



November 23, 2020

ENV/14/20/2311

Additional Principal Chief Conservator of Forests (C),
Ministry of Environment, Forests & Climate Change
E-5, Kendriya Paryavaran Bhavan
Link Road No.3
Ravi Shankar Nagar
Bhopal-462016

Sub: Compliance report for the period (April to September) 2020
Ref: Environmental Clearance no. J-11011/300/2015-IA II (I) dated
March 28, 2017 and its amendment dated February 21, 2018.

Respected Sir,

Enclosed is the compliance report of Environmental Clearance for the period (April to September) 2020.

We hope you will find the same in order.

Thanking you,

Yours faithfully,

For Bayer Vapi Private Limited

(Formerly Bilag Industries Private Limited)


Narendra K Shah

Director & Site Manager

Bayer Vapi Private Limited
(Formerly Bilag Industries
Pvt. Ltd)

Registered Office &
Factory
Plot No. 306/3, II Phase,
GIDC, Vapi – 396 195,
Gujarat, India

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Encl: As Stated

CC:

1. Deputy Chief Environment Engineer, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A Gandhinagar (GPCB ID:23225)
2. Zonal Officer, Central Pollution Control Board, Parivesh Bhawan, Opp-VMC ward office No.10, Subhanpura, Vadodara-390023



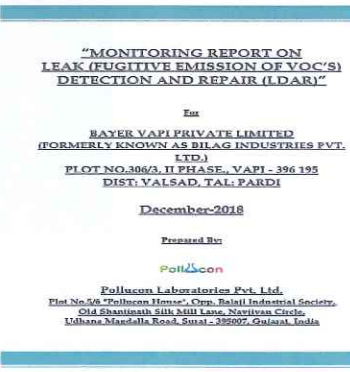

BAYER VAPI PVT. LTD.

EC No: J-11011/300/2015-JA.H (I) Compliance Status Report (April - September)'20

Sr.No.	EC Conditions	Compliance Status
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A. SPECIFIC CONDITIONS



1	<p>National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.</p>	<p>The emission standard for pesticides industry was amended on June 13, 2011 which is being followed. Emission from incinerator stacks are monitored by MoEF&CC and NABL accredited laboratory on monthly basis. The monitored values of emission are as under:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="7" style="background-color: #f28b82; color: white;">Incinerator Stack (April - September)'20</th> </tr> <tr> <th style="background-color: #76923c; color: white;">Parameters</th> <th style="background-color: #76923c; color: white;">PM (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">HCl (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">SO₂ (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">HF (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">NO_x (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">Total Dioxins & Furans (ng TEQ/Nm3)</th> </tr> <tr> <th style="background-color: #0070c0; color: white;">Month / Limit</th> <th style="background-color: #0070c0; color: white;">50</th> <th style="background-color: #0070c0; color: white;">50</th> <th style="background-color: #0070c0; color: white;">200</th> <th style="background-color: #0070c0; color: white;">4</th> <th style="background-color: #0070c0; color: white;">300</th> <th style="background-color: #0070c0; color: white;">0.1</th> </tr> </thead> <tbody> <tr> <td style="background-color: #0070c0; color: white;">Apr-20</td> <td colspan="6" style="text-align: center;">Not in Operation due to lockdown</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">May-20</td> <td style="text-align: center;">44.69</td> <td style="text-align: center;">3.24</td> <td style="text-align: center;">16.70</td> <td style="text-align: center;">0.83</td> <td style="text-align: center;">53.77</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jun-20</td> <td style="text-align: center;">32.42</td> <td style="text-align: center;">2.86</td> <td style="text-align: center;">21.30</td> <td style="text-align: center;">1.29</td> <td style="text-align: center;">36.77</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jul-20</td> <td style="text-align: center;">32.42</td> <td style="text-align: center;">2.84</td> <td style="text-align: center;">18.17</td> <td style="text-align: center;">0.97</td> <td style="text-align: center;">35.45</td> <td style="text-align: center;">0.02</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Aug-20</td> <td style="text-align: center;">29.86</td> <td style="text-align: center;">3.10</td> <td style="text-align: center;">20.79</td> <td style="text-align: center;">2.30</td> <td style="text-align: center;">37.53</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Sep-20</td> <td style="text-align: center;">30.42</td> <td style="text-align: center;">3.24</td> <td style="text-align: center;">21.74</td> <td style="text-align: center;">1.28</td> <td style="text-align: center;">38.78</td> <td style="text-align: center;">-</td> </tr> </tbody> </table>	Incinerator Stack (April - September)'20							Parameters	PM (mg/Nm3)	HCl (mg/Nm3)	SO ₂ (mg/Nm3)	HF (mg/Nm3)	NO _x (mg/Nm3)	Total Dioxins & Furans (ng TEQ/Nm3)	Month / Limit	50	50	200	4	300	0.1	Apr-20	Not in Operation due to lockdown						May-20	44.69	3.24	16.70	0.83	53.77	-	Jun-20	32.42	2.86	21.30	1.29	36.77	-	Jul-20	32.42	2.84	18.17	0.97	35.45	0.02	Aug-20	29.86	3.10	20.79	2.30	37.53	-	Sep-20	30.42	3.24	21.74	1.28	38.78	-
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2	<p>Adequate stack height shall be provided to gas fired boiler to control particulate emissions.</p>	<p>Site has provided adequate stack height for wide dispersion of stack emission. We are using Natural gas as a clean fuel in boiler. Emission from gas fired boilers are monitored by MoEF&CC and NABL accredited laboratory on monthly basis. The monitored values of emission are as under:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #f28b82; color: white;">Emission From Boiler stack</th> </tr> <tr> <th style="background-color: #76923c; color: white;">Parameters</th> <th style="background-color: #76923c; color: white;">PM (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">SO₂ (ppm)</th> <th style="background-color: #76923c; color: white;">NO_x (ppm)</th> </tr> <tr> <th style="background-color: #0070c0; color: white;">Month / Limit</th> <th style="background-color: #0070c0; color: white;">150</th> <th style="background-color: #0070c0; color: white;">100</th> <th style="background-color: #0070c0; color: white;">50</th> </tr> </thead> <tbody> <tr> <td style="background-color: #0070c0; color: white;">Apr-20</td> <td colspan="3" style="text-align: center;">Not in Operation due to lockdown</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">May-20</td> <td style="text-align: center;">ND*</td> <td style="text-align: center;">3.99</td> <td style="text-align: center;">34.13</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jun-20</td> <td style="text-align: center;">ND*</td> <td style="text-align: center;">3.78</td> <td style="text-align: center;">29.39</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jul-20</td> <td style="text-align: center;">ND*</td> <td style="text-align: center;">3.66</td> <td style="text-align: center;">32.98</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Aug-20</td> <td style="text-align: center;">ND*</td> <td style="text-align: center;">4.47</td> <td style="text-align: center;">32.93</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Sep-20</td> <td style="text-align: center;">ND*</td> <td style="text-align: center;">4.37</td> <td style="text-align: center;">34.59</td> </tr> </tbody> </table> <p>* ND= Not Detected</p>	Emission From Boiler stack				Parameters	PM (mg/Nm3)	SO ₂ (ppm)	NO _x (ppm)	Month / Limit	150	100	50	Apr-20	Not in Operation due to lockdown			May-20	ND*	3.99	34.13	Jun-20	ND*	3.78	29.39	Jul-20	ND*	3.66	32.98	Aug-20	ND*	4.47	32.93	Sep-20	ND*	4.37	34.59																											
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3	<p>Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO₂, Cl₂, NO_x, HBr. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with online detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.</p>	<p>1. Two stage scrubbers are provided to control process emissions from process vents. Online pH meter is provided in scrubbing system. 2. Scrubber water is treated in Evaporator followed by Effluent Treatment Plant. 3. Efficiency of scrubber is being monitored by measuring outlet emission and maintaining concentration of scrubber solution. The online detection alarm system and interlock with pollution control equipment has been provided for HCl and Cl₂. 4. Monitoring of process vent and stack is carried out by MoEF&CC and NABL accredited laboratory. Monitored values of last 6 months are as under:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #f28b82; color: white;">Emission From Process Vent (April - September)'20</th> </tr> <tr> <th style="background-color: #76923c; color: white;">Parameters</th> <th style="background-color: #76923c; color: white;">SO₂ (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">HCl (mg/Nm3)</th> <th style="background-color: #76923c; color: white;">HBr (mg/Nm3)</th> </tr> <tr> <th style="background-color: #0070c0; color: white;">Month / Limit</th> <th style="background-color: #0070c0; color: white;">40</th> <th style="background-color: #0070c0; color: white;">20</th> <th style="background-color: #0070c0; color: white;">5</th> </tr> </thead> <tbody> <tr> <td style="background-color: #0070c0; color: white;">Apr-20</td> <td colspan="3" style="text-align: center;">Not in Operation due to lockdown</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">May-20</td> <td style="text-align: center;">16.45</td> <td style="text-align: center;">5.82</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jun-20</td> <td style="text-align: center;">20.45</td> <td style="text-align: center;">7.31</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jul-20</td> <td style="text-align: center;">23.80</td> <td style="text-align: center;">6.89</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Aug-20</td> <td style="text-align: center;">21.09</td> <td style="text-align: center;">5.81</td> <td style="text-align: center;">2.86</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Sep-20</td> <td style="text-align: center;">24.43</td> <td style="text-align: center;">7.15</td> <td style="text-align: center;">3.45</td> </tr> </tbody> </table>	Emission From Process Vent (April - September)'20				Parameters	SO ₂ (mg/Nm3)	HCl (mg/Nm3)	HBr (mg/Nm3)	Month / Limit	40	20	5	Apr-20	Not in Operation due to lockdown			May-20	16.45	5.82	-	Jun-20	20.45	7.31	-	Jul-20	23.80	6.89	-	Aug-20	21.09	5.81	2.86	Sep-20	24.43	7.15	3.45																											
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Sr.No.	EC Conditions	Compliance Status
4	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained.	<p>The following measures are taken to control fugitive emission:</p> <ol style="list-style-type: none"> 1. Closed charging system 2. Double mechanical seal / magnetic seal less pumps are used for solvent transfer 3. Installed 20 mbar nitrogen blanketing system 4. Vent of entire plant storage vessels, reactors, condensers and any other equipment are connected to a common header 5. Work area monitoring carried out regularly for various chemicals used at site <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><i>Common Vent Header</i></p>  </div> <div style="text-align: center;"> <p><i>Workplace Area Monitoring</i></p>  </div> </div>
5	A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.	<ol style="list-style-type: none"> 1. A Leak Detection and Repair (LDAR) study was carried out in Four plants through NABL and MoEF & CC accredited laboratories. 2. Around 175 nos. of detectors based on detection principle have been installed in all areas where there is a likelihood of HC leakages from pumps and other equipment. <div style="text-align: center;"> <p><i>LDAR Study</i></p>  </div> <div style="text-align: right;">  </div>
6	Company shall take all the measures in order to protect the machineries and equipment for pesticide producing unit from ageing.	<ol style="list-style-type: none"> 1. Regular maintenance of pesticide producing machineries and equipment is carried out. 2. Testing of all vessels / reactors are carried out by competent person at defined frequency. 3. Equipment are selected based on process requirement.
7	Continuous monitoring system for chlorine, HCl, Cl ₂ as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided along with automatic start of the scrubbing system.	<ol style="list-style-type: none"> 1. 175 Nos. detectors installed across the plant to monitor any leakage of HC. 2. The HC monitoring is being carried out regularly. Four Cl₂ sensors / detectors have been provided in the Cl₂ storage area for continuous monitoring of Cl₂ leakage if any. The sensor is designed to trigger and blow critical alarm in DCS above the permissible limit.

BAYER VAPI PVT. LTD.


EC No: J-11011/300/2015-IA-II (I) Compliance Status Report (April - September)'20





Sr.No.	EC Conditions	Compliance Status																		
8	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	1. Site has provided adequate stack height to control gaseous emissions from DG. 2. DG sets are installed as per CPCB guideline. 3. As a precautionary measure, adequate PPEs like ear plug / ear muff is provided to employee at the entry point of DG house.																		
9	Solvent management shall be carried out as follows : 1. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%. 2. Reactor and solvent handling pump shall have mechanical seals to prevent leakages. 3. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery 4. Solvents shall be stored in a separate space specified with all safety measures. 5. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. 6. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.	1. Reactors and condensers are connected with necessary cooling system like brine, chilling, cooling water etc. 2. Magnetic seal less / double mechanical seal centrifugal pumps are provided for solvent handling. 3. To achieve desired recovery, efficient condensers has been installed after calculating required HTA. 4. Solvents are stored in storage tank as per PESO & site specific process & plant safety guideline. The solvent tanks are equipped with breather valve, sprinkler system, nitrogen blanketing etc. 5. Proper earthing has been provided to all equipment and regular inspections are done to maintain continuity. 6. Hazardous area classification has been carried at site and equipment are selected based on zone.																		
10	Total water requirement from GIDC water supply shall not exceed 2900 m ³ /day and prior permission should be obtained from the Competent authority.	Last six months water consumptions are as under: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="background-color: #d9534f; color: white;">Water Consumption (April - September)'20</th> </tr> <tr> <th style="background-color: #0070c0; color: white;">Month / Limit</th> <th style="background-color: #92d050;">Average Consumption (In KL/Day)</th> </tr> </thead> <tbody> <tr> <td></td> <td align="center">2883</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Apr-20</td> <td align="center">1232</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">May-20</td> <td align="center">1672</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jun-20</td> <td align="center">1412</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Jul-20</td> <td align="center">1301</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Aug-20</td> <td align="center">1269</td> </tr> <tr> <td style="background-color: #0070c0; color: white;">Sep-20</td> <td align="center">1355</td> </tr> </tbody> </table>	Water Consumption (April - September)'20		Month / Limit	Average Consumption (In KL/Day)		2883	Apr-20	1232	May-20	1672	Jun-20	1412	Jul-20	1301	Aug-20	1269	Sep-20	1355
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11	Industrial effluent generation shall not exceed 900 m3/day. As proposed, wastewater will be segregated at source and treated based on its characteristics viz High COD & High TDS and Low COD & Low TDS. High COD & High TDS effluents will be sent to MEE followed by RO while Low COD & Low TDS effluents will be treated in ETP followed by RO. The treated wastewater shall be discharged to Common Effluent Treatment Plant (CETP) for final treatment.	<p>The wastewater is segregated based on COD, TDS and BOD / COD ratio. The wastewater generation philosophy is as under:</p> <table border="1"> <thead> <tr> <th>Sr.No</th> <th>Characteristics</th> <th>Treatment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>High COD High TDS and Volatile component</td> <td>Stripper followed by evaporator and ETP</td> </tr> <tr> <td>2</td> <td>Low COD High TDS</td> <td>Evaporator followed by ETP</td> </tr> <tr> <td>3</td> <td>High COD Low TDS</td> <td>Incinerator</td> </tr> <tr> <td>4</td> <td>Medium COD Medium TDS</td> <td>Fenton</td> </tr> <tr> <td>5</td> <td>Low COD Low TDS and BOD / COD ratio > 0.4</td> <td>ETP</td> </tr> </tbody> </table> <p>Final effluent discharge is being monitored daily for pH, COD, BOD, TSS, NH3-N. Online analyser is provided at the discharge point of treated effluent. The analyser is connected with GPCB / CPCB server for transferring online data. The auto shut off valve provided at the discharge point of treated effluent stops the discharge in case of exceedance of parameters. Last six month effluent generation quantity and quality are as under:</p> <table border="1"> <thead> <tr> <th colspan="5">Effluent Data (April to September)'20</th> </tr> <tr> <th>Parameters</th> <th>Average Effluent Discharged to CETP (KLD)</th> <th>COD (mg/L)</th> <th>TSS (mg/L)</th> <th>NH3-N (mg/L)</th> </tr> </thead> <tbody> <tr> <td>Month / Limit</td> <td>866</td> <td>250</td> <td>300</td> <td>50</td> </tr> <tr> <td>Apr-20</td> <td>302</td> <td></td> <td></td> <td></td> </tr> <tr> <td>May-20</td> <td>372</td> <td>55</td> <td>23</td> <td>5.50</td> </tr> <tr> <td>Jun-20</td> <td>484</td> <td>84</td> <td>38</td> <td>6.30</td> </tr> <tr> <td>Jul-20</td> <td>847</td> <td>96</td> <td>51</td> <td>8.06</td> </tr> <tr> <td>Aug-20</td> <td>841</td> <td>84</td> <td>33</td> <td>10.20</td> </tr> <tr> <td>Sep-20</td> <td>603</td> <td>72</td> <td>26</td> <td>14.40</td> </tr> </tbody> </table> <p>All results are within the prescribed limit. The treated effluent is discharged to Common Effluent Treatment Plant (CETP) through GIDC underground drainage system operated by Vapi Green Enviro Private Limited (Formerly known as Vapi Waste and Effluent</p>	Sr.No	Characteristics	Treatment	1	High COD High TDS and Volatile component	Stripper followed by evaporator and ETP	2	Low COD High TDS	Evaporator followed by ETP	3	High COD Low TDS	Incinerator	4	Medium COD Medium TDS	Fenton	5	Low COD Low TDS and BOD / COD ratio > 0.4	ETP	Effluent Data (April to September)'20					Parameters	Average Effluent Discharged to CETP (KLD)	COD (mg/L)	TSS (mg/L)	NH3-N (mg/L)	Month / Limit	866	250	300	50	Apr-20	302				May-20	372	55	23	5.50	Jun-20	484	84	38	6.30	Jul-20	847	96	51	8.06	Aug-20	841	84	33	10.20	Sep-20	603	72	26	14.40
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Parameters	Average Effluent Discharged to CETP (KLD)	COD (mg/L)	TSS (mg/L)	NH3-N (mg/L)																																																													
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Apr-20	302																																																																
May-20	372	55	23	5.50																																																													
Jun-20	484	84	38	6.30																																																													
Jul-20	847	96	51	8.06																																																													
Aug-20	841	84	33	10.20																																																													
Sep-20	603	72	26	14.40																																																													
12	Process effluent / any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	<p>Site has separate collection system for effluent and storm water. The capacity of guard ponds are 3000 KI & 1800 KI respectively.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><i>Storm Water Retention Pond</i></p>  </div> <div style="text-align: center;"> <p><i>Fire Water Retention Pond</i></p>  </div> </div>																																																															
13	Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.	<ol style="list-style-type: none"> All hazardous chemicals are stored in tanks. Adequate number of flame arrestor have been provided. Double mechanical seal / seal less pumps are used for solvent transfer. 																																																															
14	The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said Rules.	<p>The site has authorisation for collection, storage and disposal of by-products falling under the the Hazardous Waste (Management, Handling and Trans- Boundary Movement) Rules, 2016 valid up to September 30, 2021.</p>																																																															

BAYER VAPI PVT. LTD.

EC No: J-11011/300/2015-IA, II (I) Compliance Status Report (April - September)'20

Sr.No.	EC Conditions	Compliance Status
15	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 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.	<p>1.The site has authorisation for collection, storage and disposal of hazardous waste under the the Hazardous Waste (Management, Handling and Trans - Boundary Movement) Rules, 2016 valid up to September 30, 2021.</p> <p>2. Following measures are taken by site for fire fighting in case of emergency:</p> <ul style="list-style-type: none"> - 24 X 7 availability of trained fire fighter - Fire Hydrant system - Sprinkler System - Hazmat Foam system for blanketing solvent - Full fledged Emergency Control Center and 03 nos. of Fire tenders - Fire water storage tank of 3000 KI <p>3. Site has valid membership of TSDF operated by Saurashtra Enviro Projects Pvt Ltd. (SEPPL); Vapi Green Enviro Limited (formerly Known as Vapi waste & Effluent Mgt. Co. Ltd); Recycling Solutions Pvt. Ltd. (RSPL), Detox India Private Limited (DIPL) and Geohybrid Industrial Solutions Private limited for disposal of hazardous waste.</p>
16	ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory / incinerated.	<p>1.ETP sludge, inorganic waste is sent to the authorised TSDF sites operated by Saurashtra Enviro Projects Pvt Ltd. (SEPPL); Vapi Green Enviro Limited (formerly Known as Vapi waste & Effluent Mgt. Co. Ltd).</p> <p>2. High calorific value waste is incinerated In in-house incineration facility as well as sent to common Hazardous Waste Incineration Facilities (CHWIF) operated by Saurashtra Enviro Projects Pvt Ltd. (SEPPL) / sent for Co processing to Recycling Solutions Pvt. Ltd (RSPL) / Bharuch Enviro Infrastructure Limited (BEIL).</p>
17	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	<p>1. On Site Emergency Action Plan in place to handle any emergency.</p> <p>2. The safety audit carried out by competent person every year. The last safety audit was conducted in the month of August, 2019.</p> <p>3. The mock drill is carried out regularly.</p> <p>4. The transportation of hazardous chemicals as per Motor Vehicle Act shall be complied.</p> <div style="text-align: center; margin: 10px 0;"> <p><i>Mockdrill</i></p>  </div>
18	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.	<p>The following measures are taken for protection of fire hazard:</p> <ol style="list-style-type: none"> 1. Awareness of process and plant safety guideline among all employees 2. Hazardous Area Classification and Risk Assessment (HACRA) for each plant 3. Double earthing is provided in each tank 4. Nitrogen blanketing is provided to all tanks of flammable solvents 5. Spark arresters are provided to vehicles entering in the tank farm 6. The flame proof electrical equipment are provided in the flammable area 7. Full Fledged Emergency Control center available at site including centralized smoke detection system and 03 fire tenders 8. Fire Hydrant system 9. 24 X 7 availability of trained fire fighters 10. Fixed fire protection system

Sr.No.	EC Conditions	Compliance Status
19	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	<p>The site has full fledged Occupational Health Center with two full time Factory Medical Officer (FMO). Occupational health related surveillance is carried out regularly. Periodical medical examinations are carried out for all employees and records are maintained in Form No. 32 and pre-employee medical examination records are maintained in Form No. 33.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="724 472 1082 533" style="border: 1px solid black; padding: 2px; text-align: center;"> <i>Annual Medical Checkup - Company Employee</i> </div> <div data-bbox="1091 472 1449 533" style="border: 1px solid black; padding: 2px; text-align: center;"> <i>Annual Medical Checkup - Contract Employee</i> </div> </div> <div style="display: flex; justify-content: space-around;">   </div>
20	Green belt should be developed at least in 10.6 ha area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.	<p>The company has developed green area of around 5.2 hectares inside the plant premises. The company has also developed green area adjacent to site premises. The green belt development work is in progress in newly purchased land of 5.4 hectares. We have selected some plant species as per CPCB guideline and communicated to DFO vide our letter No. ENV/06/18/2702 dated February 27, 2018 for further advice. Every year plantation is carried out to increase the greenbelt area inside and outside of site premises.</p> <div style="text-align: center;"> <div data-bbox="724 1016 1449 1055" style="border: 1px solid black; padding: 2px; text-align: center;"> <i>Green Belt Area Development</i> </div> <div style="display: flex; justify-content: space-around;">   </div> </div>
21	At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner	Site was exempted from Public hearing as per section 7(i), III stage (3), para (i)(b) of EIA Notification as the site is located in the notified Industrial area.
22	All the recommendations made in the risk assessment report should be satisfactorily implemented.	Shall be complied




Sr.No.	EC Conditions	Compliance Status																								
23	The unit shall ensure Zero Liquid Discharge (ZLD) for the expanded capacity by recycling the treated effluent.	<p>Last six months recycle treated effluents are as under:</p> <table border="1"> <thead> <tr> <th colspan="3">Recycled Treated Effluent Quantity</th> </tr> <tr> <th>Month</th> <th>Quantity Recycled (KL)</th> <th>Average Quantity Recycled (KL / Day)</th> </tr> </thead> <tbody> <tr> <td>Apr-20</td> <td>6162</td> <td>205</td> </tr> <tr> <td>May-20</td> <td>6786</td> <td>219</td> </tr> <tr> <td>Jun-20</td> <td>6731</td> <td>224</td> </tr> <tr> <td>Jul-20</td> <td>6822</td> <td>220</td> </tr> <tr> <td>Aug-20</td> <td>7573</td> <td>244</td> </tr> <tr> <td>Sep-20</td> <td>7313</td> <td>244</td> </tr> </tbody> </table>	Recycled Treated Effluent Quantity			Month	Quantity Recycled (KL)	Average Quantity Recycled (KL / Day)	Apr-20	6162	205	May-20	6786	219	Jun-20	6731	224	Jul-20	6822	220	Aug-20	7573	244	Sep-20	7313	244
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24	Continuous online (24 x 7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to respective RO of MoEF&CC, CPCB and SPCB.	<p>Online monitoring station (24 x 7) is installed for monitoring flow, pH, TOC and TSS for treated effluent discharged to CETP. The online monitoring system is connected with GPCB & CPCB server.</p> 																								

B. GENERAL CONDITIONS

1	The project authorities shall strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and any other statutory authority.	The company follows all stipulations made by State Pollution Control Board (SPCB).
2	No further expansion or modifications in the plant shall be carried without prior approval of the Ministry of Environment and Forest. In case of deviations alterations in the project proposal from those submitted to this Ministry of clearance, a fresh reference shall be made to Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Shall be followed.
3	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 is installed in the upwind and downwind direction as well as where maximum ground level concentration are anticipated.	We have already installed 05 Nos. of ambient air quality monitoring station at site. The locations are marked in Site Layout. The ambient air quality monitoring stations are based on prominent wind direction i.e. one is in upwind direction and remaining fours are in downwind direction. The same was informed to GPCB through letter No. ENV/06/17/1307 dated July 13, 2017.


EC No: J-11011/300/2015-IA,II (I) Compliance Status Report (April - September)'20

Sr.No.	EC Conditions	Compliance Status																																																															
4	The national Ambient Air Quality Emission standards issued by Ministry vide G.S.R NO. 826 (E) dated 16th November, 2009 shall be followed.	<p>The ambient air quality monitoring is carried out at 05 locations within the premises on every month by MoEF&CC and NABL accredited laboratory. Monitored values of last six months are as under:</p> <table border="1"> <thead> <tr> <th colspan="5">Ambient Air Quality Monitoring (April to September)'20</th> </tr> <tr> <th>Parameters</th> <th>PM₁₀</th> <th>PM_{2.5}</th> <th>Sulphur Dioxide (SO₂)</th> <th>Oxides of Nitrogen</th> </tr> <tr> <th>Unit</th> <td>µg/m³</td> <td>µg/m³</td> <td>µg/m³</td> <td>µg/m³</td> </tr> <tr> <th>Month / Limit</th> <td>100</td> <td>60</td> <td>80</td> <td>80</td> </tr> </thead> <tbody> <tr> <td>Apr-20</td> <td colspan="4">Not in Operation due to lockdown</td> </tr> <tr> <td>May-20</td> <td>66.14</td> <td>34.10</td> <td>13.79</td> <td>24.17</td> </tr> <tr> <td>Jun-20</td> <td>58.58</td> <td>28.92</td> <td>11.19</td> <td>27.15</td> </tr> <tr> <td>Jul-20</td> <td>68.97</td> <td>34.15</td> <td>14.98</td> <td>30.55</td> </tr> <tr> <td>Aug-20</td> <td>61.26</td> <td>29.78</td> <td>12.46</td> <td>25.63</td> </tr> <tr> <td>Sep-20</td> <td>54.20</td> <td>26.54</td> <td>15.13</td> <td>29.66</td> </tr> </tbody> </table>	Ambient Air Quality Monitoring (April to September)'20					Parameters	PM ₁₀	PM _{2.5}	Sulphur Dioxide (SO ₂)	Oxides of Nitrogen	Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³	Month / Limit	100	60	80	80	Apr-20	Not in Operation due to lockdown				May-20	66.14	34.10	13.79	24.17	Jun-20	58.58	28.92	11.19	27.15	Jul-20	68.97	34.15	14.98	30.55	Aug-20	61.26	29.78	12.46	25.63	Sep-20	54.20	26.54	15.13	29.66													
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5	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act,1986 Rules,1989 viz. 75 dBA (day time) and 70 dBA (night time)	<p>The Noise monitoring is carried out at 12 locations on monthly basis by MoEF & CC and NABL accredited Laboratory. All results are within permissible limit. The average results of last six months are as under:</p> <table border="1"> <thead> <tr> <th colspan="4">Noise Monitoring (April to September)'20</th> </tr> <tr> <th rowspan="2">Sr.No.</th> <th>Location</th> <th>Day Time (dBA)</th> <th>Night Time (dBA)</th> </tr> <tr> <th>Limit</th> <td>75 dB(A)</td> <td>70 dB(A)</td> </tr> <tr> <th colspan="2">Month / Location</th> <th>Average</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Near Main Gate</td> <td>58.48</td> <td>55.20</td> </tr> <tr> <td>2</td> <td>Near admin Building</td> <td>57.50</td> <td>54.30</td> </tr> <tr> <td>3</td> <td>Near EFSO Plant</td> <td>63.42</td> <td>62.40</td> </tr> <tr> <td>4</td> <td>Near ALCO Plant</td> <td>62.44</td> <td>58.10</td> </tr> <tr> <td>5</td> <td>Near Incinerator-2</td> <td>69.38</td> <td>69.50</td> </tr> <tr> <td>6</td> <td>Near Incinerator-3</td> <td>67.42</td> <td>62.40</td> </tr> <tr> <td>7</td> <td>Near Scrap Yard</td> <td>61.60</td> <td>59.20</td> </tr> <tr> <td>8</td> <td>Near HICO-I</td> <td>65.52</td> <td>62.30</td> </tr> <tr> <td>9</td> <td>Near CYFO Plant</td> <td>60.26</td> <td>58.50</td> </tr> <tr> <td>10</td> <td>Near Gate-II</td> <td>56.00</td> <td>53.20</td> </tr> <tr> <td>11</td> <td>Near Engineering Part Store</td> <td>57.18</td> <td>54.20</td> </tr> <tr> <td>12</td> <td>Near ETP</td> <td>64.08</td> <td>61.10</td> </tr> </tbody> </table>	Noise Monitoring (April to September)'20				Sr.No.	Location	Day Time (dBA)	Night Time (dBA)	Limit	75 dB(A)	70 dB(A)	Month / Location		Average	Average	1	Near Main Gate	58.48	55.20	2	Near admin Building	57.50	54.30	3	Near EFSO Plant	63.42	62.40	4	Near ALCO Plant	62.44	58.10	5	Near Incinerator-2	69.38	69.50	6	Near Incinerator-3	67.42	62.40	7	Near Scrap Yard	61.60	59.20	8	Near HICO-I	65.52	62.30	9	Near CYFO Plant	60.26	58.50	10	Near Gate-II	56.00	53.20	11	Near Engineering Part Store	57.18	54.20	12	Near ETP	64.08	61.10
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6	The unit shall explore rainwater harvesting system in non-production building without recharging in to ground water.	Shall be complied																																																															

Sr.No.	EC Conditions	Compliance Status
7	<p>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.</p>	<p>Standard Operating Procedures are prepared for handling of various chemical and it is followed in each plant. Awareness and training session are imparted to employees regularly.</p> <p>Periodical medical examinations are carried out for all employees and records are maintained in Form No.32 and pre-employment medical examination records are maintained in Form No.33.</p> <p>Various health awareness and training programmes have been imparted to employees like Awareness programme on Nutrition, Hazardous chemical awareness with personal health and hygiene, Safe handling of Bio-medical waste, First Aid Training etc. Various health bulletins have been published like prevention of heat related illness, Health impact due to Tobacco etc.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><i>First aid Refresher Training</i></p>  </div> <div style="text-align: center;"> <p><i>Health Bulletin</i></p>  </div> </div>
8	<p>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, risk mitigation measures and public hearing relating to the the project shall be implemented.</p>	<p>Shall be complied.</p>
9	<p>The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall undertaken by involving local villages and administration.</p>	<p>Following CSR activities were undertaken by Bayer Vapi for in the pandemic situation to support the community.</p> <ol style="list-style-type: none"> 1. Distribution of 200 ration kits to social workers 2. Distribution of 500 PPE kits in hospitals 3. Distribution of 700 ration kits to contract workmen and migrant laborers 4. Donation to CM's relief fund <div style="text-align: center; margin-top: 10px;"> <p><i>CSR Activities during pandemic</i></p>  </div>

BAYER VAPI PVT. LTD.

EC No: J-11011/300/2015-IA.II (I) Compliance Status Report (April - September)'20

Sr.No.	EC Conditions	Compliance Status
10	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Shall be complied.
11	A separate Environmental Management cell equipped with full fledged laboratory facilities shall be set up to carry out Environmental Management and Monitoring functions.	Site has separate environment cell equipped with full fledged laboratory facilities to carry environment management & monitoring functions. 
12	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.	The site has provided adequate fund for both capital and recurring investment to implement the conditions stipulated by MoEF&CC and GPCB along with implementation schedule. The fund allocated is not diverted for any other purpose and ensured for environment protection measures only. The total recurring budget for the year 2020 for Environment is INR 87.83 crs.
13	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila parisad / Municipal Corporation, Urban local body and the local NGO, if any from whom suggestions/representations, if any were received while processing the proposal.	EC letters have been sent to all stake holders. EC letter is also uploaded on company website.
14	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 the Gujarat State Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Noted. Last half yearly EC compliance report for the period (April to September)'19 was submitted to Regional office of MoEF & CC, Bhopal, Respective Zonal Office of CPCB, Vadodara and GPCB through our Letter No. ENV/14/20/04005. A copy of Environmental Clearance and six monthly compliance status of EC report is uploaded on company's website.
15	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 status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	The Environmental Statement for the period of April-19 to March-20 was submitted to GPCB on September 19, 2020. A copy of Environmental statement and compliance report is uploaded on company's website. The EC compliance report has been uploaded on the MoEF & CC website dated May 06, 2020.

BAYER VAPI PVT. LTD.

EC No: J-11011/300/2015-IA.1 (I) Compliance Status Report (April - September)'20

Sr.No.	EC Conditions	Compliance Status
16	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of 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 copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Advertisement of Environmental clearance was published in two local news papers "SANDESH" & "DIVYABHASKAR" dated April 05,2017 and April 06,2017 respectively. The copies of advertisements were submitted to Regional office of MoEF&CC, Bhopal vide letter No.ENV/14/17/0704 dated April 07, 2017.
17	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	Shall be complied.