Atul Bioscience Ltd

Project: Change in product mix of organic chemicals

EC Compliance Report for EC F. No. J -11011/84/2009-IA II (I) dated April 9, 2009.

Report Period April 2020 – September 2020

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific Condition</td></tr>
<tr><td>i</td><td>The industrial effluent generation shall not exceed 326.8 m³/d. (Total process effluent generation after expansion will be 588.6 m³/d- ref. point 4 of EC)</td><td>Complied.

The average total industrial effluent generation for the report period is 38.5 m³/day only which is well within the limit. Details given in below table:

<table>
<tr><th>Waste water gener-ation</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>m³/Month</td><td>45</td><td>859</td><td>1125</td><td>1677</td><td>1374</td><td>1575</td><td>6655</td></tr>
<tr><td>m³/day</td><td>1.5</td><td>27.7</td><td>37.5</td><td>54</td><td>44.3</td><td>52.5</td><td>38.5 Avg.</td></tr>
</table>

The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summery 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>326.80</td><td>1.5</td><td>52.5</td><td>38.5</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>
<tr><td></td><td>Out of 326.8 m³/d, 24 m³/d of high COD effluent shall be incinerated in the incinerator (of Atul Ltd as stated in point 4 of EC)</td><td>Complied.

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 Solvents, oils, etc. are taken for the recovery of the same and reused. Hence, there is no High COD Waste water stream remaining and therefore</td></tr>
</table>

<table>
<tr><td></td><td></td><td>no incineration was done during this period.</td></tr>
<tr><td></td><td>Remaining 302.8 m³/d of normal effluent stream after mixing with other effluent like cooling tower (111.8 m³/d) shall be treated in ETP for primary and secondary treatment.</td><td>Complied.

Normal effluent stream is further treated in Effluent Treatment Plant of Atul Ltd. (Ref. Point 4 of EC)</td></tr>
<tr><td></td><td>The treated effluent after confirming to the prescribed standards shall be discharged into estuary of river Par through a 4km long pipe line.</td><td>Complied.

The treated effluent after confirming to the prescribed standards is being discharged into estuary of river Par through a 4km long pipe line of Atul Ltd. (Ref. Point 4 of EC). 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.20)

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

<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Parameter</th><th rowspan="2">Limit</th><th colspan="3">Values for the period Apr. 20 - Sep. 20</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>pH</td><td>5.5-9.0</td><td>7.35</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)in units</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>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<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>
</td></tr>
<tr><td>ii</td><td>Process emissions in the form of HCl shall be scrubbed with water and caustic scrubber and HCl recovered as by product.</td><td>Complied.

Process emissions in the form of HCl is being recovered up to the possible extent and reused partially in process. Remaining HCl is scrubbed with water and caustic scrubber.</td></tr>
<tr><td></td><td>The emissions shall be dispersed through stack of adequate height as per CPCB standards.</td><td>Complied.

The emissions is being dispersed through stack of adequate height as per CPCB standards. Gaseous emissions from process units are monitored regularly every month and same are given in Table 2 (Pl. see pg. no.20). The same is being monitored online and connected with CPCB and GPCB.</td></tr>
<tr><td></td><td>The gaseous emissions from the DG sets shall be dispersed through stack of adequate height as per CPCB standards.</td><td>Complied.

The gaseous emission from the DG sets is dispersed through stack of adequate height as per CPCB standards.
The minimum height of stack is provided using the following formula (ref. CPCB):
H = h+0.2x√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.</td></tr>
<tr><td></td><td>Acoustic enclosures shall be provided to the DG set to control the noise pollution.</td><td>Complied.

DG Sets are having inbuilt acoustic enclosure to control noise pollution.</td></tr>
</table>

<table>
<tr><td>iii</td><td>The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically.</td><td>Complied.

The status of compliance of stipulated environmental clearance conditions including results of monitored data is posted on our web site www.atulbio.co.in</td></tr>
<tr><td></td><td>It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the State Pollution Control Board.</td><td>Complied.

Compliance status report is regularly submitted to the Regional office of MOEF, the respective Zonal office of CPCB and the State Pollution Control Board.</td></tr>
<tr><td></td><td>The criteria pollutant levels namely: SPM. RSPM, S02. 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 the company in the public domain.</td><td>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.

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. 20, 21, 23)

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards.

Summary of 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>HCl</td><td>20</td><td rowspan="2">mg/Nm^3</td><td>6.6</td><td>14.4</td><td>9.3</td></tr>
<tr><td>2</td><td>Cl_2</td><td>9</td><td>6.5</td><td>8.1</td><td>7.1</td></tr>
</table>

Summary of Ambient Air Quality results:

<table>
<tr><th rowspan="2">Station</th><th rowspan="2">Parameter</th><th rowspan="2">Limit microgm/ NM^3</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 rowspan="4">Behind MPP I Plant</td><td>RSPM (PM2.5)</td><td>60</td><td>41.7</td><td>57.9</td><td>52.3</td></tr>
<tr><td>PM10</td><td>100</td><td>68.8</td><td>90</td><td>82.28</td></tr>
<tr><td>SO2</td><td>80</td><td>13.8</td><td>23.9</td><td>17.2</td></tr>
<tr><td>NOx</td><td>80</td><td>20.9</td><td>28.2</td><td>24.26</td></tr>
</table>
</td></tr>
</table>

		Opposite R & D lab	RSPM (PM2.5)	60	36.8	51.2	44.3
			PM10	100	58.1	82	70.7
			SO_2	80	10.4	16.8	13.2
			NOx	80	16.2	24.5	20.1
		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	25.18
			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
		Near 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
		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
			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:

Location	Parameter	Permissible limit microgram /Nm³	Values for the period Apr. 20 – Sep. 20		
			Min.	Max.	Avg.
Ground Floor MPP2	Phosgene	0.4	ND	ND	ND
	Chlorine	3	1.2	2.4	1.9
Ground Floor MPP1	Toluene	375	245	360	303

iv	The company shall adopt cleaner production technology to minimize the quantity of fresh water requirement and process effluent generation.	Complied. Steam condensate is being collected and used in place of raw water. Various wash water streams are being utilized in the further steps of the process. Details of water consumption break up is given below:

Water Consumption Break up m³				
Period	Water consumption in KL			Total
	Process	Cooling	Domestic	
Apr 20	16	29	363	408
May 20	335	524	2054	2913
Jun 20	445	680	3291	4416
Jul 20	577	1100	2301	3978
Aug 20	474	900	2579	3953
Sep 20	615	960	2766	4341

v	The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary movement) Rules. 2008 for management of hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF.	Complied. We have obtained authorization under Haz. Waste management rules 2008 and available in our valid current CCA No. AWH 59131 for handling, storage and disposal of hazardous waste.
	The concerned company shall undertake measures for firefighting facilities in case of emergency.	Compiled. We have 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 being carried out at regular interval.
vi	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules. 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 made in CCA by GPCB in this regard. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year. Latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as **Attachment 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 1989.
vii	The company shall undertake following 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. HCl and Solvent recovered are being used as raw material in further steps.
	Use of automated filling to minimize spillage.	Complied. Filling is done on weighing balance manually but in controlled manner to minimize spillage.
	Use of "Close Feed' system into batch reactors.	Complied. All reactors are in close loop and connected with condensers having cooling tower water, Chilled water or Brine water supply for control of fugitive emission.
	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.
	Use of high pressure hoses for equipment clearing 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.	Complied. Fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by GPCB approved third party. The emission is always being confirmed to the limits.
	The emissions shall conform to the limits imposed by SPCB.	Complied. The emissions confirms the limits. 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. iii. The detailed results are given in Table 2. (Pl. see pg. no. 20)

ix	The project authorities shall provide the chilled brine solution in secondary condenser for condensation of the VOCs.	Complied. Chilled brine solution is provided in secondary condenser for condensation of the VOCs.
	The project authority shall ensure that the solvent recovery shall not be less than 95%.	Complied. Solvent recovery is >95%.
	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 For No. 37.VOC monitoring done on regular bases and the results are given in **Table 4** (Pl. see pg. no. 23)
x	Solvent management shall be as follows :	
	Reactor shall be connected to chilled brine condenser system	Complied. Reactors are connected to chilled brine condenser system
	Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied. Reactor and solvent handling pump do have 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 are provided with sufficient HTA and residence time.
	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. The solvent storage tanks shall be provided with breather valve to prevent losses.	Complied. Plants are equipped with Jumpers, flame proof electrical fittings and proper earthing as per the Hazardous area classification of PESO.

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.
	An area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.	Complied. Company is having green belt in 33% area of plant and doing plantation every year.
xii	The Company shall harvest surface as well as rainwater from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Complied. We have installed 120 KL underground tank and 2 nos 30 Kl overhead tank to collect rain water from roof tops.
xiii	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	Complied. Occupational health surveillance of the workers being carried out on regular basis.
B. General Conditions		
i	The project authorities shall strictly adhere to the stipulations made by the GPCB.	Complied. The company adheres to the compliances and has not exceeded the stipulation. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year. Latest environmental audit report by Shroff S R Rotary Institute of Chemical Technology (SRICT), Bharuch for year 2019-20 is attached as Attachment 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	Complied. Any expansion will be carried out after prior approval of MoEF only.

	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.	
iii	At no time, the emissions shall exceed the prescribed limits.	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 emission is given in special condition 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 the compliance period.
iv	The Gaseous emission (NOx, HCl, SO2 and SPM) and Particulate matter along with RSPM levels from various process units shall confirm to the standards prescribed by the concerned authorities from time to time.	Complied. The gaseous emissions (HCl) from process units confirms to the standards prescribed by GPCB through CCA Gaseous emission is regularly monitored. Results given in Table 2 (Pl. see pg. no. 20).
	At no time, the emission levels shall go beyond the stipulated standards.	Complied. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Summary of stack emission is given in special condition iii.
	In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be	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

<table>
<tr><td></td><td>restricted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO2, Nox and SPM shall be carried.</td><td>restart.</td></tr>
<tr><td>v</td><td>The Location of ambient air quality monitoring stations shall be decided in consultation with sated 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.

There are two locations have 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 for ambient air monitoring. 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>Behind MPP I Plant</td></tr><tr><td>2</td><td>Opposite R & D lab</td></tr></table>
Apart from this, 10 ambient air stations of Atul Ltd also monitors the surrounding of ABL.</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 and 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. 20)</td></tr>
<tr><td>The scrubber water shall be sent to ETP for further treatment or sell to actual end users.</td><td>Complied.

The scrubber water is being sent to ETP for further treatment.</td></tr>
<tr><td rowspan="2">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 DG set, etc.</td></tr>
<tr><td>The ambient noise level shall confirm to the</td><td>Complied.</td></tr>
</table>

	standards prescribed under Environment(Protection) Act-1986 Rules,1989 viz 75 dBA (day time) and 70 dBA (night time)	The ambient noise level confirm to the standard prescribed under EPA. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Noise level monitoring data (Day Time)

Sr. No.	Location	Permissible Limits, dBA	Values for the period Apr. 20 – Sep. 20		
		75	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	Water tank Haria road	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, dBA	Values for the period Apr. 20 – Sep. 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

<table>
<tr><td></td><td></td><td>
<table>
<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>ETP North site</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>ETP West site</td><td>70</td><td>55.10</td><td>56.80</td><td>55.94</td></tr>
<tr><td>9</td><td>Water tank Haria road</td><td>70</td><td>52.60</td><td>55.80</td><td>54.20</td></tr>
<tr><td>10</td><td>Near 66KVA substation</td><td>70</td><td>55.10</td><td>57.30</td><td>56.38</td></tr>
</table>

Details are given in Table 5 and 6 (Pl. see pg. no.24)
</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. 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.

Company is doing all the new employment with pre medical checkup and routine medical checkup for on roll employee has been done on regular frequency.</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 strictly follow for all level of employee.</td></tr>
<tr><td>x</td><td>The project proponent shall also comply with all the environmental protection measures and safeguards proposed in project report submitted to the ministry.</td><td>Complied.

Company has complied with all the environmental protection measures and safeguards proposed in the report apart from the recommendations made their in.</td></tr>
<tr><td></td><td>All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.</td><td>Complied.

Since the project did not require EIA or public hearing, no such recommendations mentioned. However, we are committed for healthy work environment and safe work practices.</td></tr>
</table>

xi	The company will undertake all relevant measures for improving the socio economic condition for the surrounding area, CSR activities will be undertaken by involving local villages and administration.	**Complied**. Company is doing CSR activities 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 **Apr 20- Sept 20** is given in **Table 7**. (Pl. see pg. no. 25)
xii	The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.	**Complied** as mentioned in xi above.
xiii	A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.	**Complied**. Company has tie up with its parent company Atul Limited where separate Environmental Management Cell equipped with full-fledged laboratory facilities to carry out the environment management and monitoring functions.

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

EMP measures are 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>Period</th><th>Particular</th><th>Expenses Rs. (in lacs)</th></tr><tr><td rowspan="3">Apr 20 to Sep 20</td><td>Effluent treatment</td><td>21.66</td></tr><tr><td>Air Monitoring</td><td>0.35</td></tr><tr><td>Waste Disposal</td><td>1.23</td></tr></table></td></tr>
<tr><td rowspan="2">xv</td><td>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation. Urban local body and the local NGO, if any, from who suggestions/representation, if any, were received while processing the proposal.</td><td>Complied.

Latest submission to the Panchayat, Zila parishad, District Industrial Centre was distributed on 11.11.2016. Copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.</td></tr>
<tr><td>The clearance letter shall also be put on the web site of the company by the proponent.</td><td>Complied.

Available at company’s website www.atulbio.co.in</td></tr>
<tr><td>xvi</td><td>The implementation of the project vis-à-vis environmental action plan shall be monitored by Ministry’s Regional office at Bhopal / SPCB / CPCB.</td><td>Complied.

SPCB and MoEF is monitoring through their regular visits.</td></tr>
</table>

xvii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forest at http://www.envfor.ni.in.	Complied. We informed the public through advertisement and by sending our EC to local Panchayat, Zila parishad, District Industrial Centre for further actions at their end.
	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Ministry's Regional office at Bhopal.	Complied. Advertisement was published and copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.
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 : April 2009 Completion date : March 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.
9	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.

10	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.
11	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.
12	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air ((Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

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.

Table 2: Stack Results:

Stack attached to	Stack Height m	Parameter	Permissible limit	Results in Milligram per NM^3				
				May 20	Jun 20	Jul 20	Aug 20	Sep 20
MPP1	5.00	HCl	20	6.6	14.4	6.8	8.3	10.7
		Cl_2	9	6.5	7	6.6	8.1	7.5

Table 3: Ambient Air Monitoring Details:

Station	Parameter	Limit microgram/NM³	May 20	Jun 20	Jul 20	Aug 20	Sep 20
Behind MPP I Plant	RSPM (PM2.5)	60	53	56	57.9	41.7	52.9
	PM10	100	87	90	84.2	68.8	81.4
	SO_2	80	23.9	17.4	16.2	13.8	14.7
	NOx	80	28.2	26.6	21.8	20.9	23.8
Opposite R & D lab	RSPM (PM2.5)	60	48	40	51.2	36.8	45.8
	PM10	100	82	75	65.6	58.1	72.9
	SO_2	80	16.8	10.6	14.8	10.4	13.8
	NOx	80	24.5	20.2	19.2	16.2	20.6
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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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
	SO_2	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: VOC results

Location	Parameter	Permissible limit	Results of VOCs in Milligram per NM3				
			May 20	Jun 20	Jul 20	Aug 20	Sep 20
Ground Floor MPP2	Phosgene	0.4	ND	ND	ND	ND	ND
	Chlorine	3.0	2.1	1.2	2	2.4	1.9
Ground Floor MPP1	Toluene	375	320	360	310	280	245

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	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 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	
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

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 (Rs. in lakhs)	Expenditure April 20 to September 20 (Rs. 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 pandemic many of budgeted activities could not initiated/completed.