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 17.01.1998.

Report Period: April 2020- September 2020

<table>
<tr><th>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>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 Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Attachment 1.</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 all pollution board limits and values of various parameters of treated effluent is given in Table 1 (Pl. see pg. no. 4)
The maximum values during the report period confirms that at no time the emission went beyond the stipulated standards.</td></tr>
</table>

Summary is given below:

Sr. No.	Parameter	Limit	Values for the period Apr. 20 - Sep. 20		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7.35	7.95	7.598
2	Temperature (°C)	40	31.7	33	32.22
3	Colour (pt. co. scale)in units	---	50	65	57
4	Suspended solids (mg/l)	100	48	92	71.4
5	Phenolic Compounds (mg/l)	5	0.035	0.085	0.0498
6	Cyanides (mg/l)	0.2	ND	ND	ND
7	Fluorides (mg/l)	2	0.45	0.68	0.556
8	Sulphides (mg/l)	2	1.1	1.6	1.36
9	Ammonical Nitrogen (mg/l)	50	22	39.8	30.76
10	Total Chromium (mg/l)	2	ND	ND	ND
11	Hexavalent Chromium (mg/l)	1	ND	ND	ND
12	BOD (3 days at 27°C) (mg/l)	100	41	55	47.8
13	COD (mg/l)	250	144	180	162.8

The effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB. Latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as **Attachment 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 –NABET accredited have also done the monitoring during the years.

GPCB also monitor the treated effluent quality at intervals. Recent result by GPCB is attached as **Annexure 1.**

	The company shall keep records of the quality of effluents being discharge during the tides as per the recommendations of N.I.O.	Complied. We are keeping the records of quality effluents being discharged during the tides in soft copy as per the recommendations of N.I.O.
4	The company shall submit the quarterly progress report of compliance of conditions.	Complied. We have submitted progress reports to the Forest and Environment Department of Gujarat during the pipe line installation work. Couple of reports were already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
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 4/4/17.
7	The company shall submit an Environmental Audit Report every year.	Complied. Latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Attachment 1.
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 22.12.98. Copy already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
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
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	pH	7.3	7.6	7.9	7.4	7.5	5.5 to 9.0
2	Temperature (°C)	32	33	32.5	31.7	31.9	40°C
3	Colour (pt. co. scale)in units	60	50	65	50	60	---
4	Suspended solids (mg/l)	48	64	78	92	75	100
5	Phenolic Compounds (mg/l)	0.03	0.04	0.08	0.04	0.03	5
6	Cyanides (mg/l)	ND	ND	ND	ND	ND	0.2
7	Fluorides (mg/l)	0.5	0.6	0.5	0.4	0.5	2
8	Sulphides (mg/l)	1.4	1.1	1.5	1.2	1.6	2
9	Ammonical Nitrogen (mg/l)	30	22	28	34	39.8	50
10	Total Chromium (mg/l)	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium (mg/l)	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C) (mg/l)	55	45	50	41	48	100
13	COD (mg/l)	180	156	172	144	162	250
Note: ND is Not Detectable.							

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, production plants remain closed for almost all time in April 20. Hence utility consumption was at the lowest and off line monitoring through outside agency could not take place.

Annexure 1: GPCB results for treated effluent water

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:286666 - Analysis Completion:03/09/2020

Dyes and Dye- Intermediates / LAB Inward : 53386

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

TEST REPORT

Test Report No. : 53386 Date: 04/09/2020

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 : ROU-Routine Visit)
4. Sample Collected By : C.C Patel,SO
5. Quantity of Sample Received : 5 lit
6. Code No. of the Sample : 286666
7. Date & Time of Collection & Inwarding : 19/08/2020 , (1130 to 1130) & 20/08/2020
8. Date of Start & Completion of Analysis : 20/08/2020 & 03/09/2020
9. Sampling Point : From Final outlet of central ETP ~
10. Flow Details (Remarks) : yes
11. Mode of Disposal : Into estuary of River Par
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 :Brownish
15. Water Consumption & W.W.G (KLPD) : Ind :23726.000 , Dom :938.000 & Ind :21727.000 , 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 22nd edi.2012	1 – 14 pH value As or	7.18
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	85
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	5800
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	52
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	5.04
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	1190
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	2177
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	208
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.6
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.257
12	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –Iodometric Method	1-500.0 mg/l	0.8
13	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	48

Laboratory Remarks : freeze By:335-vig_335 Dt.: 04/09/2020

H. M. Ganvit,SSO

Field Observation :

Note :
1. * - These parameters are NOT covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

N I C

04/09/2020

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 2020- September 2020

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td>A.</td><td>Specific Conditions :</td><td></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">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 Apr 20- Sep 20</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>5.3</td><td>36.4</td><td>22.8</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.6</td><td>1.7</td><td>1.2</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>7.7</td><td>23.2</td><td>18.4</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>3.1</td><td>18.2</td><td>9.4</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>0.95</td><td>63.8</td><td>39.05</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>6.2</td><td>18.9</td><td>11.1</td></tr>
</table>

Summary of Flue Stack results:

<table>
<tr><th rowspan="2">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 Apr 20- Sep 20</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>50.8</td><td>86</td><td>68.7</td></tr>
<tr><td>2</td><td>PM (New Boiler)</td><td>50</td><td>mg/Nm^3</td><td>37</td><td>46.1</td><td>42.18</td></tr>
<tr><td>3</td><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>109</td><td>163</td><td>130.6</td></tr>
<tr><td>4</td><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>106</td><td>198</td><td>133.5</td></tr>
<tr><td>5</td><td>NOx (NewBoiler)</td><td>300</td><td>mg/Nm^3</td><td>92</td><td>160</td><td>124.8</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Details of stack results for the compliance period is given in Table 1. (Pl. see pg. no.17)

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, production plants remain closed for almost all time in April 20. Hence utility consumption was at the lowest and off line monitoring through outside agency could not take place.</td></tr>
<tr><td></td><td>At no time, the emission levels should go beyond the stipulated standards.</td><td>Complied.

Monthly monitoring is being done by GPCB approved, NABL approved agencies.
At no time, the emissions exceeded the prescribed limits during report period.

Summary of stack results given in specific condition no. i as above.</td></tr>
<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 Station 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 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>
</td></tr>
</table>

iii	**Fugitive emission in work zone environment, product, raw material storage areas must be regularly monitored.**	**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 summery is given below:

Plant	Area	Parameter	Prescribed Limit	Values of VOCs in Milligram per NM^3 for the period Apr 20- Sep 20		
				Min.	Max.	Avg.
2,4 D	Reactor	Phenol	19	10.3	18.5	14.98
	Buffer tank	Chlorine	3	0.8	2.6	1.57
Resorcinol	Benzene storage tank area near vent	Benzene	15	5	9.4	7.28
	Near Extraction /scrubber unit	Butyl acetate	-	495	740	572.6
Pharma	At second floor work area	Ammonia	18	ND	ND	ND
	Ammonia recovery area	Ammonia	18	ND	ND	ND
Epoxy - I	At vacuum pump 2nd floor	ECH	10	2	6.9	4.08
	At vessel POS 1208 G.F	ECH	10	2.4	8.2	4.92
Shed H	At second floor work area	Nitrobenzene	5	1.3	4.4	2.96
Shed J	Buffer Tank	Chlorine	3	1.7	2.1	1.9

Results for the compliance period is given in **Table 2.** (Pl. see pg. no.21)

	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.
	Cooling arrangement should be made for all the solvent storage tanks to minimize evaporation losses.	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.
	The company should monitor VOCs from the incinerator and data submitted regularly to SPCB and Ministry of Environment and forests.	Complied. 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.** (Pl. see pg. no.17)

<table>
<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 m^3/d.

The average wastewater generation for the report period is 7324 m^3/day only. Detail break up is given below:

<table>
<tr><th>Wastewater generation m^3</th><th>Apr 20</th><th>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sep 20</th><th>Total</th></tr>
<tr><td>Month wise</td><td>50730</td><td>304178</td><td>239223</td><td>251128</td><td>250420</td><td>248678</td><td>1344357</td></tr>
<tr><td>Per day</td><td>1691</td><td>9812</td><td>7974</td><td>8101</td><td>8078</td><td>8289</td><td>Avg. 7324</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 Apr 20- Sep 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m^3/d</td><td>20514</td><td>1691</td><td>9812</td><td>7324</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td>The effluent should be segregated at source of generation.</td>
<td>Complied.

Concentrated effluent is segregated and chemicals are being retrieved through recovery process/distillation.</td>
</tr>
<tr>
<td></td>
<td>The Concentrated effluent stream should be incinerated and non-concentrated effluent after tertiary treatment should be discharged into the CETP.</td>
<td>Complied.

Among the referred expansion project, only one stream from 2, 4 D is concentrated. We have installed distillation plant where the stream is distilled and product so obtained are sold. After recovery of product, lean effluent is sent to ETP where it is treated without any difficulty. Hence no incineration is required.</td>
</tr>
</table>

	The treated effluent should be discharged into estuary zone of river Par through 4.0 km long HDPE pipe line only after it meets the standards stipulated by the Gujarat Pollution Control Board/EPA rules.	**Complied**. The discharged effluent is meeting all state pollution control board limits and values of various parameters of treated effluent is given in **Table 3**. (Pl. see pg. no. 22) 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 Apr 20- Sep 20		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7.35	7.95	7.598
2	Temperature	40 deg C	31.7	33	32.22
3	Colour (pt. co. scale)	---	50	65	57
4	Suspended solids	100 mg/l	48	92	71.4
5	Phenolic Compounds	5 mg/l	0.035	0.085	0.0498
6	Cyanides	0.2 mg/l	ND	ND	ND
7	Fluorides	2 mg/l	0.45	0.68	0.556
8	Sulphides	2 mg/l	1.1	1.6	1.36
9	Ammonical Nitrogen	50 mg/l	22	39.8	30.76
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	41	55	47.8
13	COD	250 mg/l	144	180	162.8

Domestic Wastewater generation m^3	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Total
Month wise	2757	11731	10560	11087	10489	10677	57301
Per day	92	378	352	358	338	356	Avg. 312

<table>
<tr><td></td><td></td><td>The maximum, minimum and average values are given below:

<table><tr><td>Domestic Wastewater generation</td><td colspan="3">Values for the period Apr 20- Sep 20</td></tr><tr><td></td><td>Min.</td><td>Max.</td><td>Avg.</td></tr><tr><td>Domestic Wastewater generation m^3/d</td><td>92</td><td>378</td><td>312</td></tr></table></td></tr>
<tr><td>v</td><td>The Company should also Set up a separate online fish pond using treated effluent, to ensure that the quality of treated effluent discharged into the par estuary does not have any adverse impact on the aquatic life.</td><td>Complied.

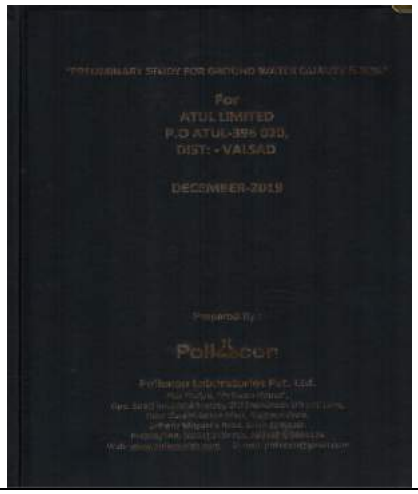
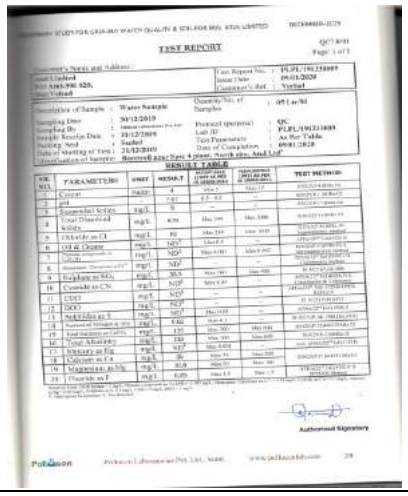
We have set up a separate online fish pond using treated effluent at our ETP.</td></tr>
<tr><td></td><td>The effluent quality at the discharge point must also be monitored periodically by an independent agency authorized by CPCB and report of the independent agency should be submitted to the Ministry's Regional office at Bhopal/CPCB/GPCB</td><td>Complied.

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

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

The river water quality at the discharge point is regularly being monitored by GPCB. Agencies like NIO, Pollucon Laboratories Pvt. Ltd- MoEF approved agency, Envision Enviro Technologies Pvt. Ltd –NABET accredited have also done the monitoring during the years.</td></tr>
<tr><td>vi</td><td>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.</td><td>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.</td></tr>
<tr><td></td><td>The ground water quality in and around the unit and the hazardous waste</td><td>Complied.
Ground water quality is being checked regularly for in and around the unit and the hazardous waste storage site. Latest Groundwater analysis</td></tr>
</table>

	storage site should be regularly monitored and the data recorded to ensure that there is no contamination of the groundwater.	study is done by MoEF approved agency Pollucon Pvt Ltd for year 2019-20.  For ATUL LIMITED P.O ATUL-396 020, DIST: - VALSAD DECEMBER-2019 Pollucon  TEST REPORT RESULT TABLE
vii	The destructive efficiency of the incinerator should be assessed by an agency like CPCB and a report submitted to the Ministry.	Complied. The destructive efficiency of the incinerator was assessed by M/s. SGS, a reputed agency in field on environmental monitoring. Report already submitted vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.
viii	The company should comply with the provisions of coastal Regulation Zone Notification of 1991 and Coastal Zone Management Plan of Gujarat.	Complied.
	Further, specific conditions stipulated by the Forest and Environment Department, Government of Gujarat vide its letter No. ENV-1097-2942-P dated 27th January, 1998 for laying of pipe line for discharge of treated effluents through the estuary zone of the River Par Zone should be strictly adhered to.	Complied. Detailed compliance report is already submitted to the Ministry vide our letter our letter Atul/SHE/MoEF/Visit/3 dated April 4, 2017.

<table>
<tr>
<td>ix</td>
<td>Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.</td>
<td>Complied.

Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act. Details for report period is shown in below table:

Pre-Employment Check-Up (In-house):
<table>
<tr><th>SN</th><th>Employee</th><th>Qty</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">2688</td><td rowspan="3">Pre-Employment</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>
Annual Medical Check-Up:
<table>
<tr><th>SN</th><th>Employee</th><th>Qty</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1024</td><td rowspan="3">Annual Checkup</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>
</td>
</tr>
<tr>
<td>x</td>
<td>The company should develop rainwater harvesting structures to the harvest the run-off water from the rooftops and by laying a separate storm water drains system for recharge of ground water and to reduce the drawl from the river Par.</td>
<td>Complied.

Company has expanded its harvesting pond capacity to 14000 KL capacity pond to harvest rain water. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We are also constructing temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.</td>
</tr>
</table>

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 an 25% of the plant area as per the CPCB guidelines.	Complied. Company has developed green belt and dense plantation inside the factory in area more than 33 % of total land. Company is having green belt development plan and planting more than about 50000 plants per year on regular basis.
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 2.11.2004. 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 2.11.2004.
	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.
B.	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. Excerpts of latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Annexure 2.
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.
	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.	Complied. No such incident happened during compliance period.

<table>
<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. (Pl. see pg. no.23)
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 Apr 20 - Sep 20</th></tr>
<tr><th>75</th><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>Near Main guest house</td><td>75</td><td>61.20</td><td>63.60</td><td>62.20</td></tr>
<tr><td>2</td><td>Near TSDF</td><td>75</td><td>63.70</td><td>65.80</td><td>64.56</td></tr>
<tr><td>3</td><td>At Wyeth Colony</td><td>75</td><td>54.60</td><td>56.70</td><td>55.78</td></tr>
<tr><td>4</td><td>Gram Panchayat Hall</td><td>75</td><td>62.50</td><td>66.50</td><td>64.50</td></tr>
<tr><td>5</td><td>Near Main Office North site</td><td>75</td><td>60.20</td><td>64.70</td><td>62.54</td></tr>
<tr><td>6</td><td>ETP North site</td><td>75</td><td>64.50</td><td>69.80</td><td>67.02</td></tr>
<tr><td>7</td><td>Opposite shed D</td><td>75</td><td>64.80</td><td>71.30</td><td>68.88</td></tr>
<tr><td>8</td><td>ETP West site</td><td>75</td><td>64.50</td><td>67.60</td><td>65.88</td></tr>
<tr><td>9</td><td>Haria Water tank</td><td>75</td><td>61.20</td><td>64.30</td><td>62.62</td></tr>
<tr><td>10</td><td>66KVA substation</td><td>75</td><td>63.80</td><td>66.00</td><td>64.70</td></tr>
</table>
</td></tr>
</table>

Noise level monitoring data (Night Time):

Sr. No.	Location	Permissible Limits, dBA	Values for the period Apr 20 - Se. 20		
		70	Min.	Max.	Avg.
1	Near Main guest house	70	52.10	54.40	52.92
2	Near TSDF	70	54.50	56.50	55.12
3	At Wyeth Colony	70	50.30	52.60	51.42
4	Gram Panchayat Hall	70	54.50	56.70	55.56
5	Near Main Office North site	70	53.70	58.50	56.62
6	ETP North site	70	54.20	57.30	55.56
7	Opposite shed D	70	56.50	58.70	57.74
8	ETP West site	70	55.10	56.80	55.94
9	Water tank Haria road	70	52.60	55.80	54.20
10	66KVA substation	70	55.10	57.30	56.38

iv

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

Complied.

EMP measures are already implemented by 2010.
Recurring cost: A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities. Total expenditure for the report period is given in below table.

Sr.No.	Parameter	Recurring Cost (Rs. In lacs) For the report period Apr 20 – Sep 20
1	Air Pollution Control	2069.24
2	Liquid Pollution Control	
3	Environmental Monitoring and Management	19.05
4	Solid waste Disposal	293.46
5	Occupational health	15
6	Green belt	5
Total		2401.75

v	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.	Complied. The company complies with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. We have valid authorization under our current CCA No. AWH-105110 for handling, storage and disposal of hazardous waste. Stipulation made in CCA by GPCB are being complied. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year. Excerpts of latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Annexure 2
	Authorization from the GPCB must be obtained for collections /treatment/ storage/ disposal of hazardous waste.	Complied. We have valid authorization under our current CCA No. AWH-105110 for handling, storage and disposal of hazardous waste.
vi	The stipulated conditions will be monitored by the Regional office of this Ministry at Bhopal/ GPCB.	Noted.
	A six monthly compliance report and the monitored data should be submitted to them regularly.	Complied. Six monthly compliance report and the monitored data are 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 and will be complied.
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

Details of Process and Flue stack				MAY, 2020	JUNE, 2020	JULY, 2020	AUG, 2020	SEPT., 2020
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site								
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	32	40	58	41	33
2	Reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND
Caustic Chlorine Plant								
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	3.5	3.2	4.9	Not running	Not running
		HCl	20.0 mg/Nm3	5.8	5.6	5.1		
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	8.4	4.9	7.1	4.1	6.6
		HCl	20.0 mg/Nm3	12.9	8.2	7.4	6.2	7.8
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
		NOx	25.0 mg/Nm3					
Sulfuric Acid (East Site)								
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	1.3	0.6	1.6	1.35	1.7
		Acid Mist	50.0 mg/Nm3	29.5	11.3	23.8	13.8	18.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.9	4.3	8.4	7.2	6.2
		HCl	20.0 mg/Nm3	5.3	13.6	8.6	7.4	6.4
Resorcinol Plnat								
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	25	27	38	0.95	2.95
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	32.7	8.3	30.1	33.6	29.3
Incinerator								
10	Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.1	63.8	54.1
		SO_2	40.0 mg/Nm3		12.2	18.6	11.7	14.2
		NOx	25.0 mg/Nm3		15.4	20.7	23.2	19.9
NI Plant								
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	27.8	Not Runnig During Visit	31.6	28.6	24.2
		NOx	25.0 mg/Nm3	15.6		19.4	21.8	17.8
2-4-D Plant								
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	8.1	5.4	5.2	7.1	5.1
		HCl	20.0 mg/Nm3	8.3	7.3	5.1	7.3	7.3
		Phenol	--	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	14.2	7.4	9.4	8.1	11.8
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	16.8	6.8	10.1	8.2	9.8
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	15.7	7.3	8.6	14.1	18.3
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	18.9	11.4	7.2	9.8	15.9
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Runnig During Visit	9.2	Not running	6.2	10.3

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
19	Scrubber S-902	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	12.4	4.2	17.8	18.2	13.6
		NOx	25.0 mg/Nm3	12.2	7.7	24.8	18.7	23.1
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant								
21	MCPA	Cl_2	9 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/NM^3					
		SO_2	40 mg/NM^3					
22	Fipronil	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
23	Imidacloprid	NH_3	175 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
25	Stack at Amine Plant	NH_3	175 mg/Nm3	108.0	16.3	Not Runnig	136	115
MPSL Plant								
26	Phosgene Scrubbr at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
NICO plant								
28	Central scrubber at Nico Plant	Acetonytryle, IPA	---	-	-	-	-	-
Ester Plant								
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
31	MPP plant scrubber	HCl	20 mg/Nm3	13.1	Not Runnig During Visit	13.2	9.8	12.4
		Phosgene	0.1 ppm	ND		ND	ND	ND
Atul West Site								
32	Shed A05/03/44	Cl_2	9 mg/NM^3	5.1	7.3	6.3	Not Runnig	Not Running
		HCl	20 mg/NM^3	5.24	11.3	6.2		
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	7.8	5.3	7.4	8.4	Not Running
		HCl	20.0 mg/Nm3	10.3	8.2	7.5	8.6	
34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	36.4	14.2	21.6	5.38	24.8
		Cl_2	9 mg/NM^3	7.7	5.6	8.8	5.2	7.1
		HCl	20 mg/NM^3	7.9	7.3	9	9	8.3
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	6.3	8.4	Not Runnig	Not Running
		HCl	20.0 mg/Nm3		12.1	8.1		
36	Shed D Niro Spray dryer No. 45	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.8	37.6	Not Running
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	44.6	51.2	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.6	4.1	8.1	8.1	6.5
		HCl	20.0 mg/Nm3	17.4	7.3	8.4	8.3	14.8

40	Shed G 10/8/1 (receiver)	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20.0 mg/Nm3					
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	6.9	3.3	7.9	7.3	3.5
		HCl	20.0 mg/Nm3	14.2	8.1	7.6	14.4	14.4
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	Not Runnig During Visit	0.6	1.6	1.25	1.3
		Acid Mist	50.0 mg/Nm3		11.3	2.8	3.9	4.4
43	Shed J15/09/25	HBr	--	Not Runnig During Visit	Not Runnig During Visit	ND	ND	Not Running
		SO_2	40 mg/NM^3			16.8	23.9	
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/42	SO_2	40 mg/NM^3	21.8	Not Runnig During Visit	26.4	20.3	29.7
		Cl_2	9.0 mg/Nm3	5.9		5.4	8.1	5.2
		HCl	20.0 mg/Nm3	6.1		13.8	8.3	5.34
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	21.8	29.9	22.3
		HCl	20.0 mg/Nm3			17.2	14.8	13.9
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	5.7	8.4	3.9	6.2	5.9
		HCl	20 mg/NM^3	5.85	14.2	12.8	6.4	11.1
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	29.8	11.6	20.6	26.1	24
48	Sulfer Black Plant	H_2S	--	Not Runnig During Visit	ND	24.8	ND	ND
		NH_3	175 mg/NM^3		17.5	19.4	98	105
49	Sulfer Dyes plant	H_2S	--	Not Runnig During Visit	ND	19	ND	ND
		NH_3	175 mg/NM^3		11.3	30.4	33.1	37.2
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
Atul North Site								
51	N-FDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
		SO_2	40.0 mg/Nm3					
		NOx	25.0 mg/Nm3					
		Formaldehyde	10.0 mg/Nm3					
52	PHIN Plant	Phosgene	0.1 ppm	Not Runnig During Visit	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	5.2	7.3	7.4	5.8	3.15
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	Not Runnig During Visit	43.2	Not Runnig	Not Runnig	Not Running
55	SPIC II Plant (DCDPS)	SO_2	---	25.4	ND	15.1	ND	ND
56	SPIC I Plant	NH_3	175 mg/Nm3	140	62.4	120	120	126
57	SPIC IV Plant	NH_3	175 mg/NM^3	112	69.6	58	63	92
		SO_2	---	15.1	4.3	15.8	ND	ND
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site								
1	FBC boiler E1	PM	100 mg/Nm3	62	80	61.6	Not Runnig	71
		SO_2	600 mg/Nm3	111	121	144		142
		NOx	600 mg/Nm3	106	106	138		176
2	FBC boiler E2	PM	100 mg/Nm3	not running during this month	86	71.8	64.1	Not Running
		SO_2	600 mg/Nm3		110	126	134	
		NOx	600 mg/Nm3		118	121	110	
3	FBC boiler E3	PM	100 mg/Nm3	not running during this month	78	66.2	76.1	50.8
		SO_2	600 mg/Nm3		116	136	140	163

		NOx	600 mg/Nm3		124	130	126	198
4	Hot Oil Unit	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
	(Resorcinol Plant)	SO_2	100 ppm		ND	ND		
		NOx	50 ppm		28	31		
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	Stand by	Stand by	38.6	44.6	36.4
		SO_2	100 ppm			5.2	4.9	6.2
		NOx	50 ppm			46.4	48.2	41.7
West Site								
6	FBC boiler W1	PM	100 mg/Nm3	54.8	59	62.4	83.6	71.8
		SO_2	600 mg/Nm3	120	123	124	156	156
		NOx	600 mg/Nm3	126	119	119	122	198
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
		SO_2	100 ppm		ND	ND		
		NOx	50 ppm		23	26		
8	Oil burner Shed B	PM	150.0 mg/Nm3	Stand by	Stand by	Not Runnig	Not Runnig	Not Runnig
	(Stand By)	SO_2	100 ppm					
		NOx	50 ppm					
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	41.9	37	44.7	41.2	46.1
		SO_2	600 mg/Nm3	109	113	132	140	128
		NOx	300 mg/Nm3	92	108	128	136	160
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND
10	DG set 1500 KVA	PM	150.0 mg/Nm3	Stand by	Stand by	32.4	30.8	53.8
	(Stand By)	SO_2	100 ppm			4.4	5.2	7.2
		NOx	50 ppm			42.8	42.4	36.8
North Site								
11	Thermic fluid heater of	PM	150.0 mg/Nm3	not running during this month	ND	43.6	33.8	54.2
	DCO/DAP Plant	SO_2	100 ppm		ND	14.8	9.8	16.2
		NOx	50 ppm		29	30.1	21.6	24.8

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, production plants remain closed for almost all time in April 20. Hence utility consumption was at the lowest and off line monitoring through outside agency could not take place.

Table 2: Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit	Results of VOCs in Milligram per NM^3				
				May 20	Jun 20	Jul 20	Aug 20	Sep 20
2,4 D	Reactor	Phenol	19	14.8	17.2	14.1	10.3	18.5
	Buffer tank	Chlorine	3.0	1.1	0.8	1.25	2.1	2.6
Resorcinol	Benzene storage tank area near vent	Benzene	15	8.9	6.2	9.4	5	6.9
	Near Extraction/scrubber unit	Butyl acetate	-	518	546	495	564	740
Pharma	At second floor work area	Ammonia	18	ND	ND	ND	ND	ND
	Ammonia recovery area	Ammonia	18	ND	ND	ND	ND	ND
Epoxy - I	At vacuum pump 2nd floor	ECH	10	6.9	3.1	2	3.6	4.8
	At vessel POS 1208 G.F	ECH	10	8.2	6.2	3.9	2.4	3.9
Shed H	At second floor work area	Nitrobenzene	5	3.9	3.1	4.4	1.3	2.1
Shed J	Buffer Tank	Chlorine	3	ND	ND	2.1	1.7	ND

Table 3: Quality of treated effluent

Sr. No.	Parameter	Results					GPCB Limits
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	pH	7.35	7.65	7.95	7.48	7.56	5.5 to 9.0
2	Temperature °C	32	33	32.5	31.7	31.9	40 oC
3	Colour (pt. co. scale)	60	50	65	50	60	---
4	Suspended solids, mg/l	48	64	78	92	75	100
5	Phenolic Compounds, mg/l	0.035	0.045	0.085	0.048	0.036	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.55	0.68	0.55	0.45	0.55	2
8	Sulphides, mg/l	1.4	1.1	1.5	1.2	1.6	2
9	Ammonical Nitrogen, mg/l	30	22	28	34	39.8	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	55	45	50	41	48	100
13	COD, mg/l	180	156	172	144	162	250
Note: ND is Not Detectable.							

Table 4: Noise level monitoring data (Day Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	Near Main guest house	61.20	62.30	61.40	62.50	63.60	75
2	Near TSDF	63.70	64.80	63.70	64.80	65.80	75
3	At Wyeth Colony	56.40	55.50	54.60	55.70	56.70	75
4	Gram Panchayat Hall	62.50	63.60	64.50	65.40	66.50	75
5	Near Main Office North site	60.20	61.30	62.70	63.80	64.70	75
6	ETP North site	65.60	66.50	64.50	68.70	69.80	75
7	Opposite shed D	64.80	68.40	69.50	70.40	71.30	75
8	ETP West site	64.50	65.00	67.60	65.40	66.50	75
9	Water tank Haria road	62.10	61.20	62.30	63.20	64.30	75
10	Near 66KVA substation	64.70	63.80	64.00	65.00	66.00	75

Table 5: Noise level monitoring data (Night Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	Near Main guest house	52.10	53.30	52.40	52.40	54.40	70
2	Near TSDF	54.50	55.60	54.50	54.50	56.50	70
3	At Wyeth Colony	52.50	51.40	50.30	50.30	52.60	70
4	Gram Panchayat Hall	56.50	55.60	54.50	54.50	56.70	70
5	Near Main Office North site	53.70	57.30	56.80	56.80	58.50	70
6	ETP North site	57.30	56.20	54.80	54.20	55.30	70
7	Opposite shed D	58.50	57.40	56.50	57.60	58.70	70
8	ETP West site	56.50	55.60	55.10	55.70	56.80	70
9	Water tank Haria road	55.80	54.30	52.60	53.70	54.60	70
10	Near 66KVA substation	57.30	56.20	55.10	56.20	57.10	70

Annexure 1
: GPCB Result

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:286666 - Analysis Completion:03/09/2020

Dyes and Dye- Intermediates / LAB Inward : 53386

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

TEST REPORT

Test Report No. : 53386 **Date: 04/09/2020**

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 : ROU-Routine Visit)
4. Sample Collected By : C.C Patel,SO
5. Quantity of Sample Received : 5 lit
6. Code No. of the Sample : 286666
7. Date & Time of Collection & Inwarding : 19/08/2020 , (1130 to 1130) & 20/08/2020
8. Date of Start & Completion of Analysis : 20/08/2020 & 03/09/2020
9. Sampling Point : From Final outlet of central ETP ~
10. Flow Details (Remarks) : yes
11. Mode of Disposal : Into estuary of River Par
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 :Brownish
15. Water Consumption & W.W.G (KLPD) : Ind :23726.000 , Dom :938.000 & Ind :21727.000 , 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 22nd edi.2012	1 – 14 pH value As or	7.18
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	85
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	5800
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	52
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	5.04
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	1190
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	2177
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	208
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.6
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.257
12	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –Iodometric Method	1-500.0 mg/l	0.8
13	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmec	05–50000 mg/l	48

Laboratory Remarks : freeze By:335-vig_335 Dt.: 04/09/2020

H. M. Ganvit,SSO

Field Observation :

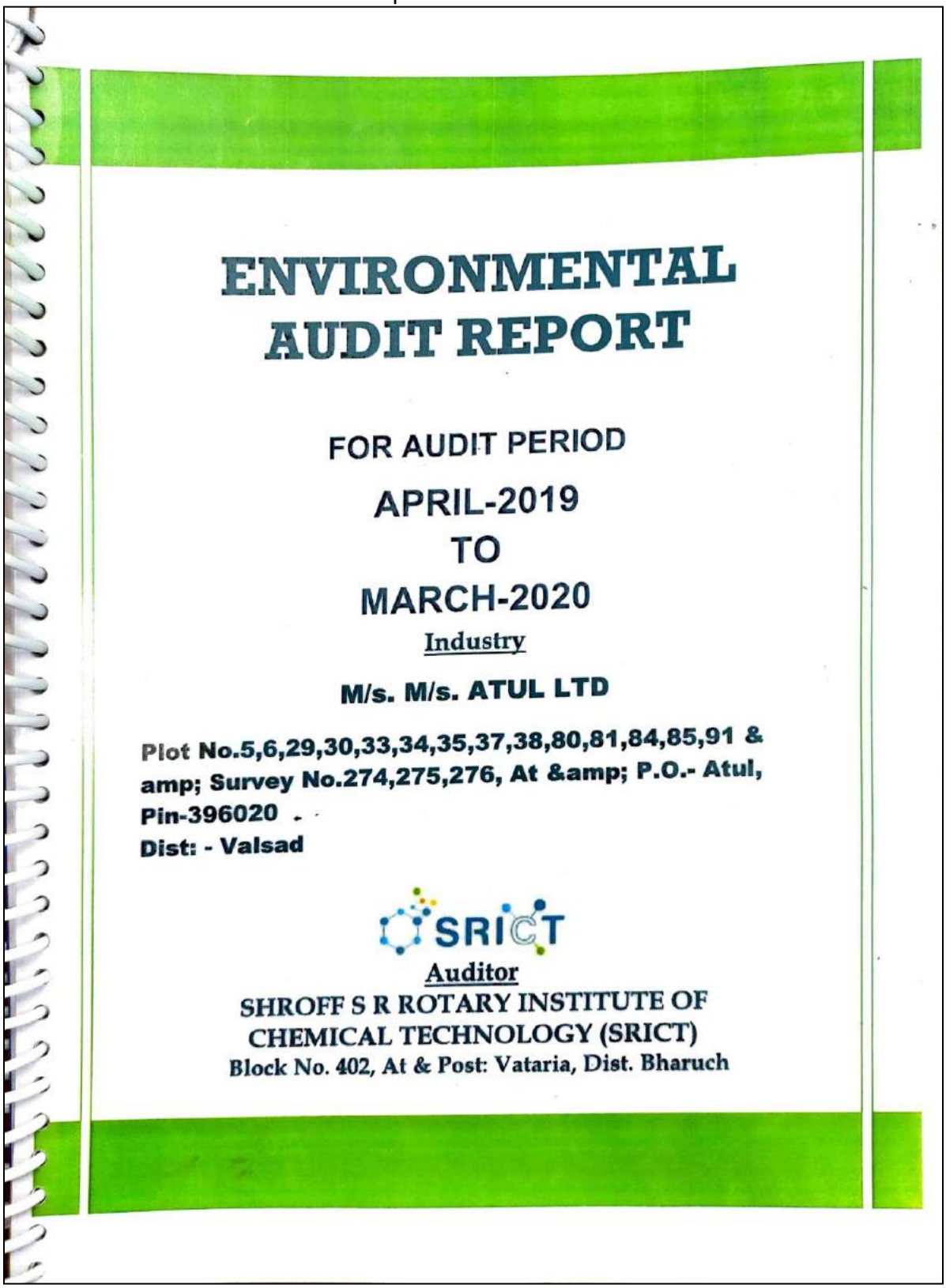
Note :

1. * - These parameters are NOT covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

N | C

04/09/2020

Annexure 2: Abstract of Env. Audit report



ENVIRONMENTAL AUDIT REPORT

FOR AUDIT PERIOD

APRIL-2019

TO

MARCH-2020

Industry

M/s. M/s. ATUL LTD

Plot No.5,6,29,30,33,34,35,37,38,80,81,84,85,91 & amp; Survey No.274,275,276, At & P.O.- Atul, Pin-396020 . Dist: - Valsad

SRICT

Auditor

SHROFF S R ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY (SRICT)

Block No. 402, At & Post: Vataria, Dist. Bharuch

OBSERVATION:

- Industry has valid CC&A number AWH-105110 which shall be valid up to 30/09/2025.
- The water and fuel consumptions are within the limits.
- Total Production of the industry increased up to 8.65 % in year 2019-20 from the previous audit year 2018-19.
- Electricity consumption increased up to 1.21 % in year 2019-20 from the previous audit year 2018-19.
- Water consumption is decreased up to 7.64 % in year 2019-20 from the previous audit year 2018-19. This indicates the various efforts of water conservation taken by the company.
- Wastewater generation is also decreased up to 2.63 % in year 2019-20 from the previous audit year 2018-19.
- Company has received certified compliance report for its recent Environmental Clearance for expansion of existing production and addition of new products.
- Company has applied for 50MW CPP.
- Company has successfully launched 5 S system implementation program.
- Company has a proper platform with electrical connection for ambient air monitoring.
- Record of the data of CETP chemical, Water consumption and Wastewater generation are maintaining regularly.
- Overall housekeeping is satisfactory.
- Company has initiated construction of one more ETP having capacity 450 KLD to treat segregated steam from Pharmaceutical intermediate plan.
- Industry has provided PPE in all the unit and used well in different area of working.
- Stack identification at site is done for most of the stack. It shall be done for remaining stacks also.
- Total and individual production is within the consented quantity given by GPCB.
- Industry has appointed full time doctor and adequate facility for treatment within the premises.

Recommendations:

- Company shall upgrade its online treated effluent monitoring system.
- Company shall repair and/or make asphalt concrete/RCC roads to minimize dusting on internal roads.
- Company shall obtain stability certificate for its TSDF site.
- Company shall plan for ZLD for the ongoing South ETP project for Pharmaceutical intermediate plant stream.
- Company shall provide proper identification plat with information regarding limits and stack in all the north and west site plant.
- Company shall update its online OCEMS facility in phase wise manner for auto calibration for stacks.

ANNEXURE – 30
COMPLIANCE REPORT

Sr.No.	CONSENT REQUIREMENT	COMPLIANCE STATUS
1	Consent No. AWH - 105110 dated 16.11.2019	Noted.
	Validity up to 30.9.2025	
2	Production capacities of different products [Total 478922.004 TPA]	Complied
Specific Condition		
	The unit shall manufacture the Phosgene gas in fully automated plant having multilevel of safety provisions.	Complied.
	Unit will utilize the Phosgene gas immediately after its generation for captive purpose only	Complied.
	Unit shall establish and maintain onsite emergency plan and carry out mock drill as per period decided	Complied.
	Unit shall submit production data of Phosgene every month to this office'	Complied.
	Unit shall install new 4 Kms length HDPE pipeline parallel to existing pipeline for disposal of treated waste water in the estuary of Par River at the identified point by NIO.	Complied.
	Unit shall use pipeline in case of emergency like breakdown, preventive maintenance only when old pipeline is under maintenance and unit shall get prior permission from Regional Office, Vapi before use of new pipeline	Complied.
	Unit shall comply undertaking dated: 08/07/2016 given with the board.	Complied.
	Unit shall comply coal handling guideline, spent solvent handling and management , spent acid management	Complied.
3. Condition under the water (prevention and control of pollution)Act 1974		
3.1	<table><tr><th>Particulars</th><th>Actual</th><th>Consented</th></tr><tr><td>**Water Consumption (Industry + domestic)**</td><td>9371 KL/Day</td><td>28358 KL/Day</td></tr><tr><td>**Industrial effluent (Low + High COD)**</td><td>8643 KL/Day</td><td>24096 KL/Day</td></tr><tr><td>**Sewage generated**</td><td>365 KL/Day</td><td>939 KL/Day</td></tr></table>	Complied.
3.2	Total quantity of effluent generated from manufacturing process and other ancillary operation shall not exceed 24096 KLD.	Complied

3.3	20514 KLD (excluding quantity of M/s. Atul Bioscience Ltd. =438.63 KLD) waste water shall be treated in ETP and then discharged into par river through 4 km Pipeline.	Complied
3.4	1000 KLD waste water shall be sent to RO/MEE. 800 KLD RO permeates shall be recycled into cooling tower. 200 KLD RO reject shall be sent to MEE. 190 KLD recovered MEE water shall be recycle into cooling tower. 10 MT MEE salt shall be sent to TSDF. 2500 KLD waste water shall be sent to RO/MEE. 2000 KLD RO permeates shall be recycled into cooling tower. 150 KLD RO reject water shall be utilized for quenching/Ash cooling. 350 KLD RO reject shall be sent to MEE. 345 KLD recovered MEE water shall be recycled into Boiler. 5 MT MEE salt shall be sent to TSDF. 82 KLD high COD waste water shall be sent to incinerator. The quantity of the domestic waste water (sewage) shall not exceed 322 KLD.	Complied.
3.5	Trade Effluent	
3.6	The treated effluent from the industrial unit shall conform to the GPCB norms mentioned in table no. 3.6	Complied.
	All efforts shall be made to remove Colour & unpleasant odor as far as practicable.	Complied
3.7	The final treated effluent from central ETP confirming to the above standard shall be collected in the guard pond and then discharged through closed pipeline to estuary zone of river Par via diffuser.	Complied
3.8	Domestic effluent shall be sent to ETP.	Complied.
4. CONDITION UNDER (PREVENTION AND POLLUTION) ACT 1981: THE CONTROL OF AIR		
4.1	(a) The table no. 4.1(a) shall be used as fuel. (b) The table no. 4.1(b) shall be used for captive power consumption.	
4.1a	Fuel consumption figures for boilers /Heaters	Complied
4.1b	List of boilers for captive power consumption	Noted
4.2	The applicant shall install & operate air pollution control system in order to achieve norms prescribed in table no. 4.3	Complied
4.3	The flue gas emission through stack attached to boiler shall confirm to the standard mentioned in table.	Complied.
4.4	The process emission through various stack / vent of reactors process, vessel shall confirm to the standards mentioned in 4.4	Complied.

Fuel:	Consumption for 2019-20 Quantity/year (MT)
Coal	299614.8
Lignite	56763.89
Total	356378.7
Diesel	9135 Ltr/Year

4.5	The concentration of the following substances in the ambient air within the premises of the industry and at a distance of 10 meters from the source (other than the stack / vent with height of more than 9 ,meters from the ground level) shall not exceed the levels mentioned in table no. 4.5	Complied.
4.6	The applicant shall provide portholes, ladders, platform etc. at chimney(s) for monitoring the air emission and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S- 1, S-2, etc. and these shall be painted/displayed to facilitate identification.	Complied
4.7	The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB (a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6 a.m. and night time is reckoned between 10 p.m. and 6 a.m.	Complied.
5. GENERAL CONDITIONS:		
5.1	Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.	Noted
5.2	Management of Solid Waste generated from industrial activity shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).	Noted
6. Authorization under Hazardous and other waste (management and transboundary Movement) Rules -2016, Form-2 (See rule 6(2))		
6.1	Number of authorization: AWH-105110, Date of issue: 16/10/2019	Noted
6.2	Reference of application No. 163867 and date: 05/10/2019.	
6.3	M/S. ATUL LIMITED, is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated in Valsad.	
6.3	Haz. Waste disposal as stipulated.	Complied.
6.4	The authorization shall be valid for a period of 30/09/2025.	Noted
6.5	The authorization is subject to the following general and specific conditions:	
A. General conditions under Hazardous and other Wastes (Management and Transboundary Movement) Rules-2016;		
1.	The authorized person shall comply with the provision of the Environment (protection) Act, 1986, and the rules made there under.	Noted and Complied.
2.	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.	Noted.

3.	The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.	Noted and Complied.
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.	Noted.
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.	Complied.
6.	The person authorized shall comply with the provision outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"	Noted.
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.	Noted.
8.	The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.	Not Applicable as no Haz waste is imported.
9.	The record of consumption and fate of the imported hazardous and other wastes shall be maintained.	Not Applicable as no Haz waste is imported.
10.	The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific condition of authorization.	Complied.
11.	The importer or exporter shall bear the cost of import and export and mitigation of damages if any.	Not Applicable as no Haz waste is imported or exported.
12.	An application for the renewal of an authorization shall be made as laid down under these Rules.	Noted
13.	Any other conditions for compliance as per the guidelines issued by the Ministry of the Environment, Forest and climate Change or Central Pollution Control Board from time to time.	Noted and will be complied.
14.	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.	Complied.
B. Specific Conditions:		
1.	The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.	Noted.
2.	Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry into the passbook of the actual user.	Noted and complied.
3.	In case of renewal of authorization, a self- certified compliance report in respect of effluent, emission standard and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.	Noted.

4.	The occupier of the facility shall comply standard operating procedure/ guidelines published by MoEF&CC or GPCB from time to time.	Complied.
5.	Unit shall comply provisions of E-waste (Management) Rules-2016.	Complied.

<table>
<tr><th>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) dated11.02.2019, Industrial Waste water generation shall not exceed 20,514 m³/day.

The average wastewater generation for the report period is 7324 m³/day only which is well within the limit. Detail break up is given in below table:

<table>
<tr><th>Wastewater generation m³/day</th><th>Apr20</th><th>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sep 20</th><th>Total</th></tr>
<tr><td>Month wise</td><td>50730</td><td>304178</td><td>239223</td><td>251128</td><td>250420</td><td>248678</td><td>1344357</td></tr>
<tr><td>Per day</td><td>1691</td><td>9812</td><td>7974</td><td>8101</td><td>8078</td><td>8289</td><td>Avg. 7324</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 Apr 20 – Sep 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>20514</td><td>1691</td><td>9812</td><td>7324</td></tr>
</table>

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, production plants remain closed for almost all time in April 20. Hence utility consumption was at the lowest and off line monitoring through outside agency could not take place.</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) dated11.02.2019: “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 96.78 m³/d high TDS waste water was evaporated in MEE during report period. Detail break up is given in below table:

<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Month</th><th colspan="3">Break up of effluent Kl/Day</th></tr>
<tr><th>High TDS/COD</th><th>Low TDS/COD</th><th>Total Effluent generation</th></tr>
<tr><td>1</td><td>April-20</td><td>12.7</td><td>1678.3</td><td>1691</td></tr>
<tr><td>2</td><td>May-20</td><td>74</td><td>9738</td><td>9812</td></tr>
<tr><td>3</td><td>June-20</td><td>95</td><td>7879</td><td>7974</td></tr>
<tr><td>4</td><td>July-20</td><td>128</td><td>7973</td><td>8101</td></tr>
<tr><td>5</td><td>August-20</td><td>142</td><td>7936</td><td>8078</td></tr>
<tr><td>6</td><td>September-20</td><td>129</td><td>8160</td><td>8289</td></tr>
</table>

High TDS effluent generation is variable as per the production.</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 11.02.2019 Industrial Waste water generation shall not exceed 20,514 m³/d.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>The average 7324 m^3/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 all state pollution control board's limit is being discharged into river Par through 4 km line.</td></tr>
<tr><td></td><td>Ammonia bearing effluent shall be subject to ammonia recovery before mixing with normal effluent stream.</td><td>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:

<table>
<tr><th>Recover Ammonia</th><th>Apr 20</th><th>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sep 20</th><th>Total</th></tr>
<tr><td>(KL)</td><td>54</td><td>170</td><td>261</td><td>402</td><td>202</td><td>248</td><td>1337</td></tr>
</table></td></tr>
<tr><td></td><td>Phenol will be recovered from phenol containing effluent.</td><td>Complied.

20 Kgs 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:

<table>
<tr><th></th><th>Apr 20</th><th>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sep 20</th><th>Total</th></tr>
<tr><td>DCP crude distilled</td><td>91.2</td><td>1451.2</td><td>1037.4</td><td>1334.9</td><td>1273.3</td><td>1166.2</td><td>6354.3</td></tr>
<tr><td>2,4DCP recovered</td><td>80</td><td>1273</td><td>910</td><td>1171</td><td>1117</td><td>1023</td><td>5574</td></tr>
<tr><td>2.6DCP recovered</td><td>0.608</td><td>99.92</td><td>73.314</td><td>92.24</td><td>84.89</td><td>76.4</td><td>427.3</td></tr>
<tr><td>OCP/ Residue</td><td>10.6</td><td>78.3</td><td>54.1</td><td>71.7</td><td>71.5</td><td>66.8</td><td>40.7</td></tr>
</table></td></tr>
</table>

The treated effluent shall confirm the discharge norms.

Complied.

The treated effluent is meeting all the state pollution control board's discharge norms and values of various parameters of treated effluent is given in **Table 1**. (Pl. see pg. no.27)
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 Apr 20 – Sep 20		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7.35	7.95	7.598
2	Temperature	40°C	31.7	33	32.22
3	Colour (pt. co. scale)	---	50	65	57
4	Suspended solids	100 mg/l	48	92	71.4
5	Phenolic Compounds	5 mg/l	0.035	0.085	0.0498
6	Cyanides	0.2 mg/l	ND	ND	ND
7	Fluorides	2 mg/l	0.45	0.68	0.556
8	Sulphides	2 mg/l	1.1	1.6	1.36
9	Ammonical Nitrogen	50 mg/l	22	39.8	30.76
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	41	55	47.8
13	COD	250 mg/l	144	180	162.8

The domestic effluent shall be disposed off through septic tank / soak pit.

Complied.

Domestic effluent goes to septic tank / soak pit and finally diverted to ETP. Detail of domestic effluent generation is given in below table:

Domestic Wastewater generation m^3	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Total
Month wise	2757	11731	10560	11087	10489	10677	57301
Per day	92	378	352	358	338	356	Avg. 312

The maximum, minimum and average values are given below:

Domestic Wastewater generation	Values for the period Apr 20- Sep 20		
	Min.	Max.	Avg.
Domestic Wastewater generation m^3/d	92	378	312

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. (Pl. see pg. no. 28) 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	Complied. Compliance status report to the stipulated environmental clearance conditions are regularly submitted to the regional office of MoEF, zonal

	clearance conditions to be sent to Regional office of MoEF, the respective Zonal office of CPCB and the state pollution control board.	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.(Pl. see pg. no.28,32,33)

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 Apr 20 – Sep 20		
				Min.	Max.	Avg.
1	SO_2	40	mg/Nm^3	5.3	36.4	22.8
2	SO_2 (kg/T)	2	kg/T	0.6	1.7	1.2
3	NOx	25	mg/Nm^3	7.7	23.2	18.4
4	HCl	20	mg/Nm^3	3.1	18.2	9.4
5	PM	150	mg/Nm^3	0.95	63.8	39.05
6	PM with Pesticide compound	20	mg/Nm^3	6.2	18.9	11.1

Summary of Flue Stack results:

No.	Parameter	Standard values as per CCA	Unit	Values for the period Apr 20 – Sep 20		
				Min.	Max.	Avg.
1	PM	100	mg/Nm^3	50.8	86	68.7
2	PM (New Boiler)	50	mg/Nm^3	37	46.1	42.18
3	SO_2	600	mg/Nm^3	109	163	130.6
4	NOx	600	mg/Nm^3	106	198	133.5
5	NOx (NewBoiler)	300	mg/Nm^3	92	160	124.8

Summary of Ambient Air Quality results:

Station	Parameter	Limit microgm/ NM^3	Values for the period Apr 20 – Sep 20		
			Min.	Max.	Avg.
66 KV	RSPM (PM2.5)	60	22.4	38.1	29.8
	PM10	100	43.3	54.8	49.7

			SO2	80	9.2	13.8	11.32
			NOx	80	11.7	16.3	13.78
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		Opposite Shed D	RSPM (PM2.5)	60	20.1	32	25.1
			PM10	100	48.2	52	50.14
			SO2	80	7.4	12.6	9.28
			NOx	80	10.3	15.1	12.18
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		West site ETP	RSPM (PM2.5)	60	18	36	25.6
			PM10	100	40	55	46.4
			SO2	80	6.4	7.7	7.06
			NOx	80	7.8	10.5	8.92
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		North site ETP	RSPM (PM2.5)	60	24	40	30.8
			PM10	100	39	54	45.4
			SO2	80	5.8	9.3	7.24
			NOx	80	6.7	13.3	9.36
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		TSDF	RSPM (PM2.5)	60	20	42	29.6
			PM10	100	43	50	46.2
			SO2	80	4.4	10.2	6.9
			NOx	80	5.3	12.5	8.36
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		Main Guest House	RSPM (PM2.5)	60	19	24	21.4
			PM10	100	47	50	49
			SO2	80	6.2	7.3	6.78
			NOx	80	6.8	7.5	7.28
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		Wyeth Colony	RSPM (PM2.5)	60	22	26	24
			PM10	100	45	50	47.2
			SO2	80	6.4	7.8	7.2
			NOx	80	5.9	8.1	6.7
			Ammonia	850	ND	ND	ND

	HCl	200	ND	ND	ND
Gram panchayat hall	RSPM (PM2.5)	60	23	27	25
	PM10	100	47	53	49.8
	SO2	80	5.6	8.2	6.92
	NOx	80	5.1	7.3	6.52
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Main office, North site	RSPM (PM2.5)	60	21	23	22.2
	PM10	100	41	55	47
	SO2	80	6.5	8.2	7.22
	NOx	80	7.1	8.2	7.78
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Haria water tank	RSPM (PM2.5)	60	14.2	34.8	24.88
	PM10	100	45.7	56.8	51.42
	SO2	80	6.8	13.5	10.06
	NOx	80	9.5	16.3	12.96
	Ammonia	850	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 Apr 20 – Sep 20		
				Min.	Max.	Avg.
2,4 D	Reactor	Phenol	19	10.3	18.5	14.98
	Buffer tank	Chlorine	3	0.8	2.6	1.57
Resorcinol	Benzene storage tank area near vent	Benzene	15	5	9.4	7.28
	Near Extraction /scrubber unit	Butyl acetate	-	495	740	572.6
Pharma	At second floor work area	Ammonia	18	ND	ND	ND

			Ammonia recovery area	Ammonia	18	ND	ND	ND
		Epoxy - I	At vacuum pump 2nd floor	ECH	10	2	6.9	4.08
			At vessel POS 1208 G.F	ECH	10	2.4	8.2	4.92
		Shed H	At second floor work area	Nitrobenzene	5	1.3	4.4	2.96
		Shed J	Buffer Tank	Chlorine	3	1.7	2.1	1.9

<table>
<tr>
<td>iv</td>
<td>The company shall adopt cleaner production technology to minimize the quantity of fresh water requirement and process effluent generation.</td>
<td>
Complied.

Company is fully devoted towards protection of environment and has successfully completed many cleaner production projects and will continuously improve further.

We have already converted few of our plants as ZLD and are in process of converting many other plants as ZLD. Our Ankleshwar unit is completely ZLD unit.

Treated wastewater is being used in lime preparation at ETP, steam condensate is being collected and used in place of raw water, vacuum pump, gland cooling and other water is being collected and reused. Vacuum pumps are removed by installing centrifuge in place of neutch filter and water consumption is reduced.

Cooling tower blow down water is used as fire hydrant make up and also used for dust suppression and fly ash quenching instead of fresh water.

Water used for washing purpose is reused.

Details of water consumption break up is given below:

Details of water consumption:

<table>
<tr><td colspan="5">Water Consumption Break up m^3</td></tr>
<tr><td rowspan="2">Period</td><td colspan="3">Water consumption in Apr 20 – Sep 20</td><td rowspan="2">Total</td></tr>
<tr><td>Process</td><td>Cooling</td><td>Domestic</td></tr>
<tr><td>April 20</td><td>42459</td><td>9925</td><td>2757</td><td>55141</td></tr>
<tr><td>May 20</td><td>254406</td><td>64559</td><td>11731</td><td>330696</td></tr>
<tr><td>June 20</td><td>201683</td><td>48210</td><td>10560</td><td>260453</td></tr>
<tr><td>July 20</td><td>207803</td><td>51438</td><td>11087</td><td>270328</td></tr>
<tr><td>August 20</td><td>207914</td><td>51109</td><td>10489</td><td>269512</td></tr>
<tr><td>September 20</td><td>207035</td><td>52450</td><td>10677</td><td>270162</td></tr>
</table>
</td>
</tr>
</table>

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 13th March 2000 and NOC no. CTE-65621 dated 19/11/2014. 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. Company is having two nos. of fire tenders, fully adequate hydrant system and trained staff, emergency response team(ERT) of trained workers, power supply from two source with emergency backup power provision from DG set as well grid and detailed on-site emergency plan. Mock drills are also carried out at regular interval.
vi	The project authorities shall strictly comply with the rules and guidelines under manufacturing, storage and import of hazardous chemicals rule 1989 as amended in October, 1994 and January, 2000.	Complied. We are complying with all the requirement of MSIHC rule 1989 as amended in October, 1994 and January, 2000 and having proper storage and handling system, Onsite emergency plan, Licenses, reporting, etc. The company complies with all stipulated norms of act made in CCA by GPCB are being complied. Excerpts of latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Annexure 1.
	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, 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. Genosorb 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 sparger / 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. . (Pl. see pg. no.33) Besides this online monitors in work area for parameters like Chlorine, HCl, 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 (Pl. see pg. no.33)
x	Solvent management shall be as follows: Reactor shall be connected to chilled brine condenser system.	Complied. All the reactors handling solvent are connected/attached with chilled brine condenser for solvent recovery.

	Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied. All the reactors and pumps handling solvent are equipped with mechanical seals to prevent leakages.
	The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.	Complied. The condensers provided are properly designed with respect to HTA and Residence time to achieve more than 95 % recovery. As mentioned above, average 96 % solvent recovery is being achieved.
	Solvents shall be stored in a separate space specified with all safety measures.	Complied. Solvents are stored in tank farms in separate tanks with proper earthing, flame arresters, lightening arresters, fencing, Fire hydrant system, Fire extinguishers, flame proof equipment, etc. safety measures.
	Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.	Complied. Double earthing is provided and regular checking and testing of the same is being done and recorded.
	Entire plant shall be flame proof.	Complied. Plants are equipped with Jumpers, flame proof electrical fittings and proper earthing as per the Hazardous area classification of PESO.
	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.

<table>
<tr><td></td><td>Company shall develop an area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.</td><td>Complied.

Company has developed green belt and dense plantation inside and outside the factory in more than 33 % of total land. Company is having green belt development plan and planting more than about 50000 plants per year on regular basis.</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.</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:
Pre-Employment Check-up (in –house):

<table>
<tr><th>Sr. No.</th><th>Employee</th><th>Qty</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">2688</td><td rowspan="3">Pre-Employment</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>

Annual Medical Check-Up:

<table>
<tr><th>Sr.No.</th><th>Employee</th><th>Qty</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1024</td><td rowspan="3">Annual Checkup</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. Excerpts of latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Annexure 1.
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**. (Pl. see pg. no. 28)
	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**. . (Pl. see pg. no.28) 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. . (Pl. see pg. no.32)</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. (Pl. see pg. no. 28)</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. (Pl. see pg. no. 34)

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 Apr 20 – Sep 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>Near Main guest house</td><td>75</td><td>61.20</td><td>63.60</td><td>62.20</td></tr>
<tr><td>2</td><td>Near TSDF</td><td>75</td><td>63.70</td><td>65.80</td><td>64.56</td></tr>
<tr><td>3</td><td>At Wyeth Colony</td><td>75</td><td>54.60</td><td>56.70</td><td>55.78</td></tr>
<tr><td>4</td><td>Gram Panchayat Hall</td><td>75</td><td>62.50</td><td>66.50</td><td>64.50</td></tr>
<tr><td>5</td><td>Near Main Office North site</td><td>75</td><td>60.20</td><td>64.70</td><td>62.54</td></tr>
<tr><td>6</td><td>North site ETP</td><td>75</td><td>64.50</td><td>69.80</td><td>67.02</td></tr>
<tr><td>7</td><td>Opposite shed D</td><td>75</td><td>64.80</td><td>71.30</td><td>68.88</td></tr>
<tr><td>8</td><td>West site ETP</td><td>75</td><td>64.50</td><td>67.60</td><td>65.88</td></tr>
<tr><td>9</td><td>Haria water tank</td><td>75</td><td>61.20</td><td>64.30</td><td>62.62</td></tr>
<tr><td>10</td><td>66KVA substation</td><td>75</td><td>63.80</td><td>66.00</td><td>64.70</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 Apr 20 – Sep 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>Near Main guest house</td><td>70</td><td>52.10</td><td>54.40</td><td>52.92</td></tr>
<tr><td>2</td><td>Near TSDF</td><td>70</td><td>54.50</td><td>56.50</td><td>55.12</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>3</td><td>At Wyeth Colony</td><td>70</td><td>50.30</td><td>52.60</td><td>51.42</td></tr>
<tr><td>4</td><td>Gram Panchayat Hall</td><td>70</td><td>54.50</td><td>56.70</td><td>55.56</td></tr>
<tr><td>5</td><td>Near Main Office North site</td><td>70</td><td>53.70</td><td>58.50</td><td>56.62</td></tr>
<tr><td>6</td><td>North site ETP</td><td>70</td><td>54.20</td><td>57.30</td><td>55.56</td></tr>
<tr><td>7</td><td>Opposite shed D</td><td>70</td><td>56.50</td><td>58.70</td><td>57.74</td></tr>
<tr><td>8</td><td>West site ETP</td><td>70</td><td>55.10</td><td>56.80</td><td>55.94</td></tr>
<tr><td>9</td><td>Haria Water tank</td><td>70</td><td>52.60</td><td>55.80</td><td>54.20</td></tr>
<tr><td>10</td><td>66KVA substation</td><td>70</td><td>55.10</td><td>57.30</td><td>56.38</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>
</table>

	All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	Since ToR didn't suggest for EIA or public hearing, no such recommendations mentioned. However, recommendations made in respect of adequacy report for the referred project are complied and compliance report submitted vide our letter dated July 07, 2020
xi	The company will undertake all relevant measures for improving the socio economic condition for the surrounding area, CSR activities will be undertaken by involving local villages and administration:	Complied. Company is doing CSR activities through its Atul Rural Development Fund trust and is specially designed for up gradation of surrounding area and well fare of nearby localities. List of CSR activities carried out during April 20- September 20 is given in Table 7 (Pl. see pg. no.35)
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.

<table>
<tr>
<td>xiii</td>
<td>A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.</td>
<td>Complied.

Company is having separate Environmental Management Cell equipped with full-fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is also established for research work for the study of various aspects related to environment and its remedial measures.
Company has developed a separate laboratory equipped with equipment such as pH meter, TDS meter, COD meter, Glass ware, gas chromatography system, and oven, muffle furnace, etc. to carry out testing of routine parameters. However sampling and testing is carried out by GPCB approved and company appointed consultant also. Currently the parameters measured in-house are pH, COD, TDS, MLVSS, and MLSS.</td>
</tr>
<tr>
<td>xiv</td>
<td>The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.</td>
<td>Complied.

EMP measures are implemented by 2010.

Recurring cost: A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities. Total expenditure for the report period is given in below table.
<table>
<tr><th>Sr.No.</th><th>Parameter</th><th>Recurring Cost (Rs. In lacs)
For the report period
Apr 20 – Sep 20</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2069.24</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>19.05</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>293.46</td></tr>
<tr><td>5</td><td>Occupational health</td><td>15</td></tr>
<tr><td>6</td><td>Green belt</td><td>5</td></tr>
<tr><td colspan="2">Total</td><td>2401.75</td></tr>
</table>
</td>
</tr>
</table>

xv	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation. Urban local body and the local NGO, if any, from who suggestions/representation, if any, were received while processing the proposal.	Complied. Latest submission to the Panchayat, Zila parishad, District Industrial Centre was distributed on 11.11.2016. Copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.
	The clearance letter shall also be put on the web site of the company by the proponent.	Complied. Available at company's website at www.atul.co.in
xvi	The implementation of the project vis-à-vis environmental action plan shall be monitored by Ministry's Regional office at Bhopal / SPCB / CPCB.	Complied. SPCB and MoEF is monitoring through their regular visits.
xvii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forest at http://www.envfor.	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.

	ni.in.	
	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Ministry's Regional office at Bhopal.	Complied. Advertisement was published as directed and copy of the same was submitted to Ministry vide our letter dated 14.11.2009.
xviii	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and final approval of the project by the concerned authorities and the date of start of the project.	Complied. Start date: May 2009 Completion date : May 2010 Final approval: We have obtained NOC and CCA from GPCB. Company has funded the project internally and hence not submitted the financial closure details.
8	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.

9	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted and will be complied.
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 Transboundry movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

Table 1: Quality of treated effluent

Sr. No.	Parameter	Results					GPCB Limits
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	pH	7.3	7.6	7.9	7.4	7.5	5.5 to 9.0
2	Temperature °C	32	33	32.5	31.7	31.9	40 oC
3	Colour (pt. co. scale)in units	60	50	65	50	60	---
4	Suspended solids, mg/l	48	64	78	92	75	100
5	Phenolic Compounds, mg/l	0.03	0.04	0.08	0.04	0.03	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.5	0.6	0.5	0.4	0.5	2
8	Sulphides, mg/l	1.4	1.1	1.5	1.2	1.6	2
9	Ammonical Nitrogen, mg/l	30	22	28	34	39.8	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27°C), mg/l	55	45	50	41	48	100
13	COD, mg/l	180	156	172	144	162	250
Note: ND is Not Detectable.							

Table: 2 Stack Results

				MAY, 2020	JUNE, 2020	JULY, 2020	AUG, 2020	SEPT., 2020
Details of Process and Flue stack								
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site								
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	32	40	58	41	33
2	Reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND
Caustic Chlorine Plant								
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	3.5	3.2	4.9	Not running	Not running
		HCl	20.0 mg/Nm3	5.8	5.6	5.1		
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	8.4	4.9	7.1	4.1	6.6
		HCl	20.0 mg/Nm3	12.9	8.2	7.4	6.2	7.8
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
		NOx	25.0 mg/Nm3					
Sulfuric Acid (East Site)								
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	1.3	0.6	1.6	1.35	1.7
		Acid Mist	50.0 mg/Nm3	29.5	11.3	23.8	13.8	18.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.9	4.3	8.4	7.2	6.2
		HCl	20.0 mg/Nm3	5.3	13.6	8.6	7.4	6.4
Resorcinol Plnat								
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	25	27	38	0.95	2.95
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	32.7	8.3	30.1	33.6	29.3
Incinerator								
10	Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.1	63.8	54.1
		SO_2	40.0 mg/Nm3		12.2	18.6	11.7	14.2
		NOx	25.0 mg/Nm3		15.4	20.7	23.2	19.9
NI Plant								
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	27.8	Not Runnig During Visit	31.6	28.6	24.2
		NOx	25.0 mg/Nm3	15.6		19.4	21.8	17.8
2-4-D Plant								
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	8.1	5.4	5.2	7.1	5.1
		HCl	20.0 mg/Nm3	8.3	7.3	5.1	7.3	7.3
		Phenol	--	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	14.2	7.4	9.4	8.1	11.8
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	16.8	6.8	10.1	8.2	9.8
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	15.7	7.3	8.6	14.1	18.3
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	18.9	11.4	7.2	9.8	15.9
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Runnig Durtng Visit	9.2	Not running	6.2	10.3

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
19	Scrubber S-902	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	12.4	4.2	17.8	18.2	13.6
		NOx	25.0 mg/Nm3	12.2	7.7	24.8	18.7	23.1
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant								
21	MCPA	Cl_2	9 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/NM^3					
		SO_2	40 mg/NM^3					
22	Fipronil	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
23	Imidacloprid	NH_3	175 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
25	Stack at Amine Plant	NH_3	175 mg/Nm3	108.0	16.3	Not Runnig	136	115
MPSL Plant								
26	Phosgene Scrubbr at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
NICO plant								
28	Central scrubber at Nico Plant	Acetonytryle, IPA	---	-	-	-	-	-
Ester Plant								
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
31	MPP plant scrubber	HCl	20 mg/Nm3	13.1	Not Runnig During Visit	13.2	9.8	12.4
		Phosgene	0.1 ppm	ND		ND	ND	ND
Atul West Site								
32	Shed A05/03/44	Cl_2	9 mg/NM^3	5.1	7.3	6.3	Not Runnig	Not Running
		HCl	20 mg/NM^3	5.24	11.3	6.2		
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	7.8	5.3	7.4	8.4	Not Running
		HCl	20.0 mg/Nm3	10.3	8.2	7.5	8.6	
34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	36.4	14.2	21.6	5.38	24.8
		Cl_2	9 mg/NM^3	7.7	5.6	8.8	5.2	7.1
		HCl	20 mg/NM^3	7.9	7.3	9	9	8.3
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	6.3	8.4	Not Runnig	Not Running
		HCl	20.0 mg/Nm3		12.1	8.1		
36	Shed D Niro Spray dryer No. 45	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.8	37.6	Not Running
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	44.6	51.2	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.6	4.1	8.1	8.1	6.5
		HCl	20.0 mg/Nm3	17.4	7.3	8.4	8.3	14.8

40	Shed G 10/8/1 (receiver)	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20.0 mg/Nm3					
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	6.9	3.3	7.9	7.3	3.5
		HCl	20.0 mg/Nm3	14.2	8.1	7.6	14.4	14.4
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	Not Runnig During Visit	0.6	1.6	1.25	1.3
		Acid Mist	50.0 mg/Nm3		11.3	2.8	3.9	4.4
43	Shed J15/09/25	HBr	--	Not Runnig During Visit	Not Runnig During Visit	ND	ND	Not Running
		SO_2	40 mg/NM^3			16.8	23.9	
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/42	SO_2	40 mg/NM^3	21.8	Not Runnig During Visit	26.4	20.3	29.7
		Cl_2	9.0 mg/Nm3	5.9		5.4	8.1	5.2
		HCl	20.0 mg/Nm3	6.1		13.8	8.3	5.34
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	21.8	29.9	22.3
		HCl	20.0 mg/Nm3			17.2	14.8	13.9
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	5.7	8.4	3.9	6.2	5.9
		HCl	20 mg/NM^3	5.85	14.2	12.8	6.4	11.1
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	29.8	11.6	20.6	26.1	24
48	Sulfer Black Plant	H_2S	--	Not Runnig During Visit	ND	24.8	ND	ND
		NH_3	175 mg/NM^3		17.5	19.4	98	105
49	Sulfer Dyes plant	H_2S	--	Not Runnig During Visit	ND	19	ND	ND
		NH_3	175 mg/NM^3		11.3	30.4	33.1	37.2
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
Atul North Site								
51	N-FDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
		SO_2	40.0 mg/Nm3					
		NOx	25.0 mg/Nm3					
		Formaldehyde	10.0 mg/Nm3					
52	PHIN Plant	Phosgene	0.1 ppm	Not Runnig During Visit	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	5.2	7.3	7.4	5.8	3.15
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	Not Runnig During Visit	43.2	Not Runnig	Not Runnig	Not Running
55	SPIC II Plant (DCDPS)	SO_3	---	25.4	ND	15.1	ND	ND
56	SPIC I Plant	NH_3	175 mg/Nm3	140	62.4	120	120	126
57	SPIC IV Plant	NH_3	175 mg/NM^3	112	69.6	58	63	92
		SO_3	---	15.1	4.3	15.8	ND	ND
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site								
1	FBC boiler E1	PM	100 mg/Nm3	62	80	61.6	Not Runnig	71
		SO_2	600 mg/Nm3	111	121	144		142
		NOx	600 mg/Nm3	106	106	138		176
2	FBC boiler E2	PM	100 mg/Nm3	not running during this month	86	71.8	64.1	Not Running
		SO_2	600 mg/Nm3		110	126	134	
		NOx	600 mg/Nm3		118	121	110	
3	FBC boiler E3	PM	100 mg/Nm3	not running during this month	78	66.2	76.1	50.8
		SO_2	600 mg/Nm3		116	136	140	163

		NOx	600 mg/Nm3		124	130	126	198
4	Hot Oil Unit	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
	(Resorcinol Plant)	SO_2	100 ppm		ND	ND		
		NOx	50 ppm		28	31		
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	Stand by	Stand by	38.6	44.6	36.4
		SO_2	100 ppm			5.2	4.9	6.2
		NOx	50 ppm			46.4	48.2	41.7
West Site								
6	FBC boiler W1	PM	100 mg/Nm3	54.8	59	62.4	83.6	71.8
		SO_2	600 mg/Nm3	120	123	124	156	156
		NOx	600 mg/Nm3	126	119	119	122	198
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
		SO_2	100 ppm		ND	ND		
		NOx	50 ppm		23	26		
8	Oil burner Shed B	PM	150.0 mg/Nm3	Stand by	Stand by	Not Runnig	Not Runnig	Not Runnig
	(Stand By)	SO_2	100 ppm					
		NOx	50 ppm					
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	41.9	37	44.7	41.2	46.1
		SO_2	600 mg/Nm3	109	113	132	140	128
		NOx	300 mg/Nm3	92	108	128	136	160
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND
10	DG set 1500 KVA	PM	150.0 mg/Nm3	Stand by	Stand by	32.4	30.8	53.8
	(Stand By)	SO_2	100 ppm			4.4	5.2	7.2
		NOx	50 ppm			42.8	42.4	36.8
North Site								
11	Thermic fluid heater of	PM	150.0 mg/Nm3	not running during this month	ND	43.6	33.8	54.2
	DCO/DAP Plant	SO_2	100 ppm		ND	14.8	9.8	16.2
		NOx	50 ppm		29	30.1	21.6	24.8

Table 3: Ambient Air Monitoring details

Station	Parameter	Limit microgm/NM^3	May 20	Jun 20	Jul 20	Aug 20	Sep 20
66 KV	PM 2.5	60	38.1	37.9	22.5	22.4	28.1
	PM10	100	54	53	43.3	43.4	54.8
	SO2	80	12.6	11.7	9.2	9.3	13.8
	NOx	80	13.6	16.3	13.8	11.7	13.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30	32	21.3	20.1	22.5
	PM10	100	50	52	50.2	48.2	50.3
	SO2	80	7.4	8.5	9.5	8.4	12.6
	NOx	80	10.3	11.2	15.1	11.5	12.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
West site ETP	PM 2.5	60	34	36	20	18	20
	PM10	100	53	55	42	40	42
	SO2	80	6.6	7.7	7.3	6.4	7.3
	NOx	80	9.4	10.5	8.2	7.8	8.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
North ETP	PM 2.5	60	38	40	26	24	26
	PM10	100	52	54	41	39	41
	SO2	80	8.2	9.3	6.2	5.8	6.7
	NOx	80	12.1	13.3	7.1	6.7	7.6
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	40	42	22	20	24
	PM10	100	48	50	45	43	45
	SO2	80	9.3	10.2	5.3	4.4	5.3
	NOx	80	11.4	12.5	6.4	5.3	6.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	22	24	21	19	21
	PM10	100	50	47	50	48	50
	SO2	80	7.1	6.2	7.1	6.2	7.3
	NOx	80	7.5	7.3	7.3	6.8	7.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	24	26	24	22	24
	PM10	100	50	48	46	45	47
	SO2	80	7.2	7.8	7.5	6.4	7.1
	NOx	80	7.1	8.1	6.2	5.9	6.2

	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	25	27	25	23	25
	PM10	100	51	53	49	47	49
	SO2	80	7.8	8.2	6.5	5.6	6.5
	NOx	80	6.5	7.3	6.9	5.1	6.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	21	23	23	21	23
	PM10	100	55	53	43	41	43
	SO2	80	6.8	7.5	6.5	7.1	8.2
	NOx	80	7.8	8.2	7.6	7.1	8.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	34.8	33.6	14.2	15.3	26.5
	PM10	100	54.6	53.3	46.7	45.7	56.8
	SO2	80	11.8	10.6	6.8	7.6	13.5
	NOx	80	14.5	9.5	16.3	11.8	12.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND

Table 4: Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit	Results of VOCs in Milligram per NM^3				
				May 20	Jun 20	Jul 20	Aug 20	Sep 20
2,4 D	Reactor	Phenol	19	14.8	17.2	14.1	10.3	18.5
	Buffer tank	Chlorine	3.0	1.1	0.8	1.25	2.1	2.6
Resorcinol	Benzene storage tank area near vent	Benzene	15	8.9	6.2	9.4	5	6.9
	Near Extraction/scrubber unit	Butyl acetate	-	518	546	495	564	740
Pharma	At second floor work area	Ammonia	18	ND	ND	ND	ND	ND
	Ammonia recovery area	Ammonia	18	ND	ND	ND	ND	ND
Epoxy - I	At vacuum pump 2nd floor	ECH	10	6.9	3.1	2	3.6	4.8
	At vessel POS 1208 G.F	ECH	10	8.2	6.2	3.9	2.4	3.9
Shed H	At second floor work area	Nitrobenzene	5	3.9	3.1	4.4	1.3	2.1
Shed J	Buffer Tank	Chlorine	3	ND	ND	2.1	1.7	ND

Table 5: Noise level monitoring data (Day Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	Near Main guest house	61.20	62.30	61.40	62.50	63.60	75
2	Near TSDF	63.70	64.80	63.70	64.80	65.80	75
3	At Wyeth Colony	56.40	55.50	54.60	55.70	56.70	75
4	Gram Panchayat Hall	62.50	63.60	64.50	65.40	66.50	75
5	Near Main Office North site	60.20	61.30	62.70	63.80	64.70	75
6	ETP North site	65.60	66.50	64.50	68.70	69.80	75
7	Opposite shed D	64.80	68.40	69.50	70.40	71.30	75
8	ETP West site	64.50	65.40	67.60	65.40	66.50	75
9	Haria Water tank	62.10	61.20	62.30	63.20	64.30	75
10	66KVA substation	64.70	63.80	64.00	65.00	66.00	75

Table 6 : Noise level monitoring data (Night Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	70
1	Near Main guest house	52.10	53.30	52.40	52.40	54.40	70
2	Near TSDF	54.50	55.60	54.50	54.50	56.50	70
3	At Wyeth Colony	52.50	51.40	50.30	50.30	52.60	70
4	Gram Panchayat Hall	56.50	55.60	54.50	54.50	56.70	70
5	Near Main Office North site	53.70	57.30	56.80	56.80	58.50	70
6	ETP North site	57.30	56.20	54.80	54.20	55.30	70
7	Opposite shed D	58.50	57.40	56.50	57.60	58.70	70
8	ETP West site	56.50	55.60	55.10	55.70	56.80	70
9	Haria Water tank	55.80	54.30	52.60	53.70	54.60	70
10	66KVA substation	57.30	56.20	55.10	56.20	57.10	70

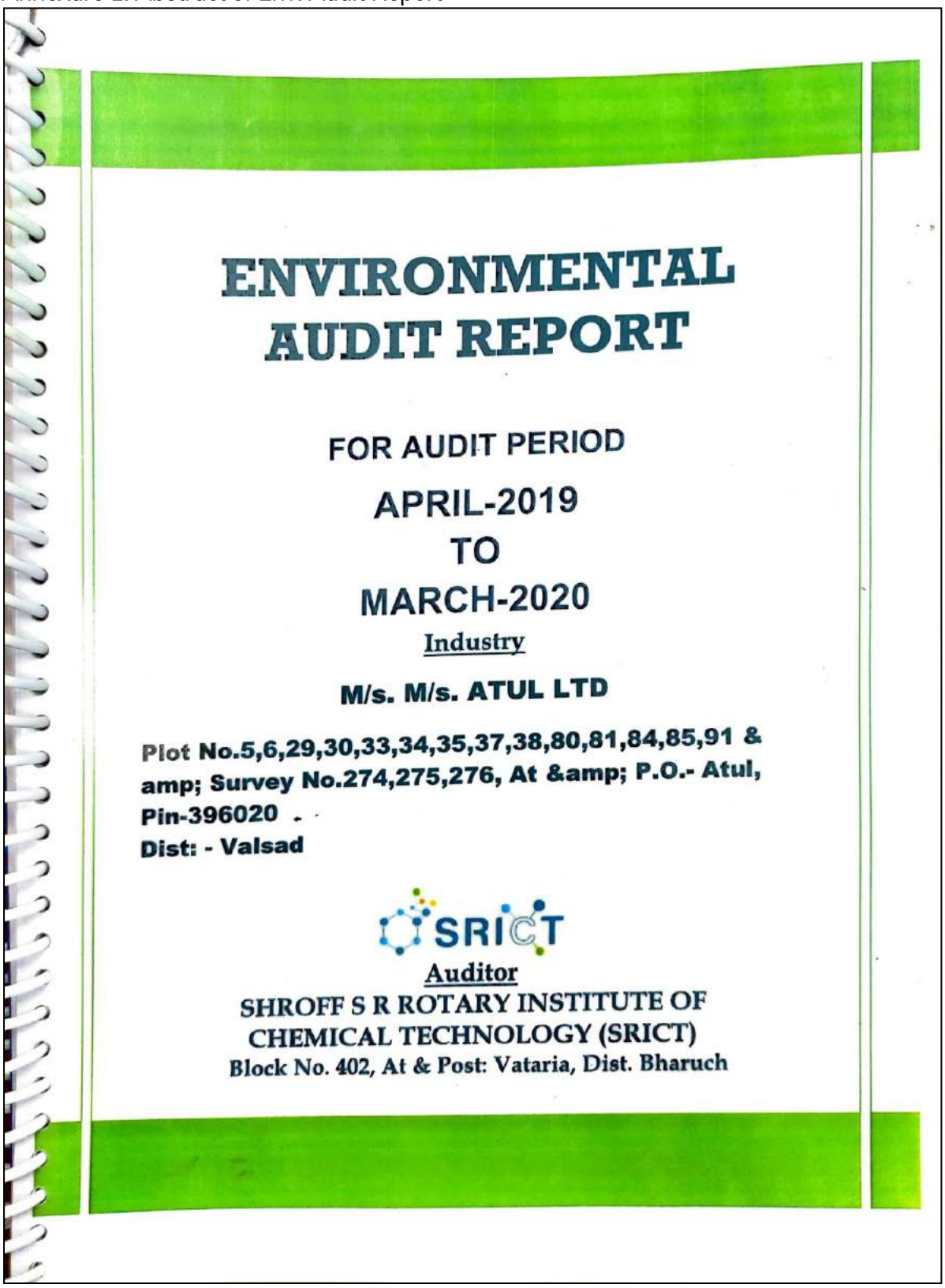
Table 7: CSR Activities

Atul Limited						
CSR projects April 2020 to September 2020						
No.	Programme	Description	Location	Final Implementing Agency	Estimated budget FY 2020-21 (₹ in lakhs)	Expenditure April 20 to September 20 (₹ in lakhs)
1	Education	Enhancement of education practices in Kalyani Shala	Atul, Valsad (Gujarat)	AFT | Atul Kelavani Mandal	75.00	4.14
2	Education	Enhancement of education practices in Atul Vidya Mandir	Atul, Valsad (Gujarat)	AFT | Atul Vidyalaya Trust	6.00	0
3	Education	Imparting training to women to become skilled elementary school teachers (Adhyapika) to improve rural education	Valsad (Gujarat)	AFT | ARDF	60.00	26.51
4	Education	Sporting a tribal school ,M D Desai school Chondha	Chondha, Navsari (Gujarat)	AFT	5.00	2.51
6	Education	ARDF activities	Atul, Valsad (Gujarat)	AFT | ARDF	50.00	23.82
7	Empowerment	Skill training to youth as apprentice	Atul, Valsad (Gujarat)	Atul	180.00	0
8	Health	Nutrition Garden project	Villages of Valsad (Gujarat)	AFT | BAIF	15.00	0
10	Relief	Relief for COVID - 19	Valsad (Gujarat)	AFT	600.00	561.60
11	Infrastructure	Atul Model Village Project	Atul, Valsad (Gujarat)	AFT	30.00	0

12	Infrastructure	Support to schools and institutes in Ankleshwar	Ankleshwar, Bharuch (Gujarat)	AFT	10.00	2.89
13	Infrastructure	Development of Ulhas Cricket ground	Atul, Valsad (Gujarat)	AFT	20.00	0
14	Conservation	Afforestation	Atul, Valsad (Gujarat)	Atul	5.00	0
15	Conservation	Solid waste Management project	Valsad (Gujarat)	AFT	50.00	15.09
16	Conservation	Nature based sewage treatment plant	Atul, Valsad (Gujarat)	AFT	50.00	0
17	Other	Support to other institutes	Gujarat, India	AFT	44.00	0
18	Administration expense				50.00	0
	Total				1,250.00	636.56

Remark: Due to COVID-19 many budgeted activities could not initiated/completed

Annexure 1: Abstract of Env. Audit Report



ENVIRONMENTAL AUDIT REPORT

FOR AUDIT PERIOD

APRIL-2019

TO

MARCH-2020

Industry

M/s. M/s. ATUL LTD

Plot No.5,6,29,30,33,34,35,37,38,80,81,84,85,91 & Survey No.274,275,276, At & P.O.- Atul, Pin-396020 - Dist: - Valsad

SRICT

Auditor

SHROFF S R ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY (SRICT)

Block No. 402, At & Post: Vataria, Dist. Bharuch

OBSERVATION:

- Industry has valid CC&A number AWH-105110 which shall be valid up to 30/09/2025.
- The water and fuel consumptions are within the limits.
- Total Production of the industry increased up to 8.65 % in year 2019-20 from the previous audit year 2018-19.
- Electricity consumption increased up to 1.21 % in year 2019-20 from the previous audit year 2018-19.
- Water consumption is decreased up to 7.64 % in year 2019-20 from the previous audit year 2018-19. This indicates the various efforts of water conservation taken by the company.
- Wastewater generation is also decreased up to 2.63 % in year 2019-20 from the previous audit year 2018-19.
- Company has received certified compliance report for its recent Environmental Clearance for expansion of existing production and addition of new products.
- Company has applied for 50MW CPP.
- Company has successfully launched 5 S system implementation program.
- Company has a proper platform with electrical connection for ambient air monitoring.
- Record of the data of CETP chemical, Water consumption and Wastewater generation are maintaining regularly.
- Overall housekeeping is satisfactory.
- Company has initiated construction of one more ETP having capacity 450 KLD to treat segregated steam from Pharmaceutical intermediate plan.
- Industry has provided PPE in all the unit and used well in different area of working.
- Stack identification at site is done for most of the stack. It shall be done for remaining stacks also.
- Total and individual production is within the consented quantity given by GPCB.
- Industry has appointed full time doctor and adequate facility for treatment within the premises.

Recommendations:

- Company shall upgrade its online treated effluent monitoring system.
- Company shall repair and/or make asphalt concrete/RCC roads to minimize dusting on internal roads.
- Company shall obtain stability certificate for its TSDF site.
- Company shall plan for ZLD for the ongoing South ETP project for Pharmaceutical intermediate plant stream.
- Company shall provide proper identification plat with information regarding limits and stack in all the north and west site plant.
- Company shall update its online OCEMS facility in phase wise manner for auto calibration for stacks.

ANNEXURE – 30
COMPLIANCE REPORT

Sr.No.	CONSENT REQUIREMENT	COMPLIANCE STATUS
1	Consent No. AWH - 105110 dated 16.11.2019	Noted.
	Validity up to 30.9.2025	
2	Production capacities of different products [Total 478922.004 TPA]	Complied
Specific Condition		
	The unit shall manufacture the Phosgene gas in fully automated plant having multilevel of safety provisions.	Complied.
	Unit will utilize the Phosgene gas immediately after its generation for captive purpose only	Complied.
	Unit shall establish and maintain onsite emergency plan and carry out mock drill as per period decided	Complied.
	Unit shall submit production data of Phosgene every month to this office'	Complied.
	Unit shall install new 4 Kms length HDPE pipeline parallel to existing pipeline for disposal of treated waste water in the estuary of Par River at the identified point by NIO.	Complied.
	Unit shall use pipeline in case of emergency like breakdown, preventive maintenance only when old pipeline is under maintenance and unit shall get prior permission from Regional Office, Vapi before use of new pipeline	Complied.
	Unit shall comply undertaking dated: 08/07/2016 given with the board.	Complied.
	Unit shall comply coal handling guideline, spent solvent handling and management , spent acid management	Complied.
3. Condition under the water (prevention and control of pollution)Act 1974		
3.1	<table><tr><th>Particulars</th><th>Actual</th><th>Consented</th></tr><tr><td>Water Consumption (Industry + domestic)</td><td>9371 KL/Day</td><td>28358 KL/Day</td></tr><tr><td>Industrial effluent (Low + High COD)</td><td>8643 KL/Day</td><td>24096 KL/Day</td></tr><tr><td>Sewage generated</td><td>365 KL/Day</td><td>939 KL/Day</td></tr></table>	Complied.
3.2	Total quantity of effluent generated from manufacturing process and other ancillary operation shall not exceed 24096 KLD.	Complied

3.3	20514 KLD (excluding quantity of M/s. Atul Bioscience Ltd. =438.63 KLD) waste water shall be treated in ETP and then discharged into par river through 4 km Pipeline.	Complied
3.4	1000 KLD waste water shall be sent to RO/MEE. 800 KLD RO permeates shall be recycled into cooling tower. 200 KLD RO reject shall be sent to MEE. 190 KLD recovered MEE water shall be recycle into cooling tower. 10 MT MEE salt shall be sent to TSDF. 2500 KLD waste water shall be sent to RO/MEE. 2000 KLD RO permeates shall be recycled into cooling tower. 150 KLD RO reject water shall be utilized for quenching/Ash cooling. 350 KLD RO reject shall be sent to MEE. 345 KLD recovered MEE water shall be recycled into Boiler. 5 MT MEE salt shall be sent to TSDF. 82 KLD high COD waste water shall be sent to incinerator. The quantity of the domestic waste water (sewage) shall not exceed 322 KLD.	Complied.
3.5	Trade Effluent	
3.6	The treated effluent from the industrial unit shall conform to the GPCB norms mentioned in table no. 3.6	Complied.
	All efforts shall be made to remove Colour & unpleasant odor as far as practicable.	Complied
3.7	The final treated effluent from central ETP confirming to the above standard shall be collected in the guard pond and then discharged through closed pipeline to estuary zone of river Par via diffuser.	Complied
3.8	Domestic effluent shall be sent to ETP.	Complied.
4. CONDITION UNDER (PREVENTION AND POLLUTION) ACT 1981: THE CONTROL OF AIR		
4.1	(a) The table no. 4.1(a) shall be used as fuel. (b) The table no. 4.1(b) shall be used for captive power consumption.	
4.1a	Fuel consumption figures for boilers /Heaters	Complied

Fuel:	**Consumption for 2019-20 Quantity/year (MT)**
Coal	299614.8
Lignite	56763.89
Total	356378.7
Diesel	9135 Ltr/Year

4.1b	List of boilers for captive power consumption	Noted
4.2	The applicant shall install & operate air pollution control system in order to achieve norms prescribed in table no. 4.3	Complied
4.3	The flue gas emission through stack attached to boiler shall confirm to the standard mentioned in table.	Complied.
4.4	The process emission through various stack / vent of reactors process, vessel shall confirm to the standards mentioned in 4.4	Complied.

4.5	The concentration of the following substances in the ambient air within the premises of the industry and at a distance of 10 meters from the source (other than the stack / vent with height of more than 9 ,meters from the ground level) shall not exceed the levels mentioned in table no. 4.5	Complied.
4.6	The applicant shall provide portholes, ladders, platform etc. at chimney(s) for monitoring the air emission and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S- 1, S-2, etc. and these shall be painted/displayed to facilitate identification.	Complied
4.7	The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB (a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6 a.m. and night time is reckoned between 10 p.m. and 6 a.m.	Complied.
5. GENERAL CONDITIONS:		
5.1	Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.	Noted
5.2	Management of Solid Waste generated from industrial activity shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).	Noted
6. Authorization under Hazardous and other waste (management and transboundary Movement) Rules -2016, Form-2 (See rule 6(2))		
6.1	Number of authorization: AWH-105110, Date of issue: 16/10/2019	Noted
6.2	Reference of application No. 163867 and date: 05/10/2019.	
6.3	M/S. ATUL LIMITED, is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated in Valsad.	
6.3	Haz. Waste disposal as stipulated.	Complied.
6.4	The authorization shall be valid for a period of 30/09/2025.	Noted
6.5	The authorization is subject to the following general and specific conditions:	
A. General conditions under Hazardous and other Wastes (Management and Transboundary Movement) Rules-2016;		
1.	The authorized person shall comply with the provision of the Environment (protection) Act, 1986, and the rules made there under.	Noted and Complied.
2.	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.	Noted.

3.	The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.	Noted and Complied.
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.	Noted.
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.	Complied.
6.	The person authorized shall comply with the provision outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"	Noted.
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.	Noted.
8.	The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.	Not Applicable as no Haz waste is imported.
9.	The record of consumption and fate of the imported hazardous and other wastes shall be maintained.	Not Applicable as no Haz waste is imported.
10.	The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific condition of authorization.	Complied.
11.	The importer or exporter shall bear the cost of import and export and mitigation of damages if any.	Not Applicable as no Haz waste is imported or exported.
12.	An application for the renewal of an authorization shall be made as laid down under these Rules.	Noted
13.	Any other conditions for compliance as per the guidelines issued by the Ministry of the Environment, Forest and climate Change or Central Pollution Control Board from time to time.	Noted and will be complied.
14.	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.	Complied.
B. Specific Conditions:		
1.	The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.	Noted.
2.	Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry into the passbook of the actual user.	Noted and complied.
3.	In case of renewal of authorization, a self- certified compliance report in respect of effluent, emission standard and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.	Noted.

4.	The occupier of the facility shall comply standard operating procedure/ guidelines published by MoEF&CC or GPCB from time to time.	Complied.
5.	Unit shall comply provisions of E-waste (Management) Rules-2016.	Complied.

<table>
<tr><th>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 and or prescribed limits. In such cases / occurrences we will intimate to board & authority time to time. In event of failure of APCM, the unit shall not restarted until the control measures are rectified to achieve efficiency.

Flue gas stack analysis is monitored 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 NABL approved TC-5945, issue date-28/05/2019 and validity till 27/05/2021.</td></tr>
<tr><td></td><td></td><td>The maximum value (SPM, SO_2 & NOx) 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 Apr. 20 – Sep. 20</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>50.8</td><td>86</td><td>68.7</td></tr>
<tr><td>PM(New Boiler)</td><td>50</td><td>mg/Nm^3</td><td>37</td><td>46.1</td><td>42.18</td></tr>
<tr><td>SO_2</td><td>600</td><td>mg/Nm^3</td><td>109</td><td>163</td><td>130.6</td></tr>
<tr><td>NOx</td><td>600</td><td>mg/Nm^3</td><td>106</td><td>198</td><td>133.5</td></tr>
<tr><td>NOx (New Boiler)</td><td>300</td><td>mg/Nm^3</td><td>92</td><td>160</td><td>124.8</td></tr>
</table>

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

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

The Ambient Air Quality is being monitored at regular interval for ensuring the compliance. The testing lab appointed is M/s. Royal Environment Auditing & Consultancy Service, Rajkot NABL Approved **TC – 5948**, issue date-**1/06/2019** and valid till **31/05/2021.**

The maximum value (PM2.5, PM10, SO_2, NOx, Ammonia, 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 gram/ NM^3	Values for the period Apr. 20 to Sep. 20		
			Min.	Max.	Avg.
66 KV	RSPM (PM2.5)	60	22.4	38.1	29.8
	PM10	100	43.3	54.8	49.7
	SO_2	80	9.2	13.8	11.32
	NOx	80	11.7	16.3	13.78
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Opposite Shed D	RSPM (PM2.5)	60	20.1	32	25.1
	PM10	100	48.2	52	50.14
	SO_2	80	7.4	12.6	9.28
	NOx	80	10.3	15.1	12.18
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Near West Site ETP	RSPM (PM2.5)	60	18	36	25.6

		PM10	100	40	55	46.4
		SO_2	80	6.4	7.7	7.06
		NOx	80	7.8	10.5	8.92
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Near North ETP	RSPM (PM2.5)	60	24	40	30.8
		PM10	100	39	54	45.4
		SO_2	80	5.8	9.3	7.24
		NOx	80	6.7	13.3	9.36
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	TSDF	RSPM (PM2.5)	60	20	42	29.6
		PM10	100	43	50	46.2
		SO_2	80	4.4	10.2	6.9
		NOx	80	5.3	12.5	8.36
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Main Guest House	RSPM (PM2.5)	60	19	24	21.4
		PM10	100	47	50	49
		SO_2	80	6.2	7.3	6.78
		NOx	80	6.8	7.5	7.28
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Wyeth Colony	RSPM (PM2.5)	60	22	26	24
		PM10	100	45	50	47.2
		SO_2	80	6.4	7.8	7.2
		NOx	80	5.9	8.1	6.7
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Gram Panchayat Hall	RSPM (PM2.5)	60	23	27	25
		PM10	100	47	53	49.8
		SO_2	80	5.6	8.2	6.92
		NOx	80	5.1	7.3	6.52
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND

		Main Office North Site	RSPM (PM2.5)	60	21	23	22.2
			PM10	100	41	55	47
			SO_2	80	6.5	8.2	7.22
			NOx	80	7.1	8.2	7.78
			Ammonia	850	ND	ND	ND
			HCl	200	ND	ND	ND
		Haria Water Tank	RSPM (PM2.5)	60	14.2	34.8	24.88
			PM10	100	45.7	56.8	51.42
			SO_2	80	6.8	13.5	10.06
			NOx	80	9.5	16.3	12.96
			Ammonia	850	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 07/12/2015 during the report period is attached as **Annexure II**

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, our 22 MW unit remain closed in April 20. Hence utility consumption was at the lowest.

2.	All measures shall be taken to prevent soil and ground water contamination	**Complied.** Kindly note that we are not extracting ground water as a source of water. 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.
3.	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	**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.** Latest Soil and Groundwater analysis report for year 2019-20 is attached as **Attachment A**.

<table>
<tr><td></td><td>waste water generation from the CPP and shall adopt the additional mitigation measures as may be suggested through such studies.</td><td></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 895 KL/day only which is well within the permissible limit of 2095 KL/Day. Detail break up is given in below table:

<table>
<tr><th>Sr. No.</th><th>Month</th><th>Qty. F/W (KL/Month)</th><th>Avg. Qty. F/W (KL/Day)</th></tr>
<tr><td>1</td><td>April 20</td><td>3543</td><td>118</td></tr>
<tr><td>2</td><td>May 20</td><td>26636</td><td>859</td></tr>
<tr><td>3</td><td>June 20</td><td>34560</td><td>1152</td></tr>
<tr><td>4</td><td>July 20</td><td>31650</td><td>1021</td></tr>
<tr><td>5</td><td>August 20</td><td>32720</td><td>1055</td></tr>
<tr><td>6</td><td>September 20</td><td>34985</td><td>1166</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. Water withdrawal permission from was submitted to your good office vide letter Atul/SHE/EC Compliance/06 dated 19.12.2019.</td></tr>
<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>
</table>

<table>
<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 in not exceeding prescribed limit of 270 KL/Day during report period. The average wastewater generation for the report period is 121 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 20</td><td>1000</td><td>33</td></tr>
<tr><td>2</td><td>May 20</td><td>3925</td><td>127</td></tr>
<tr><td>3</td><td>June 20</td><td>4056</td><td>135</td></tr>
<tr><td>4</td><td>July 20</td><td>4250</td><td>137</td></tr>
<tr><td>5</td><td>August 20</td><td>4368</td><td>141</td></tr>
<tr><td>6</td><td>September 20</td><td>4659</td><td>155</td></tr>
</table>
</td>
</tr>
<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. Entire quantity of waste water is being 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 proposed project in any case.</td>
</tr>
</table>

<table>
<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 soak pit / 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 20</td><td>0.32</td></tr>
<tr><td>2</td><td>May 20</td><td>0.47</td></tr>
<tr><td>3</td><td>June 20</td><td>0.59</td></tr>
<tr><td>4</td><td>July 20</td><td>0.55</td></tr>
<tr><td>5</td><td>August 20</td><td>0.62</td></tr>
<tr><td>6</td><td>September 20</td><td>0.71</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 100% treated water in ash quenching , coal storage yard to attend coal smoldering, dust suppression, fire hydrant make up, Gardening plants & floor cleaning. Hence, we are achieving ZLD. No waste water discharge to ETP from our 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>
</table>

<table>
<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 two 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 9.63 lac KL rain water during 2019.</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 for the report period is 14051 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>Avg. Fuel consumption MT</th></tr>
<tr><td>1</td><td>May 20</td><td>12981</td></tr>
<tr><td>2</td><td>June 20</td><td>14601</td></tr>
<tr><td>3</td><td>July 20</td><td>14230</td></tr>
<tr><td>4</td><td>August 20</td><td>13522</td></tr>
<tr><td>5</td><td>September 20</td><td>14921</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 monitored and analyzed 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 used has been carried out and Report had been submitted vide our letter Atul/SHE/EC Compliance/03 dated 30.6.18</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>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>
</table>

	Mercury gas emission from stacks shall also be monitored on periodic basis.	**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.**
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 42 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 year through a reputed institute. The monitoring has been carried out by GPCB approved (schedule-II) **M/s. Pollucon Laboratories Pvt.Ltd, surat** NABL approved **TC-5945**, issue date-**28/05/2019** and validity till **27/05/2021** and ESP efficacy found satisfactory (i.e. 99.9% efficiency).
20.	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.	**Complied.** We have adopted lime stone injection technology to control SO_2 emission in atmosphere as standard prescribed in the Environment (protection) Rules 1986 as amended from time to time and interconnected with the online emission monitoring system. **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

<table>
<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.

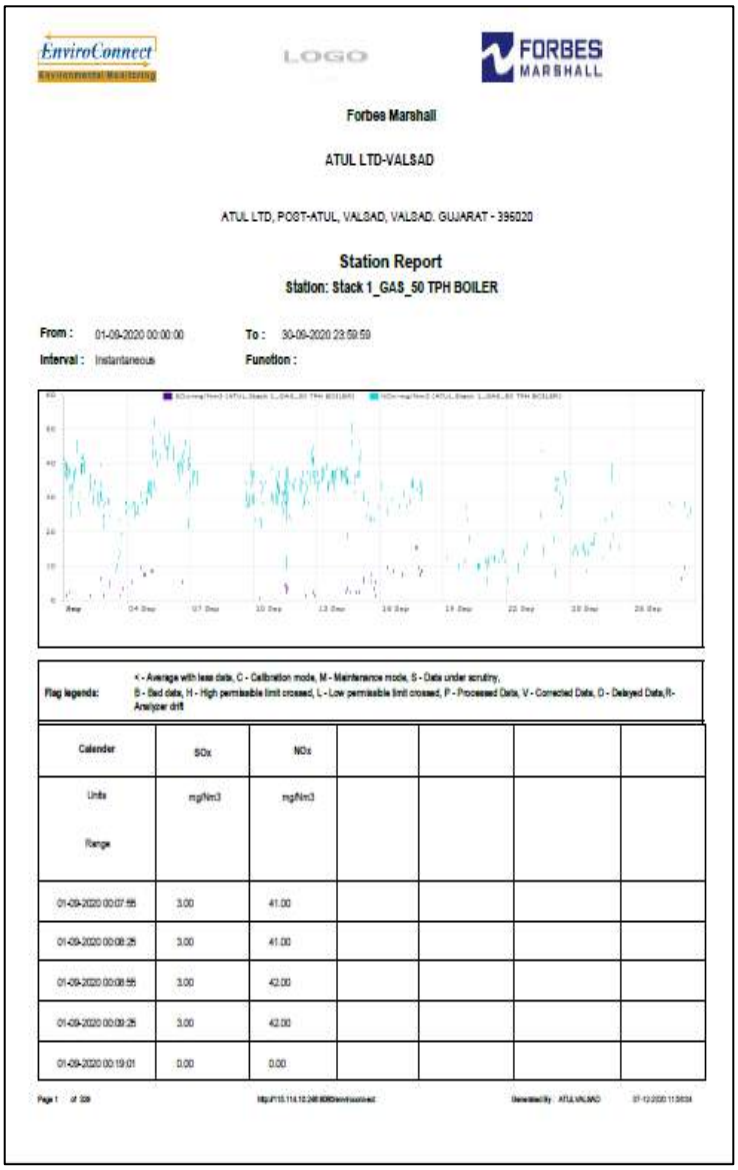
Our company is ISO 14001 certified company and regular preventive maintenance of all the critical equipment is a part of our system. We have standard preventive maintenance schedule / activities (monthly, By monthly, yearly) of mechanical and electrical parts or equipment's of ESPS. We have recorded the percentage completion of preventive maintenance assigned work as per schedule. These scheduled 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 20</td><td>6.9</td></tr><tr><td>2</td><td>May 20</td><td>2.7</td></tr><tr><td>3</td><td>June 20</td><td>0</td></tr><tr><td>4</td><td>July 20</td><td>5.1</td></tr><tr><td>5</td><td>Aug. 20</td><td>0</td></tr><tr><td>6</td><td>Sept. 20</td><td>5.5</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. 
	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 assessable by the constructed.

EnviroConnect
Environmental Monitoring

LOGO

FORBES MARSHALL

Forbes Marshall

ATUL LTD-VALSAD

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

Station Report

Station: Stack 1_GAS_50 TPH BOILER

From : 01-09-2020 00:00:00 **To :** 30-09-2020 23:59:59

Interval : Instantaneous **Function :**

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	NOx				
Units	mg/Nm3	mg/Nm3				
Range						
01-09-2020 00:07:55	3.00	41.00				
01-09-2020 00:08:25	3.00	41.00				
01-09-2020 00:08:55	3.00	42.00				
01-09-2020 00:09:25	3.00	42.00				
01-09-2020 00:19:01	0.00	0.00				

<table>
<tr>
<td>25.</td>
<td>Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No pond shall be constructed.</td>
<td>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 173 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:

<table>
<tr><th>Fly Ash</th><th>Unit</th><th>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sept 20</th></tr>
<tr><td>Generation</td><td>MT</td><td>4241</td><td>6311</td><td>5645</td><td>3713</td><td>6440</td></tr>
<tr><td>Disposal</td><td>MT</td><td>4241</td><td>6311</td><td>5645</td><td>3713</td><td>6440</td></tr>
</table>
Photograph of Closed silos for Fly ash / Bottom ash storage:



</td>
</tr>
<tr>
<td>26.</td>
<td>Handling of the fly ash shall be through a closed pneumatic system.</td>
<td>Complied.

We are handling of fly ash through a closed pneumatic system which is shown below:

Dense phase pneumatic ash handling system
</td>
</tr>
</table>

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 shuit, 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.  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, NOx, SO2 and Hg shall in the impact zone and its records shall be maintained.	**Complied.** We are regularly monitoring ground level concentration of PM2.5, PM10, NOx, 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. Still if these type of situation is come than 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.
A.4 SOLID/ HAZARDOUS WASTE:		
31.	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance from time to time.	Not Applicable There is no Hazardous waste generation in Captive Power Plant.
	Authorization from the GPCB shall be obtained for collection /treatment /storage disposal of hazardous waste	Complied. We have CCA Amendment No. AWH – 105110, dated. 16/11/2019. However, no hazardous waste is generated in Captive Power plant.
32.	Hazardous waste sludge shall be packed stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal.	Not Applicable. There is no Hazardous waste generation in this project.
33.	The used oil shall be sold to only to the registered recyclers / refiners.	Complied. Used oil is being sold to GPCB authorized vendor.
34.	The discarded containers / barrels /bags/ liners shall be sold only to the registered recycler.	Complied. No bags / liners are being utilized for Power Plant.

<table>
<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 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 173 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>May 20</th><th>Jun 20</th><th>Jul 20</th><th>Aug 20</th><th>Sep 20</th></tr><tr><td>Generation</td><td>MT</td><td>4241</td><td>6311</td><td>5645</td><td>3713</td><td>6440</td></tr><tr><td>Disposal</td><td>MT</td><td>4241</td><td>6311</td><td>5645</td><td>3713</td><td>6440</td></tr></table>
We have done agreement with Ambuja Cement for supply of dry ash.</td></tr>
<tr><td>37.</td><td>All possible efforts shall be made for co-processing of the Hazardous waste prior to disposal into TSDF/CHWIF.</td><td>Not Applicable.

There is no Hazardous waste generated in this unit.</td></tr>
<tr><td colspan="3">A.5 SAFETY:</td></tr>
</table>

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 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 valid authorization from GPCB towards handling of above mention waste vide CC&A Amendment No. 105110, dated. 16/11/2019. However, there is no hazardous waste generated in Captive Power Plant.
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. We will implement all the risk mitigation measures, general & specific recommendations mentioned in risk assessments report
41.	A well designed fire hydrants system shall be installed as per the prevailing standards	Complied. A well designed Fire 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 litre 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.
43.	First Aid Box and required antidotes for the chemical used in the unit shall be readily available in adequate quantity at all the times	Complied. First aid box are kept in each plant and at strategic locations whereas antidotes are kept in the medical Centre.

<table>
<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:
Pre-Employment Check-Up (In-house):
<table>
<tr><th>Sr. No.</th><th>Employee</th><th>Qty.</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">2688</td><td rowspan="3">Pre-employment</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>
Annual Medical Check-Up:
<table>
<tr><th>Sr. No.</th><th>Employee</th><th>Qty.</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1024</td><td rowspan="3">Annual Check-up</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 centre & pathology lab is equipped with necessary facilities under supervision of factory medical officer</td>
</tr>
</table>

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 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 employ 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 19.12.2019 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 machineries and equipment to reduce noise generation.	Complied. Proper oiling lubrication and preventive maintenance is carried out of the machineries 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.

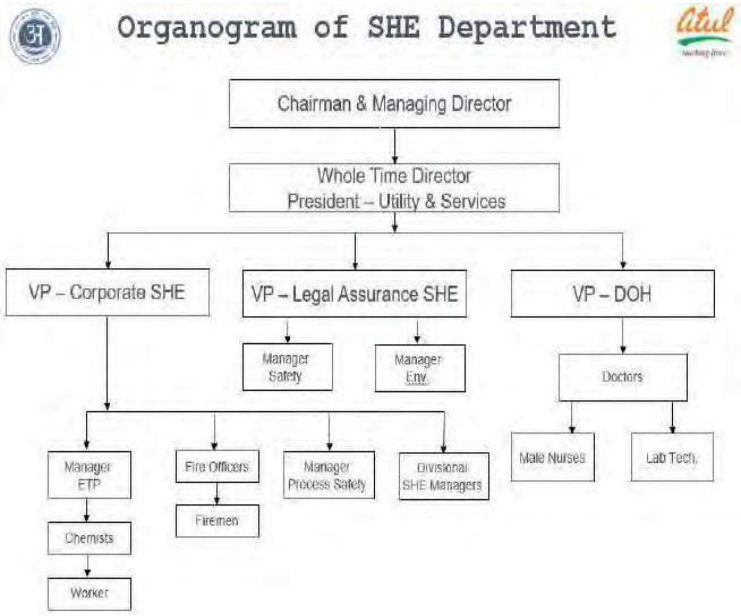
	The ambient noise levels shall confirm to the standards prescribed under the Environment (protection) Act and Rules. Workplace noise levels for workers shall be as per the factories Act and Rules.	**Complied.** The ambient and workplace noise level confirms to the standard prescribed under EPA. The same 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 (April 20 to September 20) is attached as **Annexure III.** Summary is given below: **Noise level monitoring data (Day Time)**

Sr. No.	Location	Permissible Limits, 75dB	Values for the period Apr. 20 to Sep. 20		
			Min.	Max.	Avg.
1	Near Main guest house	75	61.20	63.60	62.20
2	Near TSDF	75	63.70	65.80	64.56
3	At Wyeth Colony	75	54.60	56.70	55.78
4	Gram Panchayat Hall	75	62.50	66.50	64.50
5	Near Main Office North site	75	60.20	64.70	62.54
6	ETP North site	75	64.50	69.80	67.02
7	Opposite shed D	75	64.80	71.30	68.88
8	ETP West site	75	64.50	67.60	65.88
9	Haria Water tank	75	61.20	64.30	62.62
10	66KVA substation	75	63.80	66.00	64.70

Noise level monitoring data (Night Time)

Sr. No.	Location	Permissible Limits, 70dB	Values for the period Apr. 20 to Sep. 20		
			Min.	Max.	Avg.
1	Near Main guest house	70	52.10	54.40	52.92
2	Near TSDF	70	54.50	56.50	55.12
3	At Wyeth Colony	70	50.30	52.60	51.42
4	Gram Panchayat Hall	70	54.50	56.70	55.56
5	Near Main Office North site	70	53.70	58.50	56.62
6	ETP North site	70	54.20	57.30	55.56

		7	Opposite shed D	70	56.50	58.70	57.74
		8	ETP West site	70	55.10	56.80	55.94
		9	Haria Water tank	70	52.60	55.80	54.20
		10	66KVA substation	70	55.10	57.30	56.38
A.7 GREEN BELT AND OTHER PLANTATION:							
52.	The unit shall develop green belt in at least 68000 sq.m 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 **19.12.2019**.
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	**Noted &Complied** We are strictly adhere to stipulations made by the

	stipulations made by the Gujarat Pollution Control Board (GPCB), state government and statutory authority	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-alla 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.**

<table>
<tr><td>62.</td><td>The project proponent shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk .Assessments study repot as well as proposed by project proponent.</td><td>Complied.

All the recommendations suggested in the EMP report and Risk assessments study repot as well as proposed by us have been implemented.</td></tr>
<tr><td>63.</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as GPCB along with the implementation scheduled for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.</td><td>Complied.

EMP measures for the project are implemented and investment details submitted vide our letter Atul/SHE/EC Compliance/06 dated 19.12.2019.
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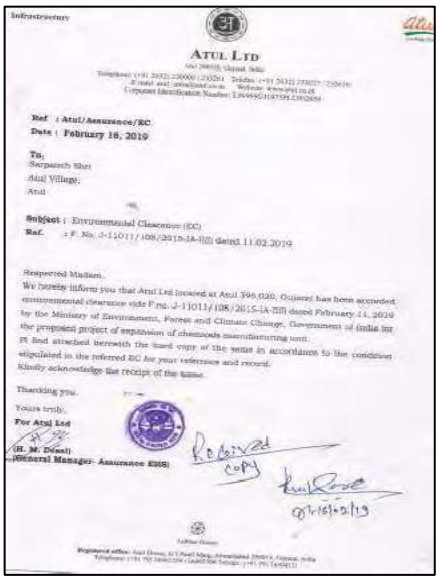
Further, a separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities. Total expenditure made for EMS compliances during the report period is given in below table:

<table>
<tr><th>Sr. No.</th><th>Parameter</th><th>Recurring Cost (Rs. In lacs)
Apr 20 – Sep 20</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2069.24</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>19.05</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>293.46</td></tr>
<tr><td>5</td><td>Occupational health</td><td>15</td></tr>
<tr><td>6</td><td>Green belt</td><td>5</td></tr>
<tr><td colspan="2">Total</td><td>2401.75</td></tr>
</table>
</td></tr>
</table>

64.	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and May also be seen at website of SEIAA / SEAC/ GPCB.	**Complied.** We have informed the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and also be seen at website of SEIAA/SEAC/GPCB.  ATUL LTD Ref : Atul/Assurance/EC Date : February 16, 2019 To, Sarpanch Shri Atul Village, Atul Subject : Environmental Clearance (EC) Ref. : F. No. J-11011/108/2015-IA-II(I) dated 11.02.2019 Respected Madam, We hereby inform you that Atul Ltd located at Atul 396 020, Gujarat has been accorded environmental clearance vide F.no. J-11011/108/2015-IA-II(I) dated February 11, 2019 by the Ministry of Environment, Forest and Climate Change, Government of India for the proposed project of expansion of chemicals manufacturing unit. It find attached herewith the hard copy of the same in accordance to the condition stipulated in the referred EC for your reference and record. Kindly acknowledge the receipt of the same. Thanking you. Yours truly, For Atul Ltd (H. M. Desai) General Manager- Assurance EHS) Received copy 16/2/19  ATUL LTD Ref. : Atul/Assurance/EC 2019/AEV Through Regr. AD Post Date : February 22, 2019 To, Regional Officer, Regional Office, Western Region, Kendriya Paryavaran Bhawan, Link Road No. 3, E-3, Ravi Shankar Nagar, Bhopal 462016, Madhya Pradesh. Subject : Advertisement for receiving EC Reference : EC F no. J-11011/108/2015-IA-II(I) dated February 11, 2019 Respected Sir, We have been accorded environmental clearance vide F no. J-11011/108/2015-IA-II(I) dated February 11, 2019 by the Ministry of Environment, Forest and Climate Change, Government of India for the proposed project of expansion of chemicals manufacturing unit. As per the condition no. xiii of referred EC, we have published the advertisement of receiving EC in leading newspapers of region; 2 nos. in vernacular language and one in English. All three advertise were published on 17th February 2019. Copy of same is attached herewith. Trust the same is in order. Submitted for your record please. Thanking you, Yours truly, For Atul Ltd. (H. M. Desai) General Manager- Assurance EHS)
	This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarat	**Complied.** We have given advertisement dated 29.05.2016 in local newspapers that are widely circulated in the region, one of which is given in the Gujarati language and the other in English.
	A copy each of the same shall be forwarded to the concerned Regional office of the Ministry.	**Complied.** A copy each of the same forwarded to the concerned Regional office of the ministry vide our letter dated 27.1.17.
65.	The project proponent shall also comply with additional conditions that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	**Complied.** No additional conditions so far imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.

<table>
<tr><td>66.</td><td>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.</td><td>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 have already submitted the 6 monthly compliance reports to the authority for all six monthly periods & same is being updated on website.

<table><tr><th>SN</th><th>EC Compliance Report Period</th><th>Submission Date</th></tr><tr><td>1</td><td>Jun 16 to Nov 16</td><td>27/01/2017</td></tr><tr><td>2</td><td>Dec 16 to May 17</td><td>17/07/2017</td></tr><tr><td>3</td><td>May 17 to Oct 17</td><td>30/11/2017</td></tr><tr><td>4</td><td>Nov 17 to Apr 18</td><td>30/07/2018</td></tr><tr><td>5</td><td>May 18 to Oct 18</td><td>31/12/2018</td></tr><tr><td>6</td><td>Nov 18 to Apr 19</td><td>23/07/2019</td></tr><tr><td>7</td><td>Apr 19 to Sep 19</td><td>19/12/2019</td></tr><tr><td>8</td><td>Oct 19 to Mar 20</td><td>07/07/2020</td></tr></table></td></tr>
<tr><td>67.</td><td>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.</td><td>Noted.</td></tr>
<tr><td>68.</td><td>The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.</td><td>Complied.</td></tr>
<tr><td>69.</td><td>The SEIAA may revoke or suspend the clearance. If implementation of any of the above conditions is not found satisfactory.</td><td>Noted.</td></tr>
</table>

70.	The company in a time bound manner shall implement these conditions. The SEIAA reserves the stipulate additional conditions, if the same is found necessary	Noted.
71.	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied. We have communicated with the regional officer of MoEF&CC towards the status of work and financial closure time to time. We have also submitted six monthly EC Compliance report periodically in which said information were updated time to time.
72.	This environmental clearance is valid for seven years from the date of issue.	Noted.
73.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 day as prescribed under section 16 of the National Green Tribunal Act, 2010.	Noted.

Annexure I: Flue Gas Stack Results

Flue Gas Stack Result

				MAY, 2020	JUNE, 2020	JULY, 2020	AUG, 2020	SEPT., 2020
Sr. No.	Stack Details	Paramenter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site								
1	FBC boiler E1	PM	100 mg/Nm3	62	80	61.6	Not Runnig	71
		SO_2	600 mg/Nm3	111	121	144		142
		NOx	600 mg/Nm3	106	106	138		176
2	FBC boiler E2	PM	100 mg/Nm3	not running during this month	86	71.8	64.1	Not Running
		SO_2	600 mg/Nm3		110	126	134	
		NOx	600 mg/Nm3		118	121	110	
3	FBC boiler E3	PM	100 mg/Nm3	not running during this month	78	66.2	76.1	50.8
		SO_2	600 mg/Nm3		116	136	140	163
		NOx	600 mg/Nm3		124	130	126	198
4	Hot Oil Unit (Resorcinol Plant)	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
		SO_2	100 ppm		ND	ND		
		NOx	50 ppm		28	31		
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	Stand by	Stand by	38.6	44.6	36.4
		SO_2	100 ppm			5.2	4.9	6.2
		NOx	50 ppm			46.4	48.2	41.7
West Site								
6	FBC boiler W1	PM	100 mg/Nm3	54.8	59	62.4	83.6	71.8
		SO_2	600 mg/Nm3	120	123	124	156	156
		NOx	600 mg/Nm3	126	119	119	122	198
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
		SO_2	100 ppm		ND	ND		
		NOx	50 ppm		23	26		
8	Oil burner Shed B (Stand By)	PM	150.0 mg/Nm3	Stand by	Stand by	Not Runnig	Not Runnig	Not Runnig
		SO_2	100 ppm					
		NOx	50 ppm					
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	41.9	37	44.7	41.2	46.1
		SO_2	600 mg/Nm3	109	113	132	140	128
		NOx	300 mg/Nm3	92	108	128	136	160
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND
10	DG set 1500 KVA (Stand By)	PM	150.0 mg/Nm3	Stand by	Stand by	32.4	30.8	53.8
		SO_2	100 ppm			4.4	5.2	7.2
		NOx	50 ppm			42.8	42.4	36.8
North Site								
11	Thermic fluid heater of DCO/DAP Plant	PM	150.0 mg/Nm3	not running during this month	ND	43.6	33.8	54.2
		SO_2	100 ppm		ND	14.8	9.8	16.2
		NOx	50 ppm		29	30.1	21.6	24.8

Annexure II: Ambient Air Result

Station	Parameter	Limit microgm/NM^3	May 20	Jun 20	Jul 20	Aug 20	Sep 20
66 KV	PM 2.5	60	38.1	37.9	22.5	22.4	28.1
	PM10	100	54	53	43.3	43.4	54.8
	SO2	80	12.6	11.7	9.2	9.3	13.8
	NOx	80	13.6	16.3	13.8	11.7	13.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30	32	21.3	20.1	22.5
	PM10	100	50	52	50.2	48.2	50.3
	SO2	80	7.4	8.5	9.5	8.4	12.6
	NOx	80	10.3	11.2	15.1	11.5	12.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Near West site ETP	PM 2.5	60	34	36	20	18	20
	PM10	100	53	55	42	40	42
	SO2	80	6.6	7.7	7.3	6.4	7.3
	NOx	80	9.4	10.5	8.2	7.8	8.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Near North ETP	PM 2.5	60	38	40	26	24	26
	PM10	100	52	54	41	39	41
	SO2	80	8.2	9.3	6.2	5.8	6.7
	NOx	80	12.1	13.3	7.1	6.7	7.6
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	40	42	22	20	24
	PM10	100	48	50	45	43	45
	SO2	80	9.3	10.2	5.3	4.4	5.3
	NOx	80	11.4	12.5	6.4	5.3	6.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	22	24	21	19	21
	PM10	100	50	47	50	48	50
	SO2	80	7.1	6.2	7.1	6.2	7.3
	NOx	80	7.5	7.3	7.3	6.8	7.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	24	26	24	22	24
	PM10	100	50	48	46	45	47
	SO2	80	7.2	7.8	7.5	6.4	7.1
	NOx	80	7.1	8.1	6.2	5.9	6.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	25	27	25	23	25

	PM10	100	51	53	49	47	49
	SO2	80	7.8	8.2	6.5	5.6	6.5
	NOx	80	6.5	7.3	6.9	5.1	6.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	21	23	23	21	23
	PM10	100	55	53	43	41	43
	SO2	80	6.8	7.5	6.5	7.1	8.2
	NOx	80	7.8	8.2	7.6	7.1	8.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Haria water tank	PM 2.5	60	34.8	33.6	14.2	15.3	26.5
	PM10	100	54.6	53.3	46.7	45.7	56.8
	SO2	80	11.8	10.6	6.8	7.6	13.5
	NOx	80	14.5	9.5	16.3	11.8	12.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND

Annexure III: Noise Data

Noise level monitoring data (Day Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sept 20	75
1	Near Main guest house	61.2	62.30	61.40	62.50	63.60	75
2	Near TSDF	63.7	64.80	63.70	64.80	65.80	75
3	At Wyeth Colony	56.4	55.50	54.60	55.70	56.70	75
4	Gram Panchayat Hall	62.5	63.60	64.50	65.40	66.50	75
5	Near Main Office North site	60.2	61.30	62.70	63.80	64.70	75
6	ETP North site	65.6	66.50	64.50	68.70	69.80	75
7	Opposite shed D	64.8	68.40	69.50	70.40	71.30	75
8	ETP West site	64.5	65.40	67.60	65.40	66.50	75
9	Water tank Haria road	62.1	61.20	62.30	63.20	64.30	75
10	Near 66KVA substation	64.7	63.80	64.00	65.00	66.00	75

Noise level monitoring data (Night Time)

Sr. No.	Location	Noise Level, dBA					Permissible Limits, dBA
		May 20	Jun 20	Jul 20	Aug 20	Sept 20	70
1	Near Main guest house	52.1	53.30	52.40	52.40	54.40	70
2	Near TSDF	54.5	55.60	54.50	54.50	56.50	70
3	At Wyeth Colony	52.5	51.40	50.30	50.30	52.60	70
4	Gram Panchayat Hall	56.5	55.60	54.50	54.50	56.70	70
5	Near Main Office North site	53.7	57.30	56.80	56.80	58.50	70
6	ETP North site	57.3	56.20	54.80	54.20	55.30	70
7	Opposite shed D	58.5	57.40	56.50	57.60	58.70	70
8	ETP West site	56.5	55.60	55.10	55.70	56.80	70
9	Water tank Haria road	55.8	54.30	52.60	53.70	54.60	70
10	Near 66KVA substation	57.3	56.20	55.10	56.20	57.10	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 and or prescribed limits by MOEF&CC vide S.O. 3305(E) dated 07/12/2015.
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, Dated20/05/2016 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.	Currently not 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	NA	Action by State Dept.

	State Dept.		
	Environment Clearance Existing plants shall adopt any of systems mentioned in 13(1)	Complied	-
	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 30/9/2025.
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

Atul Limited						
CSR projects : April 2020 to September 2020						
No.	Programme	Description	Location	Final Implementing Agency	Estimated budget FY 2020-21 (₹ in lakhs)	Expenditure April 20 to September 20 (₹ in lakhs)
1	Education	Enhancement of education practices in Kalyani Shala	Atul, Valsad (Gujarat)	AFT | Atul Kelavani Mandal	75.00	4.14
2	Education	Enhancement of education practices in Atul Vidya Mandir	Atul, Valsad (Gujarat)	AFT | Atul Vidyalaya Trust	6.00	0
3	Education	Imparting training to women to become skilled elementary school teachers (Adhyapika) to improve rural education	Valsad (Gujarat)	AFT | ARDF	60.00	26.51
4	Education	Sporting a tribal school ,M D Desai school Chondha	Chondha, Navsari (Gujarat)	AFT	5.00	2.51
6	Education	ARDF activities	Atul, Valsad (Gujarat)	AFT | ARDF	50.00	23.82
7	Empowerment	Skill training to youth as apprentice	Atul, Valsad (Gujarat)	Atul	180.00	0
8	Health	Nutrition Garden project	Villages of Valsad (Gujarat)	AFT | BAIF	15.00	0
10	Relief	Relief for COVID - 19	Valsad (Gujarat)	AFT	600.00	561.60
11	Infrastructure	Atul Model Village Project	Atul, Valsad (Gujarat)	AFT	30.00	0
12	Infrastructure	Support to schools and institutes in Ankleshwar	Ankleshwar, Bharuch (Gujarat)	AFT	10.00	2.89
13	Infrastructure	Development of Ulhas Cricket ground	Atul, Valsad (Gujarat)	AFT	20.00	0
14	Conservation	Afforestation	Atul, Valsad (Gujarat)	Atul	5.00	0
15	Conservation	Solid waste	Valsad	AFT	50.00	15.09

		Management project	(Gujarat)			
16	Conservation	Nature based sewage treatment plant	Atul, Valsad (Gujarat)	AFT	50.00	0
17	Other	Support to other institutes	Gujarat, India	AFT	44.00	0
18	Administration expense				50.00	0
	Total				1,250.00	636.56

Remark: Due to COVID-19 many budgeted activities could not initiated/completed

Sr. No.	Condition	Compliance
Term and Conditions:		
i.	Consent to Establish/ Operate for the project shall be obtain from the State Pollution Control Board as required under the Air (prevention and control of pollution) Act, 1981 and the Water (prevention and control of pollution)Act, 1974.	**Complied.** We have obtained CTE after receiving ToR. CTE was granted by GPCB Vide No. GPCB/CCA- VSD- 313(12)/ID: 23158/363958 on 25.7.2016 (CTE no. 80394) Valid Till- 17/7/2023. We had applied for 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 17.7.2019 (CTO amendment No. AH 102080), Valid Till-03.11.2019. Renewal for the same has been granted (CCA no AWH 105110) valid till 30.9.2025 Copy of CTE and CTO was submitted to Ministry vide our letter Atul/SHE/EC Compliance/01 dated 19.12.2019

<table>
<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.222 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-2020</td><td>1328</td><td>44</td></tr>
<tr><td>2</td><td>May-2020</td><td>6294</td><td>203</td></tr>
<tr><td>3</td><td>June-2020</td><td>6907</td><td>230</td></tr>
<tr><td>4</td><td>July-2020</td><td>8399</td><td>271</td></tr>
<tr><td>5</td><td>August-2020</td><td>8920</td><td>288</td></tr>
<tr><td>6</td><td>September-2020</td><td>8906</td><td>297</td></tr>
</table>

Remaining about Avg 7324 KL/Day treated effluent has been discharged to estuary of Par river through the existing pipeline after achieving norms stipulated, which 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-2020</td><td>50730</td><td>1691</td></tr>
<tr><td>2</td><td>May-2020</td><td>304178</td><td>9812</td></tr>
<tr><td>3</td><td>June-2020</td><td>239223</td><td>7974.1</td></tr>
<tr><td>4</td><td>July-2020</td><td>251128</td><td>8101</td></tr>
<tr><td>5</td><td>August-2020</td><td>250420</td><td>8078</td></tr>
<tr><td>6</td><td>September-2020</td><td>248678</td><td>8289</td></tr>
</table>

The treated waste water analysis at ETP outlet is monitored at regular interval for ensuring the compliance. The testing lab appointed is M/s. Pollucon Laboratories Pvt Ltd, Surat NABL Approved TC – 5945, issue date-28/05/2019 and valid till 27/05/2021.

The treated effluent is meeting all the state pollution control board’s discharge norms and values of various parameters of treated effluent is given in Annexure 1.

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

		<table><tr><th>Sr. No.</th><th>Parameter</th><th>Limit</th><th colspan="3">Values for the period Apr. 20 - Sep. 20</th></tr><tr><th></th><th></th><th></th><th>Min.</th><th>Max.</th><th>Avg.</th></tr><tr><td>1</td><td>pH</td><td>5.5-9.0</td><td>7.35</td><td>7.95</td><td>7.598</td></tr><tr><td>2</td><td>Temperature (°C)</td><td>40</td><td>31.7</td><td>33</td><td>32.22</td></tr><tr><td>3</td><td>Colour (pt. co. scale)</td><td>---</td><td>50</td><td>65</td><td>57</td></tr><tr><td>4</td><td>Suspended solids (mg/l)</td><td>100</td><td>48</td><td>92</td><td>71.4</td></tr><tr><td>5</td><td>Phenolic Compounds (mg/l)</td><td>5</td><td>0.035</td><td>0.085</td><td>0.0498</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>0.45</td><td>0.68</td><td>0.556</td></tr><tr><td>8</td><td>Sulphides (mg/l)</td><td>2</td><td>1.1</td><td>1.6</td><td>1.36</td></tr><tr><td>9</td><td>Ammonical Nitrogen (mg/l)</td><td>50</td><td>22</td><td>39.8</td><td>30.76</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>41</td><td>55</td><td>47.8</td></tr><tr><td>13</td><td>COD (mg/l)</td><td>250</td><td>144</td><td>180</td><td>162.8</td></tr></table>
iii	Necessary authorization required under the Hazardous and other Wastes Management Rule, 2016 shall be obtain and the Provisions contained in the Rules shall be strictly adhered to.	**Complied.** We have obtained necessary authorization for Hazardous and other waste by obtaining Amendment in Existing CTO after receiving EC. CTO amendment has been granted by GPCB Vide Letter No. GPCB/CCA-VSD-313(16)/ID: 23158/513897, Dated 17.7.2019 (CTO amendment No. AH 102080), Valid Till-03.11.2019. Renewal for the same has been received vide CCA (AWH-105110 valid till 30.9.2025).

<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:

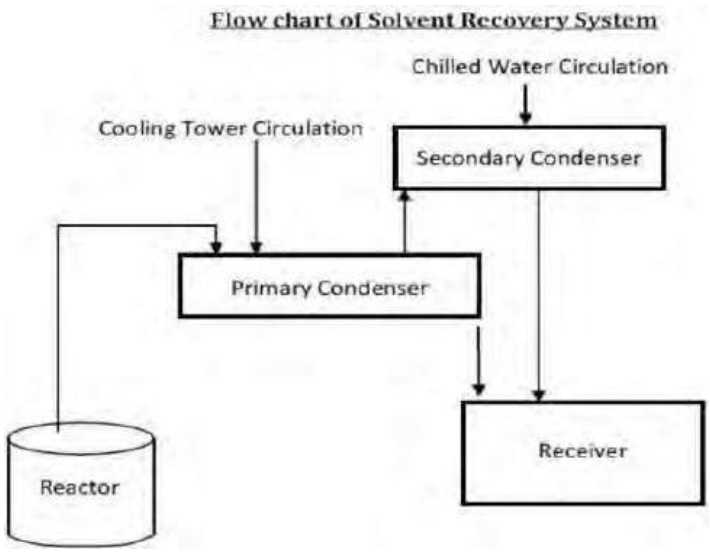
<table>
<tr><th rowspan="2">Station</th><th rowspan="2">Parameter</th><th rowspan="2">Limit micro gram/ NM³</th><th colspan="3">Values for the period Apr. 20 to Sep. 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td rowspan="6">66 KV</td><td>RSPM (PM2.5)</td><td>60</td><td>22.4</td><td>38.1</td><td>29.8</td></tr>
<tr><td>PM10</td><td>100</td><td>43.3</td><td>54.8</td><td>49.7</td></tr>
<tr><td>SO_2</td><td>80</td><td>9.2</td><td>13.8</td><td>11.32</td></tr>
<tr><td>NOx</td><td>80</td><td>11.7</td><td>16.3</td><td>13.78</td></tr>
<tr><td>Ammonia</td><td>850</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="4">Opposite Shed D</td><td>RSPM (PM2.5)</td><td>60</td><td>20.1</td><td>32</td><td>25.1</td></tr>
<tr><td>PM10</td><td>100</td><td>48.2</td><td>52</td><td>50.14</td></tr>
<tr><td>SO_2</td><td>80</td><td>7.4</td><td>12.6</td><td>9.28</td></tr>
<tr><td>NOx</td><td>80</td><td>10.3</td><td>15.1</td><td>12.18</td></tr>
</table>
</td>
</tr>
</table>

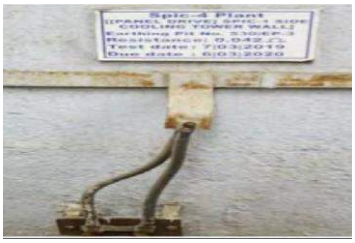
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Near West Site ETP	RSPM (PM2.5)	60	18	36	25.6
		PM10	100	40	55	46.4
		SO_2	80	6.4	7.7	7.06
		NOx	80	7.8	10.5	8.92
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Near North ETP	RSPM (PM2.5)	60	24	40	30.8
		PM10	100	39	54	45.4
		SO2	80	5.8	9.3	7.24
		NOx	80	6.7	13.3	9.36
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	TSDF	RSPM (PM2.5)	60	20	42	29.6
		PM10	100	43	50	46.2
		SO_2	80	4.4	10.2	6.9
		NOx	80	5.3	12.5	8.36
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Main Guest House	RSPM (PM2.5)	60	19	24	21.4
		PM10	100	47	50	49
		SO_2	80	6.2	7.3	6.78
		NOx	80	6.8	7.5	7.28
		Ammonia	850	ND	ND	ND
		HCl	200	ND	ND	ND
	Wyeth Colony	RSPM (PM2.5)	60	22	26	24
		PM10	100	45	50	47.2
		SO_2	80	6.4	7.8	7.2
		NOx	80	5.9	8.1	6.7
		Ammonia	850	ND	ND	ND

	HCl	200	ND	ND	ND
Gram Panch-ayat Hall	RSPM (PM2.5)	60	23	27	25
	PM10	100	47	53	49.8
	SO_2	80	5.6	8.2	6.92
	NOx	80	5.1	7.3	6.52
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Main Office North Site	RSPM (PM2.5)	60	21	23	22.2
	PM10	100	41	55	47
	SO_2	80	6.5	8.2	7.22
	NOx	80	7.1	8.2	7.78
	Ammonia	850	ND	ND	ND
	HCl	200	ND	ND	ND
Haria Water Tank	RSPM (PM2.5)	60	14.2	34.8	24.88
	PM10	100	45.7	56.8	51.42
	SO_2	80	6.8	13.5	10.06
	NOx	80	9.5	16.3	12.96
	Ammonia	850	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. Further also numbers of gas detectors are provided in work area for close monitoring. We have installed various APCM, special hood, suction pipe for gases emission, Alkaline scrubber 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

VI	Solvent management shall be carried out as follows:	
	(a) Reactor shall be connected to chilled brine condenser system.	**Complied.** Condensers with chilling systems are provided at point of Solvent recovery to minimized vapour loss as shown below:-   Condenser at Solvent recovery
	(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	**Complied.** We have provided seals at all Reactors and pump's in order to prevent leakage as shown below:-   Seal at Stirrer Pump Seal

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

		• All the rotating equipment like pumps will be installed with Mechanical Seals to arrest any sort of emissions.
	(d) Solvents shall be stored in a separate space specified with all safety measures.	**Complied.** We have made separate provision for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards and control measures.   Tank Farm Details For Solvent Storage is as per **Annexure 5**
	(e) Proper earthling shall be provided in all the electrical equipment wherever solvent handling is done.	**Complied.** Earthing pit is provided in all electrical equipment wherever solvent handling is done as below:- 
	(f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.	**Complied.** Entire plant is flame proof installations, storage tanks are provided with breather valve for all prevention of losses. Separate provision is made for solvent storage & is installed as per PESO regulation wherever applicable with all details of Storage area, operating temperature and pressure, types of possible hazards and control measures. Details for solvent storage is given in above point **vi d**.

<table>
<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 c</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. 9047 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.F/W (KL/Month)</th><th>Avg. Qty. F/W (KL/Day)</th></tr>
<tr><td>1</td><td>April-2020</td><td>55141</td><td>1838</td></tr>
<tr><td>2</td><td>May-2020</td><td>330696</td><td>10668</td></tr>
<tr><td>3</td><td>June-2020</td><td>260453</td><td>8682</td></tr>
<tr><td>4</td><td>July-2020</td><td>270328</td><td>8720</td></tr>
<tr><td>5</td><td>August-2020</td><td>269512</td><td>8694</td></tr>
<tr><td>6</td><td>September-2020</td><td>270162</td><td>9005</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>
</table>

<table>
<tr>
<td>VIII</td>
<td>Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD. Low TDS effluent stream shall Be treated in ETP/RO to meet the prescribed standards</td>
<td>Complied.

Industrial/trade effluent is being segregated as shown below into High TDS/COD & Low TDS/COD. High COD/TDS stream is subjected to MEE and ATFD. Low TDS/COD stream is treated in in-house Effluent Treatment Plant and discharged as per stipulated norms. It's not exceeding then prescribed limit of EC & CCA. The average wastewater generation for the report period is as under:

<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Month</th><th colspan="3">Break up of effluent Kl/Day</th></tr>
<tr><th>High TDS/COD</th><th>Low TDS/COD</th><th>Total Effluent generation</th></tr>
<tr><td>1</td><td>April-2020</td><td>12.7</td><td>1678.3</td><td>1691</td></tr>
<tr><td>2</td><td>May-2020</td><td>74</td><td>9738</td><td>9812</td></tr>
<tr><td>3</td><td>June-2020</td><td>95</td><td>7879</td><td>7974</td></tr>
<tr><td>4</td><td>July-2020</td><td>128</td><td>7973</td><td>8101</td></tr>
<tr><td>5</td><td>August-2020</td><td>142</td><td>7936</td><td>8078</td></tr>
<tr><td>6</td><td>September-2020</td><td>129</td><td>8160</td><td>8289</td></tr>
</table>

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

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.

Prescribed Standards: The Waste Water analysis at ETP outlet is monitored at regular interval for ensuring the compliance. The testing lab appointed is M/s. Pollucon Laboratories Pvt Ltd, Surat NABL Approved TC – 5945, issue date-28/05/2019 and valid till 27/05/2021.

Details for monitoring results is given in condition ii.</td>
</tr>
</table>

IX	Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	Complied. Process effluent/any wastewater are being discharged to estuary of Par river through the existing pipeline and are not mixed with storm water line. 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 after giving necessary pre-treatment to remove suspended matter as we have pumped this rain water to clarifloculator units to remove suspended matter. We have three numbers of check dams in natural storm water drains to collect and harvest rain water in monsoon season. We are creating facility/ capacity to cater our consumption with rain harvested water with almost 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.
X	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps	Complied. Storage details of Hazardous materials along with control measure are as per Annexure 6
XI	Process organic residue and spent carbon, if any, shall be Sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Complied. We have obtained necessary authorization for Hazardous and other waste by obtaining amendment in existing CTO after receiving EC and waste is disposed off accordingly. CTO amendment has been granted by GPCB Vide Letter No. GPCB/CCA-VSD- 313(16)/ID: 23158/513897, Dated 17.7.2019 (CTO amendment No. AH 102080), Valid Till-03/11/2019. Renewal for the same has been received with consent order no. 105110 valid up to 30.09. 2025. . Copy of CTE and CTO was submitted to Ministry vide our letter Atul/SHE/EC Compliance/01 dated 19.12.2019

<table>
<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 17.7.2019, further renewed vide consent order no. AWH 105110 valid up to 30.09.2025.

We have obtained 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 other wastes, an occupier shall follow the following steps, namely:-
• Prevention;
• Minimization;
• Reuse,
• Recycling;
• Recovery, utilization including co-processing;
• Safe disposal.</td><td>Complied.

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

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

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

		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.	
		(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 30.9.25.
		(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 Haz. 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-III, Form-IV & 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	Noted

		Schedule subject to the provisions of these rules.	
		(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 damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.	Noted.

		(b) The occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.	Noted.
		(24) Appeal	
		(a) Any person aggrieved by an order of suspension or cancellation or refusal of authorization or its renewal passed by the State Pollution Control Board may, within a period of thirty days from the date on which the order is communicated to him, prefer an appeal in Form 12 to the Appellate Authority, namely, the Environment Secretary of the State. (b) The Appellate Authority may entertain the appeal after expiry of the said period of thirty days, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time. (c) Every appeal filed under this rule shall be disposed of within a	Noted & Complied

<table>
<tr><td></td><td></td><td><table><tr><td>period of sixty days from the date of its filing.</td><td></td></tr></table></td></tr>
<tr><td>XIII</td><td>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.</td><td>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.

Fly ash / bottom ash generation and disposal data (in MT)for the report period as shown below table:

<table><tr><td>Fly Ash</td><td>Apr 20</td><td>May 20</td><td>Jun 20</td><td>Jul 20</td><td>Aug 20</td><td>Sept20</td></tr><tr><td>Generation</td><td>39</td><td>6090</td><td>7676</td><td>10662</td><td>5786</td><td>9493</td></tr><tr><td>Disposal</td><td>39</td><td>6090</td><td>7676</td><td>10662</td><td>5786</td><td>9493</td></tr></table></td></tr>
<tr><td>XIV</td><td colspan="2">The company shall undertake waste minimization measures as below:-</td></tr>
<tr><td></td><td>(a) Metering and control of quantities of active ingredients to minimize waste.</td><td>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:
   </td></tr>
<tr><td></td><td>(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</td><td>Sodium Sulfate, sodium thio sulphate, brine, MEE salt, sodium hypochlorite, copper hydroxide, spent acid, etc. are few by-products from the process which are being sold for using the same either as raw material or as substitute to raw materials. Also, fly ash and gypsum are being used as raw material for brick manufacturing. sodium hypochlorite, sodium hydro sulfide, etc. are being used as raw material in other processes.</td></tr>
</table>

	(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 wastewater 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:  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.  

<table>
<tr><td></td><td></td><td>   </td></tr>
<tr><td>XVI</td><td>All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.</td><td>Complied.

All the issued raised during public hearing were replied satisfactorily. Towards commitment company has been satisfactorily implementing CER/CSR as per the action plan / schedule; details given in next point xvii. of compliance report.

Commitment towards coal transportation in covered truck is complied. Now coal transportation is being done 100% in closed / covered mechanical trucks.

Towards employment of local we are consistent in hiring local as per the eligibility / educational cretier. 80% of total employees are from local.</td></tr>
<tr><td>XVII</td><td>As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% of the total project cost. Item- wise details along with time bound action plan shall be prepared and submitted to the Ministry’s Regional Office.</td><td>Complied.

CSR projects as per Annexure 7</td></tr>
<tr><td>XVIII</td><td>For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.</td><td>Complied.

We ensured that at no time the emission level will go beyond the stipulated standards and or 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>Capacity/ Stack Ht mtr</th><th>Parameter</th><th>Permissible Limits</th><th>APCD</th><th>Fuel</th></tr>
<tr><td>1</td><td>DG Set 1010KVA</td><td>H: 10</td><td>PM</td><td>150 mg/Nm3</td><td>Adequate</td><td>Diesel</td></tr>
</table>
</td></tr>
</table>

	(Stand by)		SO2	100 ppm	Stack Ht & Acoustic Enclosure		
			NOx	50 ppm			
2	DG Set 1500KVA (Stand By)	H: 11	PM	150 mg/Nm3	Adequate Stack Ht & Acoustic Enclosure	Diesel	
			SO2	100 ppm			
			NOx	50 ppm			

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

However, DG sets are being used only during emergency.

XIX	The unit shall make the arrangement for Protection of possible fire hazards during manufacture ng process in material handling. Fire-fighting system shall be as per the norms.	Complied. A well designed Fire hydrant system is adequate and as per standards. Fire hydrant Network details: • Four full-fledged fire hydrant system in the company Water Storage Capacity - 50 million Liters • Total length of hydrant line – 15 km • Fire Fighting Equipment o DCP1350 o CO_2 776 Foam : 05Trolly • 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 litand 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

<table>
<tr>
<td>XX</td>
<td>Occupation al 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.

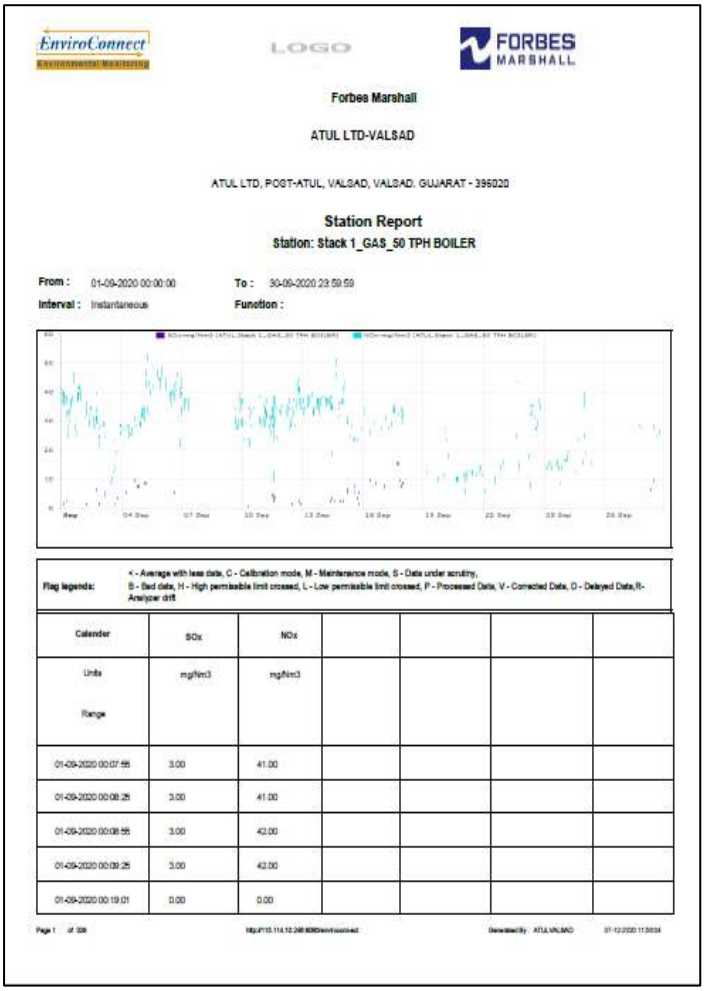
Occupational health surveillance of the workers is carried out on a regular basis as per section-41 C of the factories act and ruke-68T of Gujarat Factories Rules and records are maintained. Regular medical checkup of all employees are done by in-house doctors.
The following medical check-up has been carried out during report period:
Pre-Employment Check-Up (In-house):
<table>
<tr><th>Sr. No.</th><th>Employee</th><th>Qty.</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">2688</td><td rowspan="3">Pre-employment</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>

Annual Medical Check-Up:
<table>
<tr><th>Sr. No.</th><th>Employee</th><th>Qty.</th><th>Check-up</th></tr>
<tr><td>1</td><td>Staff</td><td rowspan="3">1024</td><td rowspan="3">Annual Check-up</td></tr>
<tr><td>2</td><td>Operators</td></tr>
<tr><td>3</td><td>Workers</td></tr>
</table>

Various types of tests being performed are as below;
1. Pre- employment check-up:
1. Vision
2. Colour blindness
3. CBC
4. Urine
5. Height
6. Weight
7. B/P
8. Pulse
9. Habit
10. Personal History
11. Family History
12. Identification Mark

2. Annual Check-up:
1. Physical check-up
2. Vision
3. Blood
4. Urine
5. PFT
6. ECG
</td>
</tr>
</table>

		Our occupational health centre & Pathology Lab is equipped with necessary facilities under supervision of factory medical officer with trained three EHS persons. Medical Facilities: ❑ First Aid boxes in all plants ❑ Central Ambulance Room in the middle of the factory ❑ Two Ambulance Vans. Out of which one is equipped with ICU facilities. ❑ Medical Center ❑ Three full time AFIH certified doctors. ❑ Equipped with 3Beds ❑ Full equipped Pathological lab with advanced diagnostic equipment ❑ ECG Equipment ❑ Cardiac monitor ❑ Defibrillator ❑ Finger pulse Oxy meter ❑ Pulmonary Function Test Apparatus ❑ 02Administration ❑ Antidotes with routine Important and Vital lifesaving Drugs ❑ Tie-up with Kasturba Hospital, Valsad, and Pardi Hospital, Pardi, respectively 7 kms and 3 kms. away from Atul   We also have tie up with external two hospitals (Pardi Hospital and Kasturba Hospital). We have medical check-up schedule once in quarter for Insecticide plant's employees Other necessary items including First-aid medicines, antidotes and equipment as prescribed in the schedule the under Rule-68 U (b) of the Gujarat factories rules are also been provided. **Remark:** All employ found medically fit to work, no contiguous diseases were observed

XI	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel /dra in 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_GAS_50 TPH BOILER

From : 01-09-2020 00:00:00 **To :** 30-09-2020 23:59:59

Interval : Instantaneous **Funotion :**

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	NOx				
Units	mg/Nm3	mg/Nm3				
Range						
01-09-2020 00:07:55	3.00	41.00				
01-09-2020 00:08:25	3.00	41.00				
01-09-2020 00:08:55	3.00	42.00				
01-09-2020 00:09:25	3.00	42.00				
01-09-2020 00:19:01	0.00	0.00				

B. General Conditions:		
I	The project authorities shall adhereto the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.	The company complies with all stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority. Our compliances are further monitored by our Environmental auditors appointed by GPCB. Excerpts of latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Annexure 8
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 tothe 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	Complied.

	standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules,1989 viz. 75 dBA (day time) and 70 dBA (night time).	The ambient and workplace noise level confirms to the standard prescribed under EPA. The same is being regularly monitored at regular interval for ensuring the compliance. The maximum values during the compliance period confirm that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below: **Noise level monitoring data (Day Time)**

Sr. No.	Location	Permissible Limits, 75dB	Values for the period Apr. 20 to Sep. 20		
			Min.	Max.	Avg.
1	Near Main guest house	75	61.20	63.60	62.20
2	Near TSDF	75	63.70	65.80	64.56
3	At Wyeth Colony	75	54.60	56.70	55.78
4	Gram Panchayat Hall	75	62.50	66.50	64.50
5	Near Main Office North site	75	60.20	64.70	62.54
6	ETP North site	75	64.50	69.80	67.02
7	Opposite shed D	75	64.80	71.30	68.88
8	ETP West site	75	64.50	67.60	65.88
9	Haria Water tank	75	61.20	64.30	62.62
10	Near 66KVA substation	75	63.80	66.00	64.70

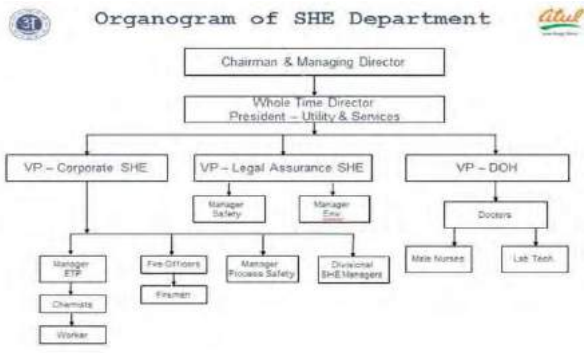
Noise level monitoring data (Night Time):

Sr. No.	Location	Permissible Limits, 70dB	Values for the period Apr. 20 to Sep. 20		
			Min.	Max.	Avg.
1	Near Main guest house	70	52.10	54.40	52.92
2	Near TSDF	70	54.50	56.50	55.12

		3	At Wyeth Colony	70	50.30	52.60	51.42
		4	Gram Panchayat Hall	70	54.50	56.70	55.56
		5	Near Main Office North site	70	53.70	58.50	56.62
		6	ETP North site	70	54.20	57.30	55.56
		7	Opposite shed D	70	56.50	58.70	57.74
		8	ETP West site	70	55.10	56.80	55.94
		9	Water tank Haria road	70	52.60	55.80	54.20
		10	Near 66KVA substation	70	55.10	57.30	56.38

V	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 two 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. Company has harvest 9.63 lac KL rain water during 2019. Capacity of Pond:(1 Nos. x 12000 KL) & (1 Nos. x 2000 KL) **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	Complied. Compliance to all environmental protection measures and safeguards proposed in the project report submitted to ministry is compiled as mention in Annexure 9

	to the project shall be implemented.	
X	The company shall undertake eco- developmental measures including community welfare measures in the project area for the Overall improvement of the environment.	Complied. CSR projects is given in specific condition (vii)
XI	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental anagement 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 earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.</td>
<td>Complied.

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>S.No.</th><th>Parameter</th><th>Recurring Cost (Rs. in lacs) Apr 20- Sep 20</th></tr>
<tr><td>1</td><td>Air Pollution Control</td><td rowspan="2">2069.24</td></tr>
<tr><td>2</td><td>Liquid Pollution Control</td></tr>
<tr><td>3</td><td>Environmental Monitoring and Management</td><td>19.05</td></tr>
<tr><td>4</td><td>Solid waste Disposal</td><td>293.46</td></tr>
<tr><td>5</td><td>Occupational health</td><td>15</td></tr>
<tr><td>6</td><td>Green belt</td><td>5</td></tr>
<tr><td colspan="2">Total</td><td>2401.75</td></tr>
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<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>
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<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 EC and six monthly compliance status report shall be posted on the website of the company.</td>
<td>Complied.

We regularly submit the half-yearly compliance report & same is being updated on website.

<table>
<tr><th>SN</th><th>EC Compliance Report Period</th><th>Submission Date</th></tr>
<tr><td>1</td><td>April 19 – September 19</td><td>23.12.2019</td></tr>
<tr><td>2</td><td>October 19- March 20</td><td>07.07.2020</td></tr>
</table>
</td>
</tr>
<tr>
<td>XV</td>
<td>The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended. Subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e- mail.</td>
<td>Complied.

The Env. Statement (Form-V) for each financial year ending 31stMarch 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 submitted for year 2019-20 is attached as Annexure 10</td>
</tr>
</table>

XVI	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	**Complied.** We have granted EC Dated: 11.2.2019 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 Guajarati and another in English on 17.2.2019. Details submitted vide our letter Atul/SHE/EC Compliance/01 dated 19.12.2019
XVII	The project authorities shall inform the Regional Office as well as the Ministry, the Date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	**Complied.** We have communicated with the regional officer & MoEF&CC towards the status of work and financial closure time to time. We have also submitted six monthly EC compliance report periodically in which said information were updated time to time.

Annexure 1: Quality of Treated Effluent

Sr. No.	Parameter	Results					GPCB Limits
		May 20	Jun 20	Jul 20	Aug 20	Sep 20	
1	pH	7.3	7.65	7.95	7.48	7.56	5.5 to 9.0
2	Temperature oC	32	33	32.5	31.7	31.9	40°C
3	Colour (pt. co. scale)in units	60	50	65	50	60	---
4	Suspended solids, mg/l	48	64	78	92	75	64
5	Phenolic Compounds, mg/l	0.03	0.045	0.085	0.048	0.036	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	0.5	0.68	0.55	0.45	0.55	2
8	Sulphides, mg/l	1.4	1.1	1.5	1.2	1.6	2
9	Ammonical Nitrogen, mg/l	30	22	28	34	39.8	50
10	Total Chromium, mg/l	ND	ND	ND	ND	ND	2
11	Hexavalent Chromium, mg/l	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27oC), mg/l	55	45	50	41	48	100
13	COD, mg/l	180	156	172	144	162	250
Note: ND is Not Detectable.							

Note: Kindly note that due to COVID 19 pandemic and lockdown conditions, production plants remain closed for almost all time in April 20. Hence utility consumption was at the lowest and off line monitoring through outside agency could not take place.

Annexure 2: Ambient Air Quality Monitoring Results

Station	Parameter	Limit microgm/NM^3	May 20	Jun 20	Jul 20	Aug 20	Sept 20
66 KV	PM 2.5	60	38.1	37.9	22.5	22.4	28.1
	PM10	100	54	53	43.3	43.4	54.8
	SO2	80	12.6	11.7	9.2	9.3	13.8
	NOx	80	13.6	16.3	13.8	11.7	13.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Opposite Shed D	PM 2.5	60	30	32	21.3	20.1	22.5
	PM10	100	50	52	50.2	48.2	50.3
	SO2	80	7.4	8.5	9.5	8.4	12.6
	NOx	80	10.3	11.2	15.1	11.5	12.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Near West site ETP	PM 2.5	60	34	36	20	18	20
	PM10	100	53	55	42	40	42
	SO2	80	6.6	7.7	7.3	6.4	7.3
	NOx	80	9.4	10.5	8.2	7.8	8.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Near North ETP	PM 2.5	60	38	40	26	24	26
	PM10	100	52	54	41	39	41
	SO2	80	8.2	9.3	6.2	5.8	6.7
	NOx	80	12.1	13.3	7.1	6.7	7.6
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
TSDF	PM 2.5	60	40	42	22	20	24

	PM10	100	48	50	45	43	45
	SO2	80	9.3	10.2	5.3	4.4	5.3
	NOx	80	11.4	12.5	6.4	5.3	6.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main Guest House	PM 2.5	60	22	24	21	19	21
	PM10	100	50	47	50	48	50
	SO2	80	7.1	6.2	7.1	6.2	7.3
	NOx	80	7.5	7.3	7.3	6.8	7.5
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Wyeth Colony	PM 2.5	60	24	26	24	22	24
	PM10	100	50	48	46	45	47
	SO2	80	7.2	7.8	7.5	6.4	7.1
	NOx	80	7.1	8.1	6.2	5.9	6.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Gram panchayat hall	PM 2.5	60	25	27	25	23	25
	PM10	100	51	53	49	47	49
	SO2	80	7.8	8.2	6.5	5.6	6.5
	NOx	80	6.5	7.3	6.9	5.1	6.8
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND
Main office, North site	PM 2.5	60	21	23	23	21	23
	PM10	100	55	53	43	41	43
	SO2	80	6.8	7.5	6.5	7.1	8.2
	NOx	80	7.8	8.2	7.6	7.1	8.2
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND

Haria water tank	PM 2.5	60	34.8	33.6	14.2	15.3	26.5
	PM10	100	54.6	53.3	46.7	45.7	56.8
	SO2	80	11.8	10.6	6.8	7.6	13.5
	NOx	80	14.5	9.5	16.3	11.8	12.7
	Ammonia	850	ND	ND	ND	ND	ND
	HCl	200	ND	ND	ND	ND	ND

Annexure 3: Stack Details

				MAY, 2020	JUNE, 2020	JULY, 2020	AUG, 2020	SEPT., 2020
Details of Process and Flue stack								
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
Atul East Site								
1	furnace (Phosgene Plant)	PM	150.0 mg/Nm3	32	40	58	41	33
2	Reactor (Phosgene plant- New)	CO	---	ND	ND	ND	ND	ND
		Phosgene	0.1 ppm	ND	ND	ND	ND	ND
Caustic Chlorine Plant								
3	Dechlorination Plant	Cl_2	9.0 mg/Nm3	3.5	3.2	4.9	Not running	Not running
		HCl	20.0 mg/Nm3	5.8	5.6	5.1		
4	Common stack of HCl Sigri unit 1&2	Cl_2	9.0 mg/Nm3	8.4	4.9	7.1	4.1	6.6
		HCl	20.0 mg/Nm3	12.9	8.2	7.4	6.2	7.8
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
		NOx	25.0 mg/Nm3					
Sulfuric Acid (East Site)								
6	Sulfuric Acid Plant	SO_2	2.0 kg/T	1.3	0.6	1.6	1.35	1.7
		Acid Mist	50.0 mg/Nm3	29.5	11.3	23.8	13.8	18.2
7	ChloroSulfonic Acid plant reactor	Cl_2	9.0 mg/Nm3	4.9	4.3	8.4	7.2	6.2
		HCl	20.0 mg/Nm3	5.3	13.6	8.6	7.4	6.4
Resorcinol Plnat								
8	Spray Dryer (Resorcinol Plant)	PM	150.0 mg/Nm3	25	27	38	0.95	2.95
9	Scubber vent (Resorcinol Plant)	SO_2	40.0 mg/Nm3	32.7	8.3	30.1	33.6	29.3
Incinerator								
10	Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.1	63.8	54.1
		SO_2	40.0 mg/Nm3		12.2	18.6	11.7	14.2
		NOx	25.0 mg/Nm3		15.4	20.7	23.2	19.9
NI Plant								
11	Foul Gas Scubber	SO_2	40.0 mg/Nm3	27.8	Not Runnig During Visit	31.6	28.6	24.2
		NOx	25.0 mg/Nm3	15.6		19.4	21.8	17.8
2-4-D Plant								
12	Common Scrubber; 2,4D Plant	Cl_2	9.0 mg/Nm3	8.1	5.4	5.2	7.1	5.1
		HCl	20.0 mg/Nm3	8.3	7.3	5.1	7.3	7.3
		Phenol	--	ND	ND	ND	ND	ND
13	Dryer-1	PM with Pesticide compound	20.0 mg/Nm3	14.2	7.4	9.4	8.1	11.8
14	Dryer-2	PM with Pesticide compound	20.0 mg/Nm3	16.8	6.8	10.1	8.2	9.8
15	Dryer-3	PM with Pesticide compound	20.0 mg/Nm3	15.7	7.3	8.6	14.1	18.3
16	Dryer-4	PM with Pesticide compound	20.0 mg/Nm3	18.9	11.4	7.2	9.8	15.9
17	Dryer-5	PM with Pesticide compound	20.0 mg/Nm3	Not Runnig During Visit	9.2	Not running	6.2	10.3

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
19	Scrubber S-902	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
20	Scrubber S-801/802	HCl	20 mg/Nm3	12.4	4.2	17.8	18.2	13.6
		NOx	25.0 mg/Nm3	12.2	7.7	24.8	18.7	23.1
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
CP Plant								
21	MCPA	Cl_2	9 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/NM^3					
		SO_2	40 mg/NM^3					
22	Fipronil	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
23	Imidacloprid	NH_3	175 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
24	Pyrathroids	SO_2	40 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20 mg/Nm3					
25	Stack at Amine Plant	NH_3	175 mg/Nm3	108.0	16.3	Not Runnig	136	115
MPSL Plant								
26	Phosgene Scrubbr at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
27	Central Scrubber at MPSL	Phosgene	0.1 ppm	ND	ND	ND	ND	ND
NICO plant								
28	Central scrubber at Nico Plant	Acetonytryle, IPA	---	-	-	-	-	-
Ester Plant								
29	Scrubber at Ester plant for Glyphosate	Formaldehyde	10 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
30	Central Scrubber MCPA Plant	HCl	20 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
31	MPP plant scrubber	HCl	20 mg/Nm3	13.1	Not Runnig During Visit	13.2	9.8	12.4
		Phosgene	0.1 ppm	ND		ND	ND	ND
Atul West Site								
32	Shed A05/03/44	Cl_2	9 mg/NM^3	5.1	7.3	6.3	Not Runnig	Not Running
		HCl	20 mg/NM^3	5.24	11.3	6.2		
33	Shed B2/12/24 Reaction Vessel	Cl_2	9.0 mg/Nm3	7.8	5.3	7.4	8.4	Not Running
		HCl	20.0 mg/Nm3	10.3	8.2	7.5	8.6	
34	Shed B18/02/24 Fan	SO_2	40 mg/NM^3	36.4	14.2	21.6	5.38	24.8
		Cl_2	9 mg/NM^3	7.7	5.6	8.8	5.2	7.1
		HCl	20 mg/NM^3	7.9	7.3	9	9	8.3
35	Shed C5/20/15 Chlorinator	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	6.3	8.4	Not Runnig	Not Running
		HCl	20.0 mg/Nm3		12.1	8.1		
36	Shed D Niro Spray dryer No. 45	PM	150.0 mg/Nm3	Not Runnig During Visit	43	53.8	37.6	Not Running
37	Shed D Niro Spray dryer No.50	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	44.6	51.2	Not Running
38	Shed E 7/12/49 Spray Dryer	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
39	Shed F F6/1/15 Reaction Vessel	Cl_2	9.0 mg/Nm3	5.6	4.1	8.1	8.1	6.5
		HCl	20.0 mg/Nm3	17.4	7.3	8.4	8.3	14.8

40	Shed G 10/8/1 (receiver)	Cl_2	9.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
		HCl	20.0 mg/Nm3					
41	Shed H 11/6/17 chlorinator	Cl_2	9.0 mg/Nm3	6.9	3.3	7.9	7.3	3.5
		HCl	20.0 mg/Nm3	14.2	8.1	7.6	14.4	14.4
42	Shed K K-13/3/4 Final of Sulfuric acid plant	SO_2	2.0 kg/T	Not Runnig During Visit	0.6	1.6	1.25	1.3
		Acid Mist	50.0 mg/Nm3		11.3	2.8	3.9	4.4
43	Shed J15/09/25	HBr	--	Not Runnig During Visit	Not Runnig During Visit	ND	ND	Not Running
		SO_2	40 mg/NM^3			16.8	23.9	
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
44	Shed J12/01/42	SO_2	40 mg/NM^3	21.8	Not Runnig During Visit	26.4	20.3	29.7
		Cl_2	9.0 mg/Nm3	5.9		5.4	8.1	5.2
		HCl	20.0 mg/Nm3	6.1		13.8	8.3	5.34
45	Shed J12/03/36	SO_2	40 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	21.8	29.9	22.3
		HCl	20.0 mg/Nm3			17.2	14.8	13.9
46	Shed N Scrubber Fan N20/08/24	Cl_2	9 mg/NM^3	5.7	8.4	3.9	6.2	5.9
		HCl	20 mg/NM^3	5.85	14.2	12.8	6.4	11.1
47	Shed N Scrubber Fan N20/02/41	SO_2	40 mg/NM^3	29.8	11.6	20.6	26.1	24
48	Sulfer Black Plant	H_2S	--	Not Runnig During Visit	ND	24.8	ND	ND
		NH_3	175 mg/NM^3		17.5	19.4	98	105
49	Sulfer Dyes plant	H_2S	--	Not Runnig During Visit	ND	19	ND	ND
		NH_3	175 mg/NM^3		11.3	30.4	33.1	37.2
50	Flavors & Fragrances Plant	HCl	20 mg/NM^3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Running
Atul North Site								
51	N-FDH Plant Catalytic Incinerator	PM	150.0 mg/Nm3	Not Runnig During Visit	Not Runnig During Visit	Not Runnig	Not Runnig	Not Runnig
		SO_2	40.0 mg/Nm3					
		NOx	25.0 mg/Nm3					
		Formaldehyde	10.0 mg/Nm3					
52	PHIN Plant	Phosgene	0.1 ppm	Not Runnig During Visit	ND	ND	ND	ND
53	PHIN-II Plant	HCl	20 mg/NM^3	5.2	7.3	7.4	5.8	3.15
54	DDS Plant (Pharma Plant)	NH_3	175 Mg/Nm3	Not Runnig During Visit	43.2	Not Runnig	Not Runnig	Not Running
55	SPIC II Plant (DCDPS)	SO_3	---	25.4	ND	15.1	ND	ND
56	SPIC I Plant	NH_3	175 mg/Nm3	140	62.4	120	120	126
57	SPIC IV Plant	NH_3	175 mg/NM^3	112	69.6	58	63	92
		SO_3	---	15.1	4.3	15.8	ND	ND
Sr. No.	Stack Details	Parameter	Permissible Limits	Obtained Value	Obtained Value	Obtained Value	Obtained Value	Obtained Value
East site								
1	FBC boiler E1	PM	100 mg/Nm3	62	80	61.6	Not Runnig	71
		SO_2	600 mg/Nm3	111	121	144		142
		NOx	600 mg/Nm3	106	106	138		176
2	FBC boiler E2	PM	100 mg/Nm3	not running during this month	86	71.8	64.1	Not Running
		SO_2	600 mg/Nm3		110	126	134	
		NOx	600 mg/Nm3		118	121	110	
3	FBC boiler E3	PM	100 mg/Nm3	not running during this month	78	66.2	76.1	50.8
		SO_2	600 mg/Nm3		116	136	140	163

		NOx	600 mg/Nm3		124	130	126	198
4	Hot Oil Unit	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
	(Resorcinol Plant)	SO_2	100 ppm		ND	ND		
		NOx	50 ppm		28	31		
5	DG set 1010 KVA (Standby)	PM	150 mg/Nm^3	Stand by	Stand by	38.6	44.6	36.4
		SO_2	100 ppm			5.2	4.9	6.2
		NOx	50 ppm			46.4	48.2	41.7
West Site								
6	FBC boiler W1	PM	100 mg/Nm3	54.8	59	62.4	83.6	71.8
		SO_2	600 mg/Nm3	120	123	124	156	156
		NOx	600 mg/Nm3	126	119	119	122	198
7	Hot Oil Plant shed-B	PM	150.0 mg/Nm3	not running during this month	ND	ND	Not Runnig	Not Runnig
		SO_2	100 ppm		ND	ND		
		NOx	50 ppm		23	26		
8	Oil burner Shed B	PM	150.0 mg/Nm3	Stand by	Stand by	Not Runnig	Not Runnig	Not Runnig
	(Stand By)	SO_2	100 ppm					
		NOx	50 ppm					
9	Boiler (50 TPH 2 Nos) (New boilers) W2,W3	PM	50 mg/Nm3	41.9	37	44.7	41.2	46.1
		SO_2	600 mg/Nm3	109	113	132	140	128
		NOx	300 mg/Nm3	92	108	128	136	160
		Mercury	0.03 mg/Nm3	ND	ND	ND	ND	ND
10	DG set 1500 KVA	PM	150.0 mg/Nm3	Stand by	Stand by	32.4	30.8	53.8
	(Stand By)	SO_2	100 ppm			4.4	5.2	7.2
		NOx	50 ppm			42.8	42.4	36.8
North Site								
11	Thermic fluid heater of	PM	150.0 mg/Nm3	not running during this month	ND	43.6	33.8	54.2
	DCO/DAP Plant	SO_2	100 ppm		ND	14.8	9.8	16.2
		NOx	50 ppm		29	30.1	21.6	24.8

Annexure 4: Flue Gas Stack Details

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

Sr. No.	Stack Details	Capacity/ Stack Htm	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)	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	-	Diesel
			SO_2	100 ppm		
			NOx	50 ppm		
11	DG set 1500 KVA (Stand By)	H: 11	PM	150 mg/Nm^3	-	Diesel
			SO_2	100 ppm		
			NOx	50 ppm		

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

Sr. No.	Stack Details	Stack Htm	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 Acidplant 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		5	Cl_2	9mg/Nm3	Caustic scrubber
			HCl	20mg/Nm3	

	Common Scrubber; 2,4D Plant		Phenol	--	
14	Dryer-1	26.5	PM with Pesticide compound	20mg/Nm3	Bag Filter, Water Scrubber
15	Dryer-2				Cyclone, Bag Filter, Caustic scrubber
16	Dryer-3				
17	Dryer-4				
18	Dryer-5				
MPSL Plant:					
19	Phosgene Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
20	Central Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
NICO Plant:					
21	Central scrubber at Nico Plant	12	Acetonitrile	---	water scrubber
Resorcinol Plant					
22	Spray dryer	20	PM	150 mg/Nm^3	water scrubber
23	Scrubber vent	15	SO_2	40mg/NM3	Caustic scrubber
24	Scrubber at Ester plant for Glyphosate	12	Formaldehyde	10mg/Nm3	water scrubber
Other					
25	MCPA	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20mg/NM3	
			SO_2	40mg/NM3	
26	Fipronil	19	SO_2	40mg/NM3	Alkali& Water Scrubber
			HCl	20mg/Nm3	
27	Imidacloprid	20	NH_3	175 mg/Nm3	Water Followed By Acid Scrubber
28	Pyrathroids	19	SO_2	40mg/Nm3	Alkali & Water Scrubber
			HCl	20mg/Nm3	
29	Stack at Amine Plant	5	NH_3	175 Mg/Nm3	Caustic Scrubber
30	Central Scrubber MCPA Plant	19	HCl	20mg/Nm3	Caustic Scrubber
31	MPP Plant Scrubber	21	HCl	20mg/Nm3	Water & Alkali Scrubber
			Phosgene	0.1 ppm	
32	Flavors & Fragrances Plant	21	HCl	20mg/NM3	Water Scrubber followed by caustic scrubber
33	Sulphur Black Plant	19	H_2S	--	Alkali & Water Scrubber
			NH_3	175 mg/Nm3	
34	Sulphur Dyes Plant	19	H_2S	--	Alkali & Water Scrubber
			NH_3	175 mg/Nm3	

Atul West Site					
35	Shed A05/03/44	19	Cl_2	9 mg/NM3	Caustic Scrubber
			HCl	20 mg/NM3	
36	Shed B2/12/24 Reaction Vessel	19	Cl_2	9 mg/NM3	Caustic Scrubber
			HCl	20 mg/NM3	
37	Shed B18/02/24 Fan	19	SO_2	40 mg/NM3	Caustic Scrubber
			Cl_2	9.0mg/Nm3	
			HCl	20 mg/Nm3	
38	Shed C5/20/15 Chlorinator	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
39	Shed D Niro Spray dryerNo.45	19	PM	150 mg/Nm^3	Water Scrubber
40	Shed D Niro Spray dryer No. 50	19	PM	150 mg/Nm^3	Water Scrubber
41	Shed E 7/12/49 Spray Dryer	19	PM	150 mg/Nm^3	Water Scrubber
42	Shed F 6/1/15 Reaction Vessel	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
43	Shed G 10/8/1 (receiver)	19	Cl_2	9 mg/NM3	Alkali& Water Scrubber
			HCl	20 mg/NM3	
44	Shed H11/6/17 Chlorinator	19			Alkali& Water Scrubber
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
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

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	Phenol	180+ 60MT	120+40 MT	PH-II Anisole tank farm	Temp- Ambient	Toxic spill	Dyke wall with valve, which do not allow liquid spill to go to normal drain. PVC suit, washing facility, SOP, etc.
3	Benzene	180 MT	100 MT	Resorcinol	Liquid at RT atmos. pressure	Fire	Isolated storage, FLP, Flam arrester, Breather valve, LI, Fire hydrant, sand etc.
4	Xylene	60	30	MPSL-NICO Plant	Atmospheric Normal Temp.	Fire	Dyke wall, Fire hydrant line, FLP, Spark arrester, Prohibited for vehicle movement &unauthorized person.
5	Phenol 98% solution	200 MT	170 MT	Near Bisphenol plant	Liquid at RT atmos. Pressure	Toxic spill	Dyke wall water spraying & washing facilities PEG 400 as antidote.
6	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.
7	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.
8	Toluene	120 KL	100 KL	Shed C	Atmo. Press and temp.	Fire &Chemical spillage	Underground tank, prohibited are, FLP, foam trolley etc.
9	Ethanol /Methanol	51 KL	40 KL	Shed N & A	Atmo. Press and temp.	Gas leakage, Spill	Respirators, Dry Sand, Dyke wall, spare tank
10	MCB	105 MT	100 Kl	Shed C	Atmo. Press and temp.	Fire &Chemical spillage	Underground tank, prohibited are, FLP, foam trolley etc.
11	Formaldehyde 37 to 43 %	1200 MT	600 MT	Storage Tank Opp. UF plant, FDH Plant & Nr. UF Plant	Liquid at RT, atm. press.	Toxic spill	Water spraying facilities L.I. Empty space for emergency transfer

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.

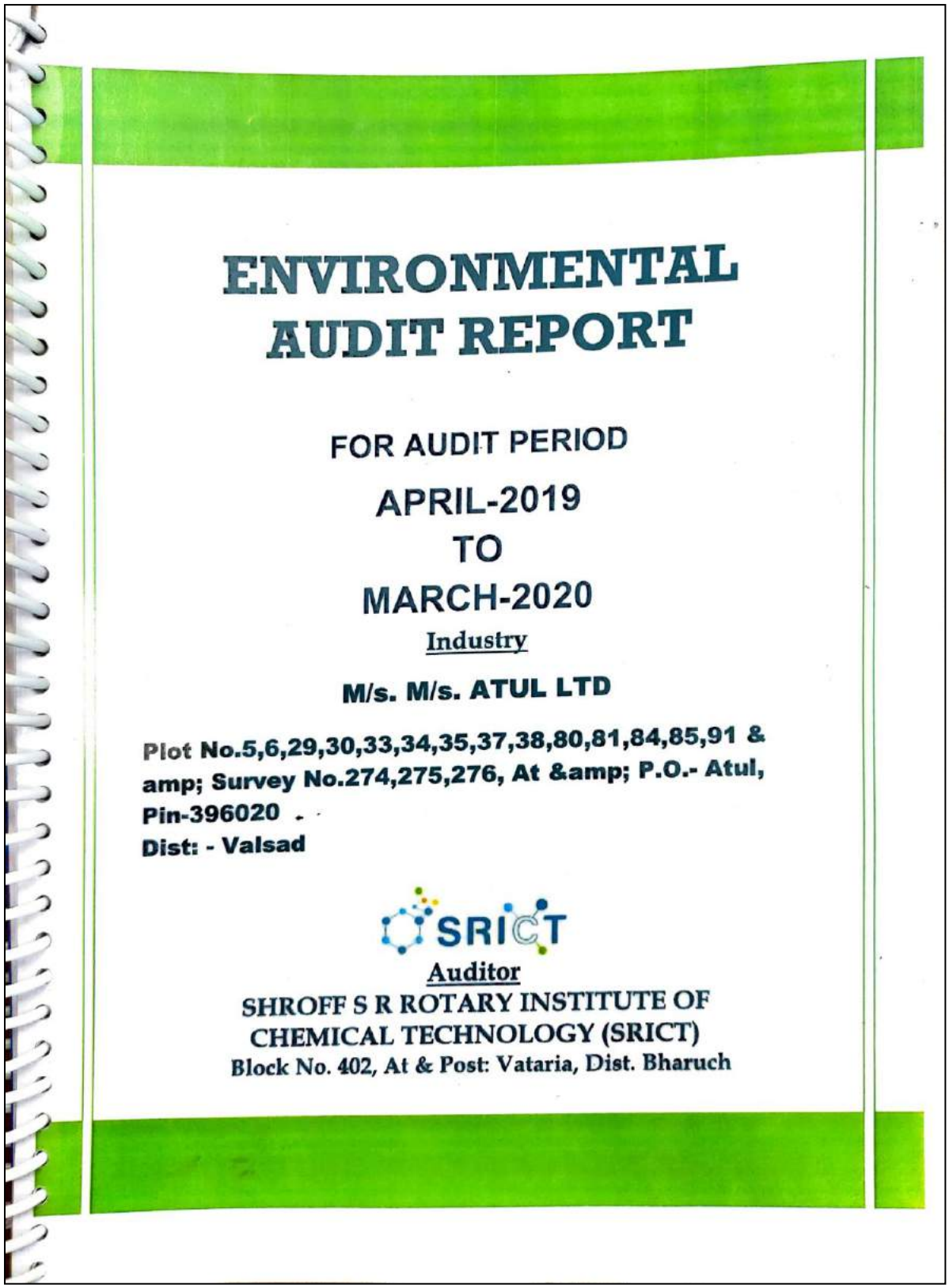
Annexure 7: CSR Activities

Atul Limited						
CSR projects April 2020 to September 2020						
No.	Programme	Description	Location	Final Implementing Agency	Estimated budget FY 2020-21 (₹ in lakhs)	Expenditure April 20 to September 20 (₹ in lakhs)
1	Education	Enhancement of education practices in Kalyani Shala	Atul, Valsad (Gujarat)	AFT | Atul Kelavani Mandal	75.00	4.14
2	Education	Enhancement of education practices in Atul Vidya Mandir	Atul, Valsad (Gujarat)	AFT | Atul Vidyalaya Trust	6.00	0
3	Education	Imparting training to women to become skilled elementary school teachers (Adhyapika) to improve rural education	Valsad (Gujarat)	AFT | ARDF	60.00	26.51
4	Education	Sporting a tribal school ,M D Desai school Chondha	Chondha, Navsari (Gujarat)	AFT	5.00	2.51
6	Education	ARDF activities	Atul, Valsad (Gujarat)	AFT | ARDF	50.00	23.82
7	Empowerment	Skill training to youth as apprentice	Atul, Valsad (Gujarat)	Atul	180.00	0
8	Health	Nutrition Garden project	Villages of Valsad (Gujarat)	AFT | BAIF	15.00	0
10	Relief	Relief for COVID -19	Valsad (Gujarat)	AFT	600.00	561.60
11	Infrastructure	Atul Model Village Project	Atul, Valsad (Gujarat)	AFT	30.00	0
12	Infrastructure	Support to schools and institutes in Ankleshwar	Ankleshwar , Bharuch (Gujarat)	AFT	10.00	2.89
13	Infrastructure	Development of Ulhas Cricket ground	Atul, Valsad (Gujarat)	AFT	20.00	0
14	Conservation	Afforestation	Atul, Valsad (Gujarat)	Atul	5.00	0
15	Conservation	Solid waste Management project	Valsad (Gujarat)	AFT	50.00	15.09
16	Conservation	Nature based sewage	Atul, Valsad	AFT	50.00	0

		treatment plant	(Gujarat)			
17	Other	Support to other institutes	Gujarat, India	AFT	44.00	0
18	**Administration expense**				50.00	0
	Total				**1,250.00**	**636.56**

Remark: Due to COVID-19 many budgeted activities could not initiated/completed

Annexure 8: Abstract of Env. Audit report



ENVIRONMENTAL AUDIT REPORT

FOR AUDIT PERIOD

APRIL-2019

TO

MARCH-2020

Industry

M/s. M/s. ATUL LTD

Plot No.5,6,29,30,33,34,35,37,38,80,81,84,85,91 & amp; Survey No.274,275,276, At & P.O.- Atul, Pin-396020 . Dist: - Valsad

SRICT

Auditor

SHROFF S R ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY (SRICT)

Block No. 402, At & Post: Vataria, Dist. Bharuch

OBSERVATION:

- Industry has valid CC&A number AWH-105110 which shall be valid up to 30/09/2025.
- The water and fuel consumptions are within the limits.
- Total Production of the industry increased up to 8.65 % in year 2019-20 from the previous audit year 2018-19.
- Electricity consumption increased up to 1.21 % in year 2019-20 from the previous audit year 2018-19.
- Water consumption is decreased up to 7.64 % in year 2019-20 from the previous audit year 2018-19. This indicates the various efforts of water conservation taken by the company.
- Wastewater generation is also decreased up to 2.63 % in year 2019-20 from the previous audit year 2018-19.
- Company has received certified compliance report for its recent Environmental Clearance for expansion of existing production and addition of new products.
- Company has applied for 50MW CPP.
- Company has successfully launched 5 S system implementation program.
- Company has a proper platform with electrical connection for ambient air monitoring.
- Record of the data of CETP chemical, Water consumption and Wastewater generation are maintaining regularly.
- Overall housekeeping is satisfactory.
- Company has initiated construction of one more ETP having capacity 450 KLD to treat segregated steam from Pharmaceutical intermediate plan.
- Industry has provided PPE in all the unit and used well in different area of working.
- Stack identification at site is done for most of the stack. It shall be done for remaining stacks also.
- Total and individual production is within the consented quantity given by GPCB.
- Industry has appointed full time doctor and adequate facility for treatment within the premises.

Recommendations:

- Company shall upgrade its online treated effluent monitoring system.
- Company shall repair and/or make asphalt concrete/RCC roads to minimize dusting on internal roads.
- Company shall obtain stability certificate for its TSDF site.
- Company shall plan for ZLD for the ongoing South ETP project for Pharmaceutical intermediate plant stream.
- Company shall provide proper identification plat with information regarding limits and stack in all the north and west site plant.
- Company shall update its online OCEMS facility in phase wise manner for auto calibration for stacks.

ANNEXURE – 30
COMPLIANCE REPORT

Sr.No.	CONSENT REQUIREMENT	COMPLIANCE STATUS
1	Consent No. AWH - 105110 dated 16.11.2019	Noted.
	Validity up to 30.9.2025	
2	Production capacities of different products [Total 478922.004 TPA]	Complied
Specific Condition		
	The unit shall manufacture the Phosgene gas in fully automated plant having multilevel of safety provisions.	Complied.
	Unit will utilize the Phosgene gas immediately after its generation for captive purpose only	Complied.
	Unit shall establish and maintain onsite emergency plan and carry out mock drill as per period decided	Complied.
	Unit shall submit production data of Phosgene every month to this office'	Complied.
	Unit shall install new 4 Kms length HDPE pipeline parallel to existing pipeline for disposal of treated waste water in the estuary of Par River at the identified point by NIO.	Complied.
	Unit shall use pipeline in case of emergency like breakdown, preventive maintenance only when old pipeline is under maintenance and unit shall get prior permission from Regional Office, Vapi before use of new pipeline	Complied.
	Unit shall comply undertaking dated: 08/07/2016 given with the board.	Complied.
	Unit shall comply coal handling guideline, spent solvent handling and management , spent acid management	Complied.
3. Condition under the water (prevention and control of pollution)Act 1974		
3.1	<table><tr><th>Particulars</th><th>Actual</th><th>Consented</th></tr><tr><td>Water Consumption (Industry + domestic)</td><td>9371 KL/Day</td><td>28358 KL/Day</td></tr><tr><td>Industrial effluent (Low + High COD)</td><td>8643 KL/Day</td><td>24096 KL/Day</td></tr><tr><td>Sewage generated</td><td>365 KL/Day</td><td>939 KL/Day</td></tr></table>	Complied.
3.2	Total quantity of effluent generated from manufacturing process and other ancillary operation shall not exceed 24096 KLD.	Complied

3.3	20514 KLD (excluding quantity of M/s. Atul Bioscience Ltd. =438.63 KLD) waste water shall be treated in ETP and then discharged into par river through 4 km Pipeline.	Complied
3.4	1000 KLD waste water shall be sent to RO/MEE. 800 KLD RO permeates shall be recycled into cooling tower. 200 KLD RO reject shall be sent to MEE. 190 KLD recovered MEE water shall be recycle into cooling tower. 10 MT MEE salt shall be sent to TSDF. 2500 KLD waste water shall be sent to RO/MEE. 2000 KLD RO permeates shall be recycled into cooling tower. 150 KLD RO reject water shall be utilized for quenching/Ash cooling. 350 KLD RO reject shall be sent to MEE. 345 KLD recovered MEE water shall be recycled into Boiler. 5 MT MEE salt shall be sent to TSDF. 82 KLD high COD waste water shall be sent to incinerator. The quantity of the domestic waste water (sewage) shall not exceed 322 KLD.	Complied.
3.5	Trade Effluent	
3.6	The treated effluent from the industrial unit shall conform to the GPCB norms mentioned in table no. 3.6	Complied.
	All efforts shall be made to remove Colour & unpleasant odor as far as practicable.	Complied
3.7	The final treated effluent from central ETP confirming to the above standard shall be collected in the guard pond and then discharged through closed pipeline to estuary zone of river Par via diffuser.	Complied
3.8	Domestic effluent shall be sent to ETP.	Complied.
4. CONDITION UNDER (PREVENTION AND POLLUTION) ACT 1981: THE CONTROL OF AIR		
4.1	(a) The table no. 4.1(a) shall be used as fuel. (b) The table no. 4.1(b) shall be used for captive power consumption.	
4.1a	Fuel consumption figures for boilers /Heaters	Complied
4.1b	List of boilers for captive power consumption	Noted
4.2	The applicant shall install & operate air pollution control system in order to achieve norms prescribed in table no. 4.3	Complied
4.3	The flue gas emission through stack attached to boiler shall confirm to the standard mentioned in table.	Complied.
4.4	The process emission through various stack / vent of reactors process, vessel shall confirm to the standards mentioned in 4.4	Complied.

Fuel:	Consumption for 2019-20 Quantity/year (MT)
Coal	299614.8
Lignite	56763.89
Total	356378.7
Diesel	9135 Ltr/Year

4.5	The concentration of the following substances in the ambient air within the premises of the industry and at a distance of 10 meters from the source (other than the stack / vent with height of more than 9 ,meters from the ground level) shall not exceed the levels mentioned in table no. 4.5	Complied.
4.6	The applicant shall provide portholes, ladders, platform etc. at chimney(s) for monitoring the air emission and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S- 1, S-2, etc. and these shall be painted/displayed to facilitate identification.	Complied
4.7	The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB (a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6 a.m. and night time is reckoned between 10 p.m. and 6 a.m.	Complied.
5. GENERAL CONDITIONS:		
5.1	Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.	Noted
5.2	Management of Solid Waste generated from industrial activity shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).	Noted
6. Authorization under Hazardous and other waste (management and transboundary Movement) Rules -2016, Form-2 (See rule 6(2))		
6.1	Number of authorization: AWH-105110, Date of issue: 16/10/2019	Noted
6.2	Reference of application No. 163867 and date: 05/10/2019.	
6.3	M/S. ATUL LIMITED, is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated in Valsad.	
6.3	Haz. Waste disposal as stipulated.	Complied.
6.4	The authorization shall be valid for a period of 30/09/2025.	Noted
6.5	The authorization is subject to the following general and specific conditions:	
A. General conditions under Hazardous and other Wastes (Management and Transboundary Movement) Rules-2016;		
1.	The authorized person shall comply with the provision of the Environment (protection) Act, 1986, and the rules made there under.	Noted and Complied.
2.	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.	Noted.

3.	The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.	Noted and Complied.
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.	Noted.
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.	Complied.
6.	The person authorized shall comply with the provision outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"	Noted.
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.	Noted.
8.	The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.	Not Applicable as no Haz waste is imported.
9.	The record of consumption and fate of the imported hazardous and other wastes shall be maintained.	Not Applicable as no Haz waste is imported.
10.	The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific condition of authorization.	Complied.
11.	The importer or exporter shall bear the cost of import and export and mitigation of damages if any.	Not Applicable as no Haz waste is imported or exported.
12.	An application for the renewal of an authorization shall be made as laid down under these Rules.	Noted
13.	Any other conditions for compliance as per the guidelines issued by the Ministry of the Environment, Forest and climate Change or Central Pollution Control Board from time to time.	Noted and will be complied.
14.	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.	Complied.
B. Specific Conditions:		
1.	The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.	Noted.
2.	Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry into the passbook of the actual user.	Noted and complied.
3.	In case of renewal of authorization, a self- certified compliance report in respect of effluent, emission standard and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.	Noted.

4.	The occupier of the facility shall comply standard operating procedure/ guidelines published by MoEF&CC or GPCB from time to time.	Complied.
5.	Unit shall comply provisions of E-waste (Management) Rules-2016.	Complied.

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

Annexure 10 : Environmental statement

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

Ref: Atul/GPCB/Form V

Date: September 22, 2020

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

SUB: **Submission of form V.**

Dear Sir,

We are enclosing herewith duly filled form – V for the financial year ending 31st March, 2020.

Kindly receive the same.

Thanking you,

Yours faithfully,

For Atul Ltd,

Hriday Desai
(Vice president – Assurance EHS)

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

[Form V]

(See Rule 14)

Environmental Statement for the financial year ending the 31st **March 2020**

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. 2019.**

Part - B

Water and Raw Material Consumption

(1) Water consumption m^3/day

Process : 7213 kl/day
Cooling : 1702 kl/day
Domestic : 457kl/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	4.7 kl/mt	3.91 kl/mt
2.	Colours	70.7 kl/mt	69.26 kl/mt
3.	Pharma & Polymer	4.3 kl/mt	4.22 kl/mt

(2) Raw material consumption

*Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year

Please refer Annexure - 2

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

Part - C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a)Water	COD : 1987 kg/day (230 mg/lit)		NIL
(b)Air	SOx : 13.7 Mg/NM^3		
	NOx : 10 Mg/NM^3 (Process)		

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	1705663	2645585*
From pollution control facilites (ETP sludge and Salt from MEE to Captive TSDF)	9481204	9181367

*The increase in Process waste is due to implementation of EC project.

Further we are also furnishing details for the waste we sold/sent for recovery/further treatment as per valid authorization:

Waste sale/sent for recovery as per authorization (including Process waste and waste from pollution control facilites during 19-20)	40246738

Part - E

Solid Waste

Solid Wastes	Total Quantity (kg)	
	During the previous financial year	During the current financial year
(a)From process **(Fly Ash)**	68353710	96513087
(b)From pollution control facility		
(c) (1) Quantity recycled or re-utilised within the unit	Nil	Nil
(2) Sold	68353710	96513087
(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

Any other particulars for improving the quality of the environment.

a. Company has updated its EMS system as per ISO 14001:2015.
b. Above ground pipe line network installation job for transferring effluent from production plants to ETP is almost completed.
c. We have installed ATFD and DEE in downstream of MEE to make it zero liquid discharge plant.
d. Recovery of various recoverable materials like Copper hydroxide, methanol, salt, mix dyes, PTSA, ammonia, etc. from the effluent streams is an ongoing process.

Apart from above, company has taken following initiatives during 19-20:

1. ZLD project of NETP: We are in process of making whole North site a ZLD (Zero Liquid Discharge) site. We already have full-fledged ETP with tertiary treatment and MEE. Plan for reuse of Tertiary treated water and MEE condensate is as under;

a. **Scheme for MEE condensate reuse**: At present high TDS|brine effluent is being treated in MEE. Now we have installed 3 stage RO system (capacity 200 KLD which can be upgraded up to 325 KLD in future) for the treatment of MEE condensate water. The permeate (approx. 80%) will be reuse in utility and reject of RO will be used in plant or will be treated at NETP. Thus MEE condensate will be fully reused and become ZLD.
This project is in commissioning stage.

b. **Scheme for North ETP treated water reuse:** At present, we have complete treatment facility at North site including tertiary treatment. Now we are upgrading our treatment facility for betterment. We are introducing one Fanton reactor (capacity: 100 KL) before equalization tank to treat abnormality, if any, found in inlet effluent. High Efficiency Air Dissolved air flotation (HEAF) unit (1200 KL) will be introduced after equalization tank to remove TSS, oil and grease, emulsion etc. We have two stage aeration system in series. We are introducing Anoxic Tank (1100 KL) in between two Aeration tanks for denitrification.

Apart from this changes in existing system, we are further upgrading our North ETP with MBR (Membrane Bio Reactor). The treated effluent after passing through MBR will be treated in three stage RO.

c. **RO System** :The treated water from MBR shall be pumped through the MCF followed three stage RO system having membrane assembly. The RO-1 feed water will be passed through RO System, permeate will be available for reuse and balance will be in reject stream which will be treated in second stage RO. RO-2 Reject stream which will be treated in RO3 system RO-3. Recovery in RO system will be more than 80 %. RO Reject will be passed through existing MEE having scale ban technology & condensate will be available for reuse, thus overall recovery will be more than 99%. Salt of MEE will be disposed in TSDF.

d. **Scheme for New MEE** :Since our existing MEE at North site will be used for treatment of RO reject from NETP as stated above, we are installing new MEE having scale ban technology simultaneously for high TDS|brine effluent. Its capacity will be 325 KLD. This MEE plant is designed by M/s. Praj Industries Ltd and contains Pre-Treatment of brine, Recovery of Nacl by evaporation. Salt generated from MEE will be sold to the actual users as per the authorization.

2. **Construction of new ETP:** We manufacture polymers and Pharma intermediates at our North site. While updating our North site ETP as stated above, we have also planned to segregate the polymer and Pharma streams for better treatment and control. We are in process of construction of new ETP having all primary, secondary and tertiary treatment for this segregated pharma stream. We are already having one old ETP structure at our south site, which is not in used since years. We are refurbishing and adding new units. ETP (SETP) Capacity: 450 KLD

   Brief Description:

   The south ETP contains four stage treatment: Pre primary, primary, secondary and tertiary. Preprimary treatment consisting of bar screen and collection tank. Primary treatment is having neutralization tank and equalization tank. Anoxic tank followed by two stages of aeration and three clarifiers provided in secondary treatment. Tertiary treatment is having chlorine contact tank, DMF (Dual Media Filter) consisting of layers of graded sand & anthracite and ACF (Activated Carbon Filter) for removal of residual organics, odour and colour. The treated effluent will be sent to Central Effluent Treatment Plant (CETP) at East site for further treatment if required, or for final disposal.

3. **Installation of MEE for High TDS stream from 2, 4 D plant :** Presently high TDS stream of 300 KLPD is being treated in CETP along with normal effluent. This stream has been segregated and will be sent to new proposed MEE having capacity of 465 KLPD. Condensate of the same will be reused in the plant. Salt generated from MEE will be sold to the actual users as per the authorization. The project is in very initial stage and will be completed by August 2021.

4. **Raw material conservation :** MCA (Mono Chloro Acetic Acid) is one of the main raw material used in production of 2,4 D Acid. Lab trails are successfully conducted for using sodium salt of MCA instead of pure MCA and results are worthy. This can reduce MCA consumption by 4% per MT of 2,4 D. Plant trials are going on at present.

   Further, a steam is identified at 2,4 D plant which require only neutralization treatment. Neutralization facility is installed at plant. Treated effluent meeting with GPCB norms is directly disposed to guard pond. This has reduced effluent load of 4.5 MTD at ETP.
5. **Close system for Benzene charging:** Power Charging System for benzene feeding is installed at Ester Plant. This is to prevent the loss of material and thus control VOC emission.
6. **Reduction in Pollution load at ETP:** One of our Crop Protection plant i.e. NICO-MPSL has reduced its effluent load to ETP by 50 Kl/month through implementation of effluent recycling scheme.
7. **Up gradation of ESP:** We have replaced single phase rectifier with three phase rectifier in electro static precipitator (ESP) of East fluidized bed combustion-2, 3 to achieve the amended norm for Suspended Particulate Matter (SPM) i.e. below 100 ppm from 150 ppm

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) MEE condensate recovery water is being utilised as raw water in our Epoxy plant various purpose.
d) 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.
e) Fresh water consumption reduced by increasing COC of cooling tower by providing chemical water treatment and providing side stream filter.
f) Reduction in fresh water requirement: In one of our Agro product, earlier second wash water was discharged to ETP. Now it is being recycled in first wash. This has completely eliminate the water requirement for second wash as well as process effluent has been reduced to 50%. In other product, 3 streams have been identified for recycling and its implementation has caused 1.4KL/day reduction in effluent. In Formulation, DM water used for Hexa SC vessel cleaning now carry forward to next

batch in place of draining it to ETP. In Ester plant, recycling of ejector condensate water is done in place of first wash.

g) Using treated effluent in scrubbers

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 **9.63 lac KL** rain water during 2019.

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:

h) Heat recovery at SAP and utilizing for preheating of Boiler feed water.
i) Replacement of Induced draft CT (cooling tower) by Venturi type CT.
j) Replacement of Burners by energy efficient burners in Gas/ FO fired Boilers.
k) Replacing reciprocating compressors by screw compressors for Air & Chillers.
l) Replacing old pumps/ motors by energy efficient pumps & motors.
m) Utilizing oxygen rich air from PSA vent for COD reduction.
n) Company has replaced roots blower by Energy efficient centrifugal blower at Sulfuric Acid Plant.
o) Replacement of reciprocating air compressors by screw compressors.
p) Optimization of cooling water header size is done.
q) Company has started utilizing 7 bar steam in place of 19 bar steam to increase electricity generation benefit.
r) Optimization of Hot water wash for filter cake is done
s) Controlling Dry vacuum pump using VFD in place of air bleeding
t) Replacing pumps by energy efficient pumps.
u) Installed energy efficient LED light fittings.

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 2019-20

S.N	Parameter	Capital cost per annum (Rs. In lacs) 2019-20	Investment /Recurring Cost per annum (Rs. in lacs) 2019-20
1	Air Pollution Control	124.17	4507.2
2	Liquid Pollution Control	341.7	
3	Environmental Monitoring and Management	29.3	70
4	Solid waste Disposal	-	576.22
5	Occupational health	-	30
6	Green belt	-	10.0
Total		**495.17**	**5193.42**