to its limited availability and proximity of source, will be used.	We are purchasing Indian coal from government collieries and hence forced to use the same. We will use Beneficiated coal as & when available.
6	Use of abandoned coal mines for Ash disposal	NA	Not Applicable
	Provide dry ash to the users	Complied. Ongoing process	Being given to local brick manufacturers and Cement industries. We have done agreement between Ambuja cement Ltd and Atul Ltd For supply of dry ash.
	Provide dry ash free of cost	Complied	-
	Adhere to schedule by State Dept.	NA	Action by State Dept.
	Environment Clearance Existing plants shall	Complied	-

	adopt any of systems mentioned in 13(1)		
	Fly ash Mission shall prepare guideline	NA	Action by GOI
	New plants shall promote adoption of clean coal & clean power	NA	-
7	CC&A status	Complied	Consent no. AWH no. 105110 valid up to September 30, 2025.
8	Compliance with respect to norms prescribed in CC&A for last one year	Complied	Being checked & verified by Regional Office of GPCB time to time.
9	Overall compliance with respect to charter (Yes/No)	Yes	Fully complied with all the condition stipulated in EC as well as CC&A.

CSR activity done in 2022-23

(₹ lakhs)

No.	Name of project	Budget	Expense
1	Enhancement of educational practices in Kalyani Shala	63.00	63.00
2	Improve teaching methodology for primary school children - Adhyapika project	85.30	85.30
3	Support to Eklavya Model Residential School -Atul Vidyamandir	14.50	14.50
4	Support to develop a school in a tribal area	1.90	1.90
5	Provision of scholarships to needy and meritorious students	4.00	4.00
6	Provide assistance to lesser privileged children	6.90	6.90
7	Provision of education kits to children	9.40	9.40
8	Conservation of manuscripts	32.50	32.50
9	Provide assistance to children with special needs	1.20	1.20
10	Promote learning and life skills among children	1.00	1.00
11	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3.50	3.50
12	Develop a computer lab in a school (West Bengal)	4.00	4.00
13	Support to a school for rennovation of toilets and boundary wall (Uttar Pradesh)	5.00	5.00
14	Support to develop a library	1.50	1.50
	Total education budget (a)	**233.70**	**233.70**
15	Skill training to youth as an apprentices	104.35	104.35
16	Empowerment of women | youth through various vocational training courses	39.50	39.50
17	Develop micro-entrepreneurs to provide sustainable livelihood	15.30	15.30
18	Create livelihood opportunities for tribal families by providing cows	15.60	15.60
19	Empower women through self-help groups- Atul Uttara project	21.60	21.60
20	Support to Industrial Training Institute (ITI)	17.80	17.80
	Total empowerment budget (b)	**214.15**	**214.15**
21	Enhancement of rural health through health camps	41.50	41.50
22	Establish Atul Healthcare Centre	415.00	415.00

23	Promote health and well-being of adolescents and women- Sampoorna project	32.40	32.40
24	Provision of blood units to the needy and deserted patients	2.40	2.40
25	Upgradation of sports infrastructure and equipment	68.00	68.00
26	Promote Fit@50+ Women's Trans Himalayan Expedition	5.00	5.00
	Total health budget (c)	**564.30**	**564.30**
27	Provision of medical treatment to needy patients	23.00	23.00
28	Support to flood affected people in Valsad	5.40	5.40
	Total relief budget (d)	**28.40**	**28.40**
29	Develop community infrastructure in Atul village	160.00	160.00
30	Infrastructure development in Atul and surrounding villages	33.70	33.70
31	Construction of toilet blocks in a school (Maharashtra)	10.30	10.30
	Total infrastructure budget (e)	**204.00**	**204.00**
32	Establishment of solid waste management system in Atul village- Ujjwal Atul	35.60	35.60
33	Initiate solid waste management project in five villages	13.40	13.40
34	Initiate natural resource management project to conserve soil and water	30.60	30.60
35	Conserve energy through solar system	45.60	45.60
36	Set up nature-based wastewater recycling systems	65.00	65.00
37	Conserve water through various interventions	17.00	17.00
38	Enhance green cover- Tree plantation project	39.30	39.30
39	Protection of animals	14.80	14.80
40	Conserve energy through Biogas project	2.50	2.50
	Total conservation budget (f)	263.80	263.80
Total CSR budget (a+b+c+d+e+f)		**1,508.35**	**1,508.35**
Administrative overheads (OH)		74.20	74.20
Total for Atul Limited (CSR budget + OH)		**1582.55**	**1582.55**

Atul Ltd

Project: Expansion of Chemicals Manufacturing Unit
EC Compliance Report for EC F. No. J-11011/108/2015-IA-II (I), Dated February 11, 2019
Report Period: October 2022 – March 2023

<table>
<tr><th>Sr No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">Term and Conditions:</td></tr>
<tr><td>ii.</td><td>The treated effluent of 3335 cum/day shall be recycled/reused to meet the requirement of different industrial operations, and the remaining treated effluent of 20514 cum/day shall be discharge to estuary of Par River through the existing pipeline.</td><td>Complied.
The treated effluent recycled in system is Avg. 255 KL/Day during the reported period.

<table>
<tr><th>Sr No.</th><th>Month</th><th>Total Recycle</th><th>Avg. KL/Day</th></tr>
<tr><td>1</td><td>October - 2022</td><td>9220</td><td>297</td></tr>
<tr><td>2</td><td>November -2022</td><td>9077</td><td>293</td></tr>
<tr><td>3</td><td>December - 2022</td><td>6959</td><td>224</td></tr>
<tr><td>4</td><td>January - 2023</td><td>7738</td><td>250</td></tr>
<tr><td>5</td><td>February - 2023</td><td>8534</td><td>275</td></tr>
<tr><td>6</td><td>March - 2023</td><td>5886</td><td>190</td></tr>
</table>
Remaining about Avg 8796 KL/Day treated effluent has been discharged to estuary of Par river through the existing pipeline after achieving norms stipulated, which is well within below limit as prescribed in stipulated condition.

<table>
<tr><th>Sr No.</th><th>Month</th><th>Effluent Discharged to Estuary of Par River Avg Kl/day</th></tr>
<tr><td>1</td><td>October - 2022</td><td>8714</td></tr>
<tr><td>2</td><td>November -2022</td><td>8500</td></tr>
<tr><td>3</td><td>December - 2022</td><td>7756</td></tr>
<tr><td>4</td><td>January - 2023</td><td>8746</td></tr>
<tr><td>5</td><td>February - 2023</td><td>8816</td></tr>
<tr><td>6</td><td>March - 2023</td><td>10246</td></tr>
</table>
The final discharged treated waste water quality is also monitored by NABL approved laboratory at regular interval for ensuring the compliance.</td></tr>
</table>

The testing Lab appointed is GPCB approved (schedule-II) M/s. Pollucon Laboratories Pvt.Ltd, Surat which also has NABL approval. Apart from the above, we are continuously monitoring pH, TOC, flow, of treated effluent as per CPCB guidelines and also connected with GPCB and CPCB server.
The treated effluent is meeting all the state pollution control board's discharge norms and values of various parameters of treated effluent is given in Annexure 1.

The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr No.	Parameter	Limit Mg/l	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	pH	5.5 to 9.0	6.9	7.5	7.2
2	Temperature	40 oC	29.0	30.2	29.6
3	Colour (pt. co. scale)in units	---	30.0	50.0	38.3
4	Suspended solids	100	32.0	58.0	47.5
5	Oil and Grease	10	3.8	6.9	5.0
6	Phenolic Compounds	5	0.7	1.0	0.8
7	Cyanides	0.2	ND	ND	ND
8	Fluorides	2	0.7	1012.0	169.3
9	Sulphides	2	0.5	0.9	0.7
10	Ammonical Nitrogen	50	7.3	12.4	10.0
11	Arsenic	0.2	ND	ND	ND
12	Total Chromium	2	0.1	0.2	0.1
13	Hexavelent Chromium	1	ND	ND	ND
14	Copper	3	0.2	0.3	0.2
15	Lead	2	ND	ND	ND
16	Mercury	0.01	ND	ND	ND
17	Nickel	5	0.1	0.2	0.1
18	Zinc	15	0.3	0.7	0.5

		19	Cadmium	2	ND	ND	ND
		20	Phosphate	5	1.3	1.9	1.6
		21	BOD (3 days at 27oC)	100	43.0	68.0	53.0
		22	COD	250	198.0	238.0	224.0
		23	Insecticide/Pesticide	Absent	ND	ND	ND
		24	Sodium Absorption Ratio	26	3.7	9.0	6.5
		25	Manganese	2	0.1	0.2	0.1
		26	Tin	0.1	ND	ND	ND
		27	Bio Assay Test	90% survival of fish after 96 hrs. in 100% effluent %	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent
iii	Necessary authorization required under the Hazardous and other Wastes Management Rule, 2016 shall be obtain and the Provisions contained in the Rules shall be strictly adhered to.	**Complied.** We have obtained necessary authorization for Hazardous and other waste by obtaining Amendment in Existing CTO after receiving EC. CTO amendment has been granted by GPCB Vide Letter No. GPCB/CCA-VSD-31316)/ID: 23158/513897, Dated July 17, 2019 (CTO amendment No. AH 102080), Valid Till-November 03, 2019. Renewal for the same has been received vide CCA (AWH-105110 valid till September 30, 2025.					

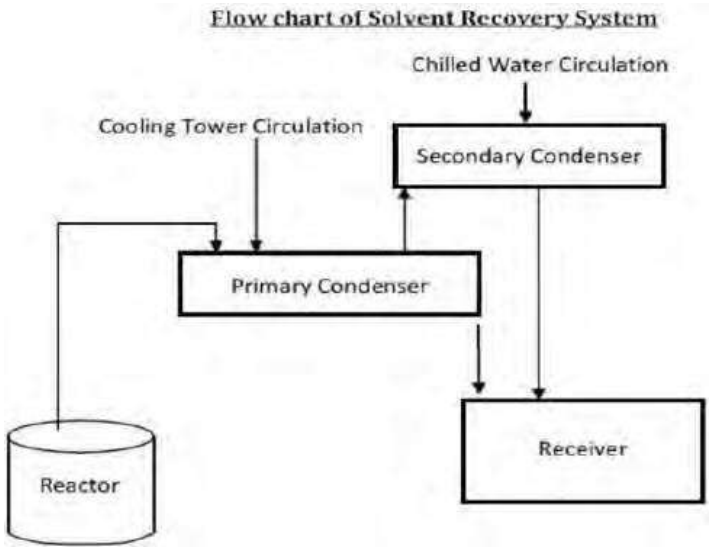
iv	National Emission Standards for organic chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) Dated 21 July, 2010 and Amended from time to time shall be followed.	**Noted & Complied.** We have been following the National Emission Standards since beginning. The location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated. This also covers the impact, if any, of the project plant. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory. In total we had selected 10 locations, and monitored successfully. Results are attached herewith. The Ambient Air Quality is being monitored at regular interval for ensuring the compliance by NABL approved reputed agency. The analysis reports were within the permissible limits. A detail of analysis report of monitoring report is attached in **Annexure 2** The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below: **Summary of Ambient Air Quality results:**

Station	Parameter	Limit micro - gm/NM^3	Values for the period October 2022– March 2023		
			Min.	Max.	Avg.
66 KV	PM2.5	60	31.0	46.0	37.8
	PM10	100	50.0	63.0	54.0
	SO_2	80	19.1	26.4	21.6
	NO_2	80	23.4	29.7	27.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Opposite Shed D	PM2.5	60	22.4	57.6	34.0
	PM10	100	46.2	56.2	51.1
	SO_2	80	14.8	26.7	19.5
	NO_2	80	18.3	30.1	24.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
West site ETP	PM2.5	60	28.0	35.0	31.2
	PM10	100	43.0	50.0	46.7
	SO_2	80	20.5	29.6	24.4
	NO_2	80	23.2	31.4	26.2
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
North site ETP	PM2.5	29.0	35.0	32.5	29.0
	PM10	36.0	49.0	44.2	36.0
	SO_2	16.7	21.3	18.6	16.7
	NO_2	24.7	27.8	26.3	24.7

			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		TSDF	PM2.5	25.0	32.0	28.5	25.0
			PM10	49.0	61.0	54.0	49.0
			SO_2	20.3	24.0	22.3	20.3
			NO_2	29.4	33.4	30.8	29.4
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		Main Guest House	PM2.5	24.2	33.4	29.4	24.2
			PM10	40.3	54.3	50.8	40.3
			SO_2	15.1	26.9	19.2	15.1
			NO_2	16.3	27.8	23.1	16.3
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		Wyeth Colony	PM2.5	26.0	32.0	29.7	26.0
			PM10	50.0	60.0	55.7	50.0
			SO_2	14.8	21.6	16.9	14.8
			NO_2	24.6	40.2	34.3	24.6
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		Gram panchayat hall	PM2.5	23.8	31.2	27.1	23.8
			PM10	36.7	56.1	51.1	36.7
			SO_2	14.2	29.4	20.0	14.2
			NO_2	16.9	28.7	23.4	16.9
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		Main office, North site	PM2.5	19.7	31.7	26.1	19.7
			PM10	46.2	56.9	51.6	46.2
			SO_2	14.3	25.4	18.9	14.3
			NO_2	21.2	29.8	24.4	21.2
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND
		Haria water tank	PM2.5	18.4	32.8	27.0	18.4
			PM10	45.3	57.8	53.7	45.3
			SO_2	13.4	26.9	21.0	13.4
			NO_2	20.3	29.7	23.7	20.3
			Ammonia	ND	ND	ND	ND
			HCl	ND	ND	ND	ND

v	To control source and the fugitive emissions, suitable 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.	Complied. For controlling source & fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by NABL approved third party. Numbers of gas detectors are provided in work area for close monitoring. We have installed various APCM, special hood, suction pipe for gases emission, appropriate scrubbers and has stack height as per stipulated condition & CPCB guidelines. Elephant trunk with flexible hoods are also provided at potential leak points, sampling points, man holes, charging points and connected with scrubbers. We are also monitoring VOC as well as other chemicals in work area as per Factories Act and records are being maintained in Form No. 37. Solvents are stored in tank farms in separate tanks with proper earthing, flame arresters, lightening arresters, fencing, fire hydrant system, fire extinguishers, flame proof equipment, etc. safety measures. Dedicated scrubbers with stacks of appropriate height (as per the central pollution control board guideline) have been provided to control the emission from various vents. Central exhaust system has been provided at strategic locations and the critical operations evolving the hazardous gases are routed through multiple stages scrubbing system. The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below, detailed analysis report are attached as Annexure 3. The flue & process stack is being monitored at regular interval for ensuring the compliance by NABL approved reputed agency. Detailed analysis report are attached as Annexure 4.

<table>
<tr><td rowspan="3">vi</td><td colspan="2">Solvent management shall be carried out as follows:</td></tr>
<tr><td>(a) Reactor shall be connected to chilled brine condenser system.</td><td>Complied.
Condensers with chilling systems are provided at point of Solvent recovery to minimized vapour loss as shown below:-
  
Condenser at Solvent recovery</td></tr>
<tr><td>(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.</td><td>Complied.
We have provided seals at all Reactors and pump’s in order to prevent leakage as shown below:-
  
Seal at Stirrer Pump Seal</td></tr>
</table>

	(c) The condensers shall be Provided with sufficient HTA and residence time so as to achieve More than 95% recovery.	Complied. Spent solvents are recovered as far as possible as per details given below and all venting equipment are provided with condenser system & scrubber provided with Sufficient Heat Transfer Area (HTA) which helps to achieved more than 95% recovery. 
		VOC Trap Condenser -02: Chilled water at -15 ^{0}C is be used to trap any traces of Solvent which is slipped from Secondary condenser. MEASURES: To prevent losses of solvents in atmosphere, following infrastructure shall be used: • Leak Free Pumps for transfer of solvents. • MSW Gaskets in solvent pipelines to prevent leakage from flanges. • Minimum number of flanges, joints and valves in pipelines. • To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps. • All the rotating equipment like pumps will be installed with Mechanical Seals to arrest any sort of emissions.

	(d) Solvents shall be stored in a separate space specified with all safety measures.	**Complied.** We have made separate provision for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards and control measures.   Tank Farm Details For Solvent Storage is as per **Annexure 5.**
	(e) Proper earthling shall be provided in all the electrical equipment wherever solvent handling is done.	**Complied.** Earthing pit is provided in all electrical equipment wherever solvent handling is done as below:- 
	(f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.	**Complied.** Entire plant is flame proof installations, storage tanks are provided with breather valve for all prevention of losses. Separate provision is made for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards and control measures. Details for solvent storage is given in above point vi **(d)**.
	(g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	**Complied.** All the solvent storage tanks are being connected with condensers & chilled water circulation, Spent solvents are recovered as far as possible and all venting equipment are provided with condenser system & scrubber. Details for VOC mitigation is given in above point vi **©.**

<table>
<tr>
<td>vii</td>
<td>Total fresh water requirement shall not exceed 21950 cum/day, proposed to be met from Par River. Prior permission in this regards shall be obtained from the concerned regulatory authority.</td>
<td>Complied.
The average water consumption for the report period is Avg. 9557 KL/day only, which is well within the limit. Detail break up is given in below table:

<table>
<tr><th>Sr No.</th><th>Month</th><th>Quantity (KL/Month)</th><th>Avg. Quantity(KL/Day)</th></tr>
<tr><td>1</td><td>October - 2022</td><td>293609</td><td>9471</td></tr>
<tr><td>2</td><td>November -2022</td><td>277166</td><td>8941</td></tr>
<tr><td>3</td><td>December - 2022</td><td>261350</td><td>8431</td></tr>
<tr><td>4</td><td>January - 2023</td><td>294711</td><td>9507</td></tr>
<tr><td>5</td><td>February - 2023</td><td>305519</td><td>9855</td></tr>
<tr><td>6</td><td>March - 2023</td><td>345232</td><td>11137</td></tr>
</table>

The maximum values during the compliance period confirm that at no time the wastewater generation went beyond the stipulated value.

Fresh water requirement is met through the existing water supply system from river Par.</td>
</tr>
<tr>
<td>viii</td>
<td>Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD. Low TDS effluent stream shall Be treated in ETP/RO to meet the prescribed standards.</td>
<td>Complied.
Industrial/trade effluent is being segregated as shown below into High TDS|COD & Low TDS|COD. High COD|TDS stream is subjected to MEE and ATFD. Low TDS|COD stream is treated in in-house effluent treatment plant and discharged as per stipulated norms. It's not exceeding then prescribed limit of EC & CCA. The average wastewater generation for the report period is as under:

<table>
<tr><th></th><th></th><th colspan="3">Break up of effluent Kl/Day</th></tr>
<tr><th>Sr No.</th><th>Month</th><th>High TDS | COD</th><th>Low TDS | COD</th><th>Total Effluent generation</th></tr>
<tr><td>1</td><td>October - 2022</td><td>145</td><td>8569</td><td>8714</td></tr>
<tr><td>2</td><td>November -2022</td><td>155</td><td>8345</td><td>8500</td></tr>
<tr><td>3</td><td>December - 2022</td><td>155</td><td>7601</td><td>7756</td></tr>
<tr><td>4</td><td>January - 2023</td><td>123</td><td>8623</td><td>8746</td></tr>
<tr><td>5</td><td>February - 2023</td><td>137</td><td>8679</td><td>8816</td></tr>
<tr><td>6</td><td>March - 2023</td><td>137</td><td>10109</td><td>10246</td></tr>
</table>

The maximum values during the compliance period confirm that at no time the wastewater generation went beyond the stipulated value.</td>
</tr>
</table>

		Prescribed Standards: The final discharged treated waste water quality is also monitored by NABL approved laboratory at regular interval for ensuring the compliance. The testing Lab appointed is GPCB approved (schedule-II) M/s. Pollucon Laboratories Pvt.Ltd, Surat which also has NABL approval. Apart from the above, we are continuously monitoring pH, TOC, flow, of treated effluent as per CPCB guidelines and also connected with GPCB and CPCB server. Details for monitoring results is given in condition ii.
ix	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.	Complied. Process effluent/any wastewater are being discharged to estuary of Par river through the existing pipeline and are not mixed with storm water line. We have already three numbers of check dams in natural storm water drains to collect and harvest rain water in monsoon season after giving necessary pre-treatment to remove suspended matter as we have pumped the rain water to clarifloculator units to remove suspended matter. We have facility| capacity to cater our consumption with rain harvested water with zero river drawls of water from river during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par. In addition to above, surface runoff water and roof top water is used to recharge bore wells. Total No. of Pond: 2 Nos. Capacity of Pond: (1 Nos. x 12000 KL) & (1 Nos. x 2000 KL) Company has harvest 468355 KL rain water during 2022
x	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.	Complied. Storage details of Hazardous materials along with control measure are as per Annexure 6.
xi	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.	Complied. We have obtained necessary authorization for Hazardous and other waste by obtaining amendment in existing CTO after receiving EC and waste is disposed off accordingly. CTO amendment has been granted by GPCB Vide Letter No. GPCB/CCA-VSD- 313(16)/ID: 23158/513897, Dated July 17, .2019 (CTO amendment No. AH 102080), Valid Till- November 03, 2019.

		Renewal for the same has been received with consent order no. 105110 valid up to September 30, 2025. Copy of CTE and CTO was submitted to Ministry vide our letter Atul/SHE/EC Compliance/01 dated December 19, 2019.
xii	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.	Complied. We are complying all the rules and regulation led by MSIHC, 1989. We are complying with Hazardous and Other Wastes (Managements and transboundary Movement) Rules, 2016 towards ETP sludge, used Oil & empty drums- handling, and storage & disposal to authorized facility/TSDF. We have obtained necessary authorization for Hazardous and other waste by obtaining amendment in existing CTO after receiving EC. CTO amendment has been granted by GPCB vide letter No. GPCB/CCA-VSD-313(16)/ID: 23158/513897, dated July 17, 2019, further renewed vide consent order no. AWH 105110 valid up to September 30, 2025.
xiii	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.	Complied. We have not constructed ash pond for the CPP unit. We have closed three silo of 200 MT and Two silo of 300 MT capacity of each, total 1200 MT capacity, which is well enough for our average generation of approx. 49 TPD. We dispatch the fly ash daily from these silos so we have not prepare ash pond.
xiv	The company shall undertake waste minimization measures as below:-	
	(a) Metering and control of quantities of active ingredients to minimize waste.	Complied. Metering of water is done. Meter is provided at the inlet of the collection tank and reuse system of waste water and records are being maintained. Photograph of water meter shown below: 

<table>
<tr><td></td><td>(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</td><td>Sodium Sulfate, sodium thio sulphate, brine, MEE salt, sodium hypochlorite, copper hydroxide, spent acid, etc. are few by-products from the process which are being sold for using the same either as raw material or as substitute to raw materials. Also, fly ash and gypsum are being used as raw material for brick manufacturing. Sodium hypochlorite, sodium hydro sulfide, etc. are being used as raw material in other processes.</td></tr>
<tr><td></td><td>(c) Use of automated filling to minimize spillage.</td><td>Filling/transfer system is being provided to minimized the spillage i.e. Chain conveyor system provided.</td></tr>
<tr><td></td><td>(d) Use of Close Feed system into batch reactors.</td><td>“Close feed system” is available to our plant</td></tr>
<tr><td></td><td>(e) Venting equipment through vapour recovery system.</td><td>At all venting equipment condenser recovery system & scrubbers are provided.</td></tr>
<tr><td></td><td>(f) Use of high pressure hoses for equipment clearing to reduce waste water generation.</td><td>We are using high pressure jet nozzle for equipment cleaning to minimize wastewater generation.</td></tr>
<tr><td>xv</td><td>The green beltof at least 5-10 m width shall be developed in nearly 33% of the total project area, 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.</td><td>Complied.
Complied.
Company has already developed more than 36 % of greenbelt in Atul complex
Total Industrial Plot area: 1126078.27 sq.mt
Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)
We planted approximately 39850 trees of difference species in report period at different location given in below table
<table><tr><td>Location</td><td>Nos. of trees</td></tr><tr><td>Cremation Ghat</td><td>21350</td></tr><tr><td>Parnera Hill</td><td>7300</td></tr><tr><td>Hill side colony 5 & Outside area</td><td>2000</td></tr><tr><td>Secure landfill site Yard</td><td>9200</td></tr><tr><td>Total</td><td>39850</td></tr></table>   </td></tr>
</table>

<table>
<tr><td></td><td></td><td>  
  
Plantation at Parnera Hill</td></tr>
<tr><td>xvi</td><td>All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.</td><td>Complied.
Please refer below full compliance with this condition as under;

1. Local employment is going on and is above 80 % at present.
2. Coal handling guidelines are fully complied.</td></tr>
<tr><td>xvii</td><td>As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% of the total project cost. Item- wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.</td><td>Complied.

Details of CER | CSR is given in Annexure 7.</td></tr>
<tr><td>xviii</td><td>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.</td><td>Complied.
We ensured that at no time the emission level go beyond the stipulated standards | prescribed limits. In such cases | occurrences we will intimate to board & authority time to time. Adequate stack height and acoustic enclosures are provided on DG sets.

Stack details:
<table>
<tr><th>Sr No.</th><th>Stack Details</th><th>Stack Ht mtr</th><th>Parameter</th><th>Permissible Limits</th><th>APCD</th><th>Fuel</th></tr>
<tr><td rowspan="3">1</td><td rowspan="3">DG Set 1010KVA (StandBy)</td><td rowspan="3">H: 10</td><td>PM</td><td>150 mg/Nm3</td><td rowspan="3">Adequate Stack Ht & Acoustic</td><td rowspan="3">Diesel</td></tr>
<tr><td>SO2</td><td>100 ppm</td></tr>
<tr><td>NOx</td><td>50 ppm</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td></td><td></td><td></td><td></td><td>Enclosure</td><td></td></tr>
<tr><td rowspan="3">2</td><td rowspan="3">DG Set 1500KVA (Stand By)</td><td rowspan="3">H: 11</td><td>PM</td><td>150 mg/Nm3</td><td rowspan="3">Adequate Stack Ht & Acoustic Enclosure</td><td rowspan="3">Diesel</td></tr>
<tr><td>SO2</td><td>100 ppm</td></tr>
<tr><td>NOx</td><td>50 ppm</td></tr>
</table>

Photograph of Stack & Stack Attached to D.G Sets:

However, DG sets are being used only during emergency.</td></tr>
<tr><td>xix</td><td>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.</td><td>Complied.
A well designed Fire hydrant system is adequate and as per standards.

Fire hydrant Network details:
• Four full-fledged fire hydrant system in the company Water Storage Capacity - 50 million Liters
• Total length of hydrant line – 15 km
• Fire Fighting Equipment
o DCP1350 o CO2 776 Foam : 05Trolly
• Fire Tenders
o One fire tender having 1800 Lit water capacity
o Second multipurpose fire tenders having 5000 Lit water &500Foam
o Third Multipurpose tender having facility of DCP- 500 Kg, Foam – 500 lit and Water – 4500Lit.
• SCBA sets – 35nos.
• Emergency alarm system – 532 nos. points spread across the company.
• Fire station manned round the clock with Siren and Annunciation System.
• Regular Testing on every Monday.
• Smoke detectors in the office and labs.
• Auto water deluging system at critical reactors.
• Auto water sprinkler system at tank farms.</td></tr>
</table>

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<tr>
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</td>
</tr>
<tr>
<td>xx</td>
<td>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</td>
<td>
Complied.
Being done on regular basis as per the Factories Act & rules.

Occupational health surveillance of the workers is carried out on a regular basis as per section-41 C of the factories act and ruke-68T of Gujarat Factories Rules and records are maintained. Regular medical check-up of all employees are done by in-house doctors.
.
The following medical check-up has been carried out during report period:

Medical Check-Up:

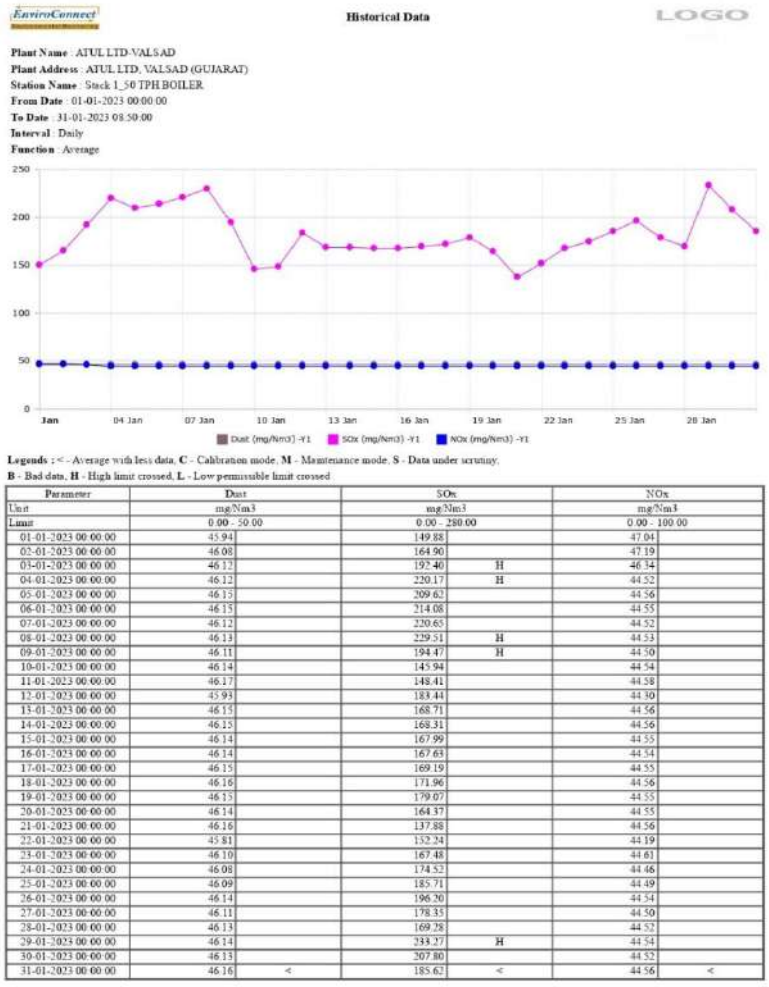
<table>
<tr><th>Sr No.</th><th>Employee</th><th>Nos. during report period</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1459</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>

Various types of tests being performed are as below;
1. Pre-employment check-up:

1. Vision
2. Colour blindness
3. CBC
</td>
</tr>
</table>

		4. Urine 5. Height 6. Weight 7. B/P 8. Pulse 9. Habit 10. Personal History 11. Family History 12. Identification k 2. Annual Check-up: 1. Physical check-up 2. Vision 3. Blood 4. Urine 5. PFT 6. ECG Our occupational health centre & Pathology Lab is equipped with necessary facilities under supervision of factory medical officer with trained three EHS persons. Medical Facilities: ❑ First Aid boxes in all plants ❑ Central Ambulance Room in the middle of the factory ❑ Two Ambulance Vans. Out of which one is equipped with ICU facilities. ❑ Medical Center ❑ Three full time AFIH certified doctors. ❑ Equipped with 3Beds ❑ Full equipped Pathological lab with advanced diagnostic equipment ❑ ECG Equipment ❑ Cardiac monitor ❑ Defibrillator ❑ Finger pulse Oxy meter ❑ Pulmonary Function Test Apparatus ❑ 02Administration ❑ Antidotes with routine Important and Vital lifesaving Drugs

		❑ Tie-up with Kasturba Hospital, Valsad, and Pardi Hospital, Pardi, respectively 7 kms and 3 kms away from Atul.   We also have tie up with external two hospitals (Pardi Hospital and Kasturba Hospital). We have medical check-up schedule once in quarter for Insecticide plant's employees Other necessary items including First-aid medicines, antidotes and equipment as prescribed in the schedule the under Rule-68 U (b) of the Gujarat factories rules are also been provided. **Remark:** All employ found medically fit to work, no contiguous diseases were observed.

xi	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel /drain carrying effluent within the premises.	**Complied**. Online monitoring system for SPM, SOx and NOx is already been made and connected to CPCB server. Photograph of online monitoring system (CEMS) connected to the CPCB server: 

EnviroConnect **Historical Data** LOGO

Plant Name : ATUL LTD-VALSAD
Plant Address : ATUL LTD, VALSAD (GUJARAT)
Station Name : Stack 1_50 TPH BOILER
From Date : 01-01-2023 00:00:00
To Date : 31-01-2023 08:50:00
Interval : Daily
Function : Average

Legends : < - Average with less data, **C** - Calibration mode, **M** - Maintenance mode, **S** - Data under scrutiny, **B** - Bad data, **H** - High limit crossed, **L** - Low permissible limit crossed

Parameter	Dust		SOx		NOx	
Unit	mg/Nm3		mg/Nm3		mg/Nm3	
Limit	0.00 - 50.00		0.00 - 280.00		0.00 - 100.00	
01-01-2023 00:00:00	45.94		149.88		47.04	
02-01-2023 00:00:00	46.08		164.90		47.19	
03-01-2023 00:00:00	46.12		192.40	H	46.34	
04-01-2023 00:00:00	46.12		220.17	H	44.52	
05-01-2023 00:00:00	46.15		209.62		44.56	
06-01-2023 00:00:00	46.15		214.08		44.55	
07-01-2023 00:00:00	46.12		220.65		44.52	
08-01-2023 00:00:00	46.13		229.51	H	44.53	
09-01-2023 00:00:00	46.11		194.47	H	44.50	
10-01-2023 00:00:00	46.14		145.94		44.54	
11-01-2023 00:00:00	46.17		148.41		44.58	
12-01-2023 00:00:00	45.93		183.44		44.30	
13-01-2023 00:00:00	46.15		168.71		44.56	
14-01-2023 00:00:00	46.15		168.31		44.56	
15-01-2023 00:00:00	46.14		167.99		44.55	
16-01-2023 00:00:00	46.14		167.63		44.54	
17-01-2023 00:00:00	46.15		169.19		44.55	
18-01-2023 00:00:00	46.16		171.96		44.56	
19-01-2023 00:00:00	46.15		179.07		44.55	
20-01-2023 00:00:00	46.14		164.37		44.55	
21-01-2023 00:00:00	46.16		137.88		44.56	
22-01-2023 00:00:00	45.81		152.24		44.19	
23-01-2023 00:00:00	46.10		167.48		44.61	
24-01-2023 00:00:00	46.08		174.52		44.46	
25-01-2023 00:00:00	46.09		185.71		44.49	
26-01-2023 00:00:00	46.14		196.20		44.54	
27-01-2023 00:00:00	46.11		178.35		44.50	
28-01-2023 00:00:00	46.13		169.28		44.52	
29-01-2023 00:00:00	46.14		233.27	H	44.54	
30-01-2023 00:00:00	46.13		207.80		44.52	
31-01-2023 00:00:00	46.16	<	185.62	<	44.56	<

B. General Conditions:		
i	The project authorities shall adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.	The company complies with all stipulations prescribed by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority. Our compliance are further monitored by our Environmental auditors appointed by GPCB. Latest Environmental audit report by Shree Tapi Bhramcharyashram Sabha College, for year 2021-22 was submitted vide our letter dated June 28, 2022.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied. We ensure that there is no further expansion or modifications related to EC in the plant. For any deviations or alteration in the plant we will opt prior permission from MoEF.
iii	The locations of ambient air quality monitoring stations shall be decided in Consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied. The Location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated. This also covers the impact, if any, of the project plant. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory. The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given above in Specific Condition IV.
iv	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 November, 2009 shall be followed.	
v	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise	Complied.

	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 Environment (Protection) Act, 1986 Rules,1989 viz. 75 dBA (day time) and 70 dBA (night time).	The ambient and workplace noise level confirms to the standard prescribed under EPA. The same is being regularly monitored at regular interval for ensuring the compliance. The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below: **Noise level monitoring data (Day Time)**

Sr No.	Location	Permissible Limits, dB	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	75	60.5	65.3	63.0
2	Opposite shed D	75	60.7	65.4	62.7
3	ETP West site	75	63.5	68.3	66.0
4	ETP North site	75	59.2	63.7	61.4
5	Near TSDF	75	63.2	66.2	64.6
6	Near Main guest house	75	61.2	66.9	64.8
7	At Wyeth Colony	75	60.7	63.5	62.1
8	Gram Panchayat Hall	75	65.4	67.5	66.5
9	Near Main Office North site	75	60.8	66.2	63.7
10	Haria Water tank	75	63.0	67.3	65.5

Noise level monitoring data (Night Time):

Sr No.	Location	Permissible Limits, dB	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	70	52.9	56.3	54.4
2	Opposite shed D	70	44.4	49.3	47.5
3	ETP West site	70	50.4	53.2	51.8
4	ETP North site	70	50.0	53.9	51.5
5	Near TSDF	70	55.3	59.6	57.4
6	Near Main guest house	70	54.9	61.6	58.4
7	At Wyeth Colony	70	48.7	55.3	51.6
8	Gram Panchayat Hall	70	51.3	57.3	54.5
9	Near Main Office North site	70	51.8	56.7	53.9

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>10</td><td>Haria Water tank</td><td>70</td><td>54.8</td><td>60.2</td><td>56.5</td></tr>
</table>
</td></tr>
<tr><td>vi</td><td>The company shall harvest rainwater from the roof tops of the Buildings and Storm water Drains to Recharge the ground water and to utilize the same for process requirements.</td><td>Complied.
Rooftop rain water from Coal sheds and New TG building is collected in well-constructed pond and used as make up water for cooling tower.

We have already three numbers of check dams in natural storm water drains to collect and harvest rain water in monsoon season after giving necessary pre-treatment to remove suspended matter as we have pumped these rain water to clarifloculator units to remove suspended matter. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days.

Besides this, there are three check dams and pumping facility to harvest rain water. We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par. In addition to above, surface runoff water and roof top water is used to recharge bore wells.

Total No. of Pond: 2 Nos.
Capacity of Pond:(1 Nos. x 12000 KL) & (1 Nos. x 2000 KL)
Company has harvest 468355 KL rain water during

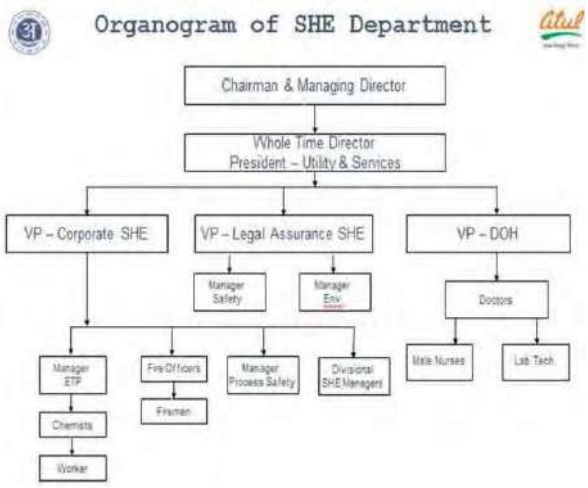
Photograph of rain water harvesting structure (Pond) as shown below:

 
Water Harvesting Project at Colony

 
Water Harvesting Project near Coconut Circle</td></tr>
</table>

vii	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre- employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on Handling of chemicals shall be imparted.	Complied. Company is providing training which cover all relevant workplace policies, procedures and practices to ensure that staff have the appropriate skills and knowledge to perform their work safety and according to the legislative requirements and the departments and work place procedures. All employees and others have a duty to comply with instructions given for workplace health and safety. Employee training which generally include: • First aid training • Firefighting training – Use of Fire Hydrant /Extinguisher • Handling of Compressed Gas Cylinder • Work Permit System, Use of Spill Kit • Handling of Solvents • Operation of ETP &MEE • Handling of Hazardous waste • Handling of Biomedical waste • Scrap yard management • 111 – A training as per factory Act • General instruction training; e.g. workplace communication processes, incident reporting, lock down, evacuation and medical emergency procedures, mock drill. • Job-specific training e.g. safe work procedures for the use of equipment, SOP of manufacturing process & safety and health aspect of chemical handling. • Conducted OSHAS & EMS Programme. • Hygiene, Stress management & skill development. We have regularly arrange safety training programme for our employees in every month.

		EHS training calendar | March 2023 **Process Safety Management** March 15 , 2023 — Wyeth conference Training module | Grade | Duration | Time | Faculty Basics of process safety management | Grade 3, 4 and 5 | 2 hours | 08:30 am - 10:30 am | Nihar Pathak Management of change | Grade 3, 4 and 5 | 2 hours | 10:45 am - 12:45 pm | Nihar Pathak Incident classification, investigation and reporting | Grade 3, 4 and 5 | 2 hours | 01:30 pm - 03:30 pm | Aniket Chauhan | Parimal Shah Emergency preparedness and response | Grade 3, 4 and 5 | 2 hours | 03:45 pm - 5:30 pm | Parimal Shah **Workplace Safety** March 24, 2023 — Wyeth conference Training module | Grade | Duration | Time | Faculty Chemical storage, handling and transportation | Grade 3, 4 and 5 | 2 hours | 08:30 am - 10:30 am | Parimal Shah Hazard identification and risk assessment | Job safety analysis | Grade 3, 4 and 5 | 2 hours | 10:45 am - 12:45 pm | Parimal Shah Permit to work | Grade 3, 4 and 5 | 2 hours | 01:30 pm - 03:30 pm | Prasad Pitre Safety observation audit | Grade 3, 4 and 5 | 2 hours | 03:45 pm - 5:30 pm | Parimal Shah EHS Monthly training calendar   Photograph of safety training
viii	The company shall also 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.	**Complied**. Compliance to all environmental protection measures and safeguards proposed in the project report submitted to ministry is compiled as mention in **Annexure 9**
ix	The company shall undertake all the relevant measures for improving the socio economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration.	**Complied**. Details of CER | CSR is given in **Annexure 7.**

x	The company shall undertake eco- developmental measures including community welfare measures in the project area for the Overall improvement of the environment.	**Complied**. Details of CER | CSR is given general condition (ix)
xi	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental management and monitoring functions.	**Complied.** Company is having separate Environmental Management Cell equipped with full-fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is also established for research work for the study of various aspects related to environment and its remedial measures. Company has developed a separate laboratory equipped with equipment such as pH meter, TDS meter, COD meter, Glass ware, gas chromatography system, and oven, muffle furnace, etc. to carry out testing of routine parameters. Currently the parameters measured in-house are pH, COD, TDS, MLVSS, and MLSS.A For all external environmental monitoring we have appointed NABL approved reputed agencies. 

<table>
<tr>
<td>xii</td>
<td>The company shall mark 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.
EMP measures are implemented.
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
October 2022 – March 2023</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">1874</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>32</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>159</td></tr>
<tr><td>5</td><td>Occupational health</td><td>20</td></tr>
<tr><td>6</td><td>Green belt</td><td>15</td></tr>
<tr><td colspan="2">Total</td><td>2100</td></tr>
</table>
</td>
</tr>
<tr>
<td>xiii</td>
<td>A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat Zilla Parishad/Municipal corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.</td>
<td>Complied.
We have informed the public that the project has been accorded environmental clearance by the EAC, MoEF&CC Delhi and that the copies of the clearance letter are available with the GPCB and also be seen at website of EAC/GPCB.</td>
</tr>
</table>

xiv	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 EC and six monthly compliance status report shall be posted on the website of the company.	**Complied.** We regularly submit the half-yearly compliance report & same is being updated on website. Six monthly compliance report and the monitored data are regularly submitted to the Regional office of MoEF&CC at integrated regional office, Gandhinagar through mail and hard copy with copy marked to GPCB regularly.
xv	The environmental statement for each financial year ending 31st ch 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.** The Env. Statement (Form-V) for each financial year ending 31st March is being submitted to State Pollution Control Board (GPCB) every year time to time on XGN portal as well as hard copy submission. Form V for year 2021-22is attached as **Annexure 8**

xvi	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 at http://moef.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 been granted EC Dated: February 11, 2019 and inform the public that the project has been accorded environmental clearance and advertised in local newspapers that are widely circulated in the region with vernacular language Gujarati and another in English on February 17, 2019. Details submitted vide our letter Atul/SHE/EC Compliance/01 dated December 19, 2019.
xvii	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.	**Complied.** We have communicated with the regional officer & MoEF&CC towards the status of work and financial closure time to time. We have also submitted six monthly EC compliance report periodically in which said information were updated time to time.

Annexure 1: Quality of Treated Effluent

Sr No.	Parameter	Results						GPCB Limits Mg/l
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	pH	7.21	7.45	6.93	7.14	7.09	7.29	5.5 to 9.0
2	Temperature	29.3	29	29.4	29.5	29.9	30.2	40 °C
3	Colour (pt. co. scale)in units	50	40	30	40	30	40	---
4	Suspended solids	42	53	58	47	32	53	100
5	Oil and Grease	3.8	4.8	3.9	5.6	4.9	6.9	10
6	Phenolic Compounds	0.87	0.72	0.84	0.79	0.84	0.95	5
7	Cyanides	ND	ND	ND	ND	ND	ND	0.2
8	Fluorides	0.82	0.65	0.79	1012	0.93	0.81	2
9	Sulphides	0.94	0.8	0.64	0.46	0.56	0.74	2
10	Ammonical Nitrogen	10.78	12.4	9.13	9.75	10.79	7.25	50
11	Arsenic	ND	ND	ND	ND	ND	ND	0.2
12	Total Chromium	0.083	0.056	0.075	0.089	0.16	0.095	2
13	Hexavelent Chromium	ND	ND	ND	ND	ND	ND	1
14	Copper	0.216	0.172	0.19	0.27	0.23	0.19	3
15	Lead	ND	ND	ND	ND	ND	ND	2
16	Mercury	ND	ND	ND	ND	ND	ND	0.01
17	Nickel	0.124	0.088	0.11	0.15	0.19	0.13	5
18	Zinc	0.43	0.32	0.57	0.72	0.68	0.45	15
19	Cadmium	ND	ND	ND	ND	ND	ND	2
20	Phosphate	1.73	1.25	1.62	1.62	1.92	1.74	5
21	BOD (3 days at 27°C)	52	45	53	43	57	68	100
22	COD	215	198	236	219	238	238	250
23	Insecticide/Pesticide	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Sodium Absorption Ratio	9.03	8.9	3.7	6.27	5.49	5.51	26
25	Manganese	0.136	0.075	0.15	0.12	0.091	0.075	2
26	Tin	ND	ND	ND	ND	ND	ND	0.1
27	Bio Assay Test	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	90% survival of fish after 96 hrs. in 100% effluent %
	Note: ND is Not Detected.							

Annexure 2: Ambient Air Quality Monitoring Results

Station	Parameter	Limit micro gm/NM^3	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
66 KV	PM 2.5	60	31	31	38	40	41	46
	PM10	100	56	52	50	53	50	63
	SO_2	80	19.1	20.5	21.2	20.8	21.4	26.4
	NO_2	80	28.9	29.3	27.9	23.4	25.4	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30.1	57.6	26.2	30.7	36.7	22.4
	PM10	100	46.7	53.8	50.8	52.9	56.2	46.2
	SO_2	80	14.8	17.2	15.2	21	22	26.7
	NO_2	80	18.3	22.8	24.1	25.8	30.1	23
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	28	31	34	30	29	35
	PM10	100	48	50	46	45	43	48
	SO_2	80	20.9	22.7	20.5	25.6	26.9	29.6
	NO_2	80	24.1	26.1	23.2	25.6	26.7	31.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	35	33	32	31	35	29
	PM10	100	43	48	44	45	49	36
	SO_2	80	16.7	17.6	18.1	17.8	19.8	21.3
	NO_2	80	26	27.8	25.4	26.7	24.7	26.9
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	26	25	27	30	31	32
	PM10	100	49	51	55	53	55	61
	SO_2	80	20.3	21	24	23	24	21.3
	NO_2	80	29.7	30.5	31.4	33.4	30.6	29.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	28.8	26.8	24.2	30.4	32.5	33.4
	PM10	100	40.3	51.7	50.9	54.3	54.3	53.2
	SO_2	80	21.7	16.1	15.6	15.1	19.7	26.9
	NO_2	80	16.3	23.5	24.2	26.4	27.8	20.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	29	32	30	29	32	26
	PM10	100	50	54	56	58	60	56
	SO_2	80	14.8	16.3	15.1	16.3	17.4	21.6
	NO_2	80	33.6	35	37.1	40.2	35.1	24.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	28.9	24.9	24.8	23.8	31.2	29.1
	PM10	100	36.7	52.4	54.9	50.3	56.1	56.1

	SO_2	80	14.9	14.2	16.7	20.3	24.3	29.4
	NO_2	80	16.9	24.7	24.2	22.3	28.7	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	19.7	25.7	26.8	26	31.7	26.9
	PM10	100	47.6	51.2	56.9	52.1	55.6	46.2
	SO_2	80	18.7	15.9	16.7	14.3	22.6	25.4
	NO_2	80	22.3	22.9	21.2	26.8	29.8	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	18.4	27.4	26.8	24.1	32.8	32.4
	PM10	100	45.3	53.2	53.7	56.3	57.8	55.9
	SO_2	80	13.4	17.6	16.3	26.4	25.6	26.9
	NO_2	80	20.3	22.7	20.7	21.7	26.9	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Annexure 3: Stack Details

				OCT, 2022	NOV, 2022	DEC, 2022	JAN, 2023	FEB, 2023	MAR, 2023
Details of Process and Flue stack									
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site									
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	23.6	21.7	40.6	23.8	18.3	11.3
2	reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Caustic Chlorine Plant									
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	4.5	5.5	4.6	6.1	5.66	4.54
		HCl	20.0 mg/Nm3	4.62	5.65	4.73	6.27	5.82	4.66
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	5.9	3.9	3.4	5.2	4.32	3.96
		HCl	20.0 mg/Nm3	6.06	4	3.49	5.39	4.4	4.07
FCB Point									
5	Foul Gas Scubber	SO_2	40.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
		NOx	25.0 mg/Nm3						
Sulfuric Acid (East Site)									
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	0.7	0.81	0.75	0.65	0.72	0.66
		Acid Mist	50.0 mg/Nm3	14.8	11.3	14.6	16.3	18.3	17.2
7	Chlorosulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.6	4.1	6.2	6.44	4.4	4.72
		HCl	20.0 mg/Nm3	4.7	4.21	6.37	6.62	4.52	4.85
Resorcinol Plant									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	30.1	22.7	24.9	19.7	28.3	37.2
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	14.8	16.2	20.4	16.3	21.6	27
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	51.1	41.6	58.8	44.7	36.9	48.3
		SO_2	40.0 mg/Nm3	13.6	10.7	10.6	8.4	12.8	7.1
		NOx	25.0 mg/Nm3	20.1	17.2	14.9	13.2	21.6	18.1
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	17.1	14.8	18.4	30.6	Not in use	26.4
		NOx	25.0 mg/Nm3	22.8	20.3	23.8	17.1		21.7
2,4-D Plant									
12	Common Scrubber 2,4D Plant	Cl_2	9.0 mg/Nm3	7.58	4.49	5.8	4.9	6.2	4.1
		HCl	20.0 mg/Nm3	7.8	4.36	5.96	5.03	6.37	4.22
		Phenol	--	ND	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.1	13.62	10.8	10.05	10.8	16.24
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	9.3	7.84	11.9	11.9	7.5	13.08
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	7.4	5.06	7.2	Not running	6.89	10.25
N&D Plant.									
18	Spray Dryer	PM	150.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
19	Scrubber S-802	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	8.8	9.1	4.5	3.9	8.3	17.4
		NOx	25.0 mg/Nm3	13.4	21.6	17.6	14.1	11.6	16.3

Sr No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant									
21	MCPA	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM³						
		SO_2	40 mg/NM³						
22	Fipronil	SO_2	40 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
23	Imidacloprid	NH_3	175 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
25	Stack at Amine Plant	NH_3	175 mg/Nm3	56.2	72.6	56	82.4	124	102
MPSL Plant									
26	Phosgene Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
NICO plant									
28	Central scrubber at Nico Plant	Acetonitrile, IPA	---	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Ester Plant									
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
31	MPP plant scrubber	HCl	20 mg/Nm3	11.7	8.2	7.1	8.4	11.6	7.9
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	5.1
		HCl	20 mg/NM³						5.24
33	Shed 9/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.5	2.9	3.1	5.24	7.9	5.5
		HCl	20.0 mg/Nm3	5.65	4	3.19	5.38	7.8	6.7
34	Shed B18/02/24	SO_2	40 mg/NM³	20.3	23.4	18.4	21.8	28.3	23.3
		Cl_2	9 mg/NM³	4.5	4.96	3.25	4.2	7.1	6.2
		HCl	20 mg/NM³	4.62	5.09	3.34	4.31	7.3	6.37
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	4.5	3.86	4.9	6.4	Not Running	Not Running
		HCl	20.0 mg/Nm3	4.62	3.76	5.04	6.58		
36	Shed D Nire Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	39.1	Not Running	45.1	Not Running	Not Running
37	Shed D Nire Spray dryer No.30	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running		
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
39	Shed F F6/3/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.9	4.8	5.3	5.98	6.1	4.3
		HCl	20.0 mg/Nm3	6.06	4.93	6.47	4.09	6.27	4.42
40	Shed G 18/8/1 (reactor)	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	7.5	5.5	7.09	6.1	3.12	6.3
		HCl	20.0 mg/Nm3	7.6	11.41	7.25	6.27	15.2	11.3
42	Shed KK-13/3/4 Final of Sulfuric acid	SO_2	2.0 kg/T	0.62	NO	0.7	Not Running	0.82	0.78
		Acid Mist	50.0 mg/Nm3	21.6	14.5	27.4		20.6	24.3
43	Shed J 15/09/25	HBr	--	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40 mg/NM³						

Sr. No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/4	SO_2	40 mg/NM^3	Not Running	27.4	Not Running	22.4	Not Running	17.6
		Cl_2	9.0 mg/Nm3		4.2		5.35		3.4
		HCl	20.0 mg/Nm3		4.31		5.35		3.5
45	Shed J12/03/3	SO_2	40 mg/NM^3	ND	13.2	Not Running	Not Running	12.2	13.2
		HCl	20.0 mg/Nm3	7.4	2.5			9.5	14.6
46	Shed N Scrubber Fan N20/06/24	Cl_2	9 mg/NM^3	3.4	5.1	5.8	6.2	6.4	7.4
		HCl	20 mg/NM^3	3.43	0.6	0.99	6.37	ND	ND
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	21.6	16.6	Not Running	20.1	4.8	5.06
48	Sulfer Black Plt	H_2S	--	ND	ND	ND	ND	4.73	5.2
		NH_3	175 mg/NM^3	110	106	125	102	27.8	21.8
49	Sulfer Dyes plt	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	73	58.7	35.6	49.2	45	54.7
50	Flavors & Frag	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atal North Site									
51	N-PDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	400.0 mg/Nm3						
		NOx	250.0 mg/Nm3						
		Formaldehyde	10.0 mg/Nm3						
52	PHN Plant	Phosgene	0.1 ppm	Not Running	Not Running	Not Running	Not Running	Not Running	ND
53	PHN-II Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	40.8	30.4	25	18	35	46
55	SPEC II Plant (DCDPS)	SO_x	---	ND	ND	ND	ND	20.6	16.3
56	SPEC I Plant	NH_3	175 mg/Nm3	140	120	90	112	128	104
57	SPEC IV Plant	NH_3	175 mg/NM^3	130	105	87	94	76	98
		SO_2	---	ND	ND	ND	ND	14.8	17.2

Annexure 4: Flue Gas Stack Details

1. Flue Gas Stack And it's Emission Control Measures:

Sr No.	Stack Details	Capacity TPH/ Stack Ht in m	Parameter	Permissible limit	APCD	Fuel
1.	FBC boiler E1	34/56	PM	100 mg/Nm^3	Electro Static Precipitator	Coal/Lignite
			SO_2	600 mg/Nm^3		
			NOx	600 mg/Nm^3		
2	FBC boiler E2	34/56	PM	100 mg/Nm^3	Electro Static Precipitator	Coal/Lignite
			SO_2	600 mg/Nm^3		
			NOx	600 mg/Nm^3		
3	FBC boiler E3	50/80	PM	100 mg/Nm^3	Electro Static Precipitator	Coal/Lignite
			SO_2	600 mg/Nm^3		
			NOx	600 mg/Nm^3		
4	FBC boiler W1	45/70	PM	100 mg/Nm^3	Electro Static Precipitator	Coal/Lignite
			SO_2	600 mg/Nm^3		
			NOx	600 mg/Nm^3		
5	Boiler (50 TPH2 Nos) (New boilers)W2,W3	50/106	PM	100 mg/Nm^3	Electro Static Precipitator	Coal/Lignite
			SO_2	600 mg/Nm^3		
			NOx	600 mg/Nm^3		
6	Hot Oil Unit (Resorcinol Plant)	H: 32.5	PM	150 mg/Nm^3	-	CNG
			SO_2	100 ppm		
			NOx	50 ppm		
7	Hot Oil Plant shed-B	H: 19	PM	150 mg/Nm^3	-	CNG
			SO_2	100 ppm		
			NOx	50 ppm		
8	Hot Oil Plant shed-B (Stand By)	H: 17	PM	150 mg/Nm^3	-	CNG
			SO_2	100 ppm		
			NOx	50 ppm		
9	Thermic fluid heater of DCO/DAP Plant	H: 12	PM	150 mg/Nm^3	-	CNG
			SO_2	100 ppm		
			NOx	50 ppm		
10	DG set 1010 KVA(Standby)	H: 10	PM	150 mg/Nm^3	Adequate stack Height	Diesel
			SO_2	100 ppm		
			NOx	50 ppm		
11	DG set 1500 KVA (Stand By)	H: 11	PM	150 mg/Nm^3	Adequate stack Height	Diesel
			SO_2	100 ppm		
			NOx	50 ppm		

2. Process Gas Stacks & Its Emission Control Measures:-

Sr No.	Stack Details	Stack Height (meters)	Parameter	Permissible Limit	APCD
Atul East Site					
1	New Phosgene plant-Furnace	15	PM	150 mg/Nm^3	Alkali & Water Scrubber
2	New Phosgene plant -Reactor	15	CO	--	Alkali & Water Scrubber
			Phosgene	0.1 ppm	
Caustic Chlorine Plant					
3	Dechlorination Plant(Hypo unit)	35	Cl_2	9 mg/Nm3	Alkali Scrubber
			HCl	20 mg/Nm3	
4	Common Stack of HCl Sigri unit 1& 2	25	Cl_2	9.mg/Nm3	Alkali Scrubber
			HCl	20 mg/Nm3	
Sulfuric Acid (East Site)					
5	Sulfuric Acid plant	30	SO_2	2.0 kg/T	Water Scrubber With DCDA System
			Acid Mist	50 mg/Nm3	
6	Chloro Sulfonic Acid plant reactor	11	Cl_2	9mg/Nm3	Caustic And Water Scrubber
			HCl	20mg/Nm3	
FCB Plant					
7	Foul Gas Scrubber	26.5	SO_2	40mg/Nm3	Caustic scrubber
			NOx	25mg/Nm3	
Incinerator					
8	Incinerator	40	PM	150mg/Nm3	Alkali& water scrubber
			SO_2	40mg/Nm3	
			NOx	25mg/Nm3	
NI Plant					
9	Foul Gas Scrubber	26.5	SO_2	40mg/Nm3	Caustic scrubber
			NOx	25mg/Nm3	
NBD Plant					
10	Spray Dryer	21	PM	150mg/Nm3	Water Scrubber
			NOx	25mg/Nm3	
11	Scrubber S-902	25	Phosgene	0.1 ppm	Caustic scrubber
12	Scrubber S-801/802	25	HCl	20mg/Nm3	Caustic scrubber
			NOx	25mg/Nm3	
2-4-D & related Products:					
13	Common Scrubber; 2,4D Plant	5	Cl_2	9mg/Nm3	Caustic scrubber
			HCl	20mg/Nm3	
			Phenol	--	
14	Dryer-1	26.5	PM with Pesticide compound	20mg/Nm3	Bag Filter, Water Scrubber
15	Dryer-2				Cyclone, Bag Filter, Caustic scrubber
16	Dryer-3				
17	Dryer-4				
18	Dryer-5				
MPSL Plant:					

19	Phosgene Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
20	Central Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
NICO Plant:					
21	Central scrubber at Nico Plant	12	Acetonitrile	---	water scrubber
Resorcinol Plant					
22	Spray dryer	20	PM	150 mg/Nm^3	water scrubber
23	Scrubber vent	15	SO_2	40mg/NM3	Caustic scrubber
24	Scrubber at Ester plant for Glyphosate	12	Formaldehyde	10mg/Nm3	water scrubber
Other					
25	MCPA	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20mg/NM3	
			SO_2	40mg/NM3	
26	Fipronil	19	SO_2	40mg/NM3	Alkali& Water Scrubber
			HCl	20mg/Nm3	
27	Imidacloprid	20	NH_3	175 mg/Nm3	Water Followed By Acid Scrubber
28	Pyrathroids	19	SO_2	40mg/Nm3	Alkali & Water Scrubber
			HCl	20mg/Nm3	
29	Stack at Amine Plant	5	NH_3	175 Mg/Nm3	Caustic Scrubber
30	Central Scrubber MCPA Plant	19	HCl	20mg/Nm3	Caustic Scrubber
31	MPP Plant Scrubber	21	HCl	20mg/Nm3	Water & Alkali Scrubber
			Phosgene	0.1 ppm	
32	Flavors & Fragrances Plant	21	HCl	20mg/NM3	Water Scrubber followed by caustic scrubber
33	Sulphur Black Plant	19	H_2S	--	Alkali & Water Scrubber
			NH_3	175 mg/Nm3	
34	Sulphur Dyes Plant	19	H_2S	--	Alkali & Water Scrubber
			NH_3	175 mg/Nm3	
Atul West Site					
35	Shed A05/03/44	19	Cl_2	9 mg/NM3	Caustic Scrubber
			HCl	20 mg/NM3	
36	Shed B2/12/24 Reaction Vessel	19	Cl_2	9 mg/NM3	Caustic Scrubber
			HCl	20 mg/NM3	
37	Shed B18/02/24 Fan	19	SO_2	40 mg/NM3	Caustic Scrubber
			Cl_2	9.0mg/Nm3	
			HCl	20 mg/Nm3	
38	Shed C5/20/15 Chlorinator	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
39	Shed D Niro Spray dryerNo.45	19	PM	150 mg/Nm^3	Water Scrubber
40	Shed D Niro Spray dryer No. 50	19	PM	150 mg/Nm^3	Water Scrubber

41	Shed E 7/12/49 Spray Dryer	19	PM	150 mg/Nm^3	Water Scrubber
42	Shed F 6/1/15 Reaction Vessel	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
43	Shed G 10/8/1 (receiver)	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
44	Shed H11/6/17 Chlorinator	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
45	Shed K K-13/3/4 Final of Sulfuric acid plant	19	SO_2	2 kg/T	Alkali& Water Scrubber
			Acid Mist	50 mg/NM3	
46	Shed J15/09/25	19	HBr	--	Alkali& Water Scrubber
			SO_2	40 mg/NM3	
47	Shed J12/01/42	19	SO_2	40mg/NM3	Alkali& Water Scrubber
			Cl_2	9.0mg/Nm3	
			HCl	20 mg/Nm3	
48	Shed J12/03/36	19	SO_2	40 mg/NM3	Caustic Scrubber
49	Shed N Scrubber Fan N20/08/24	19	Cl_2	9 mg/NM3	Caustic Scrubber
			HCl	20mg/Nm3	
50	Shed N Scrubber Fan N20/02/41	19	SO_2	40mg/NM3	Alkali& Water Scrubber
North Site:					
51	N-FDH Plant Catalytic Incinerator	31.5	PM	150 mg/Nm^3	Bag Filter
			SO_2	40mg/Nm3	
			NOx	25mg/Nm3	
			Formaldehyde	10mg/Nm3	
52	PHIN Plant	15.5	Phosgene	0.1 ppm	Water Scrubber Followed By Two Stage Caustic Scrubber With Ammonia/Steam Injection At stack
53	DDS (Pharma Plant)	20	NH_3	175mg/Nm3	Water Followed By Acid Scrubber
54	SPIC II Plant (DCDPS)	30	SO_3	---	Alkali & Water Scrubber
55	SPIC I Plant	30	NH_3	175mg/Nm3	Water Scrubber Followed By Two Stage Caustic Scrubber With Ammonia/Steam Injection At Stack
56	SPIC IV Plant	2	NH_3	175mg/Nm3	Alkali & Water Scrubber
			SO_3	---	
57	PHIN II Plant	21	HCl	20mg/Nm3	Water Scrubber Followed By Two Stage Caustic Scrubber With Ammonia/Steam injection At Stack
			Phosgene	0.1 ppm	

Annexure 5: Details of Solvent Storage

Annexure 5: Details of Solvent Storage							
Sr No.	Name of Hazardous Substance	Quantity		Place of its Storage	State & Operating Pressure & Temp.	Type of Hazard	Control Measures Provided
		Max. qty. can be stored	Qty. stored				
1	Methanol (Group 5 - 2)	470 MT	350 MT	Methanol Storage Tank Farm	Liquid at RT atmos. pressure	Fire	Flame arrester, earthing dyke wall to over ground Tank fire water
2	Benzene	180 MT	100 MT	Resorcinol	Liquid at RT atmos. pressure	Fire	Isolated storage, FLP, Flam arrester, Breather valve, LI, Fire hydrant, sand etc.
3	Xylene	60	30	MPSL-NICO Plant	Atmospheric Normal Temp.	Fire	Dyke wall, Fire hydrant line, FLP, Spark arrester, Prohibited for vehicle movement &unauthorized person.
4	Methanol	650 m^3	50 m^3	Methanol Tank farm north site.	Liquid at RT, atmos. Pressure	Fire & Toxic spill	Isolated storage, FLP, Flam arrester, Breather valve, LI, Fire hydrant, sand etc.
5	Toluene	40 m^3	30 m^3	Phin & PO plant	Liquid at RT, atmos. Pressure	Fire	Isolated storage, FLP, Flam arrester, Breather valve, LI, Fire hydrant, sand etc.
6	Toluene	120 KL	100 KL	Shed C	Atmo. Press and temp.	Fire &Chemical spillage	Underground tank, prohibited are, FLP, foam trolley etc.
7	Ethanol /Methanol	51 KL	40 KL	Shed N & A	Atmo. Press and temp.	Gas leakage, Spill	Respirators, Dry Sand, Dyke wall, spare tank
8	MCB	105 MT	100 Kl	Shed C	Atmo. Press and temp.	Fire &Chemical spillage	Underground tank, prohibited are, FLP, foam trolley etc.

Annexure 6: All Hazardous materials other than solvent are stored with details along with control measure

Sr No.	Name of RM	MOC	Tank type	Nos of tank	Capacity	Control Measures Provided
1	65% Oleum	MS, IS-2825	Above ground	2	65 MT	Dyke wall with valve, do not allow the spill to mix with water, vent with Acid seal, spare storage tank for emergency transfer, Dry sand beds for spill Control, tank level meter
2	Chlorine	CS	Above ground	4	200	Two standby tank, DCS controlling, Hypo scrubbing, SCBA, Emergency chlorine kit & hood blower etc.
3	Epichloro-hydrin	MS	Above ground	6	55 M^3	Flame arrester earthing, dyke wall with valve which do not allow liquid spill to go to normal drain.
4	Sulphur Trioxide (Group 2)	MS	Above ground	2	13 MT	Dyke wall with valve, with valve do not allow the spill to mix with water, vent with Acid seal, spare storage tank for emergency transfer
5	Ammonia Anhydrous	MS	Above ground	1	10	High Alarm switch Water sprinkler, Fog Nozzles, Dyke wall
6	65% Oleum	MS	Above ground	2	72	Respirators, Dry Sand, Dyke wall, Spare tank, High alarm switch
7	Caustic	MS	Above ground	4	530 MT	Dyke wall, LI & LT, DCS controlling etc.
8	Hydrogen	MS	Above ground	1	100 nm^3	Prohibited for men & vehicle movement, Isolated storage, FLP , Flam arrester, PG & PT, Fire hydrant, 7 Fire extinguisher etc.
9	Chloro Sulphonic Acid	SS 316	Above ground	4	30	Respirators, Dry Sand, Dyke wall, spare tank
10	Sulfuric acid	MS	Above ground	4	800	Emergency tank, Dyke wall, LT, DCS controlling, Level alarm etc.
11	Liq. SO_3	MS	Above ground	3	40 MT	Emergency tank, LT & LI, DCS controlling, Level alarm etc.
12	HCl	PP FRP	Above ground	3	200 KL	Dyke wall, LI & LT, DCS controlling etc.

Mitigation Measures as per risk assessment report:-

- Secondary Containment to all storage areas of Hazardous materials with leakage collection system is provided.
- Spill kits are made available at all locations of hazardous materials.
- Fire hydrant system is provided at Hazardous materials storage area.

Annexure 7: CSR Activities

CSR activity done in 2022-23

(₹ lakhs)

No.	Name of project	Budget	Expense
1	Enhancement of educational practices in Kalyani Shala	63.00	63.00
2	Improve teaching methodology for primary school children - Adhyapika project	85.30	85.30
3	Support to Eklavya Model Residential School -Atul Vidyamandir	14.50	14.50
4	Support to develop a school in a tribal area	1.90	1.90
5	Provision of scholarships to needy and meritorious students	4.00	4.00
6	Provide assistance to lesser privileged children	6.90	6.90
7	Provision of education kits to children	9.40	9.40
8	Conservation of manuscripts	32.50	32.50
9	Provide assistance to children with special needs	1.20	1.20
10	Promote learning and life skills among children	1.00	1.00
11	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3.50	3.50
12	Develop a computer lab in a school (West Bengal)	4.00	4.00
13	Support to a school for rennovation of toilets and boundary wall (Uttar Pradesh)	5.00	5.00
14	Support to develop a library	1.50	1.50
	Total education budget (a)	**233.70**	**233.70**
15	Skill training to youth as an apprentices	104.35	104.35
16	Empowerment of women | youth through various vocational training courses	39.50	39.50
17	Develop micro-entrepreneurs to provide sustainable livelihood	15.30	15.30
18	Create livelihood opportunities for tribal families by providing cows	15.60	15.60
19	Empower women through self-help groups- Atul Uttara project	21.60	21.60
20	Support to Industrial Training Institute (ITI)	17.80	17.80
	Total empowerment budget (b)	**214.15**	**214.15**
21	Enhancement of rural health through health camps	41.50	41.50
22	Establish Atul Healthcare Centre	415.00	415.00

Page 3 of 3

23	Promote health and well-being of adolescents and women- Sampoorna project	32.40	32.40
24	Provision of blood units to the needy and deserted patients	2.40	2.40
25	Upgradation of sports infrastructure and equipment	68.00	68.00
26	Promote Fit@50+ Women's Trans Himalayan Expedition	5.00	5.00
	Total health budget (c)	**564.30**	**564.30**
27	Provision of medical treatment to needy patients	23.00	23.00
28	Support to flood affected people in Valsad	5.40	5.40
	Total relief budget (d)	**28.40**	**28.40**
29	Develop community infrastructure in Atul village	160.00	160.00
30	Infrastructure development in Atul and surrounding villages	33.70	33.70
31	Construction of toilet blocks in a school (Maharashtra)	10.30	10.30
	Total infrastructure budget (e)	**204.00**	**204.00**
32	Establishment of solid waste management system in Atul village- Ujjwal Atul	35.60	35.60
33	Initiate solid waste management project in five villages	13.40	13.40
34	Initiate natural resource management project to conserve soil and water	30.60	30.60
35	Conserve energy through solar system	45.60	45.60
36	Set up nature-based wastewater recycling systems	65.00	65.00
37	Conserve water through various interventions	17.00	17.00
38	Enhance green cover- Tree plantation project	39.30	39.30
39	Protection of animals	14.80	14.80
40	Conserve energy through Biogas project	2.50	2.50
	Total conservation budget (f)	263.80	263.80
Total CSR budget (a+b+c+d+e+f)		**1,508.35**	**1,508.35**
Administrative overheads (OH)		74.20	74.20
Total for Atul Limited (CSR budget + OH)		**1582.55**	**1582.55**

Annexure 8: Form V (Environmental Statement)

Atul Ltd
Utilities and Services Unit
Atul 396 020, Gujarat, India
services@btul.co.in | www.atul.co.in
(+91 2632) 230000

Atul|GPCB|Form V|2021-22 ID: 23158

September 20, 2022

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

SUB: Submission of form V.

Dear Sir,

We are enclosing herewith duly filled form – V for the financial year ending March 31st, 2022.

Kindly receive the same.

Thanking you,

Yours faithfully,

For Atul Ltd,

Hriday Desai
(Vice President – EHS Assurance)

C.C.
Regional Officer,
Gujarat Pollution Control Board
Vapi (Dist. Valsad)

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2022

Part - A

(i) Name and address of the owner/occupier of the industry operation or process.

Mr. B. N. Mohanan
Occupier, Atul Limited,
Atul – 396 020, Dist.: Valsad

(ii) Industry category Primary (STC code) Secondary (STC code)

Large scale Chemical Manufacturing Industry

(iii) Production Capacity – Please refer Annexure - 1

(iv) Year of establishment : 1952

(v) Date of last environmental Statement submitted: September 22, 2021

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process : 8411 kl/day
Cooling : 1873 kl/day
Domestic : 376 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.	Crop Protection	3.84 kl/mt	16.35 kl/mt
2.	Bulk Intermediate		1.38 kl/mt
3.	Colours	69.26 kl/mt	87.84 kl/mt
4.	Pharma & Polymer	4.22 kl/mt	5.27 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	COD	: 1930 kg/day (199 mg/lit)	NIL
(b)Air	SO2	: 21.87 Mg/Nm^3	
	NOx	: 14.71 Mg/Nm^3	
	HCl	: 6.85 Mg/Nm^3 (Process Stack)	
	Cl2	: 5.65 Mg/Nm^3	
	NH3	: 94.46 Mg/Nm^3	
	Phosgene	: Not Detected	
	SO2	: 1.28 Kg/Ton	
(c)Air	PM	: 47.72 Mg/Nm^3 (Flue gas stack)	
	SO2	: 274.89 Mg/Nm^3	
	NOx	: 265.65 Mg/Nm^3	

Part - D

Hazardous Wastes

(as specified under Hazardous Wastes (Management & Handling) Rules, 1989)

Hazardous Wastes	Total Quantity (kg)	
	During the previous financial year	During the current Financial year
From process	36136215	73671645
From pollution control facilities (ETP sludge and Salt from MEE)	22269000	29847720
Total	58505215	103519365

Part - E

Solid Waste

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process (Fly Ash)	97007642	79867000
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilised within the unit	Nil	Nil
(2) Sold	97007642	79867000
(3) Disposed		

Part – F

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

Please Refer Annexure - 3

Part – G

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

Please Refer Annexure - 4

Part – H

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

Please Refer Annexure - 5

Part – I

Any other particulars for improving the quality of the environment.

1. New collection tank at central ETP is under construction and other modifications is under construction stage and after completion of all installation, central ETP plant will be operate on SCADA system.

2. To reduce moisture content in the gypsum generated from neutralization of effluent, we are upgrading our EMS by installing membrane type filter press followed by paddle dryer at West site.

3. Implementation of New HRTI Clarifier as a substitute of CFI at west site ETP.

4. Installation of MEE for High TDS stream from 2, 4 D plant is almost completed and commissioned will be start by Oct. 2022.

5. Additional 33 distillation system upgraded solvent recovery systems for advanced instrumented controls.

6. Additional 33 nos of toxic gas detectors installed at prominent location.

7. PTS & screw conveyors provided for close powder charging initiatives.

8. Additional 20 nos of close sampling systems provided for corrosive liquids.

9. Enhancement of storage spaces: east site RM warehouse and north site FG warehouse commissioned.

10. Company has planted 48000 number of saplings in FY 2021-22

Annexure : 1: list of Products

Product	Consented Quantity TPA
Azo dyes	6600
Sulfur Black	9999.96
Sulfur Dyes range	300
Naphthol range	900
Fast Color Bases	480
Disperse dyes	1422
Optical Brighteners	120
Reactive Dyes	1527.6
Vat dyes	1260
Caustic soda/potash & sodium sulfide	48000
Liquid Chlorine /Hcl/Hydrogen	42000
Carbamate group of Agrochemicals	519.6
Diuron	2640
Trichlo Carbon	99.6
Cartap Hcl	600
Carbendazim	250.8
Herbicides (2,4-D & related products)	26040
MCPA	
Pyridine based Insecticides & herbicides chemical Imidacloprid	349.92
Triazole based Fungiside	20.04
Pyrethroides	120
Sulphonyl Urea	423
Glyphosate	780
Isoprothiolane	219.6
Fipronil	60
Formulations	2400
Buprofesin	48
Imazethpyr	21.96
Kresoxim Methyl	24.96
Fenoxaprop	9.96
Cyhalofop	9.96
Pyrazosulfurone	6
BisPyribac Sodium	9.96
Azoxystrobin	24.96
Quizalofop	15

Thiamethoxam	120
Metribuzine	120
Diafenthiurone	50.04
Mabendazole	24
Tolbutamide	30
Quiniodochlor	180
Bulk Drugs & Intermediates	115.2
Dechlofenac sodium / potassium	30
Atenolol	20.4
Fresamide	15.6
Trimethoprim	10.8
Para hydroxy acetophenone	20.4
Para hydroxy phenyl acetamide	36
Acyclovir	62.4
Bathenechol	62.4
Pharma Intermediates & Chemicals	3600
Epoxy Resin	31200
Vinyl Easter Resins	450
Ketone Formaldehyde Resins & Sulphonamide, Formaldehyde Resins	249.6
UF/MF/PF/DiCyandiamide Resins	3250.8
Polyamide resins	1940.4
Polygrip TPU based	500.04
Polygrip rubber based	3600
Anthraquinone, Naphthalene, Benzene Intermediates.(Including Beta – Napthol & BON Acid)	8880
Meta hydroxy phenol	5520
Carbamite	360
Chlorzoxazone & other related products	60
4 Ethyl 2,3 – Diorcopiperazino carbonyl Chloride	39.6
Imino Dibenzyl 5 carbonyl Chloride	9.6
Formaldehyde and base products.	38400
Sulfuric Acid / Oleum / Chlorosulphonic Acid & Salts	138600
Sulpha Drug Intermediate	2325.6
Acetyl Sulphanilyl Chloride and its derivatives.	18000
Acetanilide	6000
Sulpha Methyl Phenazole Sodium	13.2
Pyrazole Base	126
Sulphanilic acid	300

Bis Phenol A	5000.4
Hexamine	1800
Epoxy Intermediates	285.6
Hardener & Auxiliaries	6000
Hardener Intermediates	8400
Bisphenol S & Intermediate Chemicals	199.2
Sodium Thio sulphate (dry basis)	10800
Sodium Thio sulphate (wet basis)	22800
Phosgene	5000.004
HX-13059	60
Anisole	1992
Resoform 18,19,20	1020
1,3 Cyclohexanedione	960
Agro, Pharma intermediates, Isocyanats & Carbonat Esters, etc.	4980
Trans-4-MCHI	
p-Anisyl chloroformate	
DI-TERT-BUTYL DICARBONATE (Boc. anhydride)	
N, N- Disuccinimidyl Carbonate	
Avobenzene	999.96
Octacrylene	999.96
OctaylMethoxy Cinnamate	2400
Anethole	1999.92
Raspberry Ketone	1200
P-AninylPropanal	1200
Grand Total Production Sodium Thiosulphate (dry basis)	466922.004
Grand Total Production Sodium Thiosulphate (wet basis)	478922.004

Annexure : 2 : List of raw material

RAW MATERIAL	TPM
Acetanilide	52
Acetic Acid	97.08
Acetic Anhydride	6.5
Acetone	5490.8
Acetonitrile	169.18
Activated carbon	1
Alum	40
Aluminium Chloride	289.32
Aluminium ingots	18
Ammonia gas liquor 25%	317
Ammonium acetate	20.58
Anhydrous Ammonia	9
Aniline oil	43
Anisole	173.33
Anthraquinone	6
Barium carbonate (100%)	58.88
Benzene(KL.)	660
Benzophenone	101.5
Bis Phenol A	3398.63
Carbon dioxide gas	346.53
Castor oil	35
Caustic flakes	3466.98
Caustic Potas Flakes	75
Caustic Soda Lye	3201.76
Chlorine	3822
Chlorosulphonic Acid	250
Chlroprine rubber	45
Copper chloride	4
Cresol	133
CS_2	12.09
Cyano Pyrazole	5
Cyanoacetic acid	32.92
Cyanuric Chloride	18

Cyclohexane	57.08
Darco	9.77
DBU	23.24
Di Chloro Diphenyl sulphone	107
Di Isopropyl Malonate	24.72
Di methyl Sulfate	286.44
Dibutyl phthalate	7
Dichloro aniline	151.4
Dimethyl Amino Dichloro Propane Hydrochloride	40
Dimethyl carbonate	5.73
Dioxane	95.89
Divyol oil	28.77
DMA	44.8
DMA Tosylate	9
DMF	68.15
DPS	1
EDA	69.32
EDC	331.99
Epichlohydrine /recovered ECH	4911
Ethanol	5.31
Ethyl acetate	4586.05
Ethyl hexanol	135
Ethylene Dibromide	22.48
Ethylene Dichloride	12.14
Flocculating agent	1799.95
Formaldehyde	106.07
Glacial acetic acid	549.57
Glycerin	24
Guanidine Nitrate	33.95
H_2O_2	55.42
H-Acid	12
HCl	4924.8
Hexa Hydro Phthalic anhydride	9
Hexane	29.32
Hydrated Lime	2000
Hydrogen (g)	50.43
Hydroxyl amine.HCl	480.75

Hyflo	110.65
IPA	339.55
Iron Fillings	50
Lime stone powder	1257
MA	26.08
Manganese Dioxide	220
MCB	123
MDC	406.29
Methanol	1100
Mono Chloro Acetic Acid	2170
m-phenoxy benzaldehye	2
n- Butanol	999
N- Hydroxy Succinimide	419.15
Na_2SO_3	10.5
Napthalene	60
n-Hexane	54.13
Nitric Acid 60%	50
Nitric Acid 98%	95
Nitro guanidine	52.49
Nitrogen	1585 NM3/hr
NN Dimethyl Aniline	32.57
O-cresol	503
Oleum 25%	140
Oleum 65%	1221
Oxygen	49.7
p-Anisaldehyde	118.6
p-Anisic aldehyde	179
Paraffin oil	9.13
PCF	28.35
P-cresol	860.91
Phenol	1350.56
Phosgene	180
Phosphoric acid	54.5
Phthalic anhydride	55
PMIDA	158.78
Potassium Chloride	360

Potassium hydroxide	264.8
Propionyl chloride	167.16
Prpanaldehyde	51
PTBP Resin	12
Pure 4-Methyl cyclohexyanol	8.15
Rainey Ni catalyst	50.34
Reso - Tar	49.23
Resorcinol	246.24
SNA	37.09
Soda Ash	209.38
sodium bicarbonate	130.33
Sodium bisulphate	548.28
Sodium Carbonate	117.09
Sodium Chloride	6000
Sodium hypochlorite	3639.31
Sodium metal	667.8
Sodium methoxide (Powder|solution)	131.85
Sodium Sulphide	100.4
Sodium Thiosulphate	195
Sodium-t-butoxide	755.3
Solvents	275.42
Styrene	29.92
Sulfinate	1
Sulfuric acid	2596
Sulfuryl chloride (SO2CL2)	376
Suphur Powder	2430.3
Synthetic cresol	5
Tamol MNO	50
t-Butyl alcohol	29
Tertiary butyl amine	0.89
TFE	9
THF	4151.74
Thionyl Chloride	3
Toluene	200
TPU	6.25
Tri ethylenetetramine	13
Tribtyl Amine	778.13

Triethyl amine	138.52
Urea	183
10% Brine solution	684.87
10% $FeSO_4$	23.47
2, Chloro 5-methyl chloro pyridine	17
2,4-DNCB	440.85
2-[Nitroimino] imidazolidine	14.82
2-4 Di chloro Aniline	5.5
2-Amino-4,6 dimethoxy pyridine	27.95
2-chloro-5- methylchloro-pyridine	21.75
2-chloro-5-chloro methyl thiazole	7.8
2-Ethyl hexanol	56.5
3-methyl-4-nitroimino perhydro-1,3,5- oxadiazine	7.6
4-amino-6-tertiary- butyl-3-mercapto- 1,2,4-triazinone	10.1
4-methoxyacetophenone	60.88
4-Methoxybenzyl alcohol	376.41
4-t-butylbenzoicacid	82.81
Fuel:	
Coal / Lignite	46925
Diesel Oil (Kl)	640
Furnace oil (Kl)	1100
Natural gas (m3)	200000

Annexure: 3: Description of Solid Waste at Atul

Description of waste	Physical form	Calorific Value Cal / gms	Biodegradability	Nature / Chemical composition of Waste	Mode of Disposal
Used oil, Kl	Wet cake	-	Biodegradable	Lubricant oil with minor contamination	Collection, Storage, Transportation, sell to registered refiners/recyclers.
Wastes / residues / contaminant cotton rags or other cleaing material	Solid	-	Biodegradable	Lubricant oil with minor contamination	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Sludge & filters contaminated with oil,	Semi solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Membranes	Solid	-	-	Polyfluoro & Polycarboxylic groups	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste Resin,	Solid	-	Non biodegradable	Polymer	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Sulfurised Carbon,	Solid	6000	-	Carbon and impurity of product	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Activated Carbon,	Solid	6000	-	Carbon and impurity of product	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Brine purification sludge,	Sludge	No Calorific Value	Non biodegradable	Inorganic compounds e.g. $CaCo_3$, $Mg(OH)_2$	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sulphur sludge,	Solid	5000	Partially Bio-degradable	Inorganic compounds and Sulphur	Collection, Storage, Transportation, Disposal at TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hot Gas filter Ash,	Solid	No calorific Value	Non biodegradable	Inorganic Material	Collection, Storage, Transportation, Disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Bottom Sludge after recovery of Sulphur Sludge,	Solid	5000	Partialy Biodegradable	Inorganic	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL

Waste Catalyst,	Solid	No calorific Value	Non biodegradable	Inorganic, Not explosive, Non Reactivie	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Spent Solvents, Kl/Month	Liq	-	-	Solvent	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user.
Various type of Residue	Solid	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
OCBC / OCT distillation residue,	Visc. Liq.	8000	Not Bio-degradable	Polymeric aromatic compound.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
waste residue Bulk Intermediate (meta hydroxy phenol) (Tar),	Solid	-	-	10-12% Hydroxyl based benzene derivative	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Waste residue (from resorcinol plant)	Solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Gypsum (From meta hydroxy phenol Plant),	Solid	Not Applicable	Non biodegradable	Inorganic Compound Mostly Calcium Sulphate 75 - 77%, Moisture 23-25%	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co- processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sodium Sulphite,	Solid	Not Applicable	-	Inorganic Compound, Mostly Sodium Sulphite 70-75%, Moisture 25-30%	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co- processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste/Salt Lime Dust	Powder	--	--	Inorganic Compound	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste from Urea Formaldehyde Polymer product,	Solid	3500	Bio-degradable	Organic polymeric compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Sludge containing higheramino compound,	Tar	5200	Bio-degradable	Polymeric organic amines.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Filter cake of Epoxy resins with resin contamination	Semi Solid	3200	Bio-degradable	Polymeric organic compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Aluminium Hydroxide,	Solid	No calorific Value	Non biodegradable	Mostly Al Hydroxide	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Iron sludge,	Solid	No calorific Value	Non biodegradable	Mostly Iron, oxide	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Brass residue,	Solid	No calorific Value	Non biodegradable	Mostly Copper & Iron.	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Darco / filter aid sludge,	Solid	2500	Partially Bio-degradable	Mainly Carbon.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Iron Residue,	Wet cake	-	Non biodegradable	Water, iron	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hyflo sludge,	Wet cake	-	-	0.87 % Specific gravity, 80% solid, Inorganic & organic content	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
PER crystal residue,	Semi Solid			Specific gravity 1.1557, Organic	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Filter aid sludge for Hg recovery,	-	-	-	Containing Hg	Collection, Storage, Transportation for recovery of mercury
Aluminium Ash,	Solid	-	Non biodegradable	Water, oxides of Aluminium & Aluminium Metal	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
N.B.Tar / ODCB Tar	Semi Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
ONT Tar	Solid / Tary	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Copper Hydroxide Wet cake	Solid	Not applicable	Non biodegradable	Copper Hydroxide	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary Movement) rule-2016
Dust from Air Filtration System,	Solid	-	-	Residual product particles	Collection, Storage, Transportation for reprocessing and reusing

Spent Acid	Liquid	Not applicable	Non biodegradable	Sulphuric acid	Collection, storage, transportation and sell to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary movement) rule-2016 Or sell to:. M/s Shree Cement Ltd., located at Village Ras, Jaitaran Dist: Pali & at Bangurnagar, Beawar Dist: Ajmer, Rajasthan.
Spent Organic solvent	Liquid	-	-	Mainly contains Spent Organic solvent	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary Movement) rule-2016
Waste Residue (Phin)	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR OR disposal at common facility at BEIL
DCDPS waste	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL.
Waste from Pharma intermediates	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent Carbon catalyst	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent carbon,	Solid	6000	Biodegradable	Carbon cake contains aq. Methanol Aqueous Carbon Cake	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Date expired, discarded and off-specification product,	Solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent Mother liquor, Kl/Month	Liquid	-	-	Mainly contains Spent Organic solvent	Collection, Storage, Transportation for recovery and reusing
Spent Solvents, Kl/Month	Liq	-	-	Solvent	Collection, Storage, Transportation for recovery

Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Pyridine based insecticides & herbicides (Darco / Filter aid Sludge),	Solid	2500	Partly biodegradable	Mainly carbon	
Sulfonyl Urea (Residue),	Solid	6500	Partly biodegradable	Polymeric Organic	
Triazole based Fungicides (Residue),	Solid	6500	Partly biodegradable	Polymeric Organic	
Pyrethroides	Solid	6500	Partly biodegradable	Polymeric Organic	
Dust (Agro plant)	Solid	-	-	Mixture of Dust, Rust & Spillage chemicals	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hyflo,	Semi Solid	No Calorific Value	Non biodegradable	Non flammable, non reactive, partly organic -Inorganic	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Dust from Air Filtration System,	Solid	-	-	Residual product particles	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at

					BEIL
Liners /Bags, NOs	Solid	NA	NA	Without any Chemical contamination after decontamination	Collection, Storage, Transportation and sell after decontamination OR Collection, Storage, Transportation and sell to authorized party/vendor OR Reuse after decontamination
Drums /HDPE Carboys,	Solid	NA	NA	Without any Chemical contamination after decontamination	
Chemical containing residue from decontamination and disposal,	solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Flue gas cleaning residue,	Solid	-	-	-	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Toxic metal containing residue from used-ion exchange material; in water purification,	Solid	-	-	--	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sludge from ETP, Gypsum from ETP, Chemical Gypsum, sludge from waste water treatment	Semi solid	No Calorific Value	Partly biodegradable	Mostly gypsum	Collection, storage, Transportation, disposal at OWN TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
MEA distillation residue,	Visc. Liq.	9500	Partly biodegradable	Polymeric aromatic compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility atBEIL
Spent Catalyst,	Solid	-	-	--	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sludge from wet scrubber,	Solid	-	-	-	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Incineration ash,	Solid	No Calorific Value	Non biodegradable	Inorganic compounds e.g. Silica, NaCl.	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Salt from MEE	Solid	Not applicable	Non biodegradable	99% Sodium salt	Collection, storage, Transportation, disposal at OWN TSDF OR selling to actual reuser OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Dilute MnSo4	Liquid	--	--	----	Collection, Storage, Transportation, Disposal at M/s Atul Limited, Plot No. 297, GIDC Estate, Ankleshwar, Bharuch- 393002
2,6 Dichloro phenol	Solid	--	--	Phenolic compound	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at

					SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
2,4,6 Trichloro phenol	Solid	--	--	Phenolic compound	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
p-CBSA/Na-Salt	Solid	--	--	pCBSA	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
High TDS / High COD effluent	Liquid	--	--	--	Collection, storage, Transportation, disposal to our own MEE/ Incinerator and/or at common GPCB approved facility
30% HCl	Liquid	--	--	Spent acid	Collection, storage, Transportation, utilized in own plan for captive consumption OR sell to those units who having permission of rule 9 under the Hazardous & other wastes (Management & Transboundary Movement) rule-2016

Annexure : 4

Water Conservation

Following actions were taken for water conservation during recent year.

1. Use of treated effluent in place of raw water in scrubbers.
2. Reuse of wash water in plant process
3. Reuse of boiler blowdown water for cooling water make up at cooling tower after passing it through PHE for heat recovery

Rain water harvesting: In few plants, rain water is being recharged from the terrace and has been used as a makeup of cooling tower during the monsoon season.
We already have two numbers of check dams in natural storm water drains to collect and harvest rain water in Monsoon.
We have 2 ponds with approximate storing capacity of 14000 KL to store surface runoff coming from Parnera hill and in use.
Company has harvest 10.59 lac KL rain water during 2021.

Energy Conservation

Electricity forms one of the important components of energy used at Atul Limited. Major part of electricity used at Atul, is produced in the coal based captive power plant.

Energy Conservation Measures:

1. Installation of energy efficient cooling water and chilled water pumps.
2. Replacement of old motors by energy efficient motors
3. Heat recovery from steam condensate
4. Controlling steam pressure of steam ejectors.
5. Optimization of pump size as per actual operating requirement
6. Replacement of high pressure air compressor by low pressure air compressor for process air requirements

Annexure : 5

Details of Investment for Environment Protection for the year 2021-22

Sr.No	Parameter	Recurring Cost per annum (Rs. in lacs) 2021-22
1	Air Pollution Control	5464
2	Liquid Pollution Control	
3	Environmental Monitoring and Management	47
4	Solid waste Disposal	176
5	Occupational health	41
6	Green belt	14
Total		5742

Annexure 9 : Environmental protection measures and safeguards proposed in the project

Sr No.	Potential impact	Action to be followed	Parameters for monitoring	Frequency of monitoring	Status of Compliance
1	Air Emission	Adequate stack height APCM-Multi Cyclone & Scrubber is provided as APCM AAQ within the project premises and nearby habitations to be monitored. All vehicles to be PUC certificate	SPM, RSPM, SO2 and NOx, Vehicle logs to be maintained.	Monthly through external agency NABL Approved	Stack and APCM details are provided in EC Compliance Point No.4 of Conditions. Quality of gaseous emission and AAQ
2	Noise	Noise generating from operation of boiler, cooling towers &plant & M/c area to be monitored.	Spot noise level Recording	Monthly through NABL Approved external agency	Carried out at the periphery of whole plant premises
3	Waste Water Discharge	Compliance to the wastewater discharge standards complete effluent treatment Plant-Primary + Secondary & MEE, ZLD is achieved	pH, TSS, TDS, COD, BOD, Oil & Grease	Monthly through NABL Approved external agency	Discharge effluent is analyzed on daily basis.
4	Solid/ Hazardous Waste	Check compliance of HWM rules	Quantity and quality monitoring	Periodically	Details are provided in EC compliance point No.10 of specific conditions
5	Non routine events and accidental release	Plant drawn, considering likely emergencies and steps required to prevent/limit consequences.	Mock drills and records of the same.	Periodic during process activities	Every year 4nos. mock drills carried out in the premise on rotational basis covering all plants.
6	Green Belts	Vegetation, green belt development	More than 50,000 Trees / Year	Once a year	Green belt area is about 36% land area. Total area: 1126078.27 sq.mt Green belt area: 409030.00 sq.mt

Atul Ltd

Project: Expansion of dyes , Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit
EC No. F.NO. J-11011|108|2015-IA-II(I) dated August 03, 2021
Report period – April 2022 to September 2022

<table>
<tr><th>Sr. No</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific conditions:</td></tr>
<tr><td>(i)</td><td>The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.</td><td>
Complied.
The effluent quantity to be discharged is well within the prescribed limit of 20514 KLD as per the existing CRZ clearance only.
The average wastewater generation for the report period is 8796 m³/day m³/day only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Wastewater generation m³</th><th>October 2022</th><th>November 2022</th><th>December 2022</th><th>January 2023</th><th>February 2023</th><th>March 2023</th></tr>
<tr><td>Month wise</td><td>270120</td><td>254993</td><td>240442</td><td>271134</td><td>246851</td><td>317613</td></tr>
<tr><td>Per day</td><td>8714</td><td>8500</td><td>7756</td><td>8746</td><td>8816</td><td>10246</td></tr>
</table>
The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summary is given below:
<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period October 2022 – March 2023</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>20514</td><td>7756</td><td>10246</td><td>8796</td></tr>
</table>
</td></tr>
<tr><td>(ii)</td><td>No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.</td><td>Complied.
No banned pesticides/chemicals is manufactured nor is any banned raw material used.</td></tr>
<tr><td>(iii)</td><td>The company shall comply with all the environmental protection measures</td><td>Complied.
All the environmental protection measures and safeguards proposed are implemented.</td></tr>
</table>

	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.	Sr No.	Potential impact	Action to be followed	Parameters for monitoring	Frequency of monitoring	Status of Compliance
		1	Air Emission	Adequate stack height APCM-Multi Cyclone & Scrubber is provided as APCM AAQ within the project premises and nearby habitations to be monitored. All vehicles to be PUC certificate	SPM, RSPM, SO2 and NOx, Vehicle logs to be maintained.	Monthly through external agency NABL Approved	Stack and APCM details are provided in EC Compliance Point No.4 of Conditions. Quality of gaseous emission and AAQ
		2	Noise	Noise generating from operation of boiler, cooling towers &plant & M/c area to be monitored.	Spot noise level Recording	Monthly through NABL Approved external agency	Carried out at the periphery of whole plant premises
		3	Waste Water Discharge	Compliance to the wastewater discharge standards complete effluent treatment Plant- Primary + Secondary & MEE, ZLD is achieved	pH, TSS, TDS, COD, BOD, Oil & Grease	Monthly through NABL Approved external agency	Discharge effluent is analyzed on daily basis.

		4	**Solid/ Hazardous Waste**	Check compliance of HWM rules	Quantity and quality monitoring	Periodically	Details are provided in EC compliance point No.10 of specific conditions
		5	**Non routine events and accidental release**	Plant drawn, considering likely emergencies and steps required to prevent/limit consequences.	Mock drills and records of the same.	Periodic during process activities	Every year 4nos. mock drills carried out in the premise on rotational basis covering all plants.
		6	**Green Belts**	Vegetation, green belt development	More than 50,000 Trees /Year	Once a year	Green belt area is about 36% land area. Total area: 1126078.27 sq.mt Green belt area: 409030.00 sq.mt

(iv) The treated effluent of 20514 KLD proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

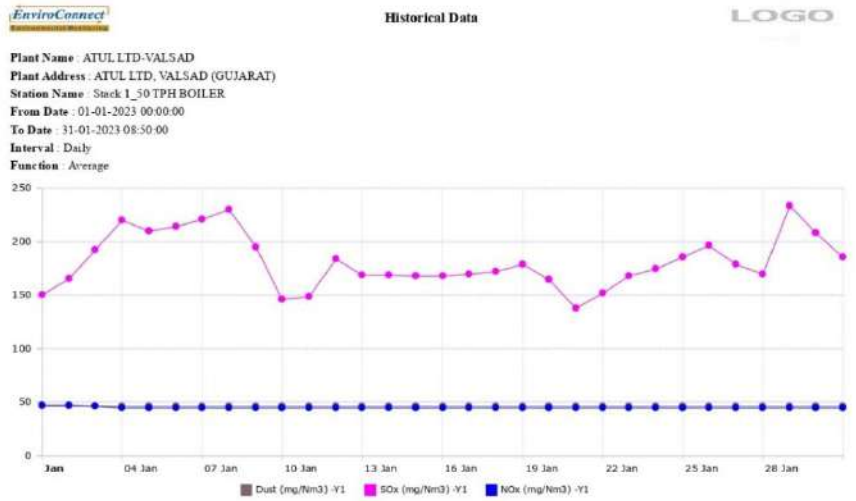
Complied.

The treated effluent is meeting with standards stipulated by state pollution control board's discharge norms and values of various parameters of treated effluent is given in **Table 1**.

The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr No.	Parameter	Limit Mg/l	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	pH	5.5 to 9.0	6.9	7.5	7.2
2	Temperature	40 oC	29.0	30.2	29.6
3	Colour (pt. co. scale)in units	---	30.0	50.0	38.3
4	Suspended solids	100	32.0	58.0	47.5
5	Oil and Grease	10	3.8	6.9	5.0

		6	Phenolic Compounds	5	0.7	1.0	0.8
		7	Cyanides	0.2	ND	ND	ND
		8	Fluorides	2	0.7	1012.0	169.3
		9	Sulphides	2	0.5	0.9	0.7
		10	Ammonical Nitrogen	50	7.3	12.4	10.0
		11	Arsenic	0.2	ND	ND	ND
		12	Total Chromium	2	0.1	0.2	0.1
		13	Hexavelent Chromium	1	ND	ND	ND
		14	Copper	3	0.2	0.3	0.2
		15	Lead	2	ND	ND	ND
		16	Mercury	0.01	ND	ND	ND
		17	Nickel	5	0.1	0.2	0.1
		18	Zinc	15	0.3	0.7	0.5
		19	Cadmium	2	ND	ND	ND
		20	Phosphate	5	1.3	1.9	1.6
		21	BOD (3 days at 27oC)	100	43.0	68.0	53.0
		22	COD	250	198.0	238.0	224.0
		23	Insecticide/Pesticide	Absent	ND	ND	ND
		24	Sodium Absorption Ratio	26	3.7	9.0	6.5
		25	Manganese	2	0.1	0.2	0.1
		26	Tin	0.1	ND	ND	ND
		27	Bio Assay Test	90% survival of fish after 96 hrs. in 100% effluent %	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent
(v)	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue	**Complied.** Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration as per CPCB guidelines and also connected to GPCB and CPCB website. Web camera with night vision capability and flow meters in ETP is already installed.					

	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.	 EnviroConnect **Historical Data** LOGO **Plant Name** : ATUL LTD-VALSAD **Plant Address** : ATUL LTD, VALSAD (GUJARAT) **Station Name** : Stack 1_50 TPH BOILER **From Date** : 01-01-2023 00:00:00 **To Date** : 31-01-2023 08:50:00 **Interval** : Daily **Function** : Average 250 200 150 100 50 0 Jan 04 Jan 07 Jan 10 Jan 13 Jan 16 Jan 19 Jan 22 Jan 25 Jan 28 Jan Dust (mg/Nm3) -Y1 SOx (mg/Nm3) -Y1 NOx (mg/Nm3) -Y1 **Legends** : < - Average with less data, **C** - Calibration mode, **M** - Maintenance mode, **S** - Data under scrutiny, **B** - Bad data, **H** - High limit crossed, **L** - Low permissible limit crossed Parameter / Unit / Limit: Dust mg/Nm3 0.00 - 50.00; SOx mg/Nm3 0.00 - 280.00; NOx mg/Nm3 0.00 - 100.00 01-01-2023 00:00:00: 45.94 / 149.88 / 47.04 02-01-2023 00:00:00: 46.08 / 164.90 / 47.19 03-01-2023 00:00:00: 46.12 / 192.40 H / 46.34 04-01-2023 00:00:00: 46.12 / 220.17 H / 44.52 05-01-2023 00:00:00: 46.15 / 209.62 / 44.56 06-01-2023 00:00:00: 46.15 / 214.08 / 44.55 07-01-2023 00:00:00: 46.12 / 220.65 / 44.52 08-01-2023 00:00:00: 46.13 / 229.51 H / 44.53 09-01-2023 00:00:00: 46.11 / 194.47 H / 44.50 10-01-2023 00:00:00: 46.14 / 145.94 / 44.54 11-01-2023 00:00:00: 46.17 / 148.41 / 44.58 12-01-2023 00:00:00: 45.93 / 183.44 / 44.30 13-01-2023 00:00:00: 46.15 / 168.71 / 44.56 14-01-2023 00:00:00: 46.15 / 168.31 / 44.56 15-01-2023 00:00:00: 46.14 / 167.99 / 44.55 16-01-2023 00:00:00: 46.14 / 167.63 / 44.54 17-01-2023 00:00:00: 46.15 / 169.19 / 44.55 18-01-2023 00:00:00: 46.16 / 171.96 / 44.56 19-01-2023 00:00:00: 46.15 / 179.07 / 44.55 20-01-2023 00:00:00: 46.14 / 164.37 / 44.55 21-01-2023 00:00:00: 46.16 / 137.88 / 44.56 22-01-2023 00:00:00: 45.81 / 152.24 / 44.19 23-01-2023 00:00:00: 46.10 / 167.48 / 44.61 24-01-2023 00:00:00: 46.08 / 174.52 / 44.46 25-01-2023 00:00:00: 46.09 / 185.71 / 44.49 26-01-2023 00:00:00: 46.14 / 196.20 / 44.54 27-01-2023 00:00:00: 46.11 / 178.35 / 44.50 28-01-2023 00:00:00: 46.13 / 169.28 / 44.52 29-01-2023 00:00:00: 46.14 / 233.27 H / 44.54 30-01-2023 00:00:00: 46.13 / 207.80 / 44.52 31-01-2023 00:00:00: 46.16 < / 185.62 < / 44.56 <
(vi)	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office	**Complied.** The storage of toxic/hazardous raw material is bare minimum with respect to their quantity and inventory.

Sr No.	Name of RM	Nos of tank	Capacity	Control Measures Provided
1	65% Oleum	2	65 MT	Dyke wall with valve, do not allow the spill to mix with water, vent with Acid seal, spare storage tank for emergency

	of Ministry and SPCB along with the compliance report.					transfer, Dry sand beds for spill Control, tank level meter
		2	Chlorine	4	200	Two standby tank, DCS controlling, Hypo scrubbing, SCBA, Emergency chlorine kit & hood blower etc.
		3	Epichloro-hydrin	6	55 M^3	Flame arrester earthing, dyke wall with valve which do not allow liquid spill to go to normal drain.
		4	Sulphur Trioxide (Group 2)	2	13 MT	Dyke wall with valve, with valve do not allow the spill to mix with water, vent with Acid seal, spare storage tank for emergency transfer
		5	Ammonia Anhydrous	1	10	High Alarm switch Water sprinkler, Fog Nozzles, Dyke wall
		6	65% Oleum	2	72	Respirators, Dry Sand, Dyke wall, Spare tank, High alarm switch
		7	Caustic	4	530 MT	Dyke wall, LI & LT, DCS controlling etc.
		8	Hydrogen	1	100 nm^3	Prohibited for men & vehicle movement, Isolated storage, FLP , Flam arrester, PG & PT, Fire hydrant, 7 Fire extinguisher etc.
		9	Chloro Sulphonic Acid	4	30	Respirators, Dry Sand, Dyke wall, spare tank
		10	Sulfuric acid	4	800	Emergency tank, Dyke wall, LT, DCS controlling, Level alarm etc.
		11	Liq. SO_3	3	40 MT	Emergency tank, LT & LI, DCS controlling, Level alarm etc.
		12	HCl	3	200 KL	Dyke wall, LI & LT, DCS controlling etc.
(vii)	Occupational health center for	Complied. Being done on regular basis as per the Factories Act & rules.				

	surveillance of the workers 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.	Occupational health surveillance of the workers is carried out on a regular basis as per section-41 C of the factories act and ruke-68T of Gujarat Factories Rules and records are maintained. Regular medical check-up of all employees are done by in-house doctors. . The following medical check-up has been carried out during report period: Medical Check-Up: Various types of tests being performed are as below; 1. Pre-employment check-up: 1. Vision 2. Colour blindness 3. CBC 4. Urine 5. Height 6. Weight 7. B/P 8. Pulse 9. Habit 10. Personal History 11. Family History 12. Identification k 2. Annual Check-up: 1. Physical check-up 2. Vision 3. Blood 4. Urine 5. PFT 6. ECG Our occupational health centre & Pathology Lab is equipped with necessary facilities under supervision of factory medical officer with trained three EHS persons. Medical Facilities: ❑ First Aid boxes in all plants ❑ Central Ambulance Room in the middle of the factory ❑ Two Ambulance Vans. Out of which one is equipped with ICU facilities. ❑ Medical Center

Sr No.	Employee	Nos. during report period
1	Staff	1459
2	Operators	
3	Workers	

		❑ Three full time AFIH certified doctors. ❑ Equipped with 3Beds ❑ Full equipped Pathological lab with advanced diagnostic equipment ❑ ECG Equipment ❑ Cardiac monitor ❑ Defibrillator ❑ Finger pulse Oxy meter ❑ Pulmonary Function Test Apparatus ❑ 02Administration ❑ Antidotes with routine Important and Vital lifesaving Drugs Tie-up with Kasturba Hospital, Valsad, and Pardi Hospital, Pardi, respectively 7 kms and 3 kms away from Atul   We also have tie up with external two hospitals (Pardi Hospital and Kasturba Hospital). We have medical check-up schedule once in quarter for Insecticide plant's employees Other necessary items including First-aid medicines, antidotes and equipment as prescribed in the schedule the under Rule-68 U (b) of the Gujarat factories rules are also been provided.
(viii)	Training shall be imparted to all employees on safety and health aspects of chemical handling. Safety and visual reality training shall also be provided to employees.	**Complied.** Company is providing training which cover all relevant workplace policies, procedures and practices to ensure that staff have the appropriate skills and knowledge to perform their work safety and according to the legislative requirements and the departments and work place procedures. All employees and others have a duty to comply with instructions given for workplace health and safety. Employee training which generally include: • First aid training • Firefighting training – Use of Fire Hydrant /Extinguisher • Handling of Compressed Gas Cylinder • Work Permit System, Use of Spill Kit • Handling of Solvents • Operation of ETP &MEE • Handling of Hazardous waste • Handling of Biomedical waste

		• Scrap yard management • 111 – A training as per factory Act • General instruction training; e.g. workplace communication processes, incident reporting, lock down, evacuation and medical emergency procedures, mock drill. • Job-specific training e.g. safe work procedures for the use of equipment, SOP of manufacturing process & safety and health aspect of chemical handling. • Conducted OSHAS & EMS Programme. • Hygiene, Stress management & skill development. We have regularly arrange safety training programme for our employees in every month EHS training calendar | March 2023 Process Safety Management March 15 , 2023 — Wyeth conference Training module | Grade | Duration | Time | Faculty Basics of process safety management | Grade 3, 4 and 5 | 2 hours | 08:30 am - 10:30 am | Nihar Pathak Management of change | Grade 3, 4 and 5 | 2 hours | 10:45 am - 12:45 pm | Nihar Pathak Incident classification, investigation and reporting | Grade 3, 4 and 5 | 2 hours | 01:30 pm - 03:30 pm | Aniket Chauhan | Parimal Shah Emergency preparedness and response | Grade 3, 4 and 5 | 2 hours | 03:45 pm - 5:30 pm | Parimal Shah Workplace Safety March 24, 2023 — Wyeth conference Training module | Grade | Duration | Time | Faculty Chemical storage, handling and transportation | Grade 3, 4 and 5 | 2 hours | 08:30 am - 10:30 am | Parimal Shah Hazard identification and risk assessment | Job safety analysis | Grade 3, 4 and 5 | 2 hours | 10:45 am - 12:45 pm | Parimal Shah Permit to work | Grade 3, 4 and 5 | 2 hours | 01:30 pm - 03:30 pm | Prasad Pitre Safety observation audit | Grade 3, 4 and 5 | 2 hours | 03:45 pm - 5:30 pm | Parimal Shah Photograph of safety training  
(ix)	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling . Fire-	**Complied.** A well designed Fire hydrant system is adequate and as per standards. **Fire hydrant Network details:** • Four full - fledged fire hydrant system in the company Water Storage Capacity - 50 million Liters • Total length of hydrant line – 15 km • Fire Fighting Equipment o DCP1350 o CO_2 776 Foam : 05Trolly

	fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	• Fire Tenders
		  ○ One fire tender having 1800 Lit water capacity
		  ○ Second multipurpose fire tenders having 5000 Lit water &500Foam
		  ○ Third Multipurpose tender having facility of DCP - 500 Kg, Foam – 500 lit and Water – 4500 Lit.
		• SCBA sets – 35nos.
		• Emergency alarm system – 532 nos. points spread across the company.
		• Fire station manned round the clock with Siren and Annunciation System.
		• Regular Testing on every Monday.
		• Smoke detectors in the office and labs.
		• Auto water deluging system at critical reactors.
		• Auto water sprinkler system at tank farms.

(x)	Solvent management shall be carried out as follows : (a) Reactor shall be connected to chilled brine condenser system.	Complied. Condensers with chilling systems are provided at point of Solvent recovery to minimized vapour loss as shown below:-   Condenser at Solvent recovery
	(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied. We have provided seals at all Reactors and pump's in order to prevent leakage as shown below:-   Seal at Stirrer Pump Seal
	(c) Solvents shall be stored in a separate space specified with all safety measures	Complied. We have made separate provision for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards and control measures.

		  Tank Farm
	(d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done	Complied. Earthing pit is provided in all electrical equipment wherever solvent handling is done as below:-  Earthig Pit
	(e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses.	Complied. Entire plant is flame proof installations, storage tanks are provided with breather valve for all prevention of losses. Separate provision is made for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards
	(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	All the solvent storage tanks are being connected with condensers & chilled water circulation, Spent solvents are recovered as far as possible and all venting equipment are provided with condenser system & scrubber.
(xi)	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	Complied. The action plan submitted for controlling the particulates emissions in the factory is satisfactorily implemented. Details of flue stack results, ambient air monitoring measured in fugitive emission is given in Table 2 and 3 respectively. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Summary of Flue Stack results:

Sr No.	Parameter	Standard values as per CCA	Unit	Values for the period October 2022 – March 2023		
				Min.	Max.	Avg.
1	PM	100	mg/Nm^3	41.6	60.4	50.01
2	PM (New Boiler 50 TPH)	50	mg/Nm^3	29.4	43.9	36.2
3	SO2	600	mg/Nm^3	281	399	321.50
4	NOx	600	mg/Nm^3	271	310	292.06
5	NOx (New Boiler)	300	mg/Nm^3	250	296	277

Summary of Ambient Air Quality results:

Station	Parameter	Limit micro - gm/NM^3	Values for the period October 2022– March 2023		
			Min.	Max.	Avg.
66 KV	PM2.5	60	31.0	46.0	37.8
	PM10	100	50.0	63.0	54.0
	SO_2	80	19.1	26.4	21.6
	NO_2	80	23.4	29.7	27.4
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Opposite Shed D	PM2.5	60	22.4	57.6	34.0
	PM10	100	46.2	56.2	51.1
	SO_2	80	14.8	26.7	19.5
	NO_2	80	18.3	30.1	24.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
West site ETP	PM2.5	60	28.0	35.0	31.2
	PM10	100	43.0	50.0	46.7
	SO_2	80	20.5	29.6	24.4
	NO_2	80	23.2	31.4	26.2
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
North site ETP	PM2.5	60	29.0	35.0	32.5
	PM10	100	36.0	49.0	44.2
	SO_2	80	16.7	21.3	18.6
	NO_2	80	24.7	27.8	26.3
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
TSDF	PM2.5	60	25.0	32.0	28.5
	PM10	100	49.0	61.0	54.0
	SO_2	80	20.3	24.0	22.3

			NO_2	80	29.4	33.4	30.8
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Main Guest House	PM2.5	60	24.2	33.4	29.4
			PM10	100	40.3	54.3	50.8
			SO_2	80	15.1	26.9	19.2
			NO_2	80	16.3	27.8	23.1
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Wyeth Colony	PM2.5	60	26.0	32.0	29.7
			PM10	100	50.0	60.0	55.7
			SO_2	80	14.8	21.6	16.9
			NO_2	80	24.6	40.2	34.3
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Gram panchayat hall	PM2.5	60	23.8	31.2	27.1
			PM10	100	36.7	56.1	51.1
			SO_2	80	14.2	29.4	20.0
			NO_2	80	16.9	28.7	23.4
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Main office, North site	PM2.5	60	19.7	31.7	26.1
			PM10	100	46.2	56.9	51.6
			SO_2	80	14.3	25.4	18.9
			NO_2	80	21.2	29.8	24.4
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Haria water tank	PM2.5	60	18.4	32.8	27.0
			PM10	100	45.3	57.8	53.7
			SO_2	80	13.4	26.9	21.0
			NO_2	80	20.3	29.7	23.7
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
(xii)	Volatile organic compound (VOCs)/Fugitive emission shall be controlled up to 99.99% with effective chillers/modern technology.	Complied. All the VOCs/ Fugitive emission are attached with chilled brine solution in secondary condenser for condensation of VOCs.					

<table>
<tr>
<td>(xiii)</td>
<td>Total fresh water requirement, proposed to be met from Par River shall not exceed 18050 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.</td>
<td>
Complied.
The average water consumption for the report period is Avg. 9557 KL/day only, which is well within the limit. Detail of Fresh water consumption break up is given in below table:
<table>
<tr><th>Sr No.</th><th>Month</th><th>Quantity (KL/Month)</th><th>Avg. Quantity (KL/Day)</th></tr>
<tr><td>1</td><td>October - 2022</td><td>293609</td><td>9471</td></tr>
<tr><td>2</td><td>November -2022</td><td>277166</td><td>8941</td></tr>
<tr><td>3</td><td>December - 2022</td><td>261350</td><td>8431</td></tr>
<tr><td>4</td><td>January - 2023</td><td>294711</td><td>9507</td></tr>
<tr><td>5</td><td>February - 2023</td><td>305519</td><td>9855</td></tr>
<tr><td>6</td><td>March - 2023</td><td>345232</td><td>11137</td></tr>
</table>
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<tr>
<td>(xiv)</td>
<td>Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.</td>
<td>
Complied.

Company has expanded its harvesting pond capacity to 14000 KL capacity pond to harvest rain water

We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water.

We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.
In addition to above, surface runoff water and roof top water is used to recharge bore wells.

No Process effluent/ Any waste water mix with storm water.

Total No. of Pond: 2 Nos.

Capacity of Pond: (1 Nos. x 12000 KL) & (1 Nos. x 2000 KL)

Company has harvest 468355 KL rain water during 2022


Water Harvesting Project at Colony


Water Harvesting Project near Coconut
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<tr>
<td>(xv)</td>
<td>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 material 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 vapor recovery system
(f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.</td>
<td>Complied.
All the liquid ingredients are being charged through measure vessels and/or flow meters to control on quantity as per the stoichiometry. All the solid ingredients are charged after proper weighment only. All these meters and weighing machines are calibrated and records are maintained.

Sodium sulfate, sodium thio sulphate, brine, MEE salt, sodium hypochlorite, copper hydroxide, spent acid, etc. are few by - products from the process which are being sold for using the same either as raw material or as substitute to raw materials. Also, fly ash and gypsum are being used as raw material for brick manufacturing. Sodium hypochlorite, sodium hydro sulfide, etc. are being used as raw material in other processes.

Automated filling system for our agro products, polymers, resorcinol, and dyes for small and bulk packing is provided to minimize spillage.

Chemicals and solvents are handled in close handling system through pipe lines only.

All the reactors are equipped with vents/stacks, which are connected to either vapor recovery system consisting of condensers, ejector/vacuum pumps and/or scrubbers. Genoscorb technology for solvent vapor recovery is also installed and working perfectly.

Many equipment like reactors, spray dryers, condenser wherever necessary are being cleaned with high pressure sprayer / jet to reduce waste water generation.</td>
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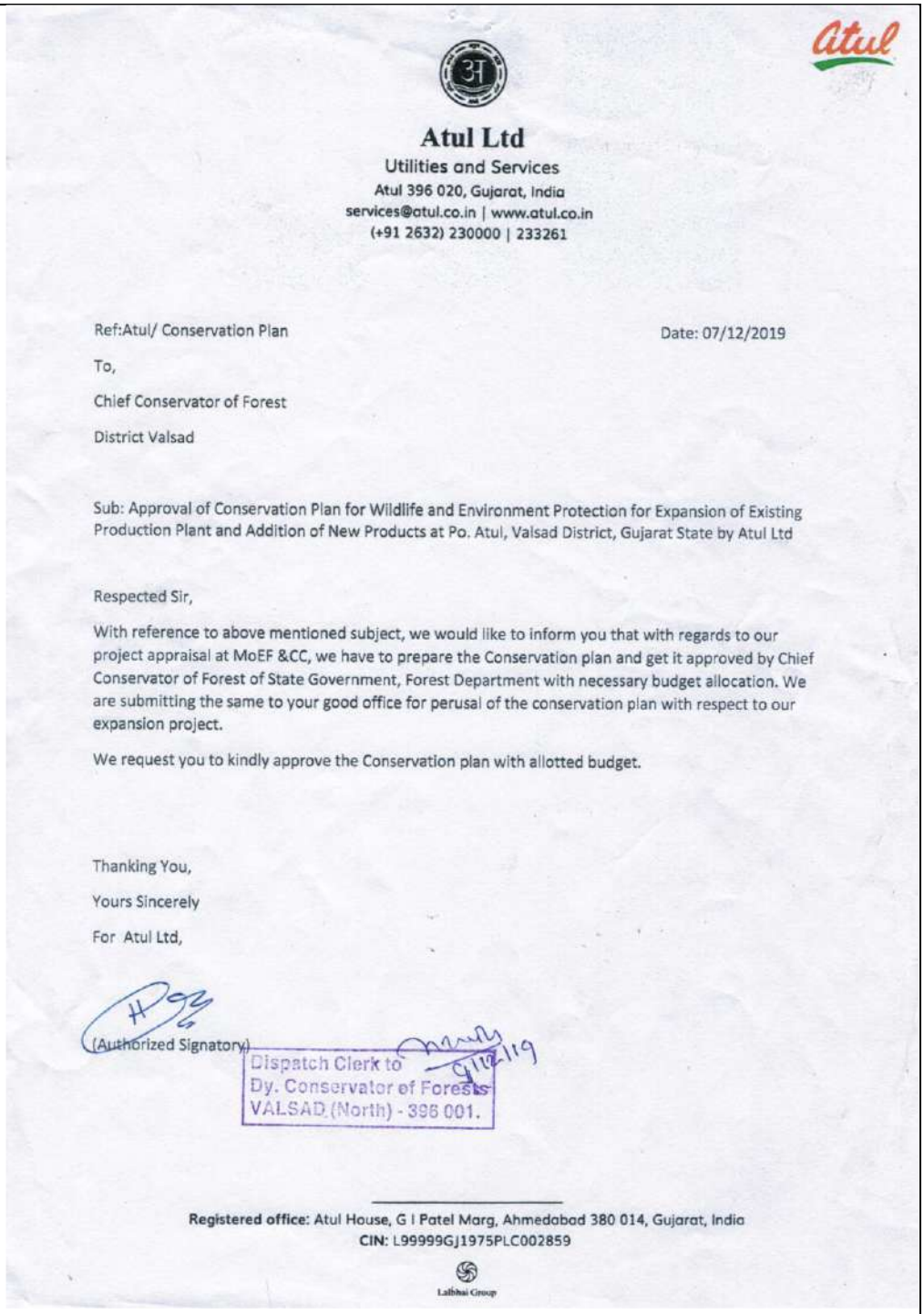
<tr>
<td>(xvi)</td>
<td>The greenbelt of at least 5-10 m width shall be developed/strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress have to be planted with</td>
<td>Complied.
Company has already developed more than 36 % of greenbelt in Atul complex
Total Industrial Plot area: 1126078.27 sq.mt
Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)
We planted approximately 39850 trees of difference species in report period at different location given in below table
<table>
<tr><th>Location</th><th>Nos. of trees</th></tr>
<tr><td>Near river bank Ghat</td><td>21350</td></tr>
<tr><td>Parnera Hill, Chichwada road</td><td>7300</td></tr>
<tr><td>Hill side colony 5 & Outside area</td><td>2000</td></tr>
<tr><td>Secure landfill site Yard</td><td>9200</td></tr>
<tr><td>Total</td><td>39850</td></tr>
</table>
</td>
</tr>
</table>

	spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	 
(xvii)	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department /Village Administration.	We have Planted approximately 7300 trees at Parnera hill. Remaining 2700 trees will be planted soon.     Plantation at Parnera Hill
(xviii)	As committed , at least Rs 5 lakhs shall be allocated for conservation of Schedule | species. The implementation report shall be submitted to the IRO, MoEFCC,	Our conservation plan is under approval and we will implement the same as per the final approval.

		
(xix)	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be	Complied. All the issued raised during public hearing were replied satisfactorily. The action plan proposed has been followed in true spirit.

	completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	
(xx)	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.	Complied. Company is having separate Environmental Management Cell equipped with full - fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is also established for research work for the study of various aspects related to environment and its remedial measures. Company has developed a separate laboratory equipped with equipment such as pH meter, TD33S meter, COD meter, Glass ware, gas chromatography system, and oven, muffle furnace, etc. to carry out testing of routine parameters. However sampling and testing is carried out by GPCB approved and company appointed consultant also. Currently the parameters measured in - house are pH, COD, TDS, MLVSS and MLSS.
B. General conditions: The grant of environmental clearance is further subject to compliance of other general condition as under :		
(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 and Climate Change/SEIAA as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for	Noted. We ensure that there is no further expansion or modifications related to EC in the plant. For any deviations or alteration in the plant we will opt prior permission from MoEF.

<table>
<tr><td></td><td>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.</td><td></td></tr>
<tr><td>(ii)</td><td>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 Planing, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.</td><td>Complied.
We are complying with all the requirement of MSIHC rule 1989 as amended in October, 1994 and January, 2000 and having proper storage and handling system, Onsite emergency plan, Licenses, reporting, etc.
<table><tr><th>Conditions</th><th>Compliance</th></tr><tr><td colspan="2">4. Responsibilities of the occupier for management of hazardous and other wastes.</td></tr><tr><td>(1) For the management of hazardous and other wastes, an occupier shall follow the following steps, namely:-
• Prevention;
• Minimization;
• Reuse,
• Recycling;
• Recovery, utilization including co-processing;
• Safe disposal.</td><td>Complied.

We are using advanced technology and processes to minimization of waste generation for prevention, reuse, recycling and safe disposal to the authorized actual user TSDF /CHWIF facility.</td></tr><tr><td>2) The occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes.</td><td>Complied.

We are ensuring for safe and environmentally sound management of hazardous and other wastes.</td></tr><tr><td>(3) The hazardous and other wastes</td><td>Complied.</td></tr></table></td></tr>
</table>

		generated in the establishment of an occupier shall be sent or sold to an authorized actual user or shall be disposed of in an authorized disposal facility.	We have our own captive TSDF and Incinerator facility.
		(4) The hazardous and other wastes shall be transported from an occupier's establishment to an authorized actual user or to an authorized disposal facility in accordance with the provisions of these rules.	Noted & Complied.
		(5) The occupier who intends to get its hazardous and other wastes treated and disposed of by the operator of a treatment, storage and disposal facility shall give to the operator of that facility, such specific information as may be needed for safe storage and disposal.	Complied. We are having separate hazardous waste storage facility with all safety measures to avoid accident. Also we are adopting safe disposal and storage practices.
		(6) The occupier shall take all the steps while managing hazardous and other waste to- • contain contaminants and prevent accidents and limit their	Complied

		consequences on human beings and the environment; and Provide persons working in the site with appropriate training, equipment and the information necessary to ensure their safety.	
		(6) Grant of authorization for managing hazardous and other wastes.	**Complied.** We are strictly agreeing, complying & will continue to comply with all the stipulations made by GPCB as per latest CC&A no. **AWH 105110** valid till September 30, 2025.
		(7) Power to suspend or cancel an authorization.	**Not Applicable.**
		(8) Storage of hazardous and other wastes.	**Complied.**
		(9) Utilization of hazardous and other wastes.	**Complied.** Recovered spent solvent are being reused. Used oil & discarded drums are being sent to authorize recycler.
		(10)Standard Operating Procedure or guidelines for actual users.	**Noted.**
		(11) Import and export (transboundary movement) of hazardous and other wastes.	**Not Applicable.**
		(12) Strategy for Import and export of hazardous and other wastes.	**Not Applicable.**
		(13) Procedure for import of hazardous and other wastes.	**Not Applicable.**
		(14) Procedure for Export of hazardous and other wastes from India.	**Not Applicable.**
		(15) Illegal traffic.	**Not Applicable.**

		(16) Treatment, storage and disposal facility for hazardous and other wastes.	Complied. We have our own captive TSDF and Incinerator. We also send waste to authorized facility as per the valid authorization.
		(17) Packaging and labelling – Form 8.	Complied. All hazardous waste transportation is being done through appropriate packing and labelling as per Form-8.
		(18) Transportation of hazardous and other wastes.	Complied. Waste is being transported through TREM Card as per Hazardous waste rules.
		(19) Manifest system (Movement Document) for hazardous and other waste to be used within the country only.	Complied. We are sending waste through online manifest system of GPCB XGN.
		(20) Records and returns.	Complied. We are maintaining & submitting all records like Form-3, Form-4 & environment statement Form-V periodically to GPCB.
		(21) Responsibility of authorities The authority specified in column (2) of Schedule VII shall perform the duties as specified in column (3) of the said Schedule subject to the provisions of these rules.	Noted
		(22) Accident reporting. Where an accident occurs at the facility of the occupier handling hazardous or other wastes and operator of the disposal facility or during transportation, the occupier or the operator or the transporter shall	Noted. No accidents were reported during report period during handling and transportation of hazardous or other wastes.

		immediately intimate the State Pollution Control Board through telephone, e-mail about the accident and subsequently send a report in Form 1.	
		(23) Liability of occupier, importer or exporter and operator of a disposal facility.	
		(a) The occupier, importer or exporter and operator of the disposal facility shall be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.	Noted.
		(b) The occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.	Noted.
		(24) Appeal	
		(a) Any person aggrieved by an order of suspension or cancellation or refusal of authorization or its renewal passed by the State Pollution Control Board may, within a period of	Noted & Complied

		thirty days from the date on which the order is communicated to him, prefer an appeal in Form 12 to the Appellate Authority, namely, the Environment Secretary of the State. (b) The Appellate Authority may entertain the appeal after expiry of the said period of thirty days, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time. (c) Every appeal filed under this rule shall be disposed of within a period of sixty days from the date of its filing.	
(iii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied. We are using LED lights.	
(iv)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers,	Complied. In built acoustic enclosure, silencer and insulation are provided on all source of noise generation to keep over all noise level within the stipulated standards like turbine, DG set, etc. The ambient noise level confirm to the standard prescribed under EPA. The same is being regularly monitored and its details are given in Table 4 and 5.	

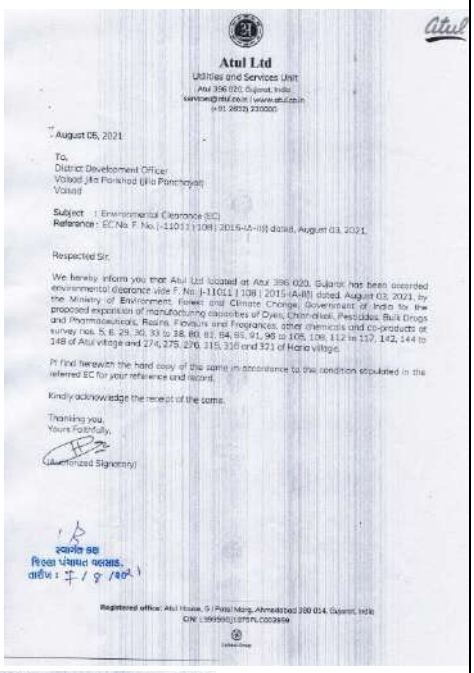
	enclosures etc. On all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summary is given below: **Noise level monitoring data (Day Time):** **Noise level monitoring data (Night Time):**
(v)	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area.	**Complied.** Company is doing CSR activities for up gradation of surrounding area and well fare of nearby localities. List of CSR activities is given in **Table 6.**

Sr No.	Location	Permissible Limits, dBA	Values for the period October 2022 – March 2023		
		75	Min.	Max.	Avg.
1	66KVA substation	75	60.5	65.3	63.0
2	Opposite shed D	75	60.7	65.4	62.7
3	ETP West site	75	63.5	68.3	66.0
4	ETP North site	75	59.2	63.7	61.4
5	Near TSDF	75	63.2	66.2	64.6
6	Near Main guest house	75	61.2	66.9	64.8
7	At Wyeth Colony	75	60.7	63.5	62.1
8	Gram Panchayat Hall	75	65.4	67.5	66.5
9	Near Main Office North site	75	60.8	66.2	63.7
10	Haria Water tank	75	63.0	67.3	65.5

Sr No.	Location	Permissible Limits, dBA	Values for the period October 2022 – March 2023		
			Min.	Max.	Avg.
1	66KVA substation	70	52.9	56.3	54.4
2	Opposite shed D	70	44.4	49.3	47.5
3	ETP West site	70	50.4	53.2	51.8
4	ETP North site	70	50.0	53.9	51.5
5	Near TSDF	70	55.3	59.6	57.4
6	Near Main guest house	70	54.9	61.6	58.4
7	At Wyeth Colony	70	48.7	55.3	51.6
8	Gram Panchayat Hall	70	51.3	57.3	54.5
9	Near Main Office North site	70	51.8	56.7	53.9
10	Haria Water tank	70	50.7	53.4	52.2

<table>
<tr><td></td><td>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></td></tr>
<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.

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
October 2022 – March 2023</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">1874</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>32</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>159</td></tr>
<tr><td>5</td><td>Occupational health</td><td>20</td></tr>
<tr><td>6</td><td>Green belt</td><td>15</td></tr>
<tr><td colspan="2">Total</td><td>2100</td></tr>
</table></td></tr>
</table>

(vii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	**Complied.** The clearance letter has been circulated to village Panchayat, Zilla Parishad, District Industries Centre and the acknowledgement of the same is attached.  Atul Ltd Utilities and Services Unit August 05, 2021 To, Sarpanch, Atul Gram Panchayat, Atul Subject : Environmental Clearance (EC) Reference : EC No. F. No. J-11011 / 108 / 2015-IA-III dated, August 03, 2021 Respected Sir, We hereby inform you that Atul Ltd located at Atul 396 020, Gujarat has been accorded environmental clearance vide F. No. J-11011 / 108 / 2015-IA-III dated, August 03, 2021, by the Ministry of Environment, Forest and Climate Change, Government of India for the proposed expansion of manufacturing capacities of Dyes, Chlorotoluol, Pesticides, Bulk Drugs and Pharmaceuticals, Resins, Flavours and Fragrances, other chemicals and co-products at survey nos. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul village and 274, 275, 276, 315, 316 and 321 of Hario village. Pl find the hard copy of the same in accordance to the condition stipulated in the referred EC for your reference and record. Kindly acknowledge the receipt of the same. Thanking you, Yours Faithfully, (Authorized Signatory) Registered office: Atul House, G I Patel Marg, Ahmedabad 380 014, Gujarat, India  Atul Ltd Utilities and Services Unit August 05, 2021 To, District Development Officer Valsad (At Parishad (Jila Panchayat) Valsad Subject : Environmental Clearance (EC) Reference : EC No. F. No. J-11011 / 108 / 2015-IA-III dated, August 03, 2021 Respected Sir, We hereby inform you that Atul Ltd located at Atul 396 020, Gujarat has been accorded environmental clearance vide F. No. J-11011 / 108 / 2015-IA-III dated, August 03, 2021, by the Ministry of Environment, Forest and Climate Change, Government of India for the proposed expansion of manufacturing capacities of Dyes, Chlorotoluol, Pesticides, Bulk Drugs and Pharmaceuticals, Resins, Flavours and Fragrances, other chemicals and co-products at survey nos. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul village and 274, 275, 276, 315, 316 and 321 of Hario village. Pl find herewith the hard copy of the same in accordance to the condition stipulated in the referred EC for your reference and record. Kindly acknowledge the receipt of the same. Thanking you, Yours Faithfully, (Authorized Signatory) Registered office: Atul House, G I Patel Marg, Ahmedabad 380 014, Gujarat, India  Atul Ltd Utilities and Services Unit August 05, 2021 To, General Manager, District Industries Center Valsad Subject : Environmental Clearance (EC) Respected Sir, Pl find herewith the hard copy of the same in accordance to the condition stipulated in the referred EC for your reference and record. Kindly acknowledge the receipt of the same. Thanking you, Yours Faithfully, (Authorized Signatory)
(viii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Regional Office of MoEF&CC, the respective Zonal	**Complied.** This is our first six monthly EC compliance report after receiving EC and we will regularly submit the same.

	Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	
(ix)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Complied. The Environmental statement (Form-V) for each financial year ending 31st March is being submitted to State Pollution Control Board (GPCB) every year time to time on XGN portal as well as hard copy submission. Latest Form V for year 2021-22 is attached as Annexure 1.
(x)	The project proponent shall inform the public 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	Complied. We have been accorded environmental clearance vide F. No. J-11011 | 108 | 2015-IA-II(I) dated, August 03, 2021 and accordingly we have published the advertisement of receiving EC in leading newspapers of region; 2 nos. in vernacular language (newspaper Gujarat Samachar dated August 07, 2021, Newspaper Sandesh dated August 07, 2021) and one in English (Times of India dated August 07, 2021). Thus we have published advertisement within stipulated time. The same has been communicated to your good office vide our letter dated August 20, 2021

	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 newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	  EC Advertisement
(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, as may be applicable to this project.	**Noted.**

Table1: Quality of treated effluent

Sr No.	Parameter	Results						GPCB Limits Mg/l
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	pH	7.21	7.45	6.93	7.14	7.09	7.29	5.5 to 9.0
2	Temperature	29.3	29	29.4	29.5	29.9	30.2	40 °C
3	Colour (pt. co. scale)in units	50	40	30	40	30	40	---
4	Suspended solids	42	53	58	47	32	53	100
5	Oil and Grease	3.8	4.8	3.9	5.6	4.9	6.9	10
6	Phenolic Compounds	0.87	0.72	0.84	0.79	0.84	0.95	5
7	Cyanides	ND	ND	ND	ND	ND	ND	0.2
8	Fluorides	0.82	0.65	0.79	1012	0.93	0.81	2
9	Sulphides	0.94	0.8	0.64	0.46	0.56	0.74	2
10	Ammonical Nitrogen	10.78	12.4	9.13	9.75	10.79	7.25	50
11	Arsenic	ND	ND	ND	ND	ND	ND	0.2
12	Total Chromium	0.083	0.056	0.075	0.089	0.16	0.095	2
13	Hexavelent Chromium	ND	ND	ND	ND	ND	ND	1
14	Copper	0.216	0.172	0.19	0.27	0.23	0.19	3
15	Lead	ND	ND	ND	ND	ND	ND	2
16	Mercury	ND	ND	ND	ND	ND	ND	0.01
17	Nickel	0.124	0.088	0.11	0.15	0.19	0.13	5
18	Zinc	0.43	0.32	0.57	0.72	0.68	0.45	15
19	Cadmium	ND	ND	ND	ND	ND	ND	2
20	Phosphate	1.73	1.25	1.62	1.62	1.92	1.74	5
21	BOD (3 days at 27°C)	52	45	53	43	57	68	100
22	COD	215	198	236	219	238	238	250
23	Insecticide/Pesticide	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Sodium Absorption Ratio	9.03	8.9	3.7	6.27	5.49	5.51	26
25	Manganese	0.136	0.075	0.15	0.12	0.091	0.075	2
26	Tin	ND	ND	ND	ND	ND	ND	0.1
27	Bio Assay Test	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	100% survival of fish after 96 hrs. in 100% effluent	90% survival of fish after 96 hrs. in 100% effluent %
	Note: ND is Not Detected.							

Table 2 : Details of flue gas stack report

				OCT, 2022	NOV, 2022	DEC, 2022	JAN, 2023	FEB, 2023	MAR, 2023
Details of Process and Flue stack									
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site									
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	23.6	31.7	40.8	13.8	18.3	11.3
2	Reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Caustic Chlorine Plant									
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	4.5	5.5	4.6	6.1	5.66	4.54
		HCl	20.0 mg/Nm3	4.62	5.65	4.73	6.27	5.82	4.66
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	5.9	3.9	3.4	5.2	4.32	3.96
		HCl	20.0 mg/Nm3	6.06	4	3.49	5.39	4.4	4.07
FCB Point									
5	Foul Gas Scubber	SO_2	40.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
		NOx	25.0 mg/Nm3						
Sulfuric Acid (East Site)									
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	0.7	0.81	0.75	0.65	0.72	0.66
		Acid Mist	50.0 mg/Nm3	14.8	11.3	14.6	16.3	18.3	17.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.6	4.1	6.2	6.44	4.4	4.72
		HCl	20.0 mg/Nm3	4.7	4.21	6.37	6.62	4.52	4.85
Resorcinol Plant									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	30.1	22.7	24.9	19.7	28.3	37.2
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	14.8	16.2	20.4	16.3	21.6	27
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	51.1	41.6	58.8	41.7	36.9	48.3
		SO_2	40.0 mg/Nm3	13.6	10.7	10.6	8.4	12.8	7.1
		NOx	25.0 mg/Nm3	20.1	17.2	14.9	18.2	21.5	18.2
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	17.1	14.8	18.4	30.6	Not in use	26.4
		NOx	25.0 mg/Nm3	22.8	20.3	23.8	17.1		21.7
2,4-D Plant									
12	Common Scrubber: 2,4D Plant	Cl_2	9.0 mg/Nm3	2.58	4.48	5.8	4.9	6.2	4.1
		HCl	20.0 mg/Nm3	7.8	4.36	6.98	6.03	6.37	4.21
		Phenol	---	ND	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.1	13.62	10.8	10.05	10.8	16.24
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	9.3	7.84	11.9	11.9	7.5	13.08
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not running	Not running	Not running	Not running	Not in proces	Not in proces
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	7.4	5.96	7.2	Not running	6.89	10.25
NBD Plant.									
18	Spray Dryer	PM	150.0 mg/Nm3	Not in use	Not in use	Not in use	Not in use	Not in use	Not in use
19	Scrubber S-802	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	8.8	9.1	4.5	3.9	8.3	12.4
		NOx	25.0 mg/Nm3	13.4	21.6	17.6	14.1	11.6	16.3

Sr No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant									
21	MCPA	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM³						
		SO_2	40 mg/NM³						
22	Fipronil	SO_2	40 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
23	Imidacloprid	NH_3	175 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/Nm3						
25	Stack of Amine Plant	NH_3	175 mg/Nm3	96.2	72.6	59	82.4	124	102
MPSL Plant									
26	Phosgene Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
NICO plant									
28	Central scrubber at Nico Plant	Acetonyrile, IPA	---	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Ester Plant									
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
31	MPP plant scrubber	HCl	20 mg/Nm3	11.7	8.2	7.1	8.4	11.6	7.9
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
Atul West Site									
32	Shed A/05/03/44	Cl_2	9 mg/NM³	Not Running	Not Running	Not Running	Not Running	Not Running	5.1
		HCl	20 mg/NM³						5.24
33	Shed Q2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.5	2.9	3.1	5.24	7.5	5.5
		HCl	20.0 mg/Nm3	5.65	4	3.19	6.39	7.8	6.7
34	Shed B18/02/24	SO_2	40 mg/NM³	20.3	23.4	18.4	21.8	28.3	23.3
		Cl_2	9 mg/NM³	4.5	4.96	3.25	4.2	7.1	6.2
		HCl	20 mg/NM³	4.82	6.09	3.34	4.31	7.3	6.37
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	4.5	3.86	4.9	6.4	Not Running	Not Running
		HCl	20.0 mg/Nm3	4.82	3.76	5.04	6.58		
36	Shed D Nire Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	39.1	Not Running	45.1	Not Running	Not Running
37	Shed D Nire Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running		
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.9	4.8	6.3	8.08	8.1	4.3
		HCl	20.0 mg/Nm3	6.06	4.93	8.47	4.09	6.27	4.42
40	Shed G 16/8/1 (neutral)	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	7.5	9.5	7.09	6.1	3.12	6.3
		HCl	20.0 mg/Nm3	7.6	11.41	7.25	6.27	15.2	11.3
42	Shed KK-13/3/4 Final of Sulfuric acid	SO_2	2.0 kg/T	0.82	ND	0.7	Not Running	0.82	0.78
		Acid Mist	50.0 mg/Nm3	21.6	14.5	27.4		20.6	24.3
43	Shed 115/09/25	HBr	--	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40 mg/NM³						

Sr. No	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/3	SO_2	40 mg/NM^3	Not Running	27.4	Not Running	22.4	Not Running	17.6
		Cl_2	9.0 mg/Nm3		4.2		3.95		3.4
		HCl	20.0 mg/Nm3		4.51		5.35		3.9
45	Shed J12/03/3	SO_2	40 mg/NM^3	ND	13.3	Not Running	Not Running	12.2	13.2
		HCl	20.0 mg/Nm3	7.4	2.5			9.3	14.6
46	Shed N Scrubber Fan N20/06/24	Cl_2	9 mg/NM^3	3.4	5.1	5.8	6.2	6.4	7.4
		HCl	20 mg/NM^3	3.48	6.6	0.96	6.37	ND	ND
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	21.6	16.5	Not Running	20.1	4.8	5.06
48	Sulfer Black Plt	H_2S	--	ND	ND	ND	ND	4.78	5.2
		NH_3	175 mg/NM^3	110	106	125	102	27.8	21.8
49	Sulfer Dyes plt	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	43	58.2	35.6	49.2	45	54.7
50	Flavors & Frag	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-FEH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		SO_2	40.0 mg/Nm3						
		NOx	25.0 mg/Nm3						
		Formaldehyde	10.0 mg/Nm3						
52	PHN Plant	Phosgene	0.1 ppm	Not Running	Not Running	Not Running	Not Running	Not Running	ND
53	PHN-II Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	40.8	30.4	25	18	35	46
55	SPIC II Plant (DCDPS)	SO_2	---	ND	ND	ND	ND	20.6	16.3
56	SPIC I Plant	NH_3	175 mg/Nm3	140	120	90	112	128	104
57	SPIC IV Plant	NH_3	175 mg/NM^3	130	105	87	94	76	98
		SO_2	---	ND	ND	ND	ND	14.8	17.2

Table 3: Ambient Air Monitoring details

Station	Parameter	Limit micro gm/NM^3	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023
66 KV	PM 2.5	60	31	31	38	40	41	46
	PM10	100	56	52	50	53	50	63
	SO_2	80	19.1	20.5	21.2	20.8	21.4	26.4
	NO_2	80	28.9	29.3	27.9	23.4	25.4	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30.1	57.6	26.2	30.7	36.7	22.4
	PM10	100	46.7	53.8	50.8	52.9	56.2	46.2
	SO_2	80	14.8	17.2	15.2	21	22	26.7
	NO_2	80	18.3	22.8	24.1	25.8	30.1	23
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	28	31	34	30	29	35
	PM10	100	48	50	46	45	43	48
	SO_2	80	20.9	22.7	20.5	25.6	26.9	29.6
	NO_2	80	24.1	26.1	23.2	25.6	26.7	31.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	35	33	32	31	35	29
	PM10	100	43	48	44	45	49	36
	SO_2	80	16.7	17.6	18.1	17.8	19.8	21.3
	NO_2	80	26	27.8	25.4	26.7	24.7	26.9
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	26	25	27	30	31	32
	PM10	100	49	51	55	53	55	61
	SO_2	80	20.3	21	24	23	24	21.3
	NO_2	80	29.7	30.5	31.4	33.4	30.6	29.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	28.8	26.8	24.2	30.4	32.5	33.4
	PM10	100	40.3	51.7	50.9	54.3	54.3	53.2
	SO_2	80	21.7	16.1	15.6	15.1	19.7	26.9
	NO_2	80	16.3	23.5	24.2	26.4	27.8	20.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	29	32	30	29	32	26
	PM10	100	50	54	56	58	60	56
	SO_2	80	14.8	16.3	15.1	16.3	17.4	21.6
	NO_2	80	33.6	35	37.1	40.2	35.1	24.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	28.9	24.9	24.8	23.8	31.2	29.1
	PM10	100	36.7	52.4	54.9	50.3	56.1	56.1

	SO_2	80	14.9	14.2	16.7	20.3	24.3	29.4
	NO_2	80	16.9	24.7	24.2	22.3	28.7	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	19.7	25.7	26.8	26	31.7	26.9
	PM10	100	47.6	51.2	56.9	52.1	55.6	46.2
	SO_2	80	18.7	15.9	16.7	14.3	22.6	25.4
	NO_2	80	22.3	22.9	21.2	26.8	29.8	23.6
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	18.4	27.4	26.8	24.1	32.8	32.4
	PM10	100	45.3	53.2	53.7	56.3	57.8	55.9
	SO_2	80	13.4	17.6	16.3	26.4	25.6	26.9
	NO_2	80	20.3	22.7	20.7	21.7	26.9	29.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Table 4 : Noise level monitoring data (Day Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	63.3	62.5	60.5	62.3	63.9	65.3	75
2	Opposite shed D	60.7	61.5	62.8	61.8	65.4	63.7	75
3	West site ETP	64.9	65.2	67.4	68.3	66.7	63.5	75
4	North site ETP	59.2	60.7	61.5	60.9	62.3	63.7	75
5	Near TSDF	63.4	64.8	63.2	66.2	65.9	64.1	75
6	Near main guest house	66.9	65.9	66.3	65.3	63.3	61.2	75
7	At wyeth colony	61.7	62.4	63.5	61.7	60.7	62.3	75
8	Gram panchayat hall	66.1	67.5	65.5	66.9	67.4	65.4	75
9	Near main office North site	65.3	66.2	63.6	60.8	62.1	63.9	75
10	Haria water tank	63	64.2	66.2	67.3	65.8	66.5	75

Table 5: Noise level monitoring data (Night Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	
1	66KVA substation	53.3	55.1	56.3	55.3	53.6	52.9	70
2	Opposite shed D	44.4	46.2	48.4	48.7	47.9	49.3	70
3	West site ETP	51.9	50.4	52.6	51.2	53.2	51.3	70
4	North site ETP	50.3	51.8	50.7	53.9	52.4	50.0	70
5	Near TSDF	58.0	55.4	57.3	58.7	59.6	55.3	70
6	Near main guest house	54.9	56.3	58.1	59.3	60.2	61.6	70
7	At wyeth colony	55.3	53.8	52.2	50.3	48.7	49.4	70
8	Gram panchayat hall	51.3	52.7	54.4	55.4	56.1	57.3	70
9	Near main office North site	51.8	56.7	53.7	52.1	53.2	55.6	70
10	Haria water tank	56.0	54.8	57.1	55.0	56.0	60.2	70

Table 6: CSR Activities

CSR activity done in 2022-23

(₹ lakhs)

No.	Name of project	Budget	Expense
1	Enhancement of educational practices in Kalyani Shala	63.00	63.00
2	Improve teaching methodology for primary school children - Adhyapika project	85.30	85.30
3	Support to Eklavya Model Residential School -Atul Vidyamandir	14.50	14.50
4	Support to develop a school in a tribal area	1.90	1.90
5	Provision of scholarships to needy and meritorious students	4.00	4.00
6	Provide assistance to lesser privileged children	6.90	6.90
7	Provision of education kits to children	9.40	9.40
8	Conservation of manuscripts	32.50	32.50
9	Provide assistance to children with special needs	1.20	1.20
10	Promote learning and life skills among children	1.00	1.00
11	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3.50	3.50
12	Develop a computer lab in a school (West Bengal)	4.00	4.00
13	Support to a school for rennovation of toilets and boundary wall (Uttar Pradesh)	5.00	5.00
14	Support to develop a library	1.50	1.50
	Total education budget (a)	**233.70**	**233.70**
15	Skill training to youth as an apprentices	104.35	104.35
16	Empowerment of women | youth through various vocational training courses	39.50	39.50
17	Develop micro-entrepreneurs to provide sustainable livelihood	15.30	15.30
18	Create livelihood opportunities for tribal families by providing cows	15.60	15.60
19	Empower women through self-help groups- Atul Uttara project	21.60	21.60
20	Support to Industrial Training Institute (ITI)	17.80	17.80
	Total empowerment budget (b)	**214.15**	**214.15**
21	Enhancement of rural health through health camps	41.50	41.50
22	Establish Atul Healthcare Centre	415.00	415.00

Page 3 of 3

23	Promote health and well-being of adolescents and women- Sampoorna project	32.40	32.40
24	Provision of blood units to the needy and deserted patients	2.40	2.40
25	Upgradation of sports infrastructure and equipment	68.00	68.00
26	Promote Fit@50+ Women's Trans Himalayan Expedition	5.00	5.00
	Total health budget (c)	**564.30**	**564.30**
27	Provision of medical treatment to needy patients	23.00	23.00
28	Support to flood affected people in Valsad	5.40	5.40
	Total relief budget (d)	**28.40**	**28.40**
29	Develop community infrastructure in Atul village	160.00	160.00
30	Infrastructure development in Atul and surrounding villages	33.70	33.70
31	Construction of toilet blocks in a school (Maharashtra)	10.30	10.30
	Total infrastructure budget (e)	**204.00**	**204.00**
32	Establishment of solid waste management system in Atul village- Ujjwal Atul	35.60	35.60
33	Initiate solid waste management project in five villages	13.40	13.40
34	Initiate natural resource management project to conserve soil and water	30.60	30.60
35	Conserve energy through solar system	45.60	45.60
36	Set up nature-based wastewater recycling systems	65.00	65.00
37	Conserve water through various interventions	17.00	17.00
38	Enhance green cover- Tree plantation project	39.30	39.30
39	Protection of animals	14.80	14.80
40	Conserve energy through Biogas project	2.50	2.50
	Total conservation budget (f)	263.80	263.80
Total CSR budget (a+b+c+d+e+f)		**1,508.35**	**1,508.35**
Administrative overheads (OH)		74.20	74.20
Total for Atul Limited (CSR budget + OH)		**1582.55**	**1582.55**

Annexure 1: Environmental Statement

Atul Ltd
Utilities and Services Unit
Atul 396 020, Gujarat, India
services@btul.co.in | www.atul.co.in
(+91 2632) 230000

Atul|GPCB|Form V|2021-22 ID: 23158

September 20, 2022

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

SUB: **Submission of form V.**

Dear Sir,

We are enclosing herewith duly filled form – V for the financial year ending March 31st, 2022.

Kindly receive the same.

Thanking you,

Yours faithfully,

For Atul Ltd,

Hriday Desai
(Vice President – EHS Assurance)

C.C.
Regional Officer,
Gujarat Pollution Control Board
Vapi (Dist. Valsad)

Registered office: Atul House, G I Patel Marg, Ahmedabad 380 014, Gujarat, India
CIN: L99999GJ1975PLC002859

Lalbhai Group

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2022

Part - A

(i) Name and address of the owner/occupier of the industry operation or process.

Mr. B. N. Mohanan
Occupier, Atul Limited,
Atul – 396 020, Dist.: Valsad

(ii) Industry category Primary (STC code) Secondary (STC code)

Large scale Chemical Manufacturing Industry

(iii) Production Capacity – Please refer Annexure - 1

(iv) Year of establishment : 1952

(v) Date of last environmental Statement submitted: September 22, 2021

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process : 8411 kl/day
Cooling : 1873 kl/day
Domestic : 376 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.	Crop Protection	3.84 kl/mt	16.35 kl/mt
2.	Bulk Intermediate		1.38 kl/mt
3.	Colours	69.26 kl/mt	87.84 kl/mt
4.	Pharma & Polymer	4.22 kl/mt	5.27 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	COD	: 1930 kg/day (199 mg/lit)	NIL
(b)Air	SO2	: 21.87 Mg/Nm^3	
	NOx	: 14.71 Mg/Nm^3	
	HCl	: 6.85 Mg/Nm^3 (Process Stack)	
	Cl2	: 5.65 Mg/Nm^3	
	NH3	: 94.46 Mg/Nm^3	
	Phosgene	: Not Detected	
	SO2	: 1.28 Kg/Ton	
(c)Air	PM	: 47.72 Mg/Nm^3 (Flue gas stack)	
	SO2	: 274.89 Mg/Nm^3	
	NOx	: 265.65 Mg/Nm^3	

Part - D

Hazardous Wastes

(as specified under Hazardous Wastes (Management & Handling) Rules, 1989)

Hazardous Wastes	Total Quantity (kg)	
	During the previous financial year	During the current Financial year
From process	36136215	73671645
From pollution control facilities (ETP sludge and Salt from MEE)	22269000	29847720
Total	58505215	103519365

Part - E

Solid Waste

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process (Fly Ash)	97007642	79867000
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilised within the unit	Nil	Nil
(2) Sold	97007642	79867000
(3) Disposed		

Part – F

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

Please Refer Annexure - 3

Part – G

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

Please Refer Annexure - 4

Part – H

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

Please Refer Annexure - 5

Part – I

Any other particulars for improving the quality of the environment.

1. New collection tank at central ETP is under construction and other modifications is under construction stage and after completion of all installation, central ETP plant will be operate on SCADA system.

2. To reduce moisture content in the gypsum generated from neutralization of effluent, we are upgrading our EMS by installing membrane type filter press followed by paddle dryer at West site.

3. Implementation of New HRT| Clarifier as a substitute of CFI at west site ETP.

4. Installation of MEE for High TDS stream from 2, 4 D plant is almost completed and commissioned will be start by Oct. 2022.

5. Additional 33 distillation system upgraded solvent recovery systems for advanced instrumented controls.

6. Additional 33 nos of toxic gas detectors installed at prominent location.

7. PTS & screw conveyors provided for close powder charging initiatives.

8. Additional 20 nos of close sampling systems provided for corrosive liquids.

9. Enhancement of storage spaces: east site RM warehouse and north site FG warehouse commissioned.

10. Company has planted 48000 number of saplings in FY 2021-22

Annexure : 1: list of Products

Product	Consented Quantity TPA
Azo dyes	6600
Sulfur Black	9999.96
Sulfur Dyes range	300
Naphthol range	900
Fast Color Bases	480
Disperse dyes	1422
Optical Brighteners	120
Reactive Dyes	1527.6
Vat dyes	1260
Caustic soda/potash & sodium sulfide	48000
Liquid Chlorine /Hcl/Hydrogen	42000
Carbamate group of Agrochemicals	519.6
Diuron	2640
Trichlo Carbon	99.6
Cartap Hcl	600
Carbendazim	250.8
Herbicides (2,4-D & related products)	26040
MCPA	
Pyridine based Insecticides & herbicides chemical Imidacloprid	349.92
Triazole based Fungiside	20.04
Pyrethroides	120
Sulphonyl Urea	423
Glyphosate	780
Isoprothiolane	219.6
Fipronil	60
Formulations	2400
Buprofesin	48
Imazethpyr	21.96
Kresoxim Methyl	24.96
Fenoxaprop	9.96
Cyhalofop	9.96
Pyrazosulfurone	6
BisPyribac Sodium	9.96
Azoxystrobin	24.96
Quizalofop	15

Thiamethoxam	120
Metribuzine	120
Diafenthiurone	50.04
Mabendazole	24
Tolbutamide	30
Quiniodochlor	180
Bulk Drugs & Intermediates	115.2
Dechlofenac sodium / potassium	30
Atenolol	20.4
Fresamide	15.6
Trimethoprim	10.8
Para hydroxy acetophenone	20.4
Para hydroxy phenyl acetamide	36
Acyclovir	62.4
Bathenechol	62.4
Pharma Intermediates & Chemicals	3600
Epoxy Resin	31200
Vinyl Easter Resins	450
Ketone Formaldehyde Resins & Sulphonamide, Formaldehyde Resins	249.6
UF/MF/PF/DiCyandiamide Resins	3250.8
Polyamide resins	1940.4
Polygrip TPU based	500.04
Polygrip rubber based	3600
Anthraquinone, Naphthalene, Benzene Intermediates.(Including Beta – Napthol & BON Acid)	8880
Meta hydroxy phenol	5520
Carbamite	360
Chlorzoxazone & other related products	60
4 Ethyl 2,3 – Diorcopiperazino carbonyl Chloride	39.6
Imino Dibenzyl 5 carbonyl Chloride	9.6
Formaldehyde and base products.	38400
Sulfuric Acid / Oleum / Chlorosulphonic Acid & Salts	138600
Sulpha Drug Intermediate	2325.6
Acetyl Sulphanilyl Chloride and its derivatives.	18000
Acetanilide	6000
Sulpha Methyl Phenazole Sodium	13.2
Pyrazole Base	126
Sulphanilic acid	300

Bis Phenol A	5000.4
Hexamine	1800
Epoxy Intermediates	285.6
Hardener & Auxiliaries	6000
Hardener Intermediates	8400
Bisphenol S & Intermediate Chemicals	199.2
Sodium Thio sulphate (dry basis)	10800
Sodium Thio sulphate (wet basis)	22800
Phosgene	5000.004
HX-13059	60
Anisole	1992
Resoform 18,19,20	1020
1,3 Cyclohexanedione	960
Agro, Pharma intermediates, Isocyanats & Carbonat Esters, etc.	4980
Trans-4-MCHI	
p-Anisyl chloroformate	
DI-TERT-BUTYL DICARBONATE (Boc. anhydride)	
N, N- Disuccinimidyl Carbonate	
Avobenzene	999.96
Octacrylene	999.96
OctaylMethoxy Cinnamate	2400
Anethole	1999.92
Raspberry Ketone	1200
P-AninylPropanal	1200
Grand Total Production Sodium Thiosulphate (dry basis)	466922.004
Grand Total Production Sodium Thiosulphate (wet basis)	478922.004

Annexure : 2 : List of raw material

RAW MATERIAL	TPM
Acetanilide	52
Acetic Acid	97.08
Acetic Anhydride	6.5
Acetone	5490.8
Acetonitrile	169.18
Activated carbon	1
Alum	40
Aluminium Chloride	289.32
Aluminium ingots	18
Ammonia gas liquor 25%	317
Ammonium acetate	20.58
Anhydrous Ammonia	9
Aniline oil	43
Anisole	173.33
Anthraquinone	6
Barium carbonate (100%)	58.88
Benzene(KL.)	660
Benzophenone	101.5
Bis Phenol A	3398.63
Carbon dioxide gas	346.53
Castor oil	35
Caustic flakes	3466.98
Caustic Potas Flakes	75
Caustic Soda Lye	3201.76
Chlorine	3822
Chlorosulphonic Acid	250
Chlroprine rubber	45
Copper chloride	4
Cresol	133
CS_2	12.09
Cyano Pyrazole	5
Cyanoacetic acid	32.92
Cyanuric Chloride	18

Cyclohexane	57.08
Darco	9.77
DBU	23.24
Di Chloro Diphenyl sulphone	107
Di Isopropyl Malonate	24.72
Di methyl Sulfate	286.44
Dibutyl phthalate	7
Dichloro aniline	151.4
Dimethyl Amino Dichloro Propane Hydrochloride	40
Dimethyl carbonate	5.73
Dioxane	95.89
Divyol oil	28.77
DMA	44.8
DMA Tosylate	9
DMF	68.15
DPS	1
EDA	69.32
EDC	331.99
Epichlohydrine /recovered ECH	4911
Ethanol	5.31
Ethyl acetate	4586.05
Ethyl hexanol	135
Ethylene Dibromide	22.48
Ethylene Dichloride	12.14
Flocculating agent	1799.95
Formaldehyde	106.07
Glacial acetic acid	549.57
Glycerin	24
Guanidine Nitrate	33.95
H_2O_2	55.42
H-Acid	12
HCl	4924.8
Hexa Hydro Phthalic anhydride	9
Hexane	29.32
Hydrated Lime	2000
Hydrogen (g)	50.43
Hydroxyl amine.HCl	480.75

Hyflo	110.65
IPA	339.55
Iron Fillings	50
Lime stone powder	1257
MA	26.08
Manganese Dioxide	220
MCB	123
MDC	406.29
Methanol	1100
Mono Chloro Acetic Acid	2170
m-phenoxy benzaldehye	2
n- Butanol	999
N- Hydroxy Succinimide	419.15
Na_2SO_3	10.5
Napthalene	60
n-Hexane	54.13
Nitric Acid 60%	50
Nitric Acid 98%	95
Nitro guanidine	52.49
Nitrogen	1585 NM3/hr
NN Dimethyl Aniline	32.57
O-cresol	503
Oleum 25%	140
Oleum 65%	1221
Oxygen	49.7
p-Anisaldehyde	118.6
p-Anisic aldehyde	179
Paraffin oil	9.13
PCF	28.35
P-cresol	860.91
Phenol	1350.56
Phosgene	180
Phosphoric acid	54.5
Phthalic anhydride	55
PMIDA	158.78
Potassium Chloride	360

Potassium hydroxide	264.8
Propionyl chloride	167.16
Prpanaldehyde	51
PTBP Resin	12
Pure 4-Methyl cyclohexyanol	8.15
Rainey Ni catalyst	50.34
Reso - Tar	49.23
Resorcinol	246.24
SNA	37.09
Soda Ash	209.38
sodium bicarbonate	130.33
Sodium bisulphate	548.28
Sodium Carbonate	117.09
Sodium Chloride	6000
Sodium hypochlorite	3639.31
Sodium metal	667.8
Sodium methoxide (Powder|solution)	131.85
Sodium Sulphide	100.4
Sodium Thiosulphate	195
Sodium-t-butoxide	755.3
Solvents	275.42
Styrene	29.92
Sulfinate	1
Sulfuric acid	2596
Sulfuryl chloride (SO2CL2)	376
Suphur Powder	2430.3
Synthetic cresol	5
Tamol MNO	50
t-Butyl alcohol	29
Tertiary butyl amine	0.89
TFE	9
THF	4151.74
Thionyl Chloride	3
Toluene	200
TPU	6.25
Tri ethylenetetramine	13
Tribtyl Amine	778.13

Triethyl amine	138.52
Urea	183
10% Brine solution	684.87
10% $FeSO_4$	23.47
2, Chloro 5-methyl chloro pyridine	17
2,4-DNCB	440.85
2-[Nitroimino] imidazolidine	14.82
2-4 Di chloro Aniline	5.5
2-Amino-4,6 dimethoxy pyridine	27.95
2-chloro-5- methylchloro-pyridine	21.75
2-chloro-5-chloro methyl thiazole	7.8
2-Ethyl hexanol	56.5
3-methyl-4-nitroimino perhydro-1,3,5- oxadiazine	7.6
4-amino-6-tertiary- butyl-3-mercapto- 1,2,4-triazinone	10.1
4-methoxyacetophenone	60.88
4-Methoxybenzyl alcohol	376.41
4-t-butylbenzoicacid	82.81
Fuel:	
Coal / Lignite	46925
Diesel Oil (Kl)	640
Furnace oil (Kl)	1100
Natural gas (m3)	200000

Annexure: 3: Description of Solid Waste at Atul

Description of waste	Physical form	Calorific Value Cal / gms	Biodegradability	Nature / Chemical composition of Waste	Mode of Disposal
Used oil, Kl	Wet cake	-	Biodegradable	Lubricant oil with minor contamination	Collection, Storage, Transportation, sell to registered refiners/recyclers.
Wastes / residues / contaminant cotton rags or other cleaing material	Solid	-	Biodegradable	Lubricant oil with minor contamination	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Sludge & filters contaminated with oil,	Semi solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Membranes	Solid	-	-	Polyfluoro & Polycarboxylic groups	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste Resin,	Solid	-	Non biodegradable	Polymer	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Sulfurised Carbon,	Solid	6000	-	Carbon and impurity of product	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Activated Carbon,	Solid	6000	-	Carbon and impurity of product	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Brine purification sludge,	Sludge	No Calorific Value	Non biodegradable	Inorganic compounds e.g. $CaCo_3$, $Mg(OH)_2$	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sulphur sludge,	Solid	5000	Partially Bio-degradable	Inorganic compounds and Sulphur	Collection, Storage, Transportation, Disposal at TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hot Gas filter Ash,	Solid	No calorific Value	Non biodegradable	Inorganic Material	Collection, Storage, Transportation, Disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Bottom Sludge after recovery of Sulphur Sludge,	Solid	5000	Partialy Biodegradable	Inorganic	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL

Waste Catalyst,	Solid	No calorific Value	Non biodegradable	Inorganic, Not explosive, Non Reactivie	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Spent Solvents, Kl/Month	Liq	-	-	Solvent	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user.
Various type of Residue	Solid	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
OCBC / OCT distillation residue,	Visc. Liq.	8000	Not Bio-degradable	Polymeric aromatic compound.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
waste residue Bulk Intermediate (meta hydroxy phenol) (Tar),	Solid	-	-	10-12% Hydroxyl based benzene derivative	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Waste residue (from resorcinol plant)	Solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Gypsum (From meta hydroxy phenol Plant),	Solid	Not Applicable	Non biodegradable	Inorganic Compound Mostly Calcium Sulphate 75 - 77%, Moisture 23-25%	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co- processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sodium Sulphite,	Solid	Not Applicable	-	Inorganic Compound, Mostly Sodium Sulphite 70-75%, Moisture 25-30%	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co- processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste/Salt Lime Dust	Powder	--	--	Inorganic Compound	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Waste from Urea Formaldehyde Polymer product,	Solid	3500	Bio-degradable	Organic polymeric compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Sludge containing higheramino compound,	Tar	5200	Bio-degradable	Polymeric organic amines.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Filter cake of Epoxy resins with resin contamination	Semi Solid	3200	Bio-degradable	Polymeric organic compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Aluminium Hydroxide,	Solid	No calorific Value	Non biodegradable	Mostly Al Hydroxide	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Iron sludge,	Solid	No calorific Value	Non biodegradable	Mostly Iron, oxide	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Brass residue,	Solid	No calorific Value	Non biodegradable	Mostly Copper & Iron.	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Darco / filter aid sludge,	Solid	2500	Partially Bio-degradable	Mainly Carbon.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Iron Residue,	Wet cake	-	Non biodegradable	Water, iron	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hyflo sludge,	Wet cake	-	-	0.87 % Specific gravity, 80% solid, Inorganic & organic content	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
PER crystal residue,	Semi Solid			Specific gravity 1.1557, Organic	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

Filter aid sludge for Hg recovery,	-	-	-	Containing Hg	Collection, Storage, Transportation for recovery of mercury
Aluminium Ash,	Solid	-	Non biodegradable	Water, oxides of Aluminium & Aluminium Metal	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
N.B.Tar / ODCB Tar	Semi Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
ONT Tar	Solid / Tary	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Copper Hydroxide Wet cake	Solid	Not applicable	Non biodegradable	Copper Hydroxide	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary Movement) rule-2016
Dust from Air Filtration System,	Solid	-	-	Residual product particles	Collection, Storage, Transportation for reprocessing and reusing

Spent Acid	Liquid	Not applicable	Non biodegradable	Sulphuric acid	Collection, storage, transportation and sell to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary movement) rule-2016 Or sell to:. M/s Shree Cement Ltd., located at Village Ras, Jaitaran Dist: Pali & at Bangurnagar, Beawar Dist: Ajmer, Rajasthan.
Spent Organic solvent	Liquid	-	-	Mainly contains Spent Organic solvent	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transboundary Movement) rule-2016
Waste Residue (Phin)	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR OR disposal at common facility at BEIL
DCDPS waste	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL.
Waste from Pharma intermediates	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent Carbon catalyst	Solid	--	--	--	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent carbon,	Solid	6000	Biodegradable	Carbon cake contains aq. Methanol Aqueous Carbon Cake	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Date expired, discarded and off-specification product,	Solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Spent Mother liquor, Kl/Month	Liquid	-	-	Mainly contains Spent Organic solvent	Collection, Storage, Transportation for recovery and reusing
Spent Solvents, Kl/Month	Liq	-	-	Solvent	Collection, Storage, Transportation for recovery

Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Pyridine based insecticides & herbicides (Darco / Filter aid Sludge),	Solid	2500	Partly biodegradable	Mainly carbon	
Sulfonyl Urea (Residue),	Solid	6500	Partly biodegradable	Polymeric Organic	
Triazole based Fungicides (Residue),	Solid	6500	Partly biodegradable	Polymeric Organic	
Pyrethroides	Solid	6500	Partly biodegradable	Polymeric Organic	
Dust (Agro plant)	Solid	-	-	Mixture of Dust, Rust & Spillage chemicals	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Hyflo,	Semi Solid	No Calorific Value	Non biodegradable	Non flammable, non reactive, partly organic -Inorganic	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Dust from Air Filtration System,	Solid	-	-	Residual product particles	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at

					BEIL
Liners /Bags, NOs	Solid	NA	NA	Without any Chemical contamination after decontamination	Collection, Storage, Transportation and sell after decontamination OR Collection, Storage, Transportation and sell to authorized party/vendor OR Reuse after decontamination
Drums /HDPE Carboys,	Solid	NA	NA	Without any Chemical contamination after decontamination	
Chemical containing residue from decontamination and disposal,	solid	-	-	-	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
Flue gas cleaning residue,	Solid	-	-	-	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Toxic metal containing residue from used-ion exchange material; in water purification,	Solid	-	-	--	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sludge from ETP, Gypsum from ETP, Chemical Gypsum, sludge from waste water treatment	Semi solid	No Calorific Value	Partly biodegradable	Mostly gypsum	Collection, storage, Transportation, disposal at OWN TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
MEA distillation residue,	Visc. Liq.	9500	Partly biodegradable	Polymeric aromatic compound	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-

					processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility atBEIL
Spent Catalyst,	Solid	-	-	--	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Sludge from wet scrubber,	Solid	-	-	-	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Incineration ash,	Solid	No Calorific Value	Non biodegradable	Inorganic compounds e.g. Silica, NaCl.	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Salt from MEE	Solid	Not applicable	Non biodegradable	99% Sodium salt	Collection, storage, Transportation, disposal at OWN TSDF OR selling to actual reuser OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
Dilute MnSo4	Liquid	--	--	----	Collection, Storage, Transportation, Disposal at M/s Atul Limited, Plot No. 297, GIDC Estate, Ankleshwar, Bharuch- 393002
2,6 Dichloro phenol	Solid	--	--	Phenolic compound	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at

					SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
2,4,6 Trichloro phenol	Solid	--	--	Phenolic compound	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
p-CBSA/Na-Salt	Solid	--	--	pCBSA	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
High TDS / High COD effluent	Liquid	--	--	--	Collection, storage, Transportation, disposal to our own MEE/ Incinerator and/or at common GPCB approved facility
30% HCl	Liquid	--	--	Spent acid	Collection, storage, Transportation, utilized in own plan for captive consumption OR sell to those units who having permission of rule 9 under the Hazardous & other wastes (Management & Transboundary Movement) rule-2016

Annexure : 4

Water Conservation

Following actions were taken for water conservation during recent year.

1. Use of treated effluent in place of raw water in scrubbers.
2. Reuse of wash water in plant process
3. Reuse of boiler blowdown water for cooling water make up at cooling tower after passing it through PHE for heat recovery

Rain water harvesting: In few plants, rain water is being recharged from the terrace and has been used as a makeup of cooling tower during the monsoon season.
We already have two numbers of check dams in natural storm water drains to collect and harvest rain water in Monsoon.
We have 2 ponds with approximate storing capacity of 14000 KL to store surface runoff coming from Parnera hill and in use.
Company has harvest 10.59 lac KL rain water during 2021.

Energy Conservation

Electricity forms one of the important components of energy used at Atul Limited. Major part of electricity used at Atul, is produced in the coal based captive power plant.

Energy Conservation Measures:

1. Installation of energy efficient cooling water and chilled water pumps.
2. Replacement of old motors by energy efficient motors
3. Heat recovery from steam condensate
4. Controlling steam pressure of steam ejectors.
5. Optimization of pump size as per actual operating requirement
6. Replacement of high pressure air compressor by low pressure air compressor for process air requirements

Annexure : 5

Details of Investment for Environment Protection for the year 2021-22

Sr.No	Parameter	Recurring Cost per annum (Rs. in lacs) 2021-22
1	Air Pollution Control	5464
2	Liquid Pollution Control	
3	Environmental Monitoring and Management	47
4	Solid waste Disposal	176
5	Occupational health	41
6	Green belt	14
Total		5742