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: April 2021 – September 2021

<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. Latest Environmental audit report by S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli, Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.</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:</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th rowspan="2">S No.</th><th rowspan="2">Parameter</th><th rowspan="2">Limit</th><th colspan="3">Values for the period April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>pH</td><td>5.5-9.0</td><td>7.08</td><td>7.71</td><td>7.43</td></tr>
<tr><td>2</td><td>Temperature (°C)</td><td>40</td><td>30</td><td>30.7</td><td>30.27</td></tr>
<tr><td>3</td><td>Colour (pt. co. scale)</td><td>---</td><td>40</td><td>70</td><td>51.67</td></tr>
<tr><td>4</td><td>Suspended solids(mg/l)</td><td>100</td><td>35</td><td>53</td><td>44.00</td></tr>
<tr><td>5</td><td>Phenolic Compounds (mg/l)</td><td>5</td><td>0.16</td><td>1.8</td><td>0.62</td></tr>
<tr><td>6</td><td>Cyanides (mg/l)</td><td>0.2</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>7</td><td>Fluorides (mg/l)</td><td>2</td><td>0.48</td><td>0.93</td><td>0.77</td></tr>
<tr><td>8</td><td>Sulphides (mg/l)</td><td>2</td><td>0.62</td><td>1.65</td><td>1.13</td></tr>
<tr><td>9</td><td>Ammonical Nitrogen (mg/l)</td><td>50</td><td>2.76</td><td>6.4</td><td>5.03</td></tr>
<tr><td>10</td><td>Total Chromium (mg/l)</td><td>2</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>11</td><td>Hexavalent Chromium (mg/l)</td><td>1</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>12</td><td>BOD (3 days at 27°C) (mg/l)</td><td>100</td><td>42</td><td>64</td><td>49</td></tr>
<tr><td>13</td><td>COD (mg/l)</td><td>250</td><td>186</td><td>234</td><td>206</td></tr>
</table>

The treated effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB. Latest Environmental audit report by S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.

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.
</td></tr>
<tr><td></td><td>The company shall keep records of the quality of effluents being discharge during the tides as per the recommendations of N.I.O.</td><td>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.</td></tr>
<tr><td>4</td><td>The company shall submit the quarterly progress report of compliance of conditions.</td><td>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.</td></tr>
</table>

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 S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.
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
		April 21	May 21	June 21	July 21	August 21	September 21	
1	pH	7.18	7.36	7.67	7.71	7.08	7.58	5.5 to 9.0
2	Temperature °C	30.2	30.4	30.2	30.7	30.1	30	40 °C
3	Colour (pt. co. scale)	40	50	40	70	60	50	---
4	Suspended solids, mg/l	47	53	39	48	35	42	100
5	Phenolic compounds, mg/l	1.8	0.16	0.19	0.34	0.58	0.65	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.48	0.75	0.93	0.86	0.78	0.84	2
8	Sulphides, mg/l	ND	0.62	1.24	1.65	1.18	0.98	2
9	Ammonical nitrogen, mg/l	5.7	4.8	2.76	6.4	4.6	5.9	50
10	Total chromium, mg/l	ND	ND	ND	ND	ND	ND	2
11	Hexavelent chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	64	45	48	44	52	42	100
13	COD, mg/l	216	186	194	210	234	196	250
	Note: ND is Not Detected.							

Annexure 1: GPCB results for treated effluent water

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:313662 - Analysis Completion:11/10/2021

Dyes and Dye- Intermediates / LAB Inward : 56391

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

TEST REPORT

Test Report No. : 56391 **Date: 12/10/2021**

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 : COM-On Complaint)**
4. **Sample Collected By** : **T. N. Rana, SO**
5. **Quantity of Sample Received** : **5 lit**
6. **Code No. of the Sample** : **313662**
7. **Date & Time of Collection & Inwarding** : **29/09/2021 , (1405 to 1405) & 30/09/2021**
8. **Date of Start & Completion of Analysis** : **30/09/2021 & 11/10/2021**
9. **Sampling Point** : **Treated w/w collected from Guard pond No.1 ~**
10. **Flow Details (Remarks)** : **yes**
11. **Mode of Disposal** : **In to Esturey zone of River Par though close pipeline**
12. **Ultimate Receiving Body** : **Estuary zone of river par**
13. **Temperature on Collection** : **29 & pH Range on pH Strip :7 to 8 on PH strip**
14. **Carboys Nos for** : **Barcode & Color & Appearance :Light Brown**
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	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2012	1 – 14 pH value As or	7.06
3	Colour	Pt.Co.Sc	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	70
4	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	86
5	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	2.80
6	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-2(	5.0- 50000 mg/l	152
7	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.6
8	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.30
9	Cyanide	mg/l	Titrimetric method. (4500 - CN? D APHA Standard Me	1-10 mg/l	BDL
10	Fluoride	mg/l	SPADNS method (4500-F-D APHA standard Methods	0.10-40 mg/l	0.67
11	Sulphide	mg/l	APHA (23rd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	BDL
12	Zinc	mg/l	(3111 B APHA Standard methods 21st edi)	0.005-100mg/l	0.089
13	Copper	mg/l	3111 B APHA Standard methods 21st edi)	0.01-150 mg/l	0.098
14	Nickel	mg/l	(3111 B APHA Standard methods 21st edi)	0.02-150 mg/l	0.106
15	Lead	mg/l	(3111 B APHA Standard methods 21st edi)	0.05-150 mg/l	0.083
16	Cadmium	mg/l	(3111 B APHA Standard methods 21st edi)	0.002-100 mg/l	0.009
17	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme(	05–50000 mg/l	35

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: April 2021 - September 2021

<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 April 21 - September 21</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>13.6</td><td>36.2</td><td>26.27</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.45</td><td>1.6</td><td>1.02</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>11.6</td><td>21.6</td><td>16.54</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>1.3</td><td>17.1</td><td>7.50</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>11.3</td><td>56.1</td><td>35.42</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>8.8</td><td>15.6</td><td>11.66</td></tr>
</table>
Summary of Flue 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 April 21 - September 21</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>40.4</td><td>76.4</td><td>54.76</td></tr>
<tr><td>2</td><td>PM (New Boiler)</td><td>50</td><td>mg/Nm^3</td><td>45.7</td><td>29.4</td><td>37.44</td></tr>
<tr><td>3</td><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>180</td><td>350</td><td>245.71</td></tr>
<tr><td>4</td><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>184</td><td>384</td><td>252.42</td></tr>
<tr><td>5</td><td>NOx (New Boiler)</td><td>300</td><td>mg/Nm^3</td><td>218</td><td>256</td><td>229</td></tr>
</table>
Details of stack results for the compliance period is given in Table 1.</td></tr>
</table>

<table>
<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>
<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</th><th colspan="3">Values of VOCs in Milligram per NM^3 for the period
April 21 - September 21</th></tr><tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr><tr><td rowspan="2">2,4 D</td><td>Reactor</td><td>Phenol</td><td>19</td><td>3.3</td><td>12.7</td><td>8.4</td></tr><tr><td>Buffer tank</td><td>Chlorine</td><td>3</td><td>1.05</td><td>1.8</td><td>1.33</td></tr><tr><td>Resorcinol</td><td>Benzene storage</td><td>Benzene</td><td>15</td><td>ND</td><td>ND</td><td>ND</td></tr></table></td></tr>
</table>

			tank area near vent				
			Near Extraction/scrubber unit	Butyl acetate	-	43.6	1.6	17.28
		Pharma	At second floor work area	Ammonia	18	3.4	10.4	6.48
			Ammonia recovery area	Ammonia	18	4.1	8.4	6.62
		Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.53	7.1	4.86
			At vessel POS 1208 G.F	ECH	10	1.9	5.9	3.97
		Shed H	At second floor work area	Nitrobenzene	5	0.74	3.8	2.81
		Shed J	Buffer Tank	Chlorine	3	ND	ND	ND
		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 C, Shed F, Shed H 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 2019 for expansion, we request to consider latest figures given in same.
According to specific condition of EC F No. J 11011/108/2015-IA-II-(I) dated11.02.2019, Industrial waste water generation shall not exceed 20,514 m³/d.
The average wastewater generation for the report period is 10216 m³/day only. Detail break up is given below:
<table><tr><th>Wastewater generation m³</th><th>April 21</th><th>May 21</th><th>June 21</th><th>July 21</th><th>August 21</th><th>September 21</th></tr><tr><td>Month wise</td><td>282154</td><td>299056</td><td>286651</td><td>297320</td><td>330909</td><td>385210</td></tr><tr><td>Per day</td><td>9405</td><td>9647</td><td>9555</td><td>9591</td><td>10674</td><td>12426</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 April 21 - September 21</th></tr><tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr><tr><td>Wastewater generation m³/d</td><td>20514</td><td>8615</td><td>13986</td><td>10216</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</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>

	discharged into the CETP.	
	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:
	The domestic waste water should be disposed off through septic tank / soak pit system.	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:

Sr No.	Parameter	Norms	Values for the period April 21 - September 21		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7.08	7.71	7.43
2	Temperature	40 °C	30	30.7	30.27
3	Colour (pt. co. scale)	---	40	70	51.67
4	Suspended solids	100 mg/l	35	53	44.00
5	Phenolic compounds	5 mg/l	0.16	1.8	0.62
6	Cyanides	0.2 mg/l	ND	ND	ND
7	Fluorides	2 mg/l	0.48	0.93	0.77
8	Sulphides	2 mg/l	0.62	1.65	1.13
9	Ammonical nitrogen	50 mg/l	2.76	6.4	5.03
10	Total chromium	2 mg/l	ND	ND	ND
11	Hexavalent chromium	1 mg/l	ND	ND	ND
12	BOD (3 days at 27°C)	100 mg/l	42	64	49
13	COD	250 mg/l	186	234	206

Domestic Wastewater generation m^3	April 21	May 21	June 21	July 21	August 21	September 21	Total
Month wise	4625	4856	4774	4892	4316	4724	28187
Per day	154	157	159	158	139	157	924

The maximum, minimum and average values are given below:

Domestic Wastewater generation	Values for the period April 21 - September 21

		<table><tr><th></th><th>Min.</th><th>Max.</th><th>Avg.</th></tr><tr><td>Domestic Wastewater generation m^3/d</td><td>136</td><td>164</td><td>154</td></tr></table>
v	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.	**Complied**. We have set up a separate online fish pond using treated effluent at our ETP.
	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	**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.
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 year 2020 and no contamination is observed. Report has been submitted to your good office vide our letter dated June 26, 2021

<table>
<tr><td>vii</td><td>The destructive efficiency of the incinerator should be assessed by an agency like CPCB and a report submitted to the Ministry.</td><td>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.</td></tr>
<tr><td rowspan="2">viii</td><td>The company should comply with the provisions of coastal Regulation Zone Notification of 1991 and Coastal Zone Management Plan of Gujarat.</td><td>Complied.</td></tr>
<tr><td>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.</td><td>Complied.
Detailed compliance report is already submitted to the Ministry vide our letter our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.</td></tr>
<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">1819</td></tr><tr><td>2</td><td>Operators</td></tr><tr><td>3</td><td>Workers</td></tr></table></td></tr>
</table>

x	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.	**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 10.59 lac KL rain water during 2021
xi	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.	**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.
xii	The Company should developed a green belt in a 25% of the plant area as per the CPCB guidelines.	**Complied**. Proper plantation is done all around the plant boundary and also the roads to mitigate fugitive & transport dust emission. Total Industrial Plot area: **1126078.27 sq.mt** Green belt area: **409030.00 sq.mt** (approx. 36% of total plot area) Layout plan with green belt is shown as under:  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.

xiii	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.	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.
	The amount shall be deposited within three months in a separate account to be maintained by GPCB.	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.
	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.	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.
	After approval of the action plan by GPCB, the amount deposited will be released to the project authorities in two installments based on the progress of implementation.	Complied.
A.	General Conditions	
i	The project authorities must strictly adhere to stipulations made by GPCB.	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 S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.
ii	At no time, the emissions should not go beyond standards.	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.

<table>
<tr><td></td><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>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></td><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 April 21-September 21</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>62.60</td><td>66.00</td><td>64.47</td></tr>
<tr><td>2</td><td>Opposite shed D</td><td>75</td><td>65.20</td><td>72.30</td><td>69.07</td></tr>
<tr><td>3</td><td>ETP West site</td><td>75</td><td>64.10</td><td>68.40</td><td>66.58</td></tr>
<tr><td>4</td><td>ETP North site</td><td>75</td><td>61.30</td><td>65.20</td><td>63.27</td></tr>
<tr><td>5</td><td>Near TSDF</td><td>75</td><td>63.20</td><td>69.20</td><td>66.25</td></tr>
<tr><td>6</td><td>Near Main guest house</td><td>75</td><td>61.40</td><td>65.40</td><td>63.68</td></tr>
<tr><td>7</td><td>At Wyeth Colony</td><td>75</td><td>57.80</td><td>67.30</td><td>61.43</td></tr>
<tr><td>8</td><td>Gram Panchayat Hall</td><td>75</td><td>64.20</td><td>68.30</td><td>65.98</td></tr>
<tr><td>9</td><td>Near Main Office North site</td><td>75</td><td>62.40</td><td>66.30</td><td>64.23</td></tr>
<tr><td>10</td><td>Haria Water tank</td><td>75</td><td>62.80</td><td>67.80</td><td>65.12</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Noise level monitoring data (Night Time)

<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Location</th><th rowspan="2">Permissible Limits, dBA</th><th colspan="3">Values for the period April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>66KVA substation</td><td>70</td><td>51.60</td><td>55.70</td><td>53.30</td></tr>
<tr><td>2</td><td>Opposite shed D</td><td>70</td><td>50.60</td><td>54.80</td><td>52.18</td></tr>
<tr><td>3</td><td>ETP West site</td><td>70</td><td>52.50</td><td>55.30</td><td>53.67</td></tr>
<tr><td>4</td><td>ETP North site</td><td>70</td><td>50.70</td><td>58.10</td><td>52.85</td></tr>
<tr><td>5</td><td>Near TSDF</td><td>70</td><td>51.30</td><td>57.60</td><td>55.77</td></tr>
<tr><td>6</td><td>Near Main guest house</td><td>70</td><td>50.80</td><td>54.20</td><td>52.58</td></tr>
<tr><td>7</td><td>At Wyeth Colony</td><td>70</td><td>50.20</td><td>52.60</td><td>51.63</td></tr>
<tr><td>8</td><td>Gram Panchayat Hall</td><td>70</td><td>53.40</td><td>56.40</td><td>54.82</td></tr>
<tr><td>9</td><td>Near Main Office North site</td><td>70</td><td>52.40</td><td>54.30</td><td>53.27</td></tr>
<tr><td>10</td><td>Haria Water tank</td><td>70</td><td>50.20</td><td>57.30</td><td>54.08</td></tr>
</table></td></tr>
<tr><td>iv</td><td>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.</td><td>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.

<table>
<tr><th>Sr No.</th><th>Parameter</th><th>Recurring Cost (Rs. In lacs) For the report period April21-September 21</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2780</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>22</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>87</td></tr>
<tr><td>5</td><td>Occupational health</td><td>26</td></tr>
<tr><td>6</td><td>Green belt</td><td>7</td></tr>
<tr><td colspan="2">Total</td><td>2922</td></tr>
</table></td></tr>
<tr><td rowspan="2">v</td><td>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.</td><td>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 S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.</td></tr>
<tr><td>Authorization from the GPCB must be</td><td>Complied.</td></tr>
</table>

	obtained for collections /treatment/ storage/ disposal of hazardous waste.	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 being submitted to the Ministry at Bhopal 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 Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

Table: 1 Stack results

				APR. 2021	MAY. 2021	JUN. 2021	JULY. 2021	AUG. 2021	SEPT. 2021
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	36.7	49.8	41.7	34.9	30.2	36.3
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	8	6	4.4	4.6	6.2	6.2
		HCl	20.0 mg/Nm3	7.8	5.73	4.45	4.72	6.4	6.35
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	3.35	3.8	6.2	7.1	6.27	4.1
		HCl	20.0 mg/Nm3	3.2	3.93	6.38	7.29	6.1	4.22
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	1.48	1.25	0.75	0.75	0.52	1.1
		Acid Mist	50.0 mg/Nm3	15.2	22.4	19.1	19.1	9.4	24.6
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	7.8	Not Running	5.5	4.5	7.1	3.8
		HCl	20.0 mg/Nm3	7.95		5.65	4.62	7.3	3.9
Resorcinol Plnat									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	21.2	10.4	18.9	15.7	19.2	24.6
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	Not Running	30.8	Not running	31.3	32.6	29.3
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	64.8	43.7	Not running	Not running	Not running	Not running
		SO_2	40.0 mg/Nm3	17.2	20.6				
		NOx	25.0 mg/Nm3	14	19.4				
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	32.4	13.7	31.7	18.4	30.2	25.8
		NOx	25.0 mg/Nm3	19.6	12.4	19.8	14.9	17.1	11.6
2-4-D Plant									
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	7.2	7.1	3.4	6.2	5.5	5.9
		HCl	20.0 mg/Nm3	7.4	7.35	3.55	6.37	5.65	6.06
		Phenol	--	6.8	6.3	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.3	9.6	10.4	Not Running	Not Running	Not Running
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	8.8	Not Running	Not Running

16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	10.9	12.6	15.6
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	11.9	13.8	14.9	12.1	9.4	10.1
		NOx	25.0 mg/Nm3	7.5	16.7	12.6	17.4	21.6	18.4
CP Plant									
21	MCPA	Cl_2	9 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM^3						
		SO_2	40 mg/NM^3						
22	Fipronil	SO_2	40 mg/NM^3	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	145	130	115	145	102	128
MPSL Plant									
26	Phosgene Scrubbr 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	Acetonytryl e, 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	8.1	Not Running	Not Running	Not Running	Not Running	Not Running
		Phosgene	0.1 ppm	ND					
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM^3	7.75	5.35	6.2	7.3	4.6	8.1
		HCl	20 mg/NM^3	7.9	5.2	6.37	7.5	4.8	8.3
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	6.4	7.9	7.1	6.3	5.1	7.9
		HCl	20.0 mg/Nm3	6.2	8.12	7.3	6.47	5.2	5.2

34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	Not Running	13.8	17.4	34.1	27.9	20.6
		Cl_2	9 mg/NM^3		6.2	4.9	5	8.5	7.9
		HCl	20 mg/NM^3		9	5	5.1	8.73	8.1
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	7.9	6.2	5.2	3.8	7.4	7.4
		HCl	20.0 mg/Nm3	8.1	6.37	5.35	3.9	7.6	7.6
36	Shed D Niro Spray dryer No: 45	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	94
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	41.7	69.7	Not Running	Not Running	Not Running	44
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
40	Shed G 10/8/1 (receiver)	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	4.3	5.8	7.1	5.5	7.1	7.1
		HCl	20.0 mg/Nm3	12.4	14.8	14.7	10.6	11.7	11.2
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	0.8	1.2	1.12	0.45	1.2	1.6
		Acid Mist	50.0 mg/Nm3	2	4.6	4.65	1.6	20.6	8.2
43	Shed J15/09/25	HBr	–	ND	ND	ND	ND	ND	ND
		SO_2	40 mg/NM^3	30.5	36.2	20.9	13.6	25.9	33.6
44	Shed J12/01/42	SO_2	40 mg/NM^3	27.9	29.8	Not Running	Not Running	24.7	19.1
		Cl_2	9.0 mg/Nm3	7.5	5.9			7.9	6.4
		HCl	20.0 mg/Nm3	7.7	11.4			8.12	6.6
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	7.9	5.5	6.4	6.7	6.1	7.9
		HCl	20 mg/NM^3	8.1	10.2	17.1	6.88	6.3	8.13
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	34.5	24.7	33.2	20.6	34.2	29.7
48	Sulfer Black Plant	H_2S	--	ND	ND	ND	1.12	ND	ND
		NH_3	175 mg/NM^3	140	79.9	90	110	94	125
49	Sulfer Dyes plant	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	39.8	81.6	94.8	75.1	56	106
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-FDH 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	PHIN Plant	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	3.7	7.9	7.9	7.3	1.3	2.1
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	130	90	75	50	44	96
55	SPIC II Plant (DCDPS)	SO_2	---	15.8	ND	Not Running	24.75	17.6	11.8
56	SPIC I Plant	NH_3	175 mg/Nm3	155	140	140	130	160	125
57	SPIC IV Plant	NH_3	175 mg/NM^3	80	110	80	155	140	136
		SO_2	---	11.3	ND	ND	ND	14.8	14.6

Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site									
1	FBC boiler El	PM	100 mg/Nm3	40.4	Not Running	46.9	51.7	Not Running	49.7
		SO_2	600 mg/Nm3	264		272	214		215
		NOx	600 mg/Nm3	316		246	201		256
2	FBC boiler E2	PM	100 mg/Nm3	Not Running	50.9	57.9	45.1	49.7	Not Running
		SO_2	600 mg/Nm3		265	259	224	215	
		NOx	600 mg/Nm3		303	231	246	256	
3	FBC boiler E3	PM	100 mg/Nm3	68.4	76.4	Not Running	Not Running	54.7	54.7
		SO_2	600 mg/Nm3	334	239			208	208
		NOx	600 mg/Nm3	310	285			196	196
4	Hot Oil Unit	PM	150.0 mg/Nm3	11.7	34.6	39.6	23.6	31.7	40.3
	(Resorcinol Plant)	SO_2	100 ppm	4.8	10.4	11.6	9.9	6.2	9.3
		NOx	50 ppm	17.6	29.6	24.8	33.2	40.2	30.2
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	23.4	28.6	34.5	50.2	37.6	44.7
		SO_2	100 ppm	5.4	8.3	7.8	9.3	6.3	5.7
		NOx	50 ppm	39.7	30.7	33.9	49.7	29.5	32.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	50.2	61.7	56.7	49.6	56.2	64.7
		SO_2	600 mg/Nm3	184	194	238	248	320	350
		NOx	600 mg/Nm3	212	201	184	320	362	384
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	ND	ND	39.6	23.2	34.1	51.7
		SO_2	100 ppm	ND	3.2	11.6	6.5	6.8	8.6
		NOx	50 ppm	23.8	15.6	24.8	14.8	12.4	13.4
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	31.7	34.4	45.7	29.4	38.3	39.4
		SO_2	600 mg/Nm3	198	180	244	290	210	324
		NOx	300 mg/Nm3	208	219	256	230	222	218
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	40.2	33.7	39.7	56.1	42.7	36.1
		SO_2	100 ppm	6.2	9.6	6.4	11.4	5.8	4.9
		NOx	50 ppm	25.9	38.4	29.7	39.4	24.8	29.7
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	25.8	35.4	41.7	11.3	30.7	49.3
		SO_2	100 ppm	5.9	8.4	62	5.9	6.4	10.4
		NOx	50 ppm	23.6	27.6	14.9	19.1	13.2	16.5

Table 2: Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit	Results of VOCs in Milligram per NM^3					
				April 21	May 21	June 21	July 21	August 21	September 21
2,4 D	Reactor	Phenol	19	10.3	12.7	12.4	6.8	3.3	4.9
	Buffer tank	Chlorine	3.0	0.89	1.05	1.2	1.8	ND	1.7
Resorcinol	Benzene storage tank area near vent	Benzene	15	ND	ND	ND	ND	ND	ND
	Near Extraction/scrubber unit	Butyl acetate	-	43.6	ND	ND	22.1	1.6	1.8
Pharma	At second floor work area	Ammonia	18	5.2	8.7	10.4	7.5	3.4	3.7
	Ammonia recovery area	Ammonia	18	5.9	7.1	6.4	8.4	4.1	7.8
Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.7	2.53	6.4	7.1	5.4	5
	At vessel POS 1208 G.F	ECH	10	1.9	4.4	3.6	5.9	3.7	4.3
Shed H	At second floor work area	Nitrobenzene	5	2.5	3.6	2.9	3.3	0.74	3.8
Shed J	Buffer Tank	Chlorine	3	ND	ND	ND	ND	ND	ND

Table 3: Quality of treated effluent

Sr No.	Parameter	Results						GPCB Limits
		April 21	May 21	June 21	July 21	August 21	September	
1	pH	7.18	7.36	7.67	7.71	7.08	7.58	5.5 to 9.0
2	Temperature °C	30.2	30.4	30.2	30.7	30.1	30	40 °C
3	Colour (pt. co. scale)	40	50	40	70	60	50	---
4	Suspended solids, mg/l	47	53	39	48	35	42	100
5	Phenolic Compounds, mg/l	1.8	0.16	0.19	0.34	0.58	0.65	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.48	0.75	0.93	0.86	0.78	0.84	2
8	Sulphides, mg/l	ND	0.62	1.24	1.65	1.18	0.98	2
9	Ammonical Nitrogen, mg/l	5.7	4.8	2.76	6.4	4.6	5.9	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	64	45	48	44	52	42	100
13	COD, mg/l	216	186	194	210	234	196	250
	Note: ND is Not Detected.							

Table 4: Noise level monitoring data (Day Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	65	66	65	62.9	65.3	62.6	75
2	Opposite shed D	71.2	72.3	71.2	68.5	66	65.2	75
3	West site ETP	67.5	68.4	67.5	64.1	67.1	64.9	75
4	North site ETP	61.3	62.4	63.5	65.2	64.5	62.7	75
5	Near TSDF	65.2	66.3	65.2	63.2	69.2	68.4	75
6	Near main guest house	63.1	64.2	63.1	61.4	64.9	65.4	75
7	At wyeth colony	57.8	58.7	59.6	58.3	66.9	67.3	75
8	Gram panchayat hall	65.5	66.4	65.3	66.2	68.3	64.2	75
9	Near main office North site	62.4	63.5	64	63.7	65.5	66.3	75
10	Haria water tank	64.3	65.2	66.3	67.8	64.3	62.8	75

Table 5: Noise level monitoring data (Night Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	53.5	54.6	55.7	51.7	52.7	51.6	70
2	Opposite shed D	50.6	51.4	52.5	54.8	53	50.8	70
3	West site ETP	53.1	54.2	55.3	52.7	54.2	52.5	70
4	North site ETP	51.4	52.5	51.8	50.7	52.6	58.1	70
5	Near TSDF	57.6	56.7	55.6	51.3	56.2	57.2	70
6	Near main guest house	52.4	53.5	52.4	54.2	50.8	52.2	70
7	At wyeth colony	51.5	52.4	51.3	50.2	51.8	52.6	70
8	Gram panchayat hall	55.6	56.4	55.1	53.7	53.4	54.7	70
9	Near main office North site	53.4	54.3	53.4	52.4	52.4	53.7	70
10	Haria water tank	55.6	56.4	57.3	53.6	50.2	51.4	70

Annexure 1: GPCB Result

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:313662 - Analysis Completion:11/10/2021

Dyes and Dye- Intermediates / LAB Inward : 56391

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

TEST REPORT

Test Report No. : 56391 **Date: 12/10/2021**

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 : COM-On Complaint)**
4. **Sample Collected By** : **T. N. Rana, SO**
5. **Quantity of Sample Received** : **5 lit**
6. **Code No. of the Sample** : **313662**
7. **Date & Time of Collection & Inwarding** : **29/09/2021 , (1405 to 1405) & 30/09/2021**
8. **Date of Start & Completion of Analysis** : **30/09/2021 & 11/10/2021**
9. **Sampling Point** : **Treated w/w collected from Guard pond No.1 ~**
10. **Flow Details (Remarks)** : **yes**
11. **Mode of Disposal** : **In to Esturey zone of River Par though close pipeline**
12. **Ultimate Receiving Body** : **Estuary zone of river par**
13. **Temperature on Collection** : **29 & pH Range on pH Strip :7 to 8 on PH strip**
14. **Carboys Nos for** : **Barcode & Color & Appearance :Light Brown**
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	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2012	1 – 14 pH value As or	7.06
3	Colour	Pt.Co Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	70
4	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	86
5	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	2.80
6	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-2(	5.0- 50000 mg/l	152
7	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.6
8	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.30
9	Cyanide	mg/l	Titrimetric method. (4500 - CN? D APHA Standard Me	1-10 mg/l	BDL
10	Fluoride	mg/l	SPADNS method (4500-F-D APHA standard Methods	0.10-40 mg/l	0.67
11	Sulphide	mg/l	APHA (23rd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	BDL
12	Zinc	mg/l	(3111 B APHA Standard methods 21st edi)	0.005-100mg/l	0.089
13	Copper	mg/l	3111 B APHA Standard methods 21st edi)	0.01-150 mg/l	0.098
14	Nickel	mg/l	(3111 B APHA Standard methods 21st edi)	0.02-150 mg/l	0.106
15	Lead	mg/l	(3111 B APHA Standard methods 21st edi)	0.05-150 mg/l	0.083
16	Cadmium	mg/l	(3111 B APHA Standard methods 21st edi)	0.002-100 mg/l	0.009
17	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmec	05–50000 mg/l	35

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: April 2021 - September 2021

<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.
Since we have another EC granted in 2019 for expansion, 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 February 11, 2019, Industrial waste water generation shall not exceed 20,514 m³/day.

The average wastewater generation for the report period is 10216 m³/day only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Waste water generation m³</th><th>April 21</th><th>May 21</th><th>June 21</th><th>July 21</th><th>August 21</th><th>September 21</th></tr>
<tr><td>Month wise</td><td>282154</td><td>299056</td><td>286651</td><td>297320</td><td>330909</td><td>385210</td></tr>
<tr><td>Per day</td><td>9405</td><td>9647</td><td>9555</td><td>9591</td><td>10674</td><td>12426</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 April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>20514</td><td>8615</td><td>13986</td><td>10216</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 2019 for expansion, we request to consider latest figures given in same. According to specific condition No. viii) of EC F No. J 11011/108/2015 - IA - II - (I) dated February 11, 2019. “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 (agitated thin film drier). Low TDS effluent stream shall Be treated in ETP/RO to meet the prescribed standards.”
Accordingly the High TDS and High COD waste water quantity are now 291 m³/d and 81 m³/d 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 291 m³/d. The average 130.5 m³/d high TDS waste water was evaporated in MEE during report period. Detail break up is given in below table:

<table>
<tr><th colspan="4">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></tr>
<tr><td>1</td><td>April 21</td><td>133</td><td>9405</td></tr>
<tr><td>2</td><td>May 21</td><td>113</td><td>9647</td></tr>
<tr><td>3</td><td>June 21</td><td>149</td><td>9555</td></tr>
<tr><td>4</td><td>July 21</td><td>132</td><td>9591</td></tr>
<tr><td>5</td><td>August 21</td><td>127</td><td>10674</td></tr>
<tr><td>6</td><td>September 21</td><td>129</td><td>12426</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 February 11, 2019 Industrial Waste water generation shall not exceed 20,514 m³/d.
The average 10216 m³/day wastewater was treated in the company’s own effluent treatment plant during the reporting period.</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 Atul.</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>

	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	April 21	May 21	June 21	July 21	August 21	September 21	Total
(MT)	327	335	315	536	470	485	2468

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:

	April 21	May 21	June 21	July 21	August 21	September 21	Total
DCP crude distilled	1661	1594	1580	1300	1915	1683	9734
2,4DCP recovered	1444	1394	1386	1140	1680	1476	8520
2,6DCP recovered	120	110	105	87	127	109	658
OCP/ Residue	97	90	89	73	108	97	554

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	Norms	Values for the period April 21 – September 21		
			Min.	Max.	Avg.
1	pH	5.5 - 9.0	7.08	7.71	7.43
2	Temperature	40°C	30	30.7	30.27
3	Colour (pt. co. scale)	- - -	40	70	51.67
4	Suspended solids	100 mg/l	35	53	44.00
5	Phenolic Compounds	5 mg/l	0.16	1.8	0.62
6	Cyanides	0.2 mg/l	0	0	ND
7	Fluorides	2 mg/l	0.48	0.93	0.77
8	Sulphides	2 mg/l	0.62	1.65	1.13

			9	Ammonical Nitrogen	50 mg/l	2.76	6.4	5.03
			10	Total Chromium	2 mg/l	0	0	ND
			11	Hexavalent Chromium	1 mg/l	0	0	ND
			12	BOD (3 days at 27°C)	100 mg/l	42	64	49
			13	COD	250 mg/l	186	234	206

	The domestic effluent shall be disposed off through septic tank / soak pit.	Complied. Domestic effluent goes to septic tank and finally diverted to ETP. Detail of domestic effluent generation is given in below table: **Domestic Wastewater generation m³** | **April 21** | **May 21** | **June 21** | **July 21** | **August 21** | **September 21** | **Total** Month wise | 4625 | 4856 | 4774 | 4892 | 4316 | 4724 | 28187 Per day | 154 | 157 | 159 | 158 | 139 | 157 | 924 The maximum, minimum and average values are given below: **Domestic Wastewater generation** | **Values for the period April 21 – September 21** (Min. | Max. | Avg.) Domestic Wastewater generation m^3/d | 136 | 164 | 154
ii	The process emissions (SO_2, NH_3, Cl_2, and HCl, shall be scrubbed with Scrubbers.	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.
	The emission shall be dispersed through stack of adequate height as per CPCB standard.	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.
	The gaseous emission from the DG sets shall be dispersed through stack of adequate height as per CPCB standards.	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.

	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. Photograph of main gate digital display board for ambient air quality: 

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:

No.	Parameter	Standard values as per CCA	Unit	Values for the period April 21 – September 21		
				Min.	Max.	Avg.
1	SO_2	40	mg/Nm^3	13.6	36.2	26.27
2	SO_2 (kg/T)	2	kg/T	0.45	1.6	1.02
3	NOx	25	mg/Nm^3	11.6	21.6	16.54
4	HCl	20	mg/Nm^3	1.3	17.1	7.50
5	PM	150	mg/Nm^3	11.3	56.1	35.42
6	PM with Pesticide compound	20	mg/Nm^3	8.8	15.6	11.66

Summary of Flue Stack results:

No.	Parameter	Standard values as per CCA	Unit	Values for the period April 21 – September 21		
				Min.	Max.	Avg.
1	PM	100	mg/Nm^3	40.4	76.4	54.76
2	PM (New Boiler)	50	mg/Nm^3	45.7	29.4	37.44
3	SO_2	600	mg/Nm^3	180	350	245.71
4	NOx	600	mg/Nm^3	184	384	252.42
5	NOx (New Boiler)	300	mg/Nm^3	218	256	229

Summary of Ambient Air Quality results:

Station	Parameter	Limit micro - gm/N M^3	Values for the period April 21 – September 21		
			Min.	Max.	Avg.
66 KV	PM 2.5	60	20	24	22.2
	PM10	100	35	47	43.7
	SO_2	80	10.9	14.6	13.0
	NO_2	80	9.6	14.3	12.0
	Ammonia	400	ND	ND	ND
	HCl	200	6.7	8	7.2
Opposite Shed D	PM 2.5	60	25.6	33.5	30.9
	PM10	100	44.6	51.6	49.5
	SO_2	80	11.6	18.5	15.0

				NO_2	80	10.1	15	12.9
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			West site ETP	PM 2.5	60	20	28	24.3
				PM10	100	34	49	43.3
				SO_2	80	11.7	13.7	13.0
				NO_2	80	10.3	14.2	12.1
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			North site ETP	PM 2.5	60	19	29	23.2
				PM10	100	40	46	43.2
				SO_2	80	9.5	14.1	11.8
				NO_2	80	10.2	13.5	11.8
				Ammonia	400	5.9	12	8.8
				HCl	200	ND	ND	ND
			TSDF	PM 2.5	60	21	28	24.2
				PM10	100	41	49	45.3
				SO_2	80	10.7	13.8	12.1
				NO_2	80	10.4	13.8	12.2
				Ammonia	400	4.7	7	6.0
				HCl	200	ND	ND	ND
			Main Guest House	PM 2.5	60	19.7	26.6	23.9
				PM10	100	41.8	48.3	45.3
				SO_2	80	11	15.2	13.1
				NO_2	80	10.3	22.4	17.0
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			Wyeth Colony	PM 2.5	60	23	29	26.0
				PM10	100	42	52	47.8
				SO_2	80	11.1	13.6	12.2
				NO_2	80	10.7	13.8	12.0
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			Gram panchayat hall	PM 2.5	60	30.4	35.4	32.0
				PM10	100	41.9	51.7	48.5
				SO_2	80	12.4	16.2	14.5
				NO_2	80	14.8	22.9	20.2
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			Main office, North site	PM 2.5	60	33.6	39.5	37.1
				PM10	100	46.8	54.3	50.7
				SO_2	80	10.7	13.4	11.9
				NO_2	80	12.4	22.4	16.6
				Ammonia	400	ND	ND	ND
				HCl	200	ND	ND	ND
			Haria water tank	PM 2.5	60	26.5	35.5	30.0
				PM10	100	46.2	56.4	52.3

SO_2	80	10.8	16.8	13.1
NO_2	80	10.5	17.4	13.8
Ammonia	400	ND	ND	ND
HCl	200	ND	ND	ND

Summary of VOC results :

Plant	Area	Parameter	Prescribed Limit	Values of VOCs in Milligram per NM^3 for the period April 21 – September 21		
				Min.	Max.	Avg.
2,4 D	Reactor	Phenol	19	3.3	12.7	8.4
	Buffer tank	Chlorine	3	1.05	1.8	1.33
Resorcinol	Benzene storage tank area near vent	Benzene	15	ND	ND	ND
	Near Extraction /scrubber unit	Butyl acetate	-	43.6	1.6	17.28
Pharma	At second floor work area	Ammonia	18	3.4	10.4	6.48
	Ammonia recovery area	Ammonia	18	4.1	8.4	6.62
Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.53	7.1	4.86
	At vessel POS 1208 G.F	ECH	10	1.9	5.9	3.97
Shed H	At second floor work area	Nitrobenzene	5	0.74	3.8	2.81
Shed J	Buffer Tank	Chlorine	3	ND	ND	ND

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	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.

	guidelines under manufacturing, storage and import of hazardous chemicals rule 1989 as amended in Octoberober, 1994 and January, 2000.	The company complies with all stipulated norms of act made in CCA by GPCB are being complied. Latest Environmental audit report by S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.
	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 I.	**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	**Complied**. All the reactors handling solvent are connected/attached with chilled brine condenser for solvent recovery.

	system.	
	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.
	The solvent storage tanks shall be provided with breather valve to prevent loses.	Complied. Breather valves have been provided to all the solvent storage tanks to minimize the loses.
xi	Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc.	Complied. Hazardous chemicals are being stored in tanks, drums and carboys considering the storage quantity and chemical stored.
	Company shall develop an area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.	Complied.

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

Proper plantation is done all around the plant boundary and also the roads to mitigate fugitive & transport dust emission.

Total Industrial Plot area: 1126078.27 sq.mt

Green belt area: 409030.00 sq.mt (approx. 36% of total plot area)

Layout plan with green belt is shown as under:

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.</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 10.59 lac KL rain water during 2021.</td></tr>
<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">1819</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>
</table>

i	The project authorities shall strictly adhere to the stipulations made by the State Pollution Control Board.	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 S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.
ii	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.	Complied. Any expansion will be done only after getting EC.
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 be carried.	**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>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>
</table>

<table>
<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>
<tr><td></td><td>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)</td><td>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):

<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Location</th><th rowspan="2">Permissible Limits, dBA</th><th colspan="3">Values for the period April 21-September 21</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>62.60</td><td>66.00</td><td>64.47</td></tr>
<tr><td>2</td><td>Opposite shed D</td><td>75</td><td>65.20</td><td>72.30</td><td>69.07</td></tr>
<tr><td>3</td><td>ETP West site</td><td>75</td><td>64.10</td><td>68.40</td><td>66.58</td></tr>
<tr><td>4</td><td>ETP North site</td><td>75</td><td>61.30</td><td>65.20</td><td>63.27</td></tr>
<tr><td>5</td><td>Near TSDF</td><td>75</td><td>63.20</td><td>69.20</td><td>66.25</td></tr>
<tr><td>6</td><td>Near Main guest house</td><td>75</td><td>61.40</td><td>65.40</td><td>63.68</td></tr>
<tr><td>7</td><td>At Wyeth Colony</td><td>75</td><td>57.80</td><td>67.30</td><td>61.43</td></tr>
<tr><td>8</td><td>Gram Panchayat Hall</td><td>75</td><td>64.20</td><td>68.30</td><td>65.98</td></tr>
<tr><td>9</td><td>Near Main Office North site</td><td>75</td><td>62.40</td><td>66.30</td><td>64.23</td></tr>
<tr><td>10</td><td>Haria Water tank</td><td>75</td><td>62.80</td><td>67.80</td><td>65.12</td></tr>
</table>

Noise level monitoring data (Night Time):

<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Location</th><th rowspan="2">Permissible Limits, dBA</th><th colspan="3">Values for the period April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>66KVA substation</td><td>70</td><td>51.60</td><td>55.70</td><td>53.30</td></tr>
<tr><td>2</td><td>Opposite shed D</td><td>70</td><td>50.60</td><td>54.80</td><td>52.18</td></tr>
<tr><td>3</td><td>ETP West site</td><td>70</td><td>52.50</td><td>55.30</td><td>53.67</td></tr>
<tr><td>4</td><td>ETP North site</td><td>70</td><td>50.70</td><td>58.10</td><td>52.85</td></tr>
<tr><td>5</td><td>Near TSDF</td><td>70</td><td>51.30</td><td>57.60</td><td>55.77</td></tr>
<tr><td>6</td><td>Near Main guest house</td><td>70</td><td>50.80</td><td>54.20</td><td>52.58</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>7</td><td>At Wyeth Colony</td><td>70</td><td>50.20</td><td>52.60</td><td>51.63</td></tr>
<tr><td>8</td><td>Gram Panchayat Hall</td><td>70</td><td>53.40</td><td>56.40</td><td>54.82</td></tr>
<tr><td>9</td><td>Near Main Office North site</td><td>70</td><td>52.40</td><td>54.30</td><td>53.27</td></tr>
<tr><td>10</td><td>Haria Water tank</td><td>70</td><td>50.20</td><td>57.30</td><td>54.08</td></tr>
</table>
</td></tr>
<tr><td>viii</td><td>Training shall be imparted to all employees on safety and health aspects of chemicals handling.</td><td>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.</td></tr>
<tr><td></td><td>Pre - employment and routine periodical medical examination for all employees shall be undertaken on regular basis.</td><td>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.</td></tr>
<tr><td>ix</td><td>Usage of PPE's by employee/ workers shall be ensured.</td><td>Complied.
Company have PPE policy in place and is strictly followed. Company is providing adequate PPEs to all the employees.</td></tr>
<tr><td>x</td><td>The project proponent shall also comply with all the environmental protection measures and safeguards proposed in project report submitted to the ministry.</td><td>Complied.
Company has complied with all the environmental protection measures and safeguards proposed in the report apart from the recommendations made their in.</td></tr>
<tr><td></td><td>All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.</td><td>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</td></tr>
</table>

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 measures in the project area for the overall improvement of the environment.	**Complied** as mentioned in xi above.
xiii	A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.	**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.

<table>
<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
April 21 – September 21</th></tr><tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2780</td></tr><tr><td>2</td><td>Liquid Pollution Control</td></tr><tr><td>3</td><td>Environmental Monitoring and Management</td><td>22</td></tr><tr><td>4</td><td>Solid waste Disposal</td><td>87</td></tr><tr><td>5</td><td>Occupational health</td><td>26</td></tr><tr><td>6</td><td>Green belt</td><td>7</td></tr><tr><td colspan="2">Total</td><td>2922</td></tr></table></td></tr>
<tr><td rowspan="2">xv</td><td>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.</td><td>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.</td></tr>
<tr><td>The clearance letter shall also be put on the web site of the company by the proponent.</td><td>Complied.
Available at company’s website at www.atul.co.in</td></tr>
</table>

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	**Complied.** Advertisement was published as directed and copy of the same was submitted to Ministry vide our letter dated November 14, 2009.

	concerned Ministry's Regional office at Bhopal.	
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
		April 21	May 21	June 21	July 21	August 21	September 21	
1	pH	7.18	7.36	7.67	7.71	7.08	7.58	5.5 to 9.0
2	Temperature °C	30.2	30.4	30.2	30.7	30.1	30	40 °C
3	Colour (pt. co. scale)	40	50	40	70	60	50	- - -
4	Suspended solids, mg/l	47	53	39	48	35	42	100
5	Phenolic Compounds, mg/l	1.8	0.16	0.19	0.34	0.58	0.65	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.48	0.75	0.93	0.86	0.78	0.84	2
8	Sulphides, mg/l	ND	0.62	1.24	1.65	1.18	0.98	2
9	Ammonical Nitrogen, mg/l	5.7	4.8	2.76	6.4	4.6	5.9	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	64	45	48	44	52	42	100
13	COD, mg/l	216	186	194	210	234	196	250
	Note: ND is Not Detected.							

Table: 2 Stack Results

				APR. 2021	MAY. 2021	JUN. 2021	JULY. 2021	AUG. 2021	SEPT. 2021
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	36.7	49.8	41.7	34.9	30.2	36.3
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	8	6	4.4	4.6	6.2	6.2
		HCl	20.0 mg/Nm3	7.8	5.73	4.45	4.72	6.4	6.35
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	3.35	3.8	6.2	7.1	6.27	4.1
		HCl	20.0 mg/Nm3	3.2	3.93	6.38	7.29	6.1	4.22
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	1.48	1.25	0.75	0.75	0.52	1.1
		Acid Mist	50.0 mg/Nm3	15.2	22.4	19.1	19.1	9.4	24.6
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	7.8	Not Running	5.5	4.5	7.1	3.8
		HCl	20.0 mg/Nm3	7.95		5.65	4.62	7.3	3.9
Resorcinol Plnat									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	21.2	10.4	18.9	15.7	19.2	24.6
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	Not Running	30.8	Not running	31.3	32.6	29.3
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	64.8	43.7	Not running	Not running	Not running	Not running
		SO_2	40.0 mg/Nm3	17.2	20.6				
		NOx	25.0 mg/Nm3	14	19.4				
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	32.4	13.7	31.7	18.4	30.2	25.8
		NOx	25.0 mg/Nm3	19.6	12.4	19.8	14.9	17.1	11.6
2-4-D Plant									
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	7.2	7.1	3.4	6.2	5.5	5.9
		HCl	20.0 mg/Nm3	7.4	7.35	3.55	6.37	5.65	6.06
		Phenol	--	6.8	6.3	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.3	9.6	10.4	Not Running	Not Running	Not Running
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	8.8	Not Running	Not Running

16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	10.9	12.6	15.6
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	11.9	13.8	14.9	12.1	9.4	10.1
		NOx	25.0 mg/Nm3	7.5	16.7	12.6	17.4	21.6	18.4
CP Plant									
21	MCPA	Cl_2	9 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM^3						
		SO_2	40 mg/NM^3						
22	Fipronil	SO_2	40 mg/NM^3	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	145	130	115	145	102	128
MPSL Plant									
26	Phosgene Scrubbr 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	Acetonytryl e, 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	8.1	Not Running	Not Running	Not Running	Not Running	Not Running
		Phosgene	0.1 ppm	ND					
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM^3	7.75	5.35	6.2	7.3	4.6	8.1
		HCl	20 mg/NM^3	7.9	5.2	6.37	7.5	4.8	8.3
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	6.4	7.9	7.1	6.3	5.1	7.9
		HCl	20.0 mg/Nm3	6.2	8.12	7.3	6.47	5.2	5.2

34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	Not Running	13.8	17.4	34.1	27.9	20.6
		Cl_2	9 mg/NM^3		6.2	4.9	5	8.5	7.9
		HCl	20 mg/NM^3		9	5	5.1	8.73	8.1
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	7.9	6.2	5.2	3.8	7.4	7.4
		HCl	20.0 mg/Nm3	8.1	6.37	5.35	3.9	7.6	7.6
36	Shed D Niro Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	94
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	41.7	69.7	Not Running	Not Running	Not Running	44
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
40	Shed G 10/8/1 (receiver)	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	4.3	5.8	7.1	5.5	7.1	7.1
		HCl	20.0 mg/Nm3	12.4	14.8	14.7	10.6	11.7	11.2
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	0.8	1.2	1.12	0.45	1.2	1.6
		Acid Mist	50.0 mg/Nm3	2	4.6	4.65	1.6	20.6	8.2
43	Shed J15/09/25	HBr	–	ND	ND	ND	ND	ND	ND
		SO_2	40 mg/NM^3	30.5	36.2	20.9	13.6	25.9	33.6
44	Shed J12/01/42	SO_2	40 mg/NM^3	27.9	29.8	Not Running	Not Running	24.7	19.1
		Cl_2	9.0 mg/Nm3	7.5	5.9			7.9	6.4
		HCl	20.0 mg/Nm3	7.7	11.4			8.12	6.6
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	7.9	5.5	6.4	6.7	6.1	7.9
		HCl	20 mg/NM^3	8.1	10.2	17.1	6.88	6.3	8.13
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	34.5	24.7	33.2	20.6	34.2	29.7
48	Sulfer Black Plant	H_2S	--	ND	ND	ND	1.12	ND	ND
		NH_3	175 mg/NM^3	140	79.9	90	110	94	125
49	Sulfer Dyes plant	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	39.8	81.6	94.8	75.1	56	106
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-FDH 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	PHIN Plant	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	3.7	7.9	7.9	7.3	1.3	2.1
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	130	90	75	50	44	96
55	SPIC II Plant (DCDPS)	SO_3	---	15.8	ND	Not Running	24.75	17.6	11.8
56	SPIC I Plant	NH_3	175 mg/Nm3	155	140	140	130	160	125
57	SPIC IV Plant	NH_3	175 mg/NM^3	80	110	80	155	140	136
		SO_3	---	11.3	ND	ND	ND	14.8	14.6

Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site									
1	FBC boiler El	PM	100 mg/Nm3	40.4	Not Running	46.9	51.7	Not Running	49.7
		SO_2	600 mg/Nm3	264		272	214		215
		NOx	600 mg/Nm3	316		246	201		256
2	FBC boiler E2	PM	100 mg/Nm3	Not Running	50.9	57.9	45.1	49.7	Not Running
		SO_2	600 mg/Nm3		265	259	224	215	
		NOx	600 mg/Nm3		303	231	246	256	
3	FBC boiler E3	PM	100 mg/Nm3	68.4	76.4	Not Running	Not Running	54.7	54.7
		SO_2	600 mg/Nm3	334	239			208	208
		NOx	600 mg/Nm3	310	285			196	196
4	Hot Oil Unit	PM	150.0 mg/Nm3	11.7	34.6	39.6	23.6	31.7	40.3
	(Resorcinol Plant)	SO_2	100 ppm	4.8	10.4	11.6	9.9	6.2	9.3
		NOx	50 ppm	17.6	29.6	24.8	33.2	40.2	30.2
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	23.4	28.6	34.5	50.2	37.6	44.7
		SO_2	100 ppm	5.4	8.3	7.8	9.3	6.3	5.7
		NOx	50 ppm	39.7	30.7	33.9	49.7	29.5	32.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	50.2	61.7	56.7	49.6	56.2	64.7
		SO_2	600 mg/Nm3	184	194	238	248	320	350
		NOx	600 mg/Nm3	212	201	184	320	362	384
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	ND	ND	39.6	23.2	34.1	51.7
		SO_2	100 ppm	ND	3.2	11.6	6.5	6.8	8.6
		NOx	50 ppm	23.8	15.6	24.8	14.8	12.4	13.4
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	31.7	34.4	45.7	29.4	38.3	39.4
		SO_2	600 mg/Nm3	198	180	244	290	210	324
		NOx	300 mg/Nm3	208	219	256	230	222	218
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	40.2	33.7	39.7	56.1	42.7	36.1
		SO_2	100 ppm	6.2	9.6	6.4	11.4	5.8	4.9
		NOx	50 ppm	25.9	38.4	29.7	39.4	24.8	29.7
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	25.8	35.4	41.7	11.3	30.7	49.3
		SO_2	100 ppm	5.9	8.4	62	5.9	6.4	10.4
		NOx	50 ppm	23.6	27.6	14.9	19.1	13.2	16.5

Table 3: Ambient Air Monitoring details

Station	Parameter	Limit micro gm/NM³	April 21	May 21	June 21	July 21	August 21	September 21
66 KV	PM 2.5	60	22	24	22	21	24	20
	PM10	100	45	47	45	47	43	35
	SO2	80	12.4	13.5	14.6	10.9	12.2	14.3
	NO_2	80	9.6	10.8	11.7	13.4	14.3	12
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	8	ND	7	7.4	7	6.7
Opposite Shed D	PM 2.5	60	32.7	32.4	33.5	31.8	29.3	25.6
	PM10	100	50.1	50.5	51.6	50.1	50.1	44.6
	SO2	80	18.5	16.9	15.7	13.1	11.6	13.9
	NO_2	80	10.1	11.5	12.6	14.3	13.9	15
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	26	28	26	25	20	21
	PM10	100	44	46	44	43	49	34
	SO2	80	13.2	12.8	13.7	11.7	13.6	13.1
	NO_2	80	10.3	11.6	10.9	14.2	12.4	13.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	21	23	21	26	29	19
	PM10	100	43	45	43	42	46	40
	SO2	80	9.5	10.6	11.5	12.1	14.1	12.7
	NO_2	80	10.2	11.3	12.5	11.9	13.5	11.3
	Ammonia	400	12	ND	10	8.5	7.6	5.9
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	23	25	28	24	21	24
	PM10	100	47	49	47	45	41	43
	SO2	80	11.2	13.1	12.3	13.8	10.7	11.6
	NO_2	80	11.4	12.5	13.8	12.7	10.4	12.5
	Ammonia	400	6	ND	7	6.4	5.7	4.7
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	25.3	26.2	24.2	19.7	21.6	26.6
	PM10	100	45.3	46.2	48.3	41.8	47.7	42.4
	SO2	80	14.3	15.2	14.1	11.2	11	13
	NO_2	80	21.5	22.4	20.5	13.4	13.7	10.3
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	27	29	27	23	27	23
	PM10	100	50	52	50	48	42	45
	SO2	80	12.4	13.6	11.8	12.6	11.7	11.1
	NO_2	80	11.2	12.3	13.8	12.4	11.3	10.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	32.7	30.6	31.5	30.4	31.1	35.4
	PM10	100	50.1	50.8	51.7	50.3	46.2	41.9
	SO2	80	16.2	14.5	15.4	13.2	12.4	15

	NO_2	80	22.2	22.6	21.5	22.9	17.3	14.8
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	38.3	39.2	34.6	37.2	33.6	39.5
	PM10	100	52.8	53.7	47.1	46.8	49.2	54.3
	SO2	80	11.3	12.2	10.7	11.6	12.4	13.4
	NO_2	80	21.3	22.4	12.4	14.6	13.4	15.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	26.5	27.4	29	31.1	30.5	35.5
	PM10	100	53.7	54.6	56.4	51.3	46.2	51.8
	SO2	80	11.6	16.8	10.8	12.6	12.3	14.2
	NO_2	80	16.5	17.4	10.5	13.2	11.4	13.5
	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	Results of VOCs in Milligram per NM^3					
				April 21	May 21	June 21	July 21	August 21	September 21
2,4 D	Reactor	Phenol	19	10.3	12.7	12.4	6.8	3.3	4.9
	Buffer tank	Chlorine	3.0	0.89	1.05	1.2	1.8	ND	1.7
Resorcinol	Benzene storage tank area near vent	Benzene	15	ND	ND	ND	ND	ND	ND
	Near Extraction/scrubber unit	Butyl acetate	-	43.6	ND	ND	22.1	1.6	1.8
Pharma	At second floor work area	Ammonia	18	5.2	8.7	10.4	7.5	3.4	3.7
	Ammonia recovery area	Ammonia	18	5.9	7.1	6.4	8.4	4.1	7.8
Epoxy - I	At vacuum pump 2nd floor	ECH	10	2.7	2.53	6.4	7.1	5.4	5
	At vessel POS 1208 G.F	ECH	10	1.9	4.4	3.6	5.9	3.7	4.3
Shed H	At second floor work area	Nitrobenzene	5	2.5	3.6	2.9	3.3	0.74	3.8
Shed J	Buffer Tank	Chlorine	3	ND	ND	ND	ND	ND	ND

Table 5: Noise level monitoring data (Day Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	65	66	65	62.9	65.3	62.6	75
2	Opposite shed D	71.2	72.3	71.2	68.5	66	65.2	75
3	West site ETP	67.5	68.4	67.5	64.1	67.1	64.9	75
4	North site ETP	61.3	62.4	63.5	65.2	64.5	62.7	75
5	Near TSDF	65.2	66.3	65.2	63.2	69.2	68.4	75
6	Near main guest house	63.1	64.2	63.1	61.4	64.9	65.4	75
7	At wyeth colony	57.8	58.7	59.6	58.3	66.9	67.3	75
8	Gram panchayat hall	65.5	66.4	65.3	66.2	68.3	64.2	75
9	Near main office North site	62.4	63.5	64	63.7	65.5	66.3	75
10	Haria water tank	64.3	65.2	66.3	67.8	64.3	62.8	75

Table 6 : Noise level monitoring data (Night Time)

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	53.5	54.6	55.7	51.7	52.7	51.6	70
2	Opposite shed D	50.6	51.4	52.5	54.8	53	50.8	70
3	West site ETP	53.1	54.2	55.3	52.7	54.2	52.5	70
4	North site ETP	51.4	52.5	51.8	50.7	52.6	58.1	70
5	Near TSDF	57.6	56.7	55.6	51.3	56.2	57.2	70
6	Near main guest house	52.4	53.5	52.4	54.2	50.8	52.2	70
7	At wyeth colony	51.5	52.4	51.3	50.2	51.8	52.6	70
8	Gram panchayat hall	55.6	56.4	55.1	53.7	53.4	54.7	70
9	Near main office North site	53.4	54.3	53.4	52.4	52.4	53.7	70
10	Haria water tank	55.6	56.4	57.3	53.6	50.2	51.4	70

Table7: CSR Activities

CSR activities			
Sr. No.	Name of Project	Project cost (Budget)	Total spent till October 2021
1	Enhancement of educational practices in Kalyani Shala	30,00,000	1,05,000
2	Improvement of teaching methodology for primary school children - Adhyapika project	60,00,000	33,65,659
3	Support to tribal children in Atul Vidyamandir	5,00,000	70,000
4	Support to develop a school in a tribal area	15,00,000	11,94,200
5	Provision of scholarships to needy and meritorious students	5,00,000	3,72,634
6	Provision of education kits to children	5,00,000	3,94,504
7	Support needy | special children	5,00,000	1,66,670
8	Provide digital education through Tab Lab	25,00,000	6,11,425
9	Conservation of manuscripts	50,00,000	25,00,000
10	Support children with special needs	1,00,000	50,000
11	Promote learning and life skills among children	1,00,000	1,00,000
12	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3,00,000	3,50,000
13	Skills training to youth as apprentices	1,00,00,000	51,59,796
14	Empowerment of women |youth through various vocational training courses	10,00,000	21,04,921
15	Skill development of youth through vocational training with NABARD	18,00,000	-
16	Develop micro entrepreneurs to provide sustainable livelihood	20,00,000	7,69,708
17	Create livelihood opportunities fortribal families by providing cows	35,00,000	9,37,000
18	Empower women through self-help groups	20,00,000	68,473

19	Enhancement of rural health through health camps	10,00,000	5,23,920
20	Promote Nutrition Gardens	10,00,000	2,93,080
21	Establish Atul Medical Diagnostic Centre	5,00,00,000	-
22	Promote health and wellbeing of adolescents and women (including sampoorna project)	20,00,000	7,11,372
23	Provision of blood units to the needy and deserted patients	2,00,000	2,40,000
24	Support to needy patients	5,00,000	2,03,045
25	Support to disaster relief for COVID-19 pandemic	1,50,00,000	1,23,64,537
26	Construction of walkway and streetlights	70,00,000	55,31,528
27	Infrastructure development in Atul and surrounding villages	45,00,000	33,79,977
28	Establishment of solid waste management system in Atul village	55,00,000	54,83,981
29	Natural resource management	50,00,000	5,02,052
30	Conservation of energy through Solar	30,00,000	-
31	Nature based wastewater recycling project	75,00,000	-
Total CSR budget		14,30,00,000	4,75,53,482
Administrative overheads		70,00,000	21,58,626
Total		15,00,00,000	4,97,12,108

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: April 2021 - September 2021

<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 April 21 – September 21</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>40.4</td><td>76.4</td><td>54.76</td></tr>
<tr><td>PM(New Boiler)</td><td>50</td><td>mg/Nm^3</td><td>45.7</td><td>29.4</td><td>37.44</td></tr>
<tr><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>180</td><td>350</td><td>245.71</td></tr>
<tr><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>184</td><td>384</td><td>252.42</td></tr>
<tr><td>NOx (New Boiler)</td><td>300</td><td>mg/Nm^3</td><td>218</td><td>256</td><td>229</td></tr>
</table>
</td></tr>
</table>

Flue gas stack results for the report period is attached as **Annexure I.**

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 April 21 – September 21		
			Min.	Max.	Avg.
66 KV	PM2.5	60	20	24	22.2
	PM10	100	35	47	43.7
	SO_2	80	10.9	14.6	13.0
	NO2	80	9.6	14.3	12.0
	Ammonia	400	ND	ND	ND
	HCl	200	6.7	8	7.2
Opposite Shed D	PM2.5	60	25.6	33.5	30.9
	PM10	100	44.6	51.6	49.5
	SO_2	80	11.6	18.5	15.0
	NO2	80	10.1	15	12.9
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Near West Site ETP	PM2.5	60	20	28	24.3
	PM10	100	34	49	43.3
	SO_2	80	11.7	13.7	13.0
	NO2	80	10.3	14.2	12.1
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Near North ETP	PM2.5	60	19	29	23.2
	PM10	100	40	46	43.2

	SO_2	80	9.5	14.1	11.8
	NO2	80	10.2	13.5	11.8
	Ammonia	400	5.9	12	8.8
	HCl	200	ND	ND	ND
TSDF	PM2.5	60	21	28	24.2
	PM10	100	41	49	45.3
	SO_2	80	10.7	13.8	12.1
	NO2	80	10.4	13.8	12.2
	Ammonia	400	4.7	7	6.0
	HCl	200	ND	ND	ND
Main Guest House	PM2.5	60	19.7	26.6	23.9
	PM10	100	41.8	48.3	45.3
	SO_2	80	11	15.2	13.1
	NO2	80	10.3	22.4	17.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Wyeth Colony	PM2.5	60	23	29	26.0
	PM10	100	42	52	47.8
	SO_2	80	11.1	13.6	12.2
	NO2	80	10.7	13.8	12.0
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Gram Panchayat Hall	PM2.5	60	30.4	35.4	32.0
	PM10	100	41.9	51.7	48.5
	SO_2	80	12.4	16.2	14.5
	NO2	80	14.8	22.9	20.2
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Main Office North Site	PM2.5	60	33.6	39.5	37.1
	PM10	100	46.8	54.3	50.7
	SO_2	80	10.7	13.4	11.9
	NO2	80	12.4	22.4	16.6
	Ammonia	400	ND	ND	ND
	HCl	200	ND	ND	ND
Haria Water Tank	PM2.5	60	26.5	35.5	30.0
	PM10	100	46.2	56.4	52.3
	SO_2	80	10.8	16.8	13.1
	NO2	80	10.5	17.4	13.8
	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.
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.

Soil and Groundwater analysis report for year 2020 has been submitted to your good office vide our letter June 26, 2021.</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 1307.5 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>Qty. (KL/Month)</th><th>Avg. Qty. (KL/Day)</th></tr>
<tr><td>1</td><td>April – 21</td><td>31637</td><td>1055</td></tr>
<tr><td>2</td><td>May – 21</td><td>36063</td><td>1163</td></tr>
<tr><td>3</td><td>June – 21</td><td>38733</td><td>1291</td></tr>
<tr><td>4</td><td>July – 21</td><td>41867</td><td>1351</td></tr>
<tr><td>5</td><td>August – 21</td><td>45772</td><td>1477</td></tr>
<tr><td>6</td><td>September - 21</td><td>45227</td><td>1508</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 135 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 Qty.(KL/Day)</th></tr>
<tr><td>1</td><td>April – 21</td><td>5379</td><td>174</td></tr>
<tr><td>2</td><td>May – 21</td><td>5270</td><td>176</td></tr>
<tr><td>3</td><td>June – 21</td><td>3534</td><td>114</td></tr>
<tr><td>4</td><td>July – 21</td><td>2870</td><td>96</td></tr>
<tr><td>5</td><td>August – 21</td><td>3441</td><td>111</td></tr>
<tr><td>6</td><td>September - 21</td><td>4168</td><td>139</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>April – 21</td><td>0.63</td></tr>
<tr><td>2</td><td>May – 21</td><td>0.66</td></tr>
<tr><td>3</td><td>June – 21</td><td>0.48</td></tr>
<tr><td>4</td><td>July – 21</td><td>0.52</td></tr>
<tr><td>5</td><td>August – 21</td><td>0.45</td></tr>
<tr><td>6</td><td>September - 21</td><td>0.52</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.</td>
</tr>
</table>

<table>
<tr><td></td><td></td><td>No waste water discharge to ETP from our 22 MW Captive power plant.</td></tr>
<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 10.59 lac KL rain water during 2021.</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 15135 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>April - 21</td><td>15296</td></tr><tr><td>2</td><td>May - 21</td><td>14946</td></tr><tr><td>3</td><td>June – 21</td><td>12956</td></tr><tr><td>4</td><td>July - 21</td><td>15492</td></tr><tr><td>5</td><td>August - 21</td><td>16095</td></tr><tr><td>6</td><td>September - 21</td><td>16026</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.

It may be noted that we have not found radioactive element in coal | lignite. However, 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 37.44 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).

<table>
<tr><td>20.</td><td>Lime stone injection 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>Complied.
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>April - 21</td><td>0.4</td></tr><tr><td>2</td><td>May - 21</td><td>5.4</td></tr><tr><td>3</td><td>June – 21</td><td>5.2</td></tr><tr><td>4</td><td>July - 21</td><td>0.2</td></tr><tr><td>5</td><td>August - 21</td><td>0.2</td></tr><tr><td>6</td><td>September - 21</td><td>5.2</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.

EnviroConnect Environmental Monitoring LOGO FORBES MARSHALL

Forbes Marshall

ATUL LTD-VALSAD

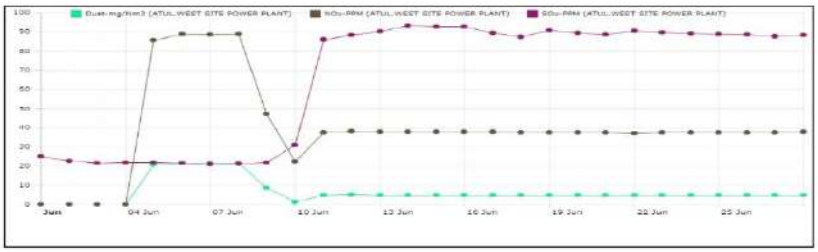
ATUL LTD, POST-ATUL, VALSAD, VALSAD. GUJARAT - 396020

Station Report

Station: Stack 1_50 TPH BOILER

From : 01-04-2021 00:00:00 **To :** 30-04-2021 23:59:59

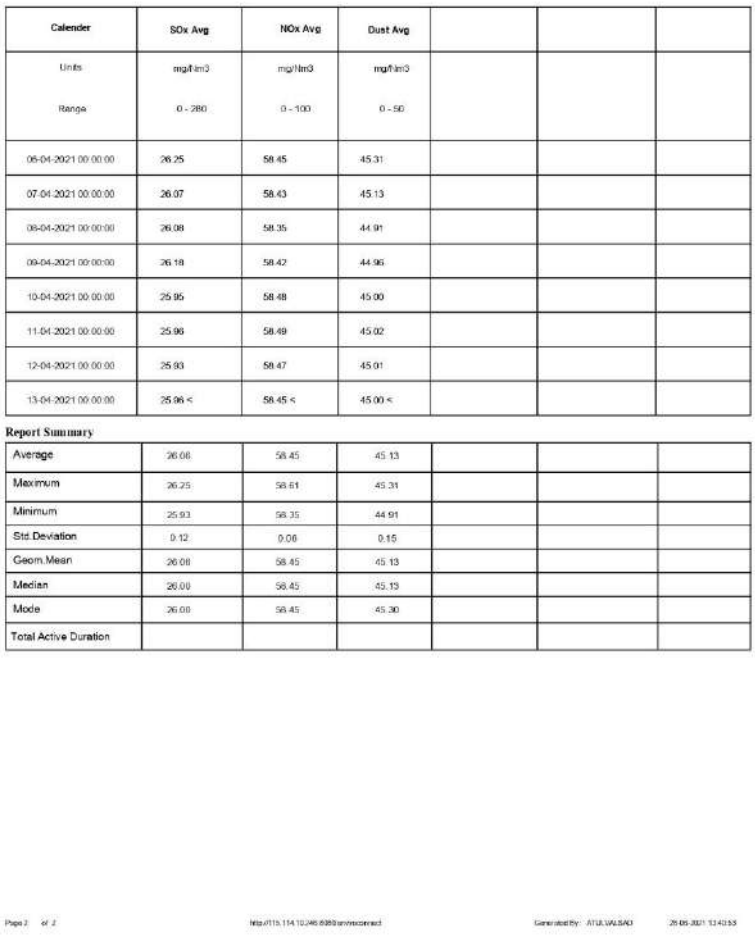
Interval : Daily **Function :** Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data,R- Analyzer drift

Calender	SOx Avg	NOx Avg	Dust Avg			
Units	mg/Nm3	mg/Nm3	mg/Nm3			
Range	0 - 280	0 - 100	0 - 50			
01-04-2021 00:00:00	26.00	58.46	45.25			
02-04-2021 00:00:00	25.97	58.45	45.28			
03-04-2021 00:00:00	25.99	58.61	45.30 H			
04-04-2021 00:00:00	26.25	58.43	45.28			
05-04-2021 00:00:00	26.25	58.40	45.26			

Page 1 of 2 http://116.114.10.246:8080/enviroconnect Generated By : ATULVALSAD 28-06-2021 13:40:53

		
	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.

Calender	SOx Avg	NOx Avg	Dust Avg			
Units	mg/Nm3	mg/Nm3	mg/Nm3			
Range	0 - 280	0 - 100	0 - 50			
06-04-2021 00:00:00	26.25	58.45	45.31			
07-04-2021 00:00:00	26.07	58.43	45.13			
08-04-2021 00:00:00	26.08	58.35	44.91			
09-04-2021 00:00:00	26.18	58.42	44.96			
10-04-2021 00:00:00	25.95	58.48	45.00			
11-04-2021 00:00:00	25.98	58.49	45.02			
12-04-2021 00:00:00	25.93	58.47	45.01			
13-04-2021 00:00:00	25.98 <	58.45 <	45.00 <			

Report Summary

Average	26.08	58.45	45.13			
Maximum	26.25	58.61	45.31			
Minimum	25.93	58.35	44.91			
Std.Deviation	0.12	0.06	0.15			
Geom.Mean	26.08	58.45	45.13			
Median	26.00	58.45	45.13			
Mode	26.08	58.45	45.30			
Total Active Duration						

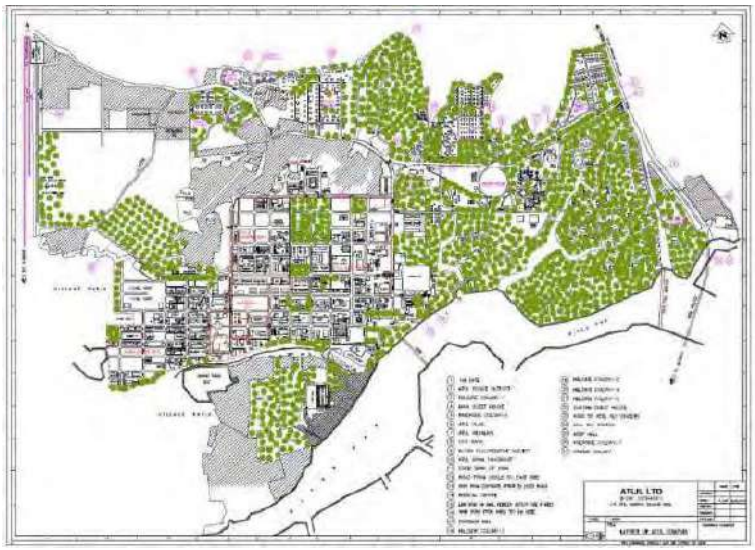
25.	Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No pond shall be constructed.	**Complied.** We have not constructed ash pond for the CPP unit. We have closed three silo of 200 MT and Two silo of 300 MT capacity of each, total 1200 MT capacity, which is well enough for our average generation of report period 133 TPD. 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	Unit	April 21	May 21	June 21	July 21	August 21	September 21
Generation	MT	3628	3083	2708	4321	4466	6348
Disposal	MT	3628	3083	2708	4321	4466	6348

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. 

	A green belt shall be developed all around the plant boundary and also the roads to mitigate fugitive & transport dust emission.	Complied. Proper plantation is done all around the plant bounder and also the roads to mitigate fugitive & transport dust emission. Total industrial area: 1126078.27 sq.mt. Green belt area: 409030.00 sq.mt (approx. 36% of total industrial plot area) Layout plan with green belt is as shown below: 
30.	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.	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.
	Ambient air quality levels shall not exceed the standards stipulated by GPCB.	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.
	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.	Complied. No such case found till date. We closely monitor all the parameters through online as well as offline. Furthermore, we have set limit to 90% value of stipulated norms as our internal norms for taking immediate actions like slowing down the production, and | or stopping the plant etc. for taking corrective and preventive actions. This is being managed through our well designed and integrated in-plant DCS.
A.4 SOLID/ HAZARDOUS WASTE:		

<table>
<tr><td rowspan="2">31.</td><td>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.</td><td>Complied
There is only one Hazardous waste from the project i.e. Used oil. It is stored in drum. It is given to GPCB authorized vendors only in line with the regulation.The used oil generation and disposal quantity from the project for the report period is Nil</td></tr>
<tr><td>Authorization from the GPCB shall be
obtained for collection /treatment /storage disposal of hazardous waste</td><td>Complied.
We have CCA Amendment No. AWH – 105110, dated November 16, 2019</td></tr>
<tr><td>32.</td><td>Hazardous waste sludge shall be packed stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal.</td><td>Complied
There is only one Hazardous waste from the project i.e. Used oil. It is stored in drum. It is given to GPCB authorized vendors only in line with the regulation.The used oil generation and disposal quantity from the project for the report period is Nil.</td></tr>
<tr><td>33.</td><td>The used oil shall be sold to only to the registered recyclers / refiners.</td><td>Complied.
Used oil is being sold to GPCB authorized vendor.</td></tr>
<tr><td>34.</td><td>The discarded containers / barrels /bags/ liners shall be sold only to the registered recycler.</td><td>Complied.
No bags / liners are being utilized for Power Plant.</td></tr>
<tr><td rowspan="2">35.</td><td>For storage of fly ash closed silos of adequate capacity shall be provided.</td><td>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 133 TPD.</td></tr>
<tr><td>No ash pond shall be construed in the project.</td><td>Complied.
No ash pond is construed in the project.</td></tr>
<tr><td rowspan="2">36.</td><td>The fly ash shall be supplied to the manufacturers of fly ash based products such as cement, concrete blocks, bricks, panels, etc.</td><td>Complied.
Fly ash is being given to cement and bricks manufacturers and also being used for our own bricks manufacturing unit.</td></tr>
<tr><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>Unit</th><th>April 21</th><th>May 21</th><th>June 21</th><th>July 21</th><th>August 21</th><th>September 21</th></tr>
<tr><td>Generation</td><td>MT</td><td>3628</td><td>3083</td><td>2708</td><td>4321</td><td>4466</td><td>6348</td></tr>
<tr><td>Disposal</td><td>MT</td><td>3628</td><td>3083</td><td>2708</td><td>4321</td><td>4466</td><td>6348</td></tr>
</table>

We have done agreement with Ambuja Cement for supply of dry ash.</td></tr>
</table>

37.	All possible efforts shall be made for co - processing of the Hazardous waste prior to disposal into TSDF/CHWIF.	Complied The used oil generation and disposal quantity from the project for the report period Nil. The same was given to GPCB authorized vendors only in line with the regulation.
A.5 SAFETY:		
38.	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.	Complied. We are complying all the provisions of Factories act, all the rules and regulation led by MSIHC, 1989.
39.	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	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.
40.	All the risk mitigation measures, general & specific recommendations mentioned in risk Assessments Report shall be implemented.	Complied. All the risk mitigation measures, general & specific recommendations mentioned in risk assessments report are implemented.
41.	A well designed fire hydrants system shall be installed as per the prevailing standards	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.
42.	Personal protective Equipment shall be provided to worker and its usage shall be ensured and supervised.	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.

<table>
<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">1819</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
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.</td></tr>
</table>

		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.

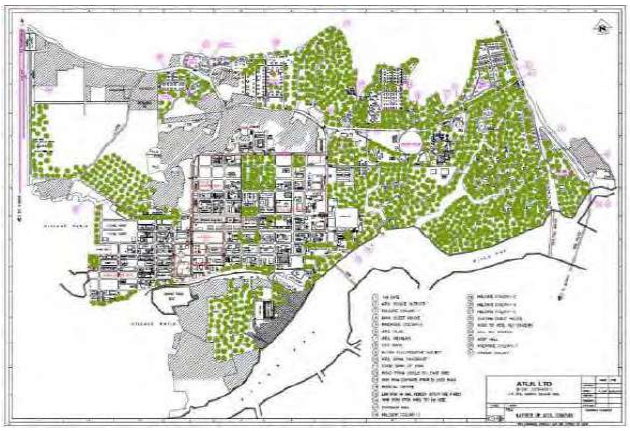
	Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.	Noted & Complied. We are only using construction equipment meeting the norms specified by EP Act, 1986.
	Noise control equipment and baffling shall be employed on generators especially when they are operated near the 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.

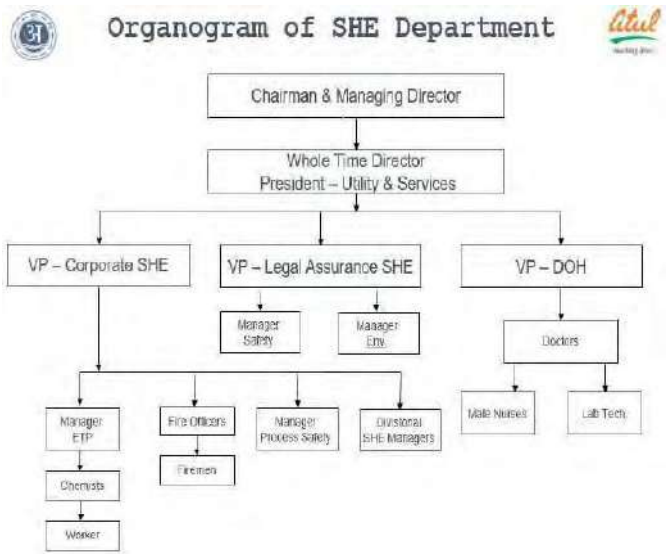
	The ambient noise levels shall confirm to the standards prescribed under the Environment (protection) Act and Rules. Workplace noise levels for workers shall be as per the factories Act and Rules.	**Complied.** The ambient and workplace noise level confirms to the standard prescribed under EPA. The same is being regularly monitored. 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 April 21 – September 21		
			Min.	Max.	Avg.
1	66KVA substation	75	62.60	66.00	64.47
2	Opposite shed D	75	65.20	72.30	69.07
3	ETP West site	75	64.10	68.40	66.58
4	ETP North site	75	61.30	65.20	63.27
5	Near TSDF	75	63.20	69.20	66.25
6	Near Main guest house	75	61.40	65.40	63.68
7	At Wyeth Colony	75	57.80	67.30	61.43
8	Gram Panchayat Hall	75	64.20	68.30	65.98
9	Near Main Office North site	75	62.40	66.30	64.23
10	Haria Water tank	75	62.80	67.80	65.12

Noise level monitoring data (Night Time)

Sr No.	Location	Permissible Limit	Values for the period April 21 – September 21		
			Min.	Max.	Avg.
1	66KVA substation	70	51.60	55.70	53.30
2	Opposite shed D	70	50.60	54.80	52.18
3	ETP West site	70	52.50	55.30	53.67
4	ETP North site	70	50.70	58.10	52.85
5	Near TSDF	70	51.30	57.60	55.77
6	Near Main guest house	70	50.80	54.20	52.58
7	At Wyeth Colony	70	50.20	52.60	51.63
8	Gram Panchayat Hall	70	53.40	56.40	54.82
9	Near Main Office North site	70	52.40	54.30	53.27
10	Haria Water tank	70	50.20	57.30	54.08

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, Hazardous & other wastes (Management and Trans boundary Movements) Rules 2016 and the public liability insurance Act, 1991 along with their amendments and rules.	**Noted.**
61	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.	**Complied.** Details of CSR projects done during report period is given in **Annexure - V.**
62.	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.	**Complied**. All the recommendations suggested in the EMP report and Risk assessments study report as well as proposed by us have been implemented.

<table>
<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) April 21 - September 21</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2780</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>22</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>87</td></tr>
<tr><td>5</td><td>Occupational health</td><td>26</td></tr>
<tr><td>6</td><td>Green belt</td><td>7</td></tr>
<tr><td colspan="2">Total</td><td>2922</td></tr>
</table>
</td></tr>
<tr><td rowspan="3">64.</td><td>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.</td><td>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.</td></tr>
<tr><td>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.</td><td>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.</td></tr>
<tr><td>A copy each of the same shall be forwarded to the concerned Regional office of the Ministry.</td><td>Complied.
A copy each of the same forwarded to the concerned Regional office of the ministry vide our letter dated January 27, 2017.</td></tr>
<tr><td>65.</td><td>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.</td><td>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.</td></tr>
</table>

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

Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site									
1	FBC boiler EI	PM	100 mg/Nm3	40.4	Not Running	46.9	51.7	Not Running	49.7
		SO_2	600 mg/Nm3	264		272	214		215
		NOx	600 mg/Nm3	316		246	201		256
2	FBC boiler E2	PM	100 mg/Nm3	Not Running	50.9	57.9	45.1	49.7	Not Running
		SO_2	600 mg/Nm3		265	259	224	215	
		NOx	600 mg/Nm3		303	231	246	256	
3	FBC boiler E3	PM	100 mg/Nm3	68.4	76.4	Not Running	Not Running	54.7	54.7
		SO_2	600 mg/Nm3	334	239			208	208
		NOx	600 mg/Nm3	310	285			196	196
4	Hot Oil Unit	PM	150.0 mg/Nm3	11.7	34.6	39.6	23.6	31.7	40.3
	(Resorcinol Plant)	SO_2	100 ppm	4.8	10.4	11.6	9.9	6.2	9.3
		NOx	50 ppm	17.6	29.6	24.8	33.2	40.2	30.2
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	23.4	28.6	34.5	50.2	37.6	44.7
		SO_2	100 ppm	5.4	8.3	7.8	9.3	6.3	5.7
		NOx	50 ppm	39.7	30.7	33.9	49.7	29.5	32.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	50.2	61.7	56.7	49.6	56.2	64.7
		SO_2	600 mg/Nm3	184	194	238	248	320	350
		NOx	600 mg/Nm3	212	201	184	320	362	384
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	ND	ND	39.6	23.2	34.1	51.7
		SO_2	100 ppm	ND	3.2	11.6	6.5	6.8	8.6
		NOx	50 ppm	23.8	15.6	24.8	14.8	12.4	13.4
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	31.7	34.4	45.7	29.4	38.3	39.4
		SO_2	600 mg/Nm3	198	180	244	290	210	324
		NOx	300 mg/Nm3	208	219	256	230	222	218
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	40.2	33.7	39.7	56.1	42.7	36.1
		SO_2	100 ppm	6.2	9.6	6.4	11.4	5.8	4.9
		NOx	50 ppm	25.9	38.4	29.7	39.4	24.8	29.7
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	25.8	35.4	41.7	11.3	30.7	49.3
		SO_2	100 ppm	5.9	8.4	62	5.9	6.4	10.4
		NOx	50 ppm	23.6	27.6	14.9	19.1	13.2	16.5

Annexure II: Ambient Air Result

Station	Parameter	Limit micro gm/NM³	April 21	May 21	June 21	July 21	August 21	September 21
66 KV	PM 2.5	60	22	24	22	21	24	20
	PM10	100	45	47	45	47	43	35
	SO2	80	12.4	13.5	14.6	10.9	12.2	14.3
	NO_2	80	9.6	10.8	11.7	13.4	14.3	12
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	8	ND	7	7.4	7	6.7
Opposite Shed D	PM 2.5	60	32.7	32.4	33.5	31.8	29.3	25.6
	PM10	100	50.1	50.5	51.6	50.1	50.1	44.6
	SO2	80	18.5	16.9	15.7	13.1	11.6	13.9
	NO_2	80	10.1	11.5	12.6	14.3	13.9	15
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	26	28	26	25	20	21
	PM10	100	44	46	44	43	49	34
	SO2	80	13.2	12.8	13.7	11.7	13.6	13.1
	NO_2	80	10.3	11.6	10.9	14.2	12.4	13.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	21	23	21	26	29	19
	PM10	100	43	45	43	42	46	40
	SO2	80	9.5	10.6	11.5	12.1	14.1	12.7
	NO_2	80	10.2	11.3	12.5	11.9	13.5	11.3
	Ammonia	400	12	ND	10	8.5	7.6	5.9
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	23	25	28	24	21	24
	PM10	100	47	49	47	45	41	43
	SO2	80	11.2	13.1	12.3	13.8	10.7	11.6
	NO_2	80	11.4	12.5	13.8	12.7	10.4	12.5
	Ammonia	400	6	ND	7	6.4	5.7	4.7
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	25.3	26.2	24.2	19.7	21.6	26.6
	PM10	100	45.3	46.2	48.3	41.8	47.7	42.4
	SO2	80	14.3	15.2	14.1	11.2	11	13
	NO_2	80	21.5	22.4	20.5	13.4	13.7	10.3
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	27	29	27	23	27	23
	PM10	100	50	52	50	48	42	45
	SO2	80	12.4	13.6	11.8	12.6	11.7	11.1
	NO_2	80	11.2	12.3	13.8	12.4	11.3	10.7
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	32.7	30.6	31.5	30.4	31.1	35.4
	PM10	100	50.1	50.8	51.7	50.3	46.2	41.9
	SO2	80	16.2	14.5	15.4	13.2	12.4	15

	NO_2	80	22.2	22.6	21.5	22.9	17.3	14.8
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	38.3	39.2	34.6	37.2	33.6	39.5
	PM10	100	52.8	53.7	47.1	46.8	49.2	54.3
	SO2	80	11.3	12.2	10.7	11.6	12.4	13.4
	NO_2	80	21.3	22.4	12.4	14.6	13.4	15.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	26.5	27.4	29	31.1	30.5	35.5
	PM10	100	53.7	54.6	56.4	51.3	46.2	51.8
	SO2	80	11.6	16.8	10.8	12.6	12.3	14.2
	NO_2	80	16.5	17.4	10.5	13.2	11.4	13.5
	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
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	65	66	65	62.9	65.3	62.6	75
2	Opposite shed D	71.2	72.3	71.2	68.5	66	65.2	75
3	West site ETP	67.5	68.4	67.5	64.1	67.1	64.9	75
4	North site ETP	61.3	62.4	63.5	65.2	64.5	62.7	75
5	Near TSDF	65.2	66.3	65.2	63.2	69.2	68.4	75
6	Near main guest house	63.1	64.2	63.1	61.4	64.9	65.4	75
7	At wyeth colony	57.8	58.7	59.6	58.3	66.9	67.3	75
8	Gram panchayat hall	65.5	66.4	65.3	66.2	68.3	64.2	75
9	Near main office North site	62.4	63.5	64	63.7	65.5	66.3	75
10	Haria water tank	64.3	65.2	66.3	67.8	64.3	62.8	75

Noise level monitoring data (Night Time):

Sr No.	Location	Noise Level, dBA						Permissible Limits, dBA
		April 21	May 21	June 21	July 21	August 21	September 21	
1	66KVA substation	53.5	54.6	55.7	51.7	52.7	51.6	70
2	Opposite shed D	50.6	51.4	52.5	54.8	53	50.8	70
3	West site ETP	53.1	54.2	55.3	52.7	54.2	52.5	70
4	North site ETP	51.4	52.5	51.8	50.7	52.6	58.1	70
5	Near TSDF	57.6	56.7	55.6	51.3	56.2	57.2	70
6	Near main guest house	52.4	53.5	52.4	54.2	50.8	52.2	70
7	At wyeth colony	51.5	52.4	51.3	50.2	51.8	52.6	70
8	Gram panchayat hall	55.6	56.4	55.1	53.7	53.4	54.7	70
9	Near main office North site	53.4	54.3	53.4	52.4	52.4	53.7	70
10	Haria water tank	55.6	56.4	57.3	53.6	50.2	51.4	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	Complied	-

	Existing plants shall 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.

Annexure V: CSR Activities

CSR activities			
Sr. No.	Name of Project	Project cost (Budget)	Total spent till October 2021
1	Enhancement of educational practices in Kalyani Shala	30,00,000	1,05,000
2	Improvement of teaching methodology for primary school children - Adhyapika project	60,00,000	33,65,659
3	Support to tribal children in Atul Vidyamandir	5,00,000	70,000
4	Support to develop a school in a tribal area	15,00,000	11,94,200
5	Provision of scholarships to needy and meritorious students	5,00,000	3,72,634
6	Provision of education kits to children	5,00,000	3,94,504
7	Support needy | special children	5,00,000	1,66,670
8	Provide digital education through Tab Lab	25,00,000	6,11,425
9	Conservation of manuscripts	50,00,000	25,00,000
10	Support children with special needs	1,00,000	50,000
11	Promote learning and life skills among children	1,00,000	1,00,000
12	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3,00,000	3,50,000
13	Skills training to youth as apprentices	1,00,00,000	51,59,796
14	Empowerment of women Jyouth through various vocational training courses	10,00,000	21,04,921
15	Skill development of youth through vocational training with NABARD	18,00,000	-
16	Develop micro entrepreneurs to provide sustainable livelihood	20,00,000	7,69,708
17	Create livelihood opportunities fortribal families by providing cows	35,00,000	9,37,000
18	Empower women through self-help groups	20,00,000	68,473

19	Enhancement of rural health through health camps	10,00,000	5,23,920
20	Promote Nutrition Gardens	10,00,000	2,93,080
21	Establish Atul Medical Diagnostic Centre	5,00,00,000	-
22	Promote health and wellbeing of adolescents and women (including sampoorna project)	20,00,000	7,11,372
23	Provision of blood units to the needy and deserted patients	2,00,000	2,40,000
24	Support to needy patients	5,00,000	2,03,045
25	Support to disaster relief for COVID-19 pandemic	1,50,00,000	1,23,64,537
26	Construction of walkway and streetlights	70,00,000	55,31,528
27	Infrastructure development in Atul and surrounding villages	45,00,000	33,79,977
28	Establishment of solid waste management system in Atul village	55,00,000	54,83,981
29	Natural resource management	50,00,000	5,02,052
30	Conservation of energy through Solar	30,00,000	-
31	Nature based wastewater recycling project	75,00,000	-
Total CSR budget		14,30,00,000	4,75,53,482
Administrative overheads		70,00,000	21,58,626
Total		15,00,00,000	4,97,12,108

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: April 2021 - September 2021

<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.288 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>April 21</td><td>9542</td><td>318</td></tr>
<tr><td>2</td><td>May 21</td><td>9231</td><td>298</td></tr>
<tr><td>3</td><td>June 21</td><td>8843</td><td>295</td></tr>
<tr><td>4</td><td>July 21</td><td>7886</td><td>254</td></tr>
<tr><td>5</td><td>August 21</td><td>8256</td><td>266</td></tr>
<tr><td>6</td><td>September 21</td><td>8931</td><td>298</td></tr>
</table>

Remaining about Avg 10216 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</th><th>Avg. KL/Day</th></tr>
<tr><td>1</td><td>April 21</td><td>282154</td><td>9405</td></tr>
<tr><td>2</td><td>May 21</td><td>299056</td><td>9647</td></tr>
<tr><td>3</td><td>June 21</td><td>286651</td><td>9555</td></tr>
<tr><td>4</td><td>July 21</td><td>297320</td><td>9591</td></tr>
<tr><td>5</td><td>August 21</td><td>330909</td><td>10674</td></tr>
<tr><td>6</td><td>September 21</td><td>385210</td><td>12426</td></tr>
</table>

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. (TC-5945).
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</td></tr>
</table>

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<tr>
<td></td>
<td></td>
<td>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:

<table>
<tr><th rowspan="2">Sr No.</th><th rowspan="2">Parameter</th><th rowspan="2">Limit</th><th colspan="3">Values for the period April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>pH</td><td>5.5-9.0</td><td>7.08</td><td>7.71</td><td>7.43</td></tr>
<tr><td>2</td><td>Temperature (°C)</td><td>40</td><td>30</td><td>30.7</td><td>30.27</td></tr>
<tr><td>3</td><td>Colour (pt. co. scale)</td><td>---</td><td>40</td><td>70</td><td>51.67</td></tr>
<tr><td>4</td><td>Suspended solids (mg/l)</td><td>100</td><td>35</td><td>53</td><td>44.00</td></tr>
<tr><td>5</td><td>Phenolic Compounds (mg/l)</td><td>5</td><td>0.16</td><td>1.8</td><td>0.62</td></tr>
<tr><td>6</td><td>Cyanides (mg/l)</td><td>0.2</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>7</td><td>Fluorides (mg/l)</td><td>2</td><td>0.48</td><td>0.93</td><td>0.77</td></tr>
<tr><td>8</td><td>Sulphides (mg/l)</td><td>2</td><td>0.62</td><td>1.65</td><td>1.13</td></tr>
<tr><td>9</td><td>Ammonical Nitrogen (mg/l)</td><td>50</td><td>2.76</td><td>6.4</td><td>5.03</td></tr>
<tr><td>10</td><td>Total Chromium (mg/l)</td><td>2</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>11</td><td>Hexavalent Chromium (mg/l)</td><td>1</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>12</td><td>BOD (3 days at 27°C) (mg/l)</td><td>100</td><td>42</td><td>64</td><td>49</td></tr>
<tr><td>13</td><td>COD (mg/l)</td><td>250</td><td>186</td><td>234</td><td>206</td></tr>
</table>
</td>
</tr>
<tr>
<td>iii</td>
<td>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.</td>
<td>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.</td>
</tr>
</table>

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

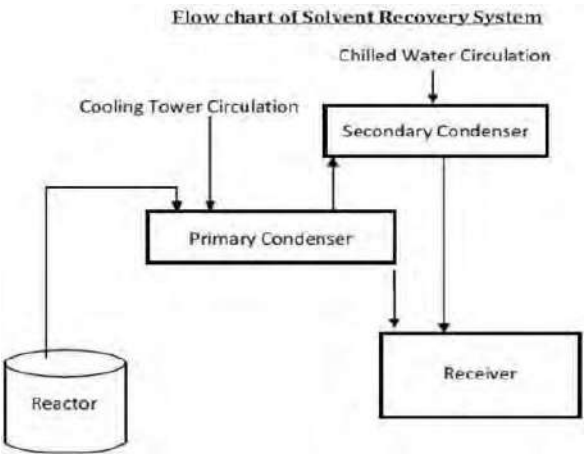
The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Summary of Ambient Air Quality results:
<table>
<tr><th rowspan="2">Station</th><th rowspan="2">Parameter</th><th rowspan="2">Limit micro-gm/ NM^3</th><th colspan="3">Values for the period April 21 – September 21</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td rowspan="5">66 KV</td><td>PM2.5</td><td>60</td><td>20</td><td>24</td><td>22.2</td></tr>
<tr><td>PM10</td><td>100</td><td>35</td><td>47</td><td>43.7</td></tr>
<tr><td>SO_2</td><td>80</td><td>10.9</td><td>14.6</td><td>13.0</td></tr>
<tr><td>NO_2</td><td>80</td><td>9.6</td><td>14.3</td><td>12.0</td></tr>
<tr><td>Ammonia</td><td>400</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td></td><td>HCl</td><td>200</td><td>6.7</td><td>8</td><td>7.2</td></tr>
<tr><td rowspan="6">Opposite Shed D</td><td>PM2.5</td><td>60</td><td>25.6</td><td>33.5</td><td>30.9</td></tr>
<tr><td>PM10</td><td>100</td><td>44.6</td><td>51.6</td><td>49.5</td></tr>
<tr><td>SO_2</td><td>80</td><td>11.6</td><td>18.5</td><td>15.0</td></tr>
<tr><td>NO_2</td><td>80</td><td>10.1</td><td>15</td><td>12.9</td></tr>
<tr><td>Ammonia</td><td>400</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>HCl</td><td>200</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td rowspan="2">Near West</td><td>PM2.5</td><td>60</td><td>20</td><td>28</td><td>24.3</td></tr>
<tr><td>PM10</td><td>100</td><td>34</td><td>49</td><td>43.3</td></tr>
</table>
</td>
</tr>
</table>

		Site ETP	SO_2	80	11.7	13.7	13.0
			NO_2	80	10.3	14.2	12.1
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Near North ETP	PM2.5	60	19	29	23.2
			PM10	100	40	46	43.2
			SO_2	80	9.5	14.1	11.8
			NO_2	80	10.2	13.5	11.8
			Ammonia	400	5.9	12	8.8
			HCl	200	ND	ND	ND
		TSDF	PM2.5	60	21	28	24.2
			PM10	100	41	49	45.3
			SO_2	80	10.7	13.8	12.1
			NO_2	80	10.4	13.8	12.2
			Ammonia	400	4.7	7	6.0
			HCl	200	ND	ND	ND
		Main Guest House	PM2.5	60	19.7	26.6	23.9
			PM10	100	41.8	48.3	45.3
			SO_2	80	11	15.2	13.1
			NO_2	80	10.3	22.4	17.0
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Wyeth Colony	PM2.5	60	23	29	26.0
			PM10	100	42	52	47.8
			SO_2	80	11.1	13.6	12.2
			NO_2	80	10.7	13.8	12.0
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Gram Panch-ayat Hall	PM2.5	60	30.4	35.4	32.0
			PM10	100	41.9	51.7	48.5
			SO_2	80	12.4	16.2	14.5
			NO_2	80	14.8	22.9	20.2
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Main	PM2.5	60	33.6	39.5	37.1

		Office North Site	PM10	100	46.8	54.3	50.7
			SO_2	80	10.7	13.4	11.9
			NO_2	80	12.4	22.4	16.6
			Ammonia	400	ND	ND	ND
			HCl	200	ND	ND	ND
		Haria Water Tank	PM2.5	60	26.5	35.5	30.0
			PM10	100	46.2	56.4	52.3
			SO_2	80	10.8	16.8	13.1
			NO_2	80	10.5	17.4	13.8
			Ammonia	400	ND	ND	ND
			HCl	200	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="4">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>
<tr><td>(c) The condensers shall be Provided with sufficient HTA and residence time so as to achieve More than 95% recovery.</td><td>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.
 
</td></tr>
</table>

		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	Complied. Entire plant is flame proof installations, storage tanks are provided with breather valve for all prevention of losses.

<table>
<tr><td></td><td>breather valve to prevent losses.</td><td>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).</td></tr>
<tr><td></td><td>(g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</td><td>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 ©.</td></tr>
<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. 11199 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>Qty. (KL/Month)</th><th>Avg. Qty. (KL/Day)</th></tr>
<tr><td>1</td><td>April 21</td><td>317677</td><td>10589</td></tr>
<tr><td>2</td><td>May 21</td><td>325355</td><td>10495</td></tr>
<tr><td>3</td><td>June 21</td><td>308227</td><td>10274</td></tr>
<tr><td>4</td><td>July 21</td><td>323174</td><td>10425</td></tr>
<tr><td>5</td><td>August 21</td><td>359684</td><td>11603</td></tr>
<tr><td>6</td><td>September 21</td><td>414204</td><td>13807</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:</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th colspan="4">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></tr>
<tr><td>1</td><td>April 21</td><td>133</td><td>9405</td></tr>
<tr><td>2</td><td>May 21</td><td>113</td><td>9647</td></tr>
<tr><td>3</td><td>June 21</td><td>149</td><td>9555</td></tr>
<tr><td>4</td><td>July 21</td><td>132</td><td>9591</td></tr>
<tr><td>5</td><td>August 21</td><td>127</td><td>10674</td></tr>
<tr><td>6</td><td>September 21</td><td>129</td><td>12426</td></tr>
</table>

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

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.</td></tr>
<tr><td>ix</td><td>Process effluent/any wastewater shall not be allowed to mix with storm water.
The storm water from the premises shall be collected and discharged through a separate conveyance system.</td><td>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)</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Company has harvest 10.59 lac KL rain water during 2021.</td></tr>
<tr><td>x</td><td>Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.</td><td>Complied.
Storage details of Hazardous materials along with control measure are as per Annexure 6.</td></tr>
<tr><td>xi</td><td>Process organic residue and spent carbon, if any, shall be Sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.</td><td>Complied.

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.</td></tr>
<tr><td>xii</td><td>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.</td><td>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.

We have obtained common TSDF memberships apart from our own TSDF & Incineration facility.

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

			other wastes, an occupier shall follow the following steps, namely:- • Prevention; • Minimization; • Reuse, • Recycling; • Recovery, utilization including co-processing; • Safe disposal.	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.
			(2) The occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes.	Complied. We are ensuring for safe and environmentally sound management of hazardous and other wastes.
			(3) The hazardous and other wastes 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.	Complied. 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 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.	**Complied**
			(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 immediately intimate the State Pollution Control Board through telephone, e-mail about the accident and subsequently send a report in Form 1.	Noted. No accidents were reported during report period during handling and transportation of hazardous or other wastes.
			(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	Noted.

			damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.	
			(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 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.	Noted & Complied

		(c) Every appeal filed under this rule shall be disposed of within a period of sixty days from the date of its filing.	
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. 300 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:  	
	(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	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.	
	(c) Use of automated filling to minimize spillage.	Filling/transfer system is being provided to minimized the spillage i.e. Chain conveyor system provided.	
	(d) Use of Close Feed system into batch reactors.	"Close feed system" is available to our plant	

	(e) Venting equipment through vapour recovery system.	At all venting equipment condenser recovery system & scrubbers are provided.
	(f) Use of high pressure hoses for equipment clearing to reduce waste water generation.	We are using high pressure jet nozzle for equipment cleaning to minimize wastewater generation.
xv	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.	**Complied.** Proper plantation is done all around the plant boundary and also the roads to mitigate fugitive & transport dust emission. Total Industrial Plot area: **1126078.27 sq.mt** Green belt area: **409030.00 sq.mt** (approx. 36% of total plot area) Layout plan with green belt is shown as under: 
xvi	All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.	**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. Point wise detailed compliance report was submitted wide our letter dated March 23, 2020.
xvii	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	**Complied**. Details of CER | CSR is given in **Annexure 7.**

<table>
<tr><td></td><td>and submitted to the Ministry's Regional Office.</td><td></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 (Stand by)</td><td rowspan="3">H: 10</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>
<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

DCP1350 o CO2 776 Foam : 05Trolly

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 – 4500Lit.

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

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<td></td>
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<td>

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.



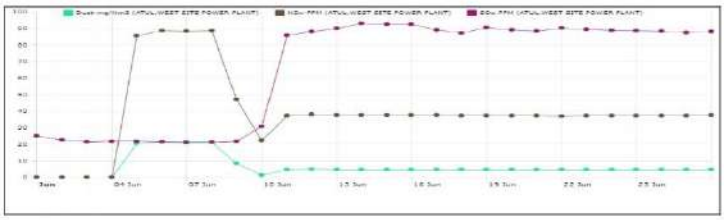



</td>
</tr>
<tr>
<td>xx</td>
<td>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</td>
<td>
Complied.
Being done on regular basis as per the Factories Act & rules.

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">1819</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>
</td>
</tr>
</table>

		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 ❑ 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.
xxi	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 Environmental Monitoring LOGO FORBES MARSHALL **Forbes Marshall** **ATUL LTD-VALSAD** ATUL LTD, POST-ATUL, VALSAD, VALSAD, GUJARAT - 396020 **Station Report** **Station: Stack 1_50 TPH BOILER** **From :** 01-04-2021 00:00:00 **To :** 30-04-2021 23:59:59 **Interval :** Daily **Function :** Average  **Flag legends:** < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data,R- Analyzer drift **Calender** | **SOx Avg** | **NOx Avg** | **Dust Avg** Units: mg/Nm3 | mg/Nm3 | mg/Nm3 Range: 0 - 280 | 0 - 100 | 0 - 50 01-04-2021 00:00:00 | 26.00 | 58.46 | 45.25 02-04-2021 00:00:00 | 25.97 | 58.45 | 45.28 03-04-2021 00:00:00 | 25.99 | 58.61 | 45.30 H 04-04-2021 00:00:00 | 26.25 | 58.43 | 45.28 05-04-2021 00:00:00 | 26.25 | 58.40 | 45.26 Page 1 of 2 http://115.114.10.245:8888/enviroconnect Generated By : ATULVALSAD 28-06-2021 13:40:53 Calender | SOx Avg | NOx Avg | Dust Avg Units: mg/Nm3 | mg/Nm3 | mg/Nm3 Range: 0 - 280 | 0 - 100 | 0 - 50 06-04-2021 00:00:00 | 26.25 | 58.43 | 45.33 07-04-2021 00:00:00 | 26.07 | 58.42 | 45.12 08-04-2021 00:00:00 | 26.08 | 58.30 | 44.91 09-04-2021 00:00:00 | 26.19 | 58.42 | 44.96 10-04-2021 00:00:00 | 25.95 | 58.48 | 45.09 11-04-2021 00:00:00 | 25.98 | 58.49 | 45.02 12-04-2021 00:00:00 | 25.93 | 58.47 | 45.03 13-04-2021 00:00:00 | 26.00 | 58.45 | 45.00 **Report Summary** Average | 26.06 | 58.45 | 45.10 Maximum | 26.25 | 58.61 | 45.33 Minimum | 25.93 | 58.30 | 44.91 Std Deviation | 0.12 | 0.08 | 0.16 Geom.Mean | 26.06 | 58.45 | 45.10 Median | 26.00 | 58.45 | 45.10 Mode | 26.00 | 58.45 | 45.00 Total Active Duration | | |
B. General Conditions:		
i	The project authorities shall adhere to the stipulations made by the State Pollution Control Board, Central	The company complies with all stipulations prescribed by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.

	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 S.N.Patel Institute of Technology & research Centre for Environment research, Bardoli , Surat for year 2020-21 was submitted vide our letter dated June 26, 2021.
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 control measures including acoustic hoods, silencers, enclosures etc. on all sources	Complied. 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.

	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 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)** **Noise level monitoring data (Night Time):**

Sr No.	Location	Permissible Limits, dB	Values for the period April 21 – September 21		
			Min.	Max.	Avg.
1	66KVA substation	75	62.60	66.00	64.47
2	Opposite shed D	75	65.20	72.30	69.07
3	ETP West site	75	64.10	68.40	66.58
4	ETP North site	75	61.30	65.20	63.27
5	Near TSDF	75	63.20	69.20	66.25
6	Near Main guest house	75	61.40	65.40	63.68
7	At Wyeth Colony	75	57.80	67.30	61.43
8	Gram Panchayat Hall	75	64.20	68.30	65.98
9	Near Main Office North site	75	62.40	66.30	64.23
10	Haria Water tank	75	62.80	67.80	65.12

Sr No.	Location	Permissible Limits, dB	Values for the period April 21 – September 21		
			Min.	Max.	Avg.
1	66KVA substation	70	51.60	55.70	53.30
2	Opposite shed D	70	50.60	54.80	52.18
3	ETP West site	70	52.50	55.30	53.67
4	ETP North site	70	50.70	58.10	52.85
5	Near TSDF	70	51.30	57.60	55.77
6	Near Main guest house	70	50.80	54.20	52.58
7	At Wyeth Colony	70	50.20	52.60	51.63
8	Gram Panchayat Hall	70	53.40	56.40	54.82
9	Near Main Office North site	70	52.40	54.30	53.27

		10	Haria Water tank	70	50.20	57.30	54.08

vi

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.

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.

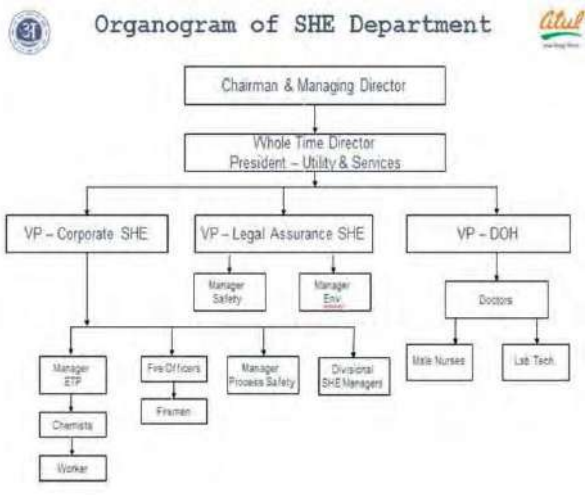
Total No. of Pond: 2 Nos.
Capacity of Pond:(1 Nos. x 12000 KL) & (1 Nos. x 2000 KL)
Company has harvest 10.59 lac KL rain water during 2021.

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

Water Harvesting Project at Colony

Water Harvesting Project near Coconut Circle

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. Annual training plan are being carried out every calendar year from January to December for safety purpose. 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.
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 lakhs) April 21 – September 21</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2780</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>22</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>87</td></tr>
<tr><td>5</td><td>Occupational health</td><td>26</td></tr>
<tr><td>6</td><td>Green belt</td><td>7</td></tr>
<tr><td colspan="2">Total</td><td>2922</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>
<tr>
<td>xiv</td>
<td>The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e- mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of</td>
<td>Complied.
We regularly submit the half-yearly compliance report & same is being updated on website.</td>
</tr>
</table>

	EC and six monthly compliance status report shall be posted on the website of the company.	
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 2020-21 is 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	**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.

	copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	
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
		April 21	May 21	June 21	July 21	August 21	September 21	
1	pH	7.18	7.36	7.67	7.71	7.08	7.58	5.5 to 9.0
2	Temperature °C	30.2	30.4	30.2	30.7	30.1	30	40 °C
3	Colour (pt. co. scale)	40	50	40	70	60	50	---
4	Suspended solids, mg/l	47	53	39	48	35	42	100
5	Phenolic Compounds, mg/l	1.8	0.16	0.19	0.34	0.58	0.65	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.48	0.75	0.93	0.86	0.78	0.84	2
8	Sulphides, mg/l	ND	0.62	1.24	1.65	1.18	0.98	2
9	Ammonical Nitrogen, mg/l	5.7	4.8	2.76	6.4	4.6	5.9	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	64	45	48	44	52	42	100
13	COD, mg/l	216	186	194	210	234	196	250
	Note: ND is Not Detected.							

Annexure 2: Ambient Air Quality Monitoring Results

Station	Parameter	Limit microgm/NM^3	April 21	May 21	June 21	July 21	August 21	September 21
66 KV	PM 2.5	60	22	24	22	21	24	20
	PM10	100	45	47	45	47	43	35
	SO2	80	12.4	13.5	14.6	10.9	12.2	14.3
	NO2	80	9.6	10.8	11.7	13.4	14.3	12
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	8	ND	7	7.4	7	6.7
Opposite Shed D	PM 2.5	60	32.7	32.4	33.5	31.8	29.3	25.6
	PM10	100	50.1	50.5	51.6	50.1	50.1	44.6
	SO2	80	18.5	16.9	15.7	13.1	11.6	13.9
	NO2	80	10.1	11.5	12.6	14.3	13.9	15
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	26	28	26	25	20	21
	PM10	100	44	46	44	43	49	34
	SO2	80	13.2	12.8	13.7	11.7	13.6	13.1
	NO2	80	10.3	11.6	10.9	14.2	12.4	13.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	21	23	21	26	29	19
	PM10	100	43	45	43	42	46	40
	SO2	80	9.5	10.6	11.5	12.1	14.1	12.7
	NO2	80	10.2	11.3	12.5	11.9	13.5	11.3
	Ammonia	400	12	ND	10	8.5	7.6	5.9
	HCl	200	ND	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	23	25	28	24	21	24
	PM10	100	47	49	47	45	41	43
	SO2	80	11.2	13.1	12.3	13.8	10.7	11.6
	NO2	80	11.4	12.5	13.8	12.7	10.4	12.5
	Ammonia	400	6	ND	7	6.4	5.7	4.7
	HCl	200	ND	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	25.3	26.2	24.2	19.7	21.6	26.6
	PM10	100	45.3	46.2	48.3	41.8	47.7	42.4
	SO2	80	14.3	15.2	14.1	11.2	11	13
	NO2	80	21.5	22.4	20.5	13.4	13.7	10.3
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	27	29	27	23	27	23
	PM10	100	50	52	50	48	42	45
	SO2	80	12.4	13.6	11.8	12.6	11.7	11.1
	NO2	80	11.2	12.3	13.8	12.4	11.3	10.7
	Ammonia	400	ND	ND	ND	ND	ND	ND

	HCl	200	ND	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	32.7	30.6	31.5	30.4	31.1	35.4
	PM10	100	50.1	50.8	51.7	50.3	46.2	41.9
	SO2	80	16.2	14.5	15.4	13.2	12.4	15
	NO2	80	22.2	22.6	21.5	22.9	17.3	14.8
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	38.3	39.2	34.6	37.2	33.6	39.5
	PM10	100	52.8	53.7	47.1	46.8	49.2	54.3
	SO2	80	11.3	12.2	10.7	11.6	12.4	13.4
	NO2	80	21.3	22.4	12.4	14.6	13.4	15.4
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	26.5	27.4	29	31.1	30.5	35.5
	PM10	100	53.7	54.6	56.4	51.3	46.2	51.8
	SO2	80	11.6	16.8	10.8	12.6	12.3	14.2
	NO2	80	16.5	17.4	10.5	13.2	11.4	13.5
	Ammonia	400	ND	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND	ND

Annexure 3: Stack Details

				APR. 2021	MAY. 2021	JUN. 2021	JULY. 2021	AUG. 2021	SEPT. 2021
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	36.7	49.8	41.7	34.9	30.2	36.3
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	8	6	4.4	4.6	6.2	6.2
		HCl	20.0 mg/Nm3	7.8	5.73	4.45	4.72	6.4	6.35
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	3.35	3.8	6.2	7.1	6.27	4.1
		HCl	20.0 mg/Nm3	3.2	3.93	6.38	7.29	6.1	4.22
FCB Palnt									
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	1.48	1.25	0.75	0.75	0.52	1.1
		Acid Mist	50.0 mg/Nm3	15.2	22.4	19.1	19.1	9.4	24.6
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	7.8	Not Running	5.5	4.5	7.1	3.8
		HCl	20.0 mg/Nm3	7.95		5.65	4.62	7.3	3.9
Resorcinol Plnat									
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	21.2	10.4	18.9	15.7	19.2	24.6
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	Not Running	30.8	Not running	31.3	32.6	29.3
Incinerator									
10	Incinerator	PM	150.0 mg/Nm3	64.8	43.7	Not running	Not running	Not running	Not running
		SO_2	40.0 mg/Nm3	17.2	20.6				
		NOx	25.0 mg/Nm3	14	19.4				
NI Plant									
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	32.4	13.7	31.7	18.4	30.2	25.8
		NOx	25.0 mg/Nm3	19.6	12.4	19.8	14.9	17.1	11.6
2-4-D Plant									
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	7.2	7.1	3.4	6.2	5.5	5.9
		HCl	20.0 mg/Nm3	7.4	7.35	3.55	6.37	5.65	6.06
		Phenol	--	6.8	6.3	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	10.3	9.6	10.4	Not Running	Not Running	Not Running
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	8.8	Not Running	Not Running

16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Running	Not Running	Not Running	10.9	12.6	15.6
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	11.9	13.8	14.9	12.1	9.4	10.1
		NOx	25.0 mg/Nm3	7.5	16.7	12.6	17.4	21.6	18.4
CP Plant									
21	MCPA	Cl_2	9 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20 mg/NM^3						
		SO_2	40 mg/NM^3						
22	Fipronil	SO_2	40 mg/NM^3	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	145	130	115	145	102	128
MPSL Plant									
26	Phosgene Scrubbr 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	Acetonytryl e, IPA	---	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Ester Plant									
29	Scrubber at Ester plant for Glyphosate	Formaldehy de	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	8.1	Not Running	Not Running	Not Running	Not Running	Not Running
		Phosgene	0.1 ppm	ND					
Atul West Site									
32	Shed A05/03/44	Cl_2	9 mg/NM^3	7.75	5.35	6.2	7.3	4.6	8.1
		HCl	20 mg/NM^3	7.9	5.2	6.37	7.5	4.8	8.3
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	6.4	7.9	7.1	6.3	5.1	7.9
		HCl	20.0 mg/Nm3	6.2	8.12	7.3	6.47	5.2	5.2

34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	Not Running	13.8	17.4	34.1	27.9	20.6
		Cl_2	9 mg/NM^3		6.2	4.9	5	8.5	7.9
		HCl	20 mg/NM^3		9	5	5.1	8.73	8.1
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	7.9	6.2	5.2	3.8	7.4	7.4
		HCl	20.0 mg/Nm3	8.1	6.37	5.35	3.9	7.6	7.6
36	Shed D Niro Spray dryer No. 45	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	94
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	41.7	69.7	Not Running	Not Running	Not Running	44
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
40	Shed G 10/8/1 (receiver)	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	4.3	5.8	7.1	5.5	7.1	7.1
		HCl	20.0 mg/Nm3	12.4	14.8	14.7	10.6	11.7	11.2
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	0.8	1.2	1.12	0.45	1.2	1.6
		Acid Mist	50.0 mg/Nm3	2	4.6	4.65	1.6	20.6	8.2
43	Shed J15/09/25	HBr	--	ND	ND	ND	ND	ND	ND
		SO_2	40 mg/NM^3	30.5	36.2	20.9	13.6	25.9	33.6
44	Shed J12/01/42	SO_2	40 mg/NM^3	27.9	29.8	Not Running	Not Running	24.7	19.1
		Cl_2	9.0 mg/Nm3	7.5	5.9			7.9	6.4
		HCl	20.0 mg/Nm3	7.7	11.4			8.12	6.6
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
		HCl	20.0 mg/Nm3						
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	7.9	5.5	6.4	6.7	6.1	7.9
		HCl	20 mg/NM^3	8.1	10.2	17.1	6.88	6.3	8.13
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	34.5	24.7	33.2	20.6	34.2	29.7
48	Sulfer Black Plant	H_2S	--	ND	ND	ND	1.12	ND	ND
		NH_3	175 mg/NM^3	140	79.9	90	110	94	125
49	Sulfer Dyes plant	H_2S	--	ND	ND	ND	ND	ND	ND
		NH_3	175 mg/NM^3	39.8	81.6	94.8	75.1	56	106
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Running	Not Running	Not Running	Not Running	Not Running	Not Running
Atul North Site									
51	N-FDH 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	PHIN Plant	Phosgene	0.1 ppm	ND	ND	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	3.7	7.9	7.9	7.3	1.3	2.1
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	130	90	75	50	44	96
55	SPIC II Plant (DCDPS)	SO_3	---	15.8	ND	Not Running	24.75	17.6	11.8
56	SPIC I Plant	NH_3	175 mg/Nm3	155	140	140	130	160	125
57	SPIC IV Plant	NH_3	175 mg/NM^3	80	110	80	155	140	136
		SO_3	---	11.3	ND	ND	ND	14.8	14.6

Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site									
1	FBC boiler El	PM	100 mg/Nm3	40.4	Not Running	46.9	51.7	Not Running	49.7
		SO_2	600 mg/Nm3	264		272	214		215
		NOx	600 mg/Nm3	316		246	201		256
2	FBC boiler E2	PM	100 mg/Nm3	Not Running	50.9	57.9	45.1	49.7	Not Running
		SO_2	600 mg/Nm3		265	259	224	215	
		NOx	600 mg/Nm3		303	231	246	256	
3	FBC boiler E3	PM	100 mg/Nm3	68.4	76.4	Not Running	Not Running	54.7	54.7
		SO_2	600 mg/Nm3	334	239			208	208
		NOx	600 mg/Nm3	310	285			196	196
4	Hot Oil Unit	PM	150.0 mg/Nm3	11.7	34.6	39.6	23.6	31.7	40.3
	(Resorcinol Plant)	SO_2	100 ppm	4.8	10.4	11.6	9.9	6.2	9.3
		NOx	50 ppm	17.6	29.6	24.8	33.2	40.2	30.2
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	23.4	28.6	34.5	50.2	37.6	44.7
		SO_2	100 ppm	5.4	8.3	7.8	9.3	6.3	5.7
		NOx	50 ppm	39.7	30.7	33.9	49.7	29.5	32.4
West Site									
6	FBC boiler W1	PM	100 mg/Nm3	50.2	61.7	56.7	49.6	56.2	64.7
		SO_2	600 mg/Nm3	184	194	238	248	320	350
		NOx	600 mg/Nm3	212	201	184	320	362	384
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	ND	ND	39.6	23.2	34.1	51.7
		SO_2	100 ppm	ND	3.2	11.6	6.5	6.8	8.6
		NOx	50 ppm	23.8	15.6	24.8	14.8	12.4	13.4
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	31.7	34.4	45.7	29.4	38.3	39.4
		SO_2	600 mg/Nm3	198	180	244	290	210	324
		NOx	300 mg/Nm3	208	219	256	230	222	218
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND	ND
10	DG set 1500 KVA	PM	150.0 mg/Nm3	40.2	33.7	39.7	56.1	42.7	36.1
	(Stand By)	SO_2	100 ppm	6.2	9.6	6.4	11.4	5.8	4.9
		NOx	50 ppm	25.9	38.4	29.7	39.4	24.8	29.7
North Site									
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	25.8	35.4	41.7	11.3	30.7	49.3
		SO_2	100 ppm	5.9	8.4	62	5.9	6.4	10.4
		NOx	50 ppm	23.6	27.6	14.9	19.1	13.2	16.5

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	20mg/Nm3	Bag Filter, Water Scrubber

15	Dryer-2		compound		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 activities			
Sr. No.	Name of Project	Project cost (Budget)	Total spent till October 2021
1	Enhancement of educational practices in Kalyani Shala	30,00,000	1,05,000
2	Improvement of teaching methodology for primary school children - Adhyapika project	60,00,000	33,65,659
3	Support to tribal children in Atul Vidyamandir	5,00,000	70,000
4	Support to develop a school in a tribal area	15,00,000	11,94,200
5	Provision of scholarships to needy and meritorious students	5,00,000	3,72,634
6	Provision of education kits to children	5,00,000	3,94,504
7	Support needy | special children	5,00,000	1,66,670
8	Provide digital education through Tab Lab	25,00,000	6,11,425
9	Conservation of manuscripts	50,00,000	25,00,000
10	Support children with special needs	1,00,000	50,000
11	Promote learning and life skills among children	1,00,000	1,00,000
12	Contribution towards publication of books on Indian culture | Ecology | Philosophy	3,00,000	3,50,000
13	Skills training to youth as apprentices	1,00,00,000	51,59,796
14	Empowerment of women |youth through various vocational training courses	10,00,000	21,04,921
15	Skill development of youth through vocational training with NABARD	18,00,000	-
16	Develop micro entrepreneurs to provide sustainable livelihood	20,00,000	7,69,708
17	Create livelihood opportunities fortribal families by providing cows	35,00,000	9,37,000
18	Empower women through self-help groups	20,00,000	68,473

19	Enhancement of rural health through health camps	10,00,000	5,23,920
20	Promote Nutrition Gardens	10,00,000	2,93,080
21	Establish Atul Medical Diagnostic Centre	5,00,00,000	-
22	Promote health and wellbeing of adolescents and women (including sampoorna project)	20,00,000	7,11,372
23	Provision of blood units to the needy and deserted patients	2,00,000	2,40,000
24	Support to needy patients	5,00,000	2,03,045
25	Support to disaster relief for COVID-19 pandemic	1,50,00,000	1,23,64,537
26	Construction of walkway and streetlights	70,00,000	55,31,528
27	Infrastructure development in Atul and surrounding villages	45,00,000	33,79,977
28	Establishment of solid waste management system in Atul village	55,00,000	54,83,981
29	Natural resource management	50,00,000	5,02,052
30	Conservation of energy through Solar	30,00,000	-
31	Nature based wastewater recycling project	75,00,000	-
Total CSR budget		14,30,00,000	4,75,53,482
Administrative overheads		70,00,000	21,58,626
Total		15,00,00,000	4,97,12,108

Annexure 8: Form V (Environmental Statement)

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

ID: 23158

Atul|GPCB|Form V

September 22, 2021

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

Subject : Submission of Form V

Dear Sir,

We are enclosing herewith duly filled form – V for the financial year ending March 31, 2021.

Kindly receive the same.

Thanking you,

Yours faithfully,

For Atul Ltd.

(H. M. Desai)
Vice President – EHS Assurance

C. C. : Regional officer, GPCB, Vapi

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st **March 2021**

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: **Sept. 2020.**

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process: 6949 kl/day
Cooling: 1698 kl/day
Domestic : 343 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.	Agro products and Inorganic chemical	3.91 kl/mt	3.84 kl/mt
2.	Colours	69.26 kl/mt	95.10 kl/mt*
3.	Pharma & Polymer	4.22 kl/mt	3.67 kl/mt

*Due to Covid pandemic, production goes down and hence per MT water consumption has gone up.

(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	: 1464 kg/day	NIL
(b)Air	SO2	: 22.43 Mg/NM^3	
	NOx	: 16.26 Mg/NM^3	
	HCl	: 8.45 Mg/NM^3	
	Cl2	: 6.29 Mg/NM^3	
	NH3	: 80.83 Mg/NM^3	
	Phosgene	: Not Detected	

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	33156690	36136215
From pollution control facilites	18917000	22269000
Total	52073690	58405215

Part - E

Solid Waste

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process **(Fly Ash)**	96513087	97007642
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilised within the unit	Nil	Nil
(2) Sold	96513087	97007642
(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.

a. Company is ISO 14001:2015 (EMS) certified.
b. Underground effluent network has been replaced with above ground pipe line as a proactive measure for transferring effluent from production plants to ETP. Phase 1 completed.
c. Recovery of various materials like Copper hydroxide, methanol, salt, mix dyes, ammonia, etc. from the effluent streams is an ongoing process.

Apart from above, company has taken following initiatives during 20-21 despite COVID 19 pandemic:

1. Three MEEs and two ZLD installation are in progress.
2. Candle filter installed instead of demister pad in final absorption tower of sulfuric acid plant to reduce gas emission from chimney due to acid mist carry forward from final absorption tower.
3. Dust suppression system introduced at fly ash silo and coal storage area.
4. Digital display as per NGT guideline is placed at main gate.
5. Asphalt concrete roads (internal as well approach road) upgraded to RCC road.
6. OCEMS has been upgraded for auto calibration facility as per latest CPCB guideline.
7. Company has started collecting and disposing plastic waste as per PWM rules 2016.

Further below projects are under process | planned:

A. **Upgradation of North ETP for treated water reuse:** High Efficiency Air Dissolved air flotation (HEAF) unit has been introduced after equalization tank to remove TSS, oil and grease, emulsion etc.

   Installation of MBR-Membrane Bio Reactor and RO System at NETP is delayed due to COVID pandemic and expected to complete within six months.

B. **Installation of New MEE :**

   We are installing new MEE having scale ban technology simultaneously for high TDS|brine effluent. New MEE plant is under commissioning phase. Scale ban technology installation work done. Its performance trial is in progress.

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

Name	Amount in Tonnes* per month
Aluminium ingots	18
Iron Fillings	50
Alum	40
Aluminium Chloride	66
Anhydrous Ammonia	9
Ammonia gas liquor 25 %(In tanker)	317
Caustic Potash Flakes	75
Caustic Soda Flakes	2623
Caustic soda lye	1218
Caustic Soda Solution	1325
Chlorine	3822
Chlorosulphonic Acid	250
Hydrochloric Acid (gas)	1000
Hydrochloric Acid 33%	3679
Hydrated Lime	2000
Lime stone powder	1257
Manganese Dioxide	220
Nitric Acid 98%	95
Nitric Acid 60%	50
Oleum 65%	1221
Oleum 25%	140
Phosphoric Acid	50
Potassium Chloride	360
Sodium Chloride	6000
Sodium Thiosulphate	195
Soda Ash	182
Sulphuric Acid 98%	2497
Sulphur Powder	1900
Sodium Carbonate	60
Copper chloride	4

Activated carbon	1
Sulfinate	1
SOCl2	2
15% sodium bicarbonate	3
15% H2O2	24
10% FeSO4	10
Guanidine Nitrate	15
KOH	117
Acetanilide	52
Acetic acid	23
Acetic Anhydride	6.5
Acetonitrile	67
Acetone	33
Aniline oil	43
Anthraquinone	6
Benzene(KL.)	660
Bis Phenol A	1582
Castor oil (Comm.)	35
Cyanuric Chloride	18
Di Chloro Diphenyl sulphone	107
Dibutyl phthalate	7
Dimethyl Sulphate	148
Dimethyl Formamide (DMF)	34
Dimethyl Amino Dichloro Propane Hydrochloride	40
Epichlohydrine	4911
Formaldehyde	28
Glycerin	24
H-Acid	12
Hexa Hydro Phthalic anhydride	9
Methanol (KL.)	1100
Mono Chloro Acetic Acid	2170
Napthalene crude	60.
Phenol	1200
Phthalic anhydride	55
Synthetic cresol	5
Tamol MNO	50
Tri ethylene tetramine	13
Toluene	80

Urea	183
IPA	230
Cresol	133
MCB	86
Ethyl acetate	8
DMA Tosylate	9
Cyano Pyrazole	5
Ethyl acetate	46
PMIDA	69
EDA	31
2, Chloro 5-methyl chloro pyridine	17
Sodium Methoxide	9
Di isopropyl malonate	8
CS2	4
Ethylene Dibromide	7
n-Hexane	17
O-cresol	503
SO2Cl2	376
DPS	1
PCF	13
2 Amino 4-6-Dimethoxy pyridine	13
Dioxane	45
N-N Dimethyl aniline	15
SNA	15
DBU	9
TFE	2
Thionyl Chloride	1
m-phenoxy benzaldehyde	2
Fuel:	
Coal / Lignite	46925
Diesel Oil (Kl)	640
Furnace oil (Kl)	1100
Natural gas (m3)	200000
*** Indicating approx. average consumption. Major RM considered.**	

Annexure: 3: Description of Solid Waste at Atul

Description of waste	Physical form	Calorific Value Cal / gms	Biodegradability	Nature / Chemical composition of Waste
Used oil, Kl	Wet cake	-	Biodegradable	Lubricant oil with minor contamination
Wastes / residues / contaminant cotton rags or other cleaing material	Solid	-	Biodegradable	Lubricant oil with minor contamination
Sludge & filters contaminated with oil,	Semi solid	-	-	-
Membranes	Solid	-	-	Polyfluoro & Polycarboxylic groups
Waste Resin,	Solid	-	Non biodegradable	Polymer
Sulfurised Carbon,	Solid	6000	-	Carbon and impurity of product
Activated Carbon,	Solid	6000	-	Carbon and impurity of product
Brine purification sludge,	Sludge	No Calorific Value	Non biodegradable	Inorganic compounds e.g. $CaCo_3$, $Mg(OH)_2$
Sulphur sludge,	Solid	5000	Partially Bio-degradable	Inorganic compounds and Sulphur
Hot Gas filter Ash,	Solid	No calorific Value	Non biodegradable	Inorganic Material
Bottom Sludge after recovery of Sulphur Sludge,	Solid	5000	Partialy Biodegradable	Inorganic
Waste Catalyst,	Solid	No calorific Value	Non biodegradable	Inorganic, Not explosive, Non Reactivie
Spent Solvents, Kl/Month	Liq	-	-	Solvent
Various type of Residue	Solid	6500	Partially Bio-degradable	Polymeric aromatic Organics.

OCBC / OCT distillation residue,	Visc. Liq.	8000	Not Bio-degradable	Polymeric aromatic compound.
waste residue Bulk Intermediate (meta hydroxy phenol) (Tar),	Solid	-	-	10-12% Hydroxyl based benzene derivative
Waste residue (from resorcinol plant)	Solid	-	-	-
Gypsum (From meta hydroxy phenol Plant),	Solid	Not Applicable	Non biodegradable	Inorganic Compound Mostly Calcium Sulphate 75 - 77%, Moisture 23-25%
Sodium Sulphite,	Solid	Not Applicable	-	Inorganic Compound, Mostly Sodium Sulphite 70-75%, Moisture 25-30%
Waste/Salt Lime Dust	Powder	--	--	Inorganic Compound
Waste from Urea Formaldehyde Polymer product,	Solid	3500	Bio-degradable	Organic polymeric compound
Sludge containing higheramino compound,	Tar	5200	Bio-degradable	Polymeric organic amines.
Filter cake of Epoxy resins with resin contamination	Semi Solid	3200	Bio-degradable	Polymeric organic compound
Aluminium Hydroxide,	Solid	No calorific Value	Non biodegradable	Mostly Al Hydroxide
Iron sludge,	Solid	No calorific Value	Non biodegradable	Mostly Iron, oxide
Brass residue,	Solid	No calorific Value	Non biodegradable	Mostly Copper & Iron.
Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.
Darco / filter aid sludge,	Solid	2500	Partially Bio-degradable	Mainly Carbon.

Iron Residue,	Wet cake	-	Non biodegradable	Water, iron
Hyflo sludge,	Wet cake	-	-	0.87 % Specific gravity, 80% solid, Inorganic & organic content
PER crystal residue,	Semi Solid			Specific gravity 1.1557, Organic
Filter aid sludge for Hg recovery,	-	-	-	Containing Hg
Aluminium Ash,	Solid	-	Non biodegradable	Water, oxides of Aluminium & Aluminium Metal
N.B.Tar / ODCB Tar	Semi Solid	--	--	--
ONT Tar	Solid / Tary	--	--	--
Copper Hydroxide Wet cake	Solid	Not applicable	Non biodegradable	Copper Hydroxide
Dust from Air Filtration System,	Solid	-	-	Residual product particles
Spent Acid	Liquid	Not applicable	Non biodegradable	Sulphuric acid
Spent Organic solvent	Liquid	-	-	Mainly contains Spent Organic solvent
Waste Residue (Phin)	Solid	--	--	--
DCDPS waste	Solid	--	--	--
Waste from Pharma intermediates	Solid	--	--	--
Spent Carbon catalyst	Solid	--	--	--
Spent carbon,	Solid	6000	Biodegradable	Carbon cake contains aq. Methanol Aqueous Carbon Cake

Date expired, discarded and off-specification product,	Solid	-	-	-
Spent Mother liquor, Kl/Month	Liquid	-	-	Mainly contains Spent Organic solvent
Spent Solvents, Kl/Month	Liq	-	-	Solvent
Still / Other residue,	Tar	6500	Partially Bio-degradable	Polymeric aromatic Organics.
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
Hyflo,	Semi Solid	No Calorific Value	Non biodegradable	Non flammable, non reactive, partly organic -Inorganic
Dust from Air Filtration System,	Solid	-	-	Residual product particles
Liners /Bags, NOs	Solid	NA	NA	Without any Chemical contamination after decontamination
Drums /HDPE Carboys,	Solid	NA	NA	Without any Chemical contamination after decontamination
Chemical containing residue from decontamination and disposal,	solid	-	-	-
Flue gas cleaning residue,	Solid	-	-	-

Toxic metal containing residue from used-ion exchange material; in water purification,	Solid	-	-	--
Sludge from ETP, Gypsum from ETP, Chemical Gypsum, sludge from waste water treatment	Semi solid	No Calorific Value	Partly biodegradable	Mostly gypsum
MEA distillation residue,	Visc. Liq.	9500	Partly biodegradable	Polymeric aromatic compound
Spent Catalyst,	Solid	-	-	--
Sludge from wet scrubber,	Solid	-	-	-
Incineration ash,	Solid	No Calorific Value	Non biodegradable	Inorganic compounds e.g. Silica, NaCl.
Salt from MEE	Solid	Not applicable	Non biodegradable	99% Sodium salt
Dilute MnSo4	Liquid	--	--	----
2,6 Dichloro phenol	Solid	--	--	Phenolic compound
2,4,6 Trichloro phenol	Solid	--	--	Phenolic compound
p-CBSA/Na-Salt	Solid	--	--	pCBSA
High TDS / High COD effluent	Liquid	--	--	--
30% HCl	Liquid	--	--	Spent acid

Annexure : 4:

Water Conservation

Following actions were taken for water conservation during recent year.

a) Utilized Steam condensate from Process plants of East site in Boilers.
b) Boiler cooling tower blow down water is reused in water mist system at coal storage area for dust suppression.
c) Recycling of treated waste water: We have started using primary treated effluent for making lime slurry in our ETP. By doing so, we are able to save approximately 200 KL/day of fresh water.
d) Fresh water consumption reduced by increasing COC of cooling tower by providing chemical water treatment and providing side stream filter.
e) Using treated effluent in scrubbers
f) Reuse of Hydrogen seal wash water at Caustic plant
g) Reuse wash water in NICO & MPSL plant
h) Recycling of filter cloth & drum top cleaning water in Amine plant

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.
A big pond having approximate storing capacity of 9000 KL to store surface runoff coming from Parnera hill area has been developed and in use.
Company has harvest **7.32 KL** rain water during 2020.

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:

a) Controlling steam pressure of steam ejectors.
b) Optimization of pump size as per actual operating requirement.
c) Utilizing 3 bar steam in place of 7 bar steam to increase electricity generation benefit.
d) Centralize utility facility for sulfa plants-CP.
e) Installation of VFD for chiller.
f) Installation of energy efficient cooling water pump with VFD-PT logic.

Oil conservation

We have continued with our Oil Conservation Project, an essential component in pursuit of sustainable development. We are collecting used lubricant oil under this project and sending it to GPCB authorised party.

Annexure : 5 :

Details of Investment for Environment Protection for the year 2020-21

S.N	Parameter	Capital cost per annum (Rs. In lacs) 2020-21	Recurring Cost per annum (Rs. in lacs) 2020-21
1	Air Pollution Control	266.29	4933.73
2	Liquid Pollution Control	1505.48	
3	Environmental Monitoring and Management	88.02	37.06
4	Solid waste Disposal	-	693.71
5	Occupational health	-	30
6	Green belt	-	12
Total		**1859.79**	**5652.51**

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