

May 27, 2022

ENV/14/22/2705

Regional Officer

Ministry of Environment, Forest & Climate Change
Aranya Bhavan
Opp. St. Xaviers School, Near Ch-3 Circle
Sector-10/A, Gandhinagar, Gujarat-382010

Sub: Compliance report for the period (April 2021 to September 2021)
Ref: Environmental Clearance no. J-11011/300/2015-IA II (I) dated
March 28, 2017 and its amendment dated February 21, 2018.

Dear Sir,

Enclosed is the compliance report of Environmental Clearance for the period (Oct 2021 to Mar 2022).

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

Tel +91 260 2407123
Fax: +91 260 2432774
www.vapi.bayer.com
www.bayer.in

Encl: As Stated

CC:

1. 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-IA.II (I) Compliance Status Report (Oct'2021 - Mar'2022)

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

1 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.

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:

Incinerator Stack (October 2021 - March 2022)									
Parameters	PM (mg/Nm ³)	HCl (mg/Nm ³)	SO ₂ (mg/Nm ³)	HF (mg/Nm ³)	NOx (mg/Nm ³)	CO (mg/Nm ³)	TOC (mg/Nm ³)	Total Dioxins & Furans (ng TEQ/Nm ³)	Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V and their compounds (mg/Nm ³)
Month / Limit	50	50	200	4	400	100	20	0.1	3.5
Oct-21	29.42	3.12	20.44	0.84	38.36	10.31	ND	0.03	0.18
Nov-21	29.62	3.34	22.35	2.29	36.43	12.60	ND	-	-
Dec-21	28.46	3.26	21.10	1.48	39.40	12.60	ND	0.02	0.2
Jan-22	30.42	3.22	21.08	1.14	37.81	11.46	ND	-	-
Feb-22	27.58	3.12	22.35	1.85	37.49	11.46	ND	-	-
Mar-22	27.58	3.12	22.20	1.83	37.40	11.46	ND	-	0.18
Max	30.42	3.34	22.35	2.29	39.40	12.60	0.00	0.03	0.20
Min	27.58	3.12	20.44	0.84	36.43	10.31	0.00	0.02	0.18

* ND= Not Detected

Emission standard from process vent are monitored by MoEF&CC and NABL accredited laboratory on monthly basis. The monitored values of emission are as under:

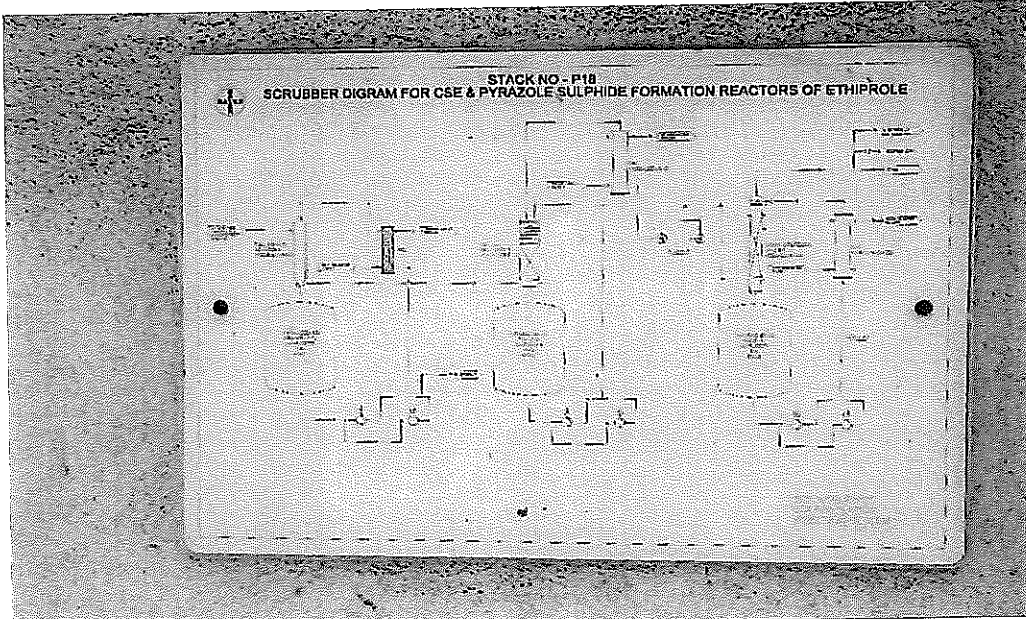
Emission From Process Vent (October 2021 - March 2022)				
Parameters	SO ₂ (mg/Nm ³)	HCl (mg/Nm ³)	Cl ₂ (mg/Nm ³)	HBr (mg/Nm ³)
Month / Limit	40	20	9	5
Oct-21	21.99	7.98	3.75	3.34
Nov-21	18.73	6.62	4.14	2.76
Dec-21	19.74	6.77	3.66	-
Jan-22	22.56	7.63	4.07	3.22
Feb-22	18.15	6.81	4.22	3.46
Mar-22	19.91	7.00	-	2.86
Max	22.56	7.98	4.22	3.46
Min	18.15	6.62	3.66	2.76

Emission standard from effluent are monitored by MoEF&CC and NABL accredited laboratory on monthly basis. The monitored values of emission are as under:

18 months Data (October 2021 to March 2022)																	
Parameters	Average Effluent Discharged to ETP (MLD)	pH	TSS (mg/L)	Oil & Grease (mg/L)	Phenolic Compounds (mg/L)	Cyanides (mg/L)	Arsonic (mg/L)	Copper (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	BOD (5 days @ 20°C) (mg/L)	COO (mg/L)	Chlorides (mg/L)	Sulphates (mg/L)	Total Dissolved Solids (mg/L)	Bioassay Test %
Month / Day	MLD	6.5-8.5	100	10	1	0.2	0.2	1	0.01	5	1	30	250	600	1000	7100	90% survival of fish after 96 hours in 100% sample
Oct-21	556.00	7.39	21.00	ND	ND	ND	ND	ND	ND	0.08	ND	17.00	82.00	470.00	256.00	1728.00	90% survival of fish after 96 hours in 100% sample
Nov-21	489.00	7.14	17.00	ND	ND	ND	ND	ND	ND	0.09	ND	15.00	77.00	418.00	189.00	1956.00	90% survival of fish after 96 hours in 100% sample
Dec-21	524.00	6.88	25.00	ND	ND	ND	ND	ND	ND	0.09	ND	13.20	64.00	442.00	162.00	1804.00	90% survival of fish after 96 hours in 100% sample
Jan-22	451.00	7.19	18.00	ND	ND	ND	ND	ND	ND	0.10	ND	15.00	79.00	428.00	156.00	1892.00	90% survival of fish after 96 hours in 100% sample
Feb-22	462.00	7.28	29.00	ND	ND	ND	ND	ND	ND	0.09	ND	16.20	82.00	405.00	140.00	1738.00	90% survival of fish after 96 hours in 100% sample
Mar-22	435.00	7.36	15.00	ND	ND	ND	ND	ND	ND	0.08	ND	14.00	75.00	465.00	135.00	1664.00	90% survival of fish after 96 hours in 100% sample
Max	556.00	7.39	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	17.00	82.00	470.00	256.00	1956.00	
Min	435	7	15	0	0	0	0	0	0	0	0	13	64	406	135	1664	

* ND= Not Detected

The effluent generated from Incinerator Scrubber is being treated in Evaporators. We have separate storm water and drainage network at site. There is no floor washing or scrubber water mixing with storm water since all wastewater from plant is transferred to ETP / WWPT through closed pipelines.

2	Adequate stack height shall be provided to gas fired boiler to control particulate emissions.	<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><tr><th colspan="4">Emission From Boiler stack</th></tr><tr><th>Parameters</th><th>PM (mg/Nm3)</th><th>SO₂ (ppm)</th><th>NOx (ppm)</th></tr><tr><td>Month / Limit</td><td>150</td><td>100</td><td>50</td></tr><tr><td>Oct-21</td><td>ND</td><td>3.76</td><td>30.44</td></tr><tr><td>Nov-21</td><td>ND</td><td>3.84</td><td>30.16</td></tr><tr><td>Dec-21</td><td>ND</td><td>3.84</td><td>33.03</td></tr><tr><td>Jan-22</td><td>ND</td><td>3.95</td><td>29.03</td></tr><tr><td>Feb-22</td><td>ND</td><td>3.84</td><td>33.56</td></tr><tr><td>Mar-22</td><td>ND</td><td>3.91</td><td>32.74</td></tr><tr><td>Max</td><td>ND</td><td>3.95</td><td>33.56</td></tr><tr><td>Min</td><td>ND</td><td>3.76</td><td>29.03</td></tr></table> <p>* ND= Not Detected</p>	Emission From Boiler stack				Parameters	PM (mg/Nm3)	SO ₂ (ppm)	NOx (ppm)	Month / Limit	150	100	50	Oct-21	ND	3.76	30.44	Nov-21	ND	3.84	30.16	Dec-21	ND	3.84	33.03	Jan-22	ND	3.95	29.03	Feb-22	ND	3.84	33.56	Mar-22	ND	3.91	32.74	Max	ND	3.95	33.56	Min	ND	3.76	29.03
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Max	ND	3.95	33.56																																											
Min	ND	3.76	29.03																																											
3	Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO ₂ , Cl ₂ , NO _x , HBr. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and	<p>1.Two stage scrubbers are provided to control process emissions from process vents. Online pH meter is provided in scrubbing system.</p> <p>2. Scrubber water is treated in Evaporator followed by Effluent Treatment Plant.</p> <p>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.</p> <p>4. Monitoring of process vent and stack is carried out by MoEF&CC and NABL accredited laboratory.</p> <p style="text-align: center;"><i>Preventive Maintenance Schedule</i></p> 																																												

CHLORINE VAPORIZER

VAPORIZATION TANK

VAPORIZATION TANK

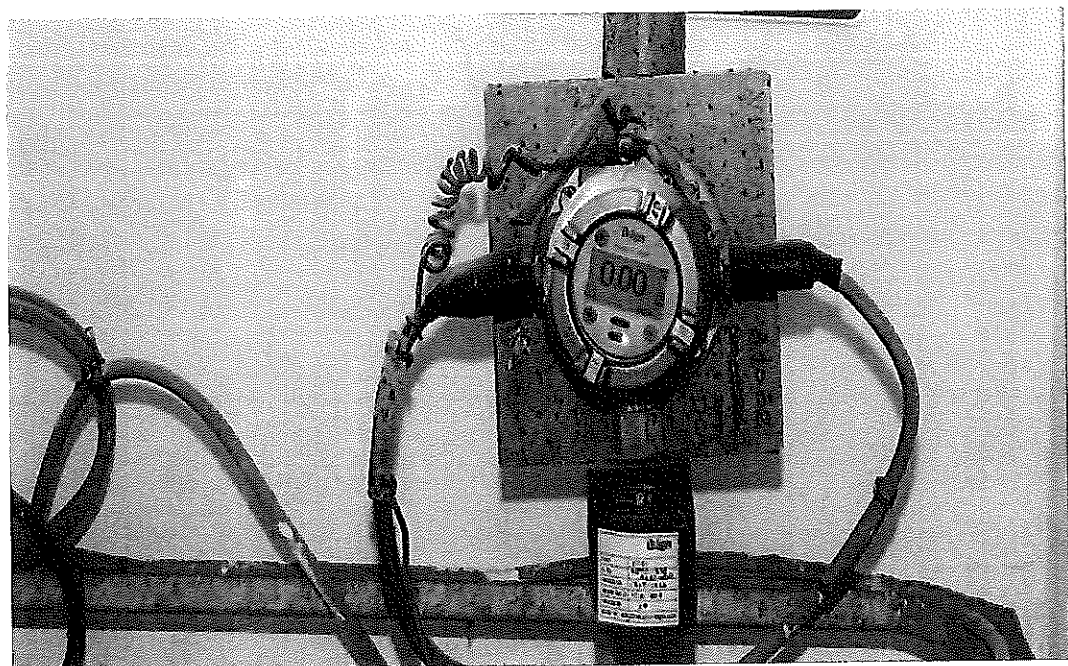
GAS LIQUID SEPARATOR

GAS LIQUID SEPARATOR

LEGEND

- GAS LIQUID SEPARATOR
- VAPORIZATION TANK
- CHLORINE VAPORIZER
- ...

Weld 11-15-21

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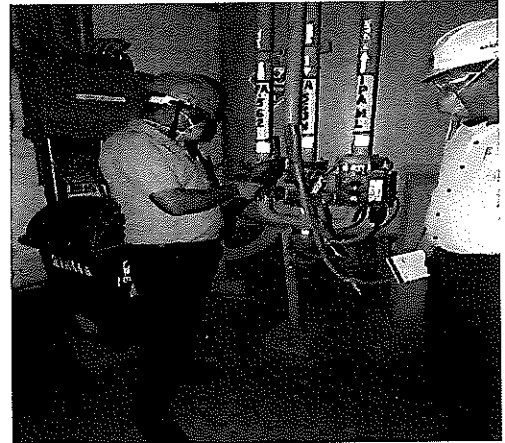
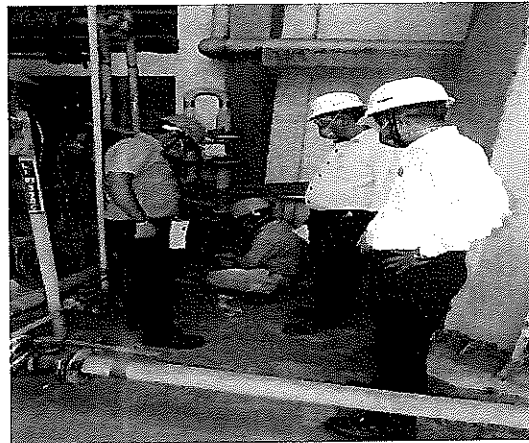
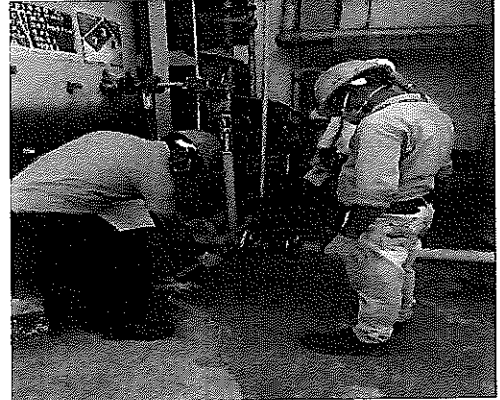
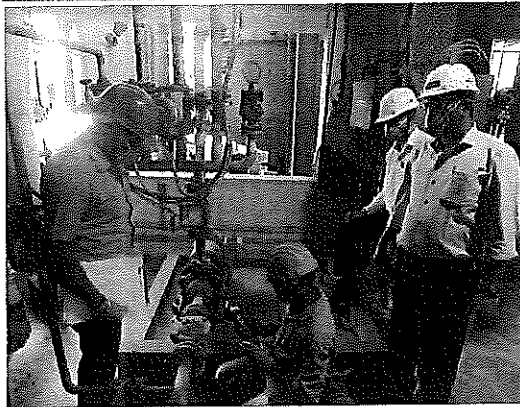
be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained.

Work Area Monitoring Details (Oct-2021 - Mar-2022)						
Sr.No	Location Name	Parameters	Unit	Results	Limit	Method of Measurement
1	Sample - 12 : EPRO -0 mtr. Tank Farm Area	Acetic Acid	ppm	Not Detected	15(STEL)	NIOSH – 1603
2	Sample - 16 : MICO (Ground Floor) ST 461 Tank (Reactor Tank)	Acetic Acid	ppm	Not Detected	15(STEL)	NIOSH – 1603
3	Sample - 28 : Cyfo (1st Floor) ANF 1193	Acetic Acid	ppm	Not Detected	15(STEL)	NIOSH – 1603
4	Sample - 1 : CMA Plant - 28 mtr.	Acrylonitrile - CAN	ppm	Not Detected	60 (STEL)	NIOSH – 1606
5	HICO -I (2nd Floor) T-501 to MV-501	Bromine (Br2)	ppm	Not Detected	0.3 (STEL)	NIOSH – 6011
6	Sample - 5 : CMA Plant - 24 mtr.	Carbon tetrachloride	ppm	Not Detected	25 (STEL)	NIOSH – 1003
7	Sample - 10 : EPRO -28 mtr. Nr. Caustic Storage Tank	CAUSTIC SODA	mg/m3	Not Detected	2 (STEL)	NIOSH – 7401
8	Sample - 6 : CMA Plant - Tank Farm (Ground Floor)	CAUSTIC SODA	mg/m3	Not Detected	2 (STEL)	NIOSH – 7401
9	Sample - 39 : Incinerator (Ground Floor) Nr. Scrubber Area	CAUSTIC SODA	mg/m3	Not Detected	2 (STEL)	NIOSH – 7401
10	Sample - 11 : EPRO -0 mtr. Chlorine Room	Chlorine	ppm	Not Detected	1 (STEL)	NIOSH – 6011
11	Sample - 32 : (EFSO 3rd Floor) MV-342	Ethanol	ppm	5.6	1000 (TWA)	NIOSH – 1400
12	Sample - 13 : EPRO -0 mtr. Tank Farm Area	H2O2	mg/m3	Not Detected	Not Specified	SOP BASED ON TITRATION METHOD
13	Sample - 19 : WWPT (2nd Floor R-1208)	H2O2	mg/m3	Not Detected	Not Specified	SOP BASED ON TITRATION METHOD
14	Sample - 14 : EPRO -0 mtr. Tank Farm Area	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
15	Sample - 3 : CMA Plant - 32 mtr.	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
16	Sample - 17 : MICO (Ground Floor) T 470A (HCl Reactor Tank)	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
17	Sample - 18 : ETP RO Plant (At RO Plant) Dosing Tank	Hydrogen Chloride (HCl)	mg/m3	0.58	7 (TWA)	NIOSH – 7907
18	Sample - 23 : HICO -I (Ground Floor) DT-502	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
19	Sample - 29 : TECO (1st Floor) R-105	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
20	Sample - 31 : (EFSO 3rd Floor) MV-341	Hydrogen Chloride (HCl)	mg/m3	Not Detected	7 (TWA)	NIOSH – 7907
21	Sample - 9 : NaCMTS Plant (3rd Floor)	Methanol	ppm	2.8	250 (STEL)	NIOSH – 2000
22	Sample - 24 : HICO -I (Ground Floor)	Methanol	ppm	1.8	250 (STEL)	NIOSH – 2000
23	Sample - 33 : (EFSO 2nd Floor) T-352C	Methanol	ppm	0.8	250 (STEL)	NIOSH – 2000
24	Sample - 37 : HICO -II (Ground Floor) T-555C	Methanol	ppm	1.2	250 (STEL)	NIOSH – 2000
25	Sample - 40 : GF Lab (2nd Floor)	Methanol	ppm	0.7	250 (STEL)	NIOSH – 2000
26	Monochloro Benzene	Monochloro Benzene	ppm	1.3	75 (STEL)	NIOSH – 1003
27	Sample - 20 : Energy (Utility-1) Grond Floor Nr. Compressor	Ammonia (NH3)	ppm	1.8	35 (STEL)	NIOSH – 6015
28	Sample - 30 : Energy (Utility) HICO Nr. PHE NH3 Receiver	Ammonia (NH3)	ppm	1.6	35 (STEL)	NIOSH – 6015
29	Sample - 34 : (EFSO 2nd Floor) R-371	Phenol	ppm	Not Detected	15.6 (STEL)	NIOSH – 2546
30	Sample - 4 : CMA Plant - 24 mtr.	Sulfur Dioxide (SO2)	ppm	0.64	5 (STEL)	OSHA ID 104
31	Sample - 15 : DIBO 1st Floor (Nr. CF 681A)	Sulfur Dioxide (SO2)	ppm	0.92	5 (STEL)	OSHA ID 104
32	Sample - 2 : CMA Plant - 32 mtr.	Sulfuric Acid	mg/m3	Not Detected	1 (TWA)	NIOSH – 7908
33	Sample - 22 : HICO -I (Ground Floor) DT-505	Sulfuric Acid	mg/m3	Not Detected	1 (TWA)	NIOSH – 7908
34	Sample - 38 : HICO -II (2nd Floor) R-556N	Sulfuric Acid	mg/m3	Not Detected	1 (TWA)	NIOSH – 7908
35	Sample - 25 : HICO -I (Ground Floor) ET 501	Toluene	ppm	0.42	150 (STEL)	NIOSH – 1501
36	Sample - 27 : Cyfo (Ground Floor) DT 1161	Toluene	ppm	0.5	150 (STEL)	NIOSH – 1501
37	Sample - 36 : (EFSO Ground Floor) DT-301	Toluene	ppm	0.56	150 (STEL)	NIOSH – 1501
38	Sample - 7 : Workshop AIR Engineering	Welding Fumes	mg/m3	Not Detected	5 (TWA)	OSHA ID 125G
39	Sample - 8 : Engineering Workshop	Welding Fumes	mg/m3	Not Detected	5 (TWA)	OSHA ID 125G

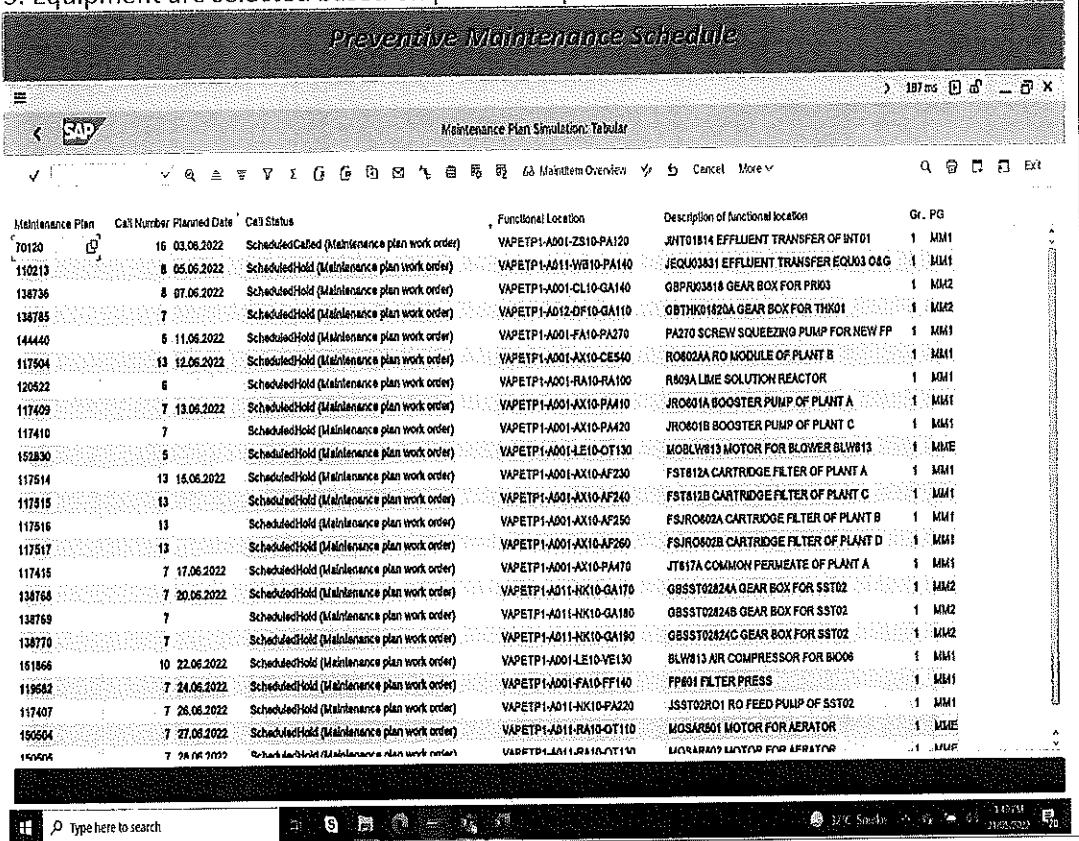
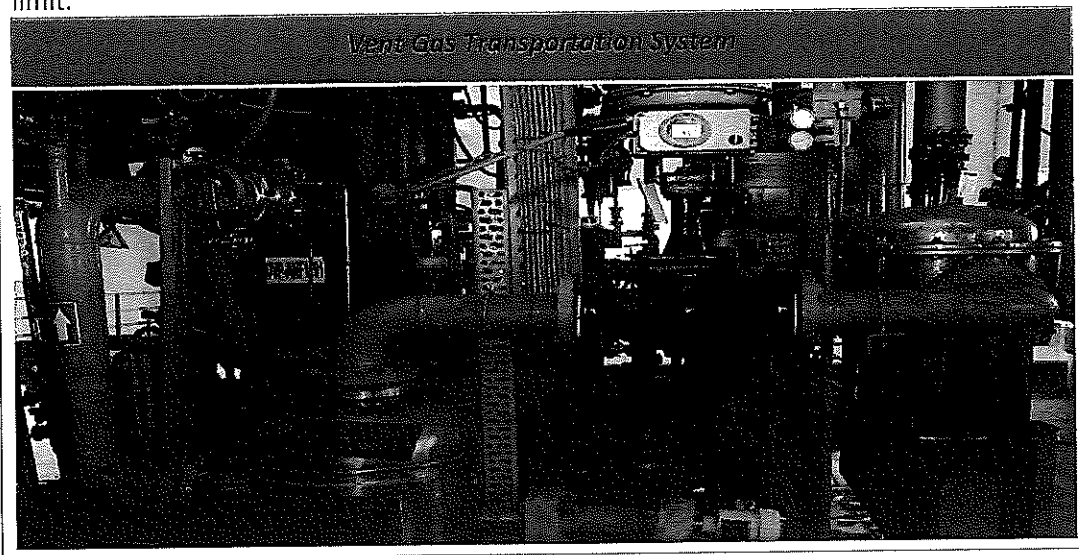
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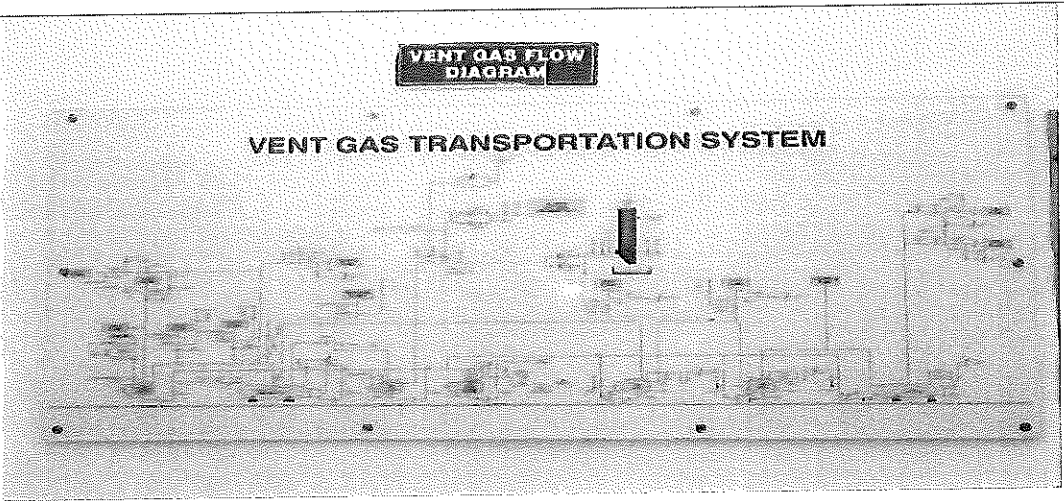
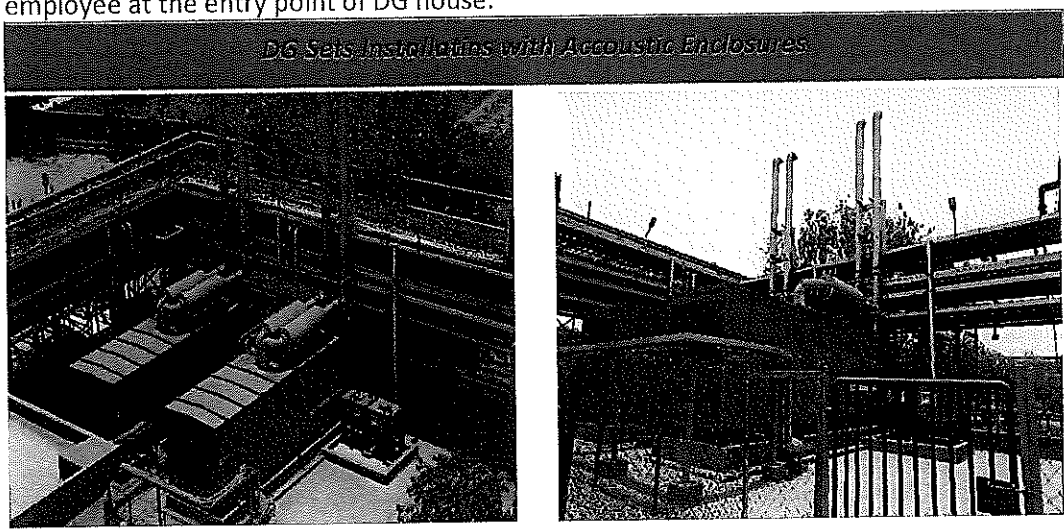
A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.

LDAR Study



Sr No.	P & ID No	Rev No	PR Device No.	Unique ID	Results (ppm)
1	BVPL/06/PID/03	E7	SRV-DT1163	SRV-DT1163	0.0
2	BVPL/06/PID/05	E7	SRV-DT1162	SRV-DT1162	0.0
3	BVPL/06/PID/06	E7	SRV-ANF1193	SRV-ANF1193	0.2
4	BVPL/06/PID/06	E7	SRV-ANF1191	SRV-ANF1191	0.3
5	BVPL/06/PID/08	E7	SRV-R1152	SRV-R1152	0.0
6	BVPL/06/PID/08	E7	SRV-DT1171	SRV-DT1171	0.0
7	BVPL/06/PID/08	E7	SRV-ANF1154	SRV-ANF1154	0.2
8	BVPL/06/PID/11	E7	SRV-DT1152	SRV-DT1152	0.0
9	BVPL/14/PID/14E	E5	SRV-LRVPFFE1171	SRV-LRVPFFE1171	0.2
10	BVPL/14/PID/14E	E5	SRV-TLRVPR1153	SRV-TLRVPR1153	0.2
11	BVPL/14/PID/14F	E5	SRV-TLRVPANF1193	SRV-TLRVPANF1193	0.0
12	BVPL/06/PID/17	E7	SRV-ANF1192	SRV-ANF1192	0.2
13	BVPL/06/PID/17	E7	SRV-ANF1194	SRV-ANF1194	0.3
14	BVPL/06/PID/20	E7	SRV-ANF1195	SRV-ANF1195	0.2
15	BVPL/06/PID/20	E7	SRV-ANF1196	SRV-ANF1196	0.3

6	<p>Company shall take all the measures in order to protect the machineries and equipment for pesticide producing unit from ageing.</p>	<ol style="list-style-type: none"> 1. Regular maintenance of pesticide producing machineries and equipment are 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	<p>Continuous monitoring system for chlorine, HCl, Cl₂ as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the</p>	<ol style="list-style-type: none"> 1. 203 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. 

	permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided along with automatic start of the scrubbing system.	 <p>The image shows a technical diagram titled "VENT GAS FLOW DIAGRAM" and "VENT GAS TRANSPORTATION SYSTEM". It illustrates the flow of vent gases through various pipes, valves, and storage tanks, with a central vertical stack for emissions.</p>
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.	<ol style="list-style-type: none"> 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 / earmuff is provided to employee at the entry point of DG house.  <p>The image is a photograph showing two DG sets (Diesel Generators) installed within acoustic enclosures. The enclosures are large, rectangular structures with sound-dampening panels. The text "DG Sets Installation with Acoustic Enclosures" is visible at the top of the image.</p>
9	Solvent management shall be carried out as follows : 1. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce	<ol style="list-style-type: none"> 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 have 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.

solvent losses. It shall be ensured that solvent recovery should not be less than 95%.

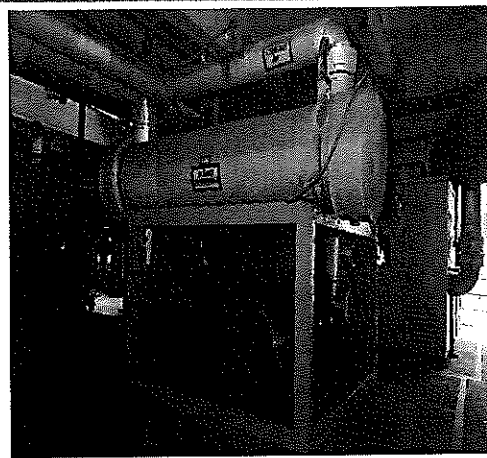
2. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

3. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

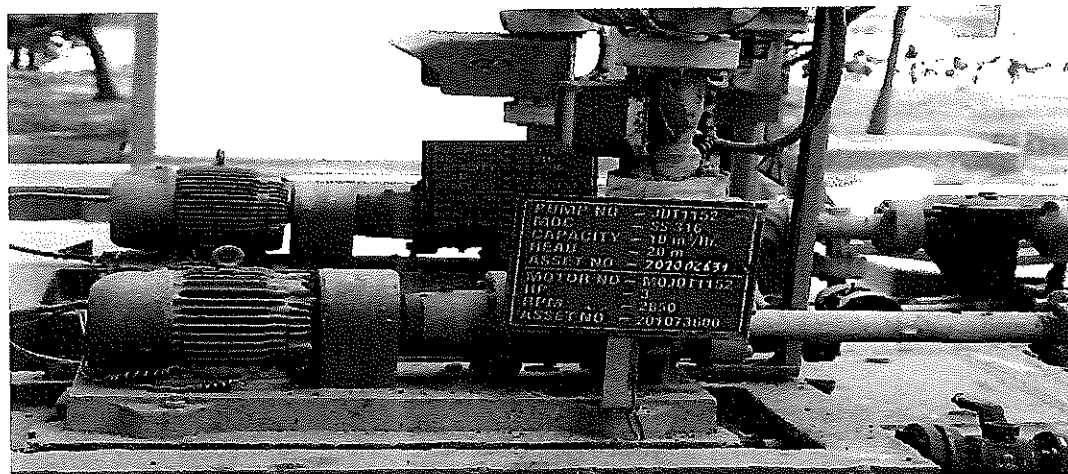
4. Solvents shall be stored in a separate space specified with all safety measures.

5. Proper earthing shall be provided in all the electrical equipment wherever

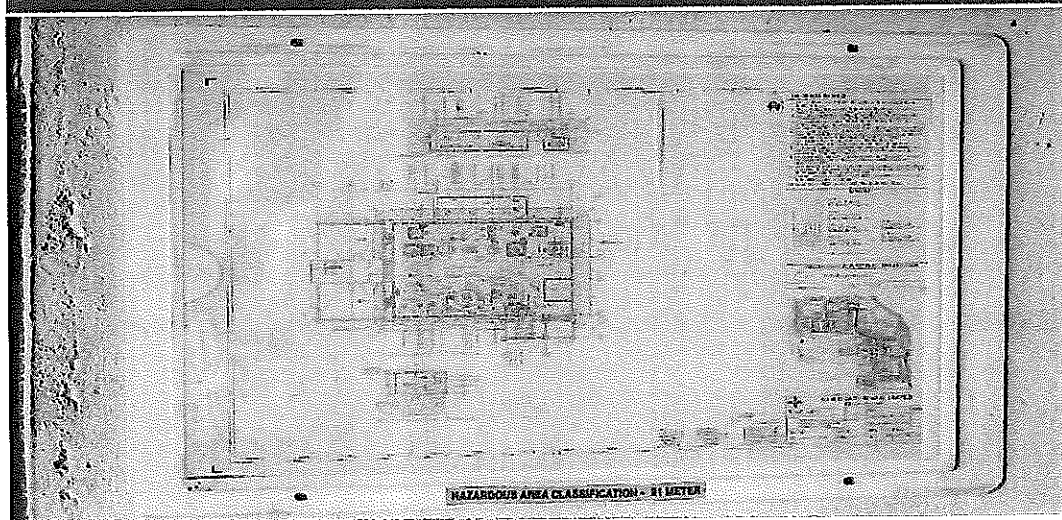
Brine, Chilling & Cooling System




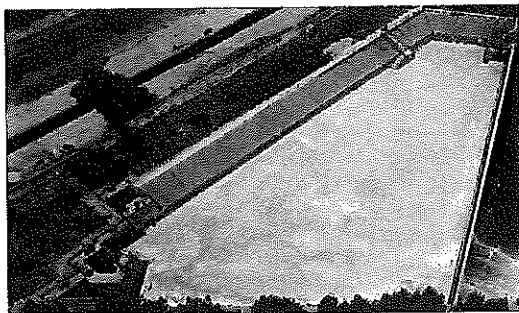
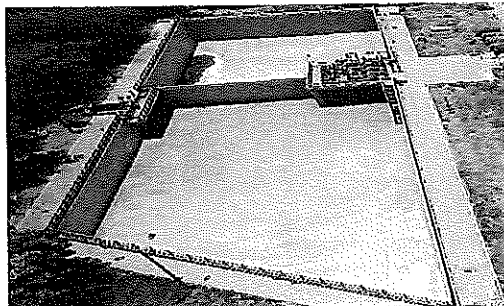
Sealless Pumps

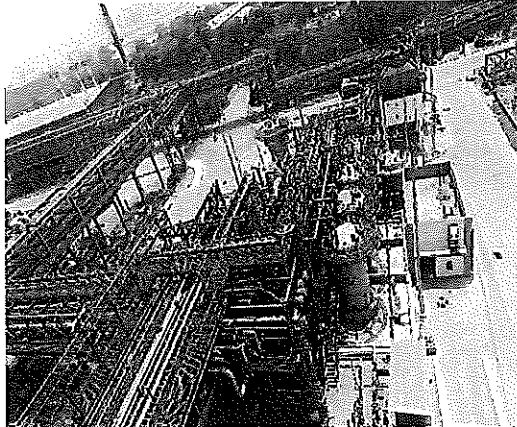
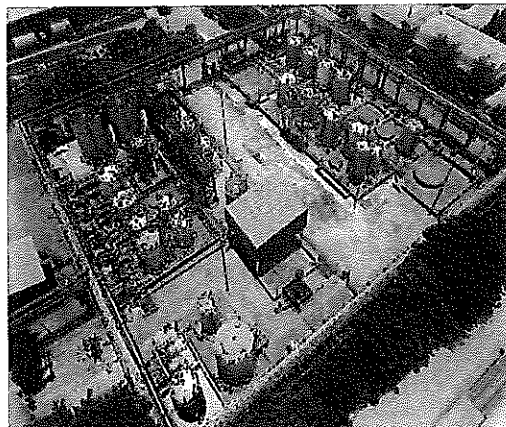



Hazardous Area Classification

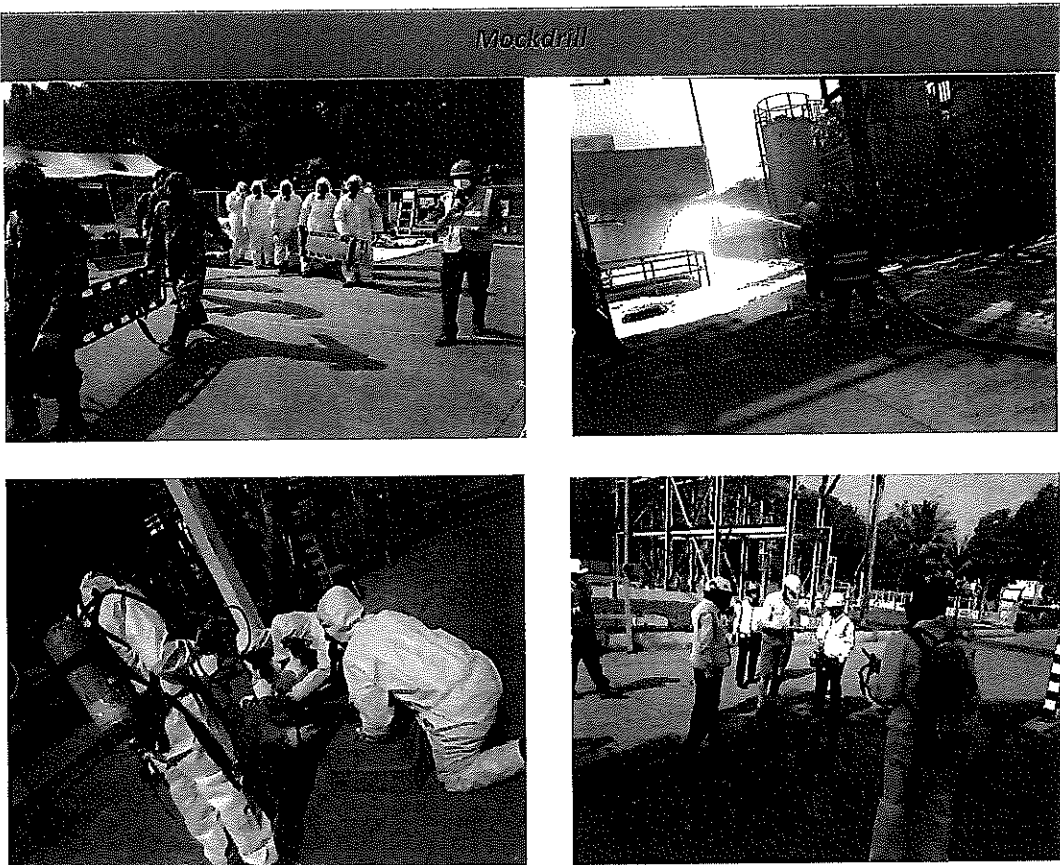


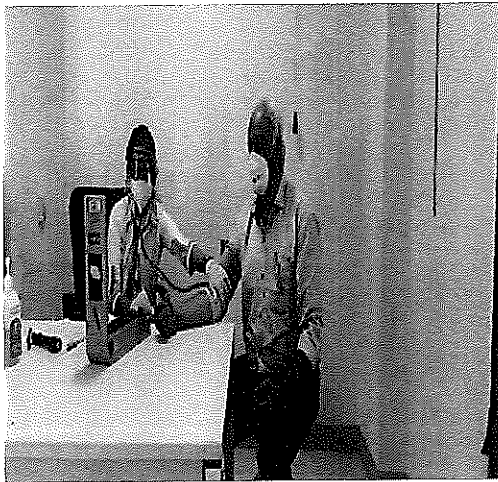
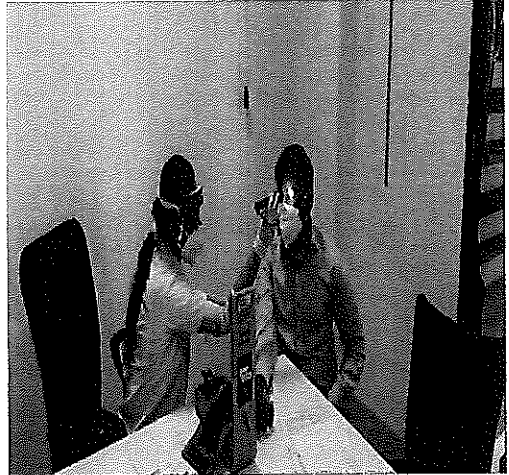
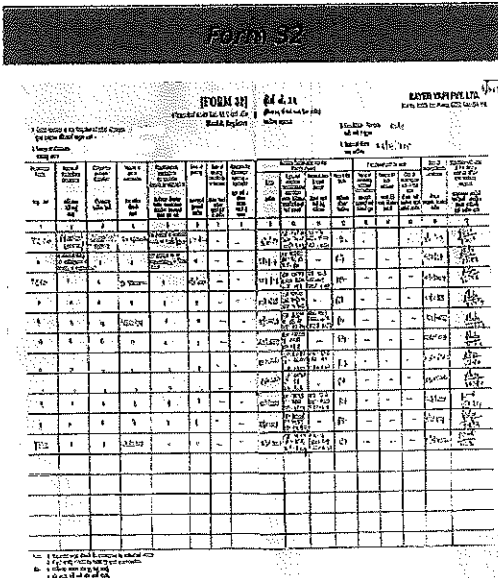
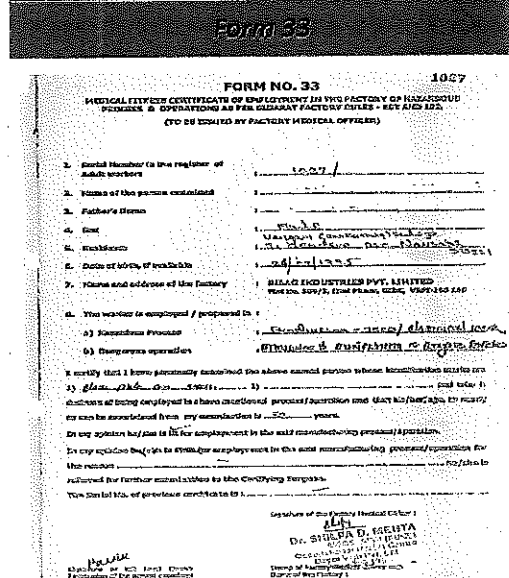
	solvent handling is done. 6. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.																																																						
10	Total water requirement from GIDC water supply shall not exceed 2900 m3/day and prior permission should be obtained from the Competent authority.	<p>Last six months water consumptions are as under:</p> <table><tr><th colspan="6">Water Consumption (October'2021 - March'2022)</th></tr><tr><th rowspan="2">Month / Unit</th><th>Average Consumption (In KL/Day)</th><th colspan="2">Connection 26610</th><th colspan="2">Connection 26807</th></tr><tr><th>2883</th><th>Initial</th><th>Final</th><th>Initial</th><th>Final</th></tr><tr><td>Oct-21</td><td>1432</td><td>6625822</td><td>6666973</td><td>82302</td><td>85533</td></tr><tr><td>Nov-21</td><td>1283</td><td>6666973</td><td>6703105</td><td>85533</td><td>87895</td></tr><tr><td>Dec-21</td><td>1313</td><td>6703105</td><td>6740756</td><td>87895</td><td>90935</td></tr><tr><td>Jan-22</td><td>1449</td><td>6740756</td><td>6782500</td><td>90935</td><td>94120</td></tr><tr><td>Feb-22</td><td>1563</td><td>6782500</td><td>6823288</td><td>94120</td><td>97082</td></tr><tr><td>Mar-22</td><td>1682</td><td>6823288</td><td>6871649</td><td>97082</td><td>100851</td></tr></table>	Water Consumption (October'2021 - March'2022)						Month / Unit	Average Consumption (In KL/Day)	Connection 26610		Connection 26807		2883	Initial	Final	Initial	Final	Oct-21	1432	6625822	6666973	82302	85533	Nov-21	1283	6666973	6703105	85533	87895	Dec-21	1313	6703105	6740756	87895	90935	Jan-22	1449	6740756	6782500	90935	94120	Feb-22	1563	6782500	6823288	94120	97082	Mar-22	1682	6823288	6871649	97082	100851
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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	<p>The wastewater is segregated based on COD, TDS and BOD / COD ratio. The wastewater generation philosophy is as under:</p> <table><tr><th>Sr.No</th><th>Characteristics</th><th>Treatment</th></tr><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></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 analyzer 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 incase of exceedance of parameters.</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																																			
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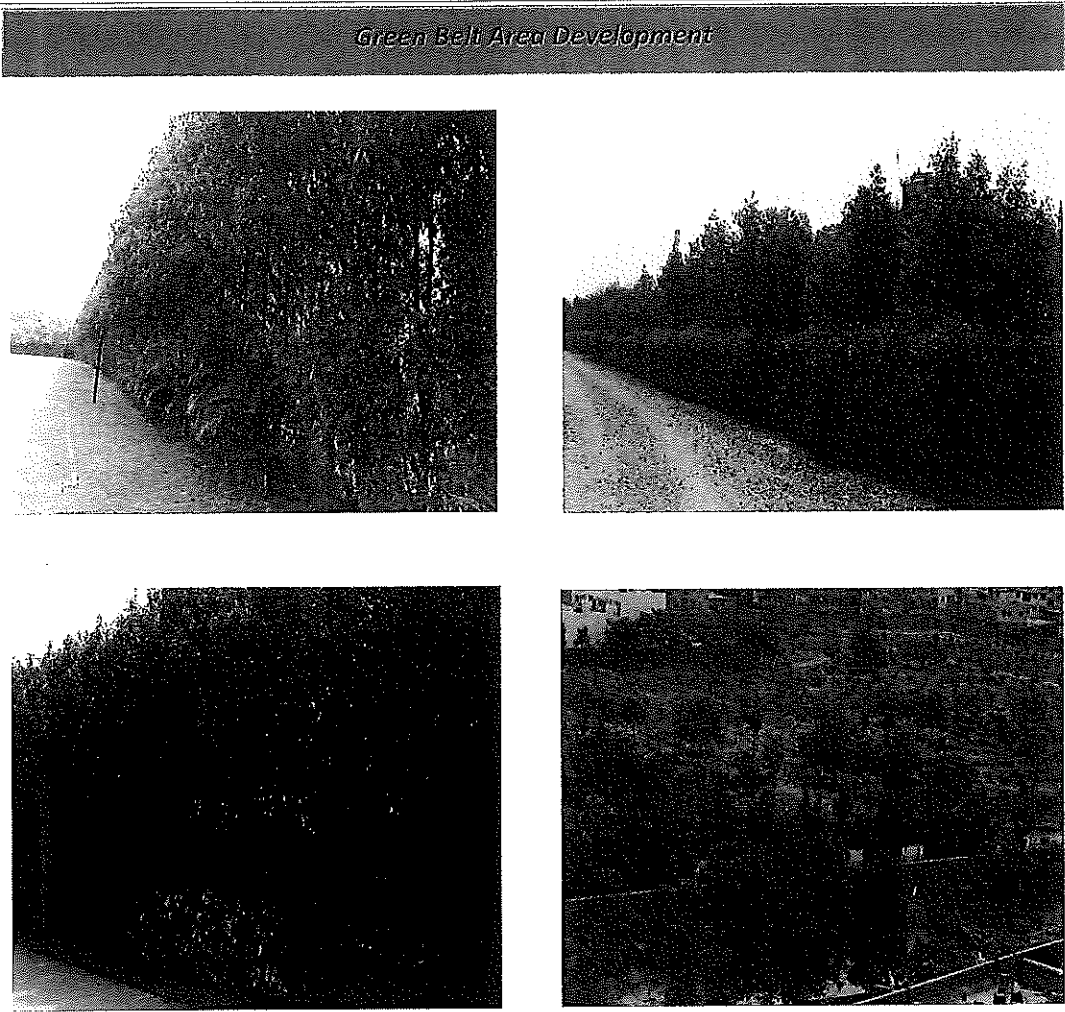
	<p>COD & Low TDS. High COD & High TDS effluents will be sent to MEE followed by RO while Low COD & Low TDS effluents will be treated in ETP followed by RO. The treated wastewater shall be discharged to Common Effluent Treatment Plant (CETP) for final treatment.</p>	<table><tr><th colspan="4">Details of RO</th></tr><tr><th>RO No.</th><th>Capacity in m3/Day</th><th>Permeate Use</th><th>System Recovery</th></tr><tr><td>RO 1</td><td>200</td><td rowspan="2">Reuse in process / cooling tower make up</td><td rowspan="2">80%</td></tr><tr><td>RO 2</td><td>200</td></tr></table> <div>RO Plants</div> 	Details of RO				RO No.	Capacity in m3/Day	Permeate Use	System Recovery	RO 1	200	Reuse in process / cooling tower make up	80%	RO 2	200
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12	<p>Process effluent / any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.</p>	<p>Site has separate collection system for effluent and storm water. The capacity of guard ponds are 3000 KI & 1800 KI respectively. 1st shower of monsoon is treated in ETP and then discharged into creek. Regular pH monitoring of storm water is carried out.</p> <div><div>Storm Water Retention Pond</div><div>Fire Water Retention Pond</div></div>														
13	<p>Hazardous chemicals shall be stored in tanks in tank farms,</p>	<p>1. All hazardous chemicals are stored in tanks. 2. Adequate number of flame arrestor have been provided. 3. Double mechanical seal / seal less pumps are used for solvent transfer.</p>														

	drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.	<div><div><div>Hazardous Chemicals Storage Area</div><div></div></div></div>																		
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 authorization for collection, storage and disposal of by-products falling under the Hazardous Waste (Management, Handling and Trans- Boundary Movement) Rules, 2016 valid up to September 30, 2021.</p> <table><tr><th colspan="2">Hazardous Wastes Disposal Details (October'2021 - March'2022)</th></tr><tr><th>Wastes</th><th>Under Rule 9 (MT)</th></tr><tr><th>Month / Limit</th><th>33223</th></tr><tr><td>Oct-21</td><td>314.570</td></tr><tr><td>Nov-21</td><td>244.880</td></tr><tr><td>Dec-21</td><td>336.130</td></tr><tr><td>Jan-22</td><td>685.192</td></tr><tr><td>Feb-22</td><td>799.950</td></tr><tr><td>Mar-22</td><td>774.540</td></tr></table>	Hazardous Wastes Disposal Details (October'2021 - March'2022)		Wastes	Under Rule 9 (MT)	Month / Limit	33223	Oct-21	314.570	Nov-21	244.880	Dec-21	336.130	Jan-22	685.192	Feb-22	799.950	Mar-22	774.540
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15	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Manageme	<p>1.The site has authorization for collection, storage and disposal of hazardous waste under 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 firefighting 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>																		

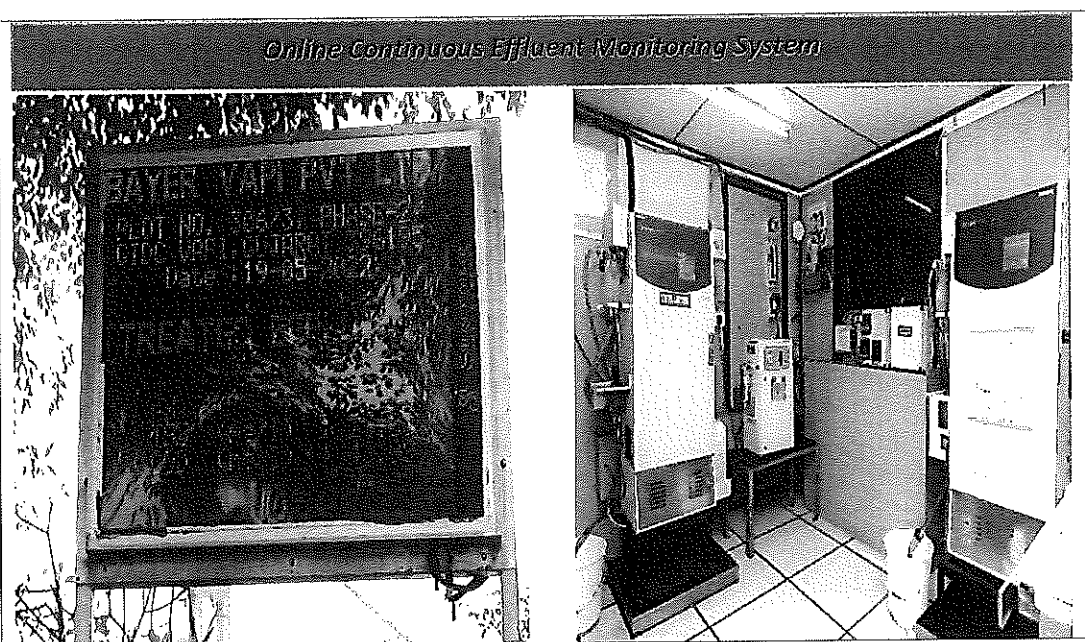
nt, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.	Hazardous Wastes Disposal Details (October 2021 - March 2022)					
	Wastes	Incinerable (MT)			Authorized Vendor (MT)	Landfillable (MT)
		Internal	External	Pre-processing		
	Month / Limit	9167.8			641	14696
	Oct-21	0.000	563.950	0.000	0.000	1394.800
	Nov-21	258.087	209.766	0.000	6.320	3412.930
	Dec-21	191.304	372.230	0.000	24.520	1675.790
	Jan-22	94.775	466.762	45.120	7.560	1175.960
	Feb-22	375.904	91.670	181.150	3.650	785.720
	Mar-22	144.957	113.514	335.700	0.000	1013.270
Firefighting Systems						
						
16	ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to	1.ETP sludge, inorganic waste is sent to the authorised TSDF sites operated by Saurasthra Enviro Projects Pvt Ltd. (SEPPL); Vapi Green Enviro Limited (formerly Known as Vapi waste & Effluent Mgt. Co. Ltd). 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 Saurasthra Enviro Projects Pvt Ltd. (SEPPL) / sent for Co processing to Recycling Solutions Pvt. Ltd (RSPL) / Bharuch Enviro Infrastructure Limited (BEIL).				

	cement factory / incinerated.	
17	<p>The Company shall strictly comply with the rules and guidelines under Manufactur e, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in October, 1994 and January, 2000. All Transportati on of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.</p>	<ol style="list-style-type: none"> 1. On Site Emergency Action Plan is in place to handle any emergency. 2. The safety audit is carried out by competent person every year. The last safety audit was conducted in the month of September, 2021. 3. The mock drill is carried out regularly. Last mock drill was carried out on January, 2022. 4. The transportation of hazardous chemicals as per Motor Vehicle Act shall be complied. <div style="text-align: center; margin-top: 10px;">  </div>
18	<p>The unit shall make the arrangemen t for protection of possible fire hazards during manufacturi ng process in material handling. Firefighting</p>	<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

	system shall be as per the norms.	
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 and awareness programs are 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 style="text-align: center;"> <p>Quarterly Medical Check up of</p>  </div> <div style="text-align: center;"> <p>Annual Medical Camps for Employees</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Form 32</p>  </div> <div style="text-align: center;"> <p>Form 33</p>  </div> </div>
20	Green belt should be developed at least in 10.6 ha area in and around the	<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>

	<p>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>	<div><p><i>Green Belt Area Development</i></p></div>										
21	<p>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</p>	<p>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.</p> <table><tr><th colspan="2">CSR DONATION SUMMARY FY 2021-22</th></tr><tr><th>Particulars</th><th>Total (INR Mio)</th></tr><tr><td>Donation of Oxygen Plant</td><td>2,756,031</td></tr><tr><td>Interventions to combat COVID 19 pandemic and strengthen health infrastructure</td><td>34,510,350</td></tr><tr><td>Total CSR Spend for FY 2021-22</td><td>37,266,381</td></tr></table>	CSR DONATION SUMMARY FY 2021-22		Particulars	Total (INR Mio)	Donation of Oxygen Plant	2,756,031	Interventions to combat COVID 19 pandemic and strengthen health infrastructure	34,510,350	Total CSR Spend for FY 2021-22	37,266,381
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	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.																									
22	All the recommendations made in the risk assessment report should be satisfactorily implemented.	Complied.																								
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>Oct-21</td><td>7917</td><td>255</td></tr> <tr> <td>Nov-21</td><td>5428</td><td>181</td></tr> <tr> <td>Dec-21</td><td>6507</td><td>210</td></tr> <tr> <td>Jan-22</td><td>8184</td><td>264</td></tr> <tr> <td>Feb-22</td><td>6510</td><td>232</td></tr> <tr> <td>Mar-22</td><td>7276</td><td>235</td></tr> </tbody> </table>	Recycled Treated Effluent Quantity			Month	Quantity Recycled (KL)	Average Quantity Recycled (KL / Day)	Oct-21	7917	255	Nov-21	5428	181	Dec-21	6507	210	Jan-22	8184	264	Feb-22	6510	232	Mar-22	7276	235
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24	Continuous online (24 x 7) monitoring to be installed for flow measurement	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.																								

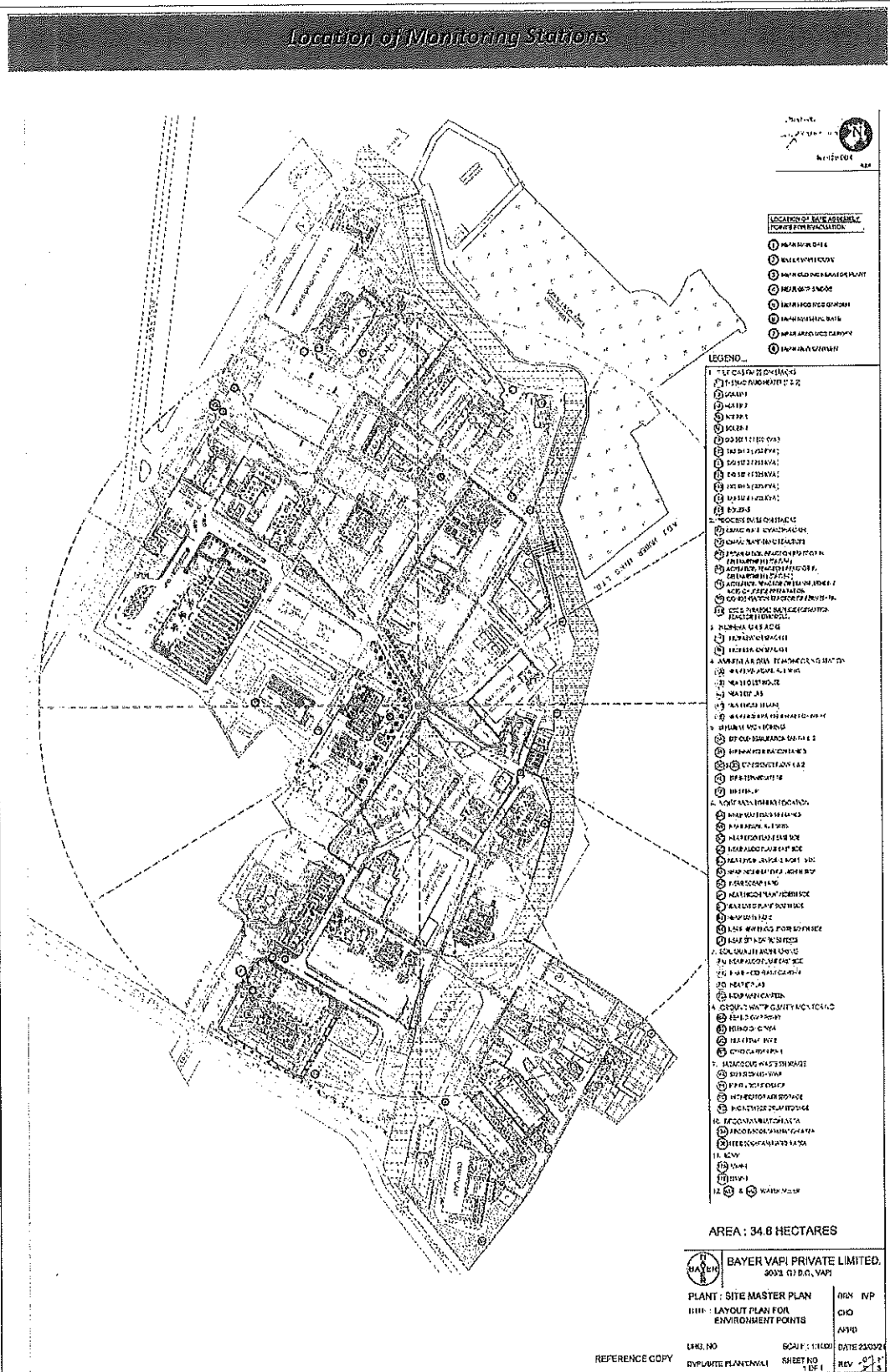
<p>nt and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to respective RO of MoEF&CC, CPCB and SPCB.</p>	 <p>The image shows an outdoor digital display screen for an Online Continuous Effluent Monitoring System. The screen displays the following information: BAYER WAPI TWT LTD, PLOT NO. 308/31 PHASE 2, GIDC VENT. C. TOWN, DIST. Date: 19-05-2022, and TREATMENT UNIT. To the right of the screen is an indoor control room with a computer monitor and various electronic equipment.</p>
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B. SPECIFIC CONDITIONS

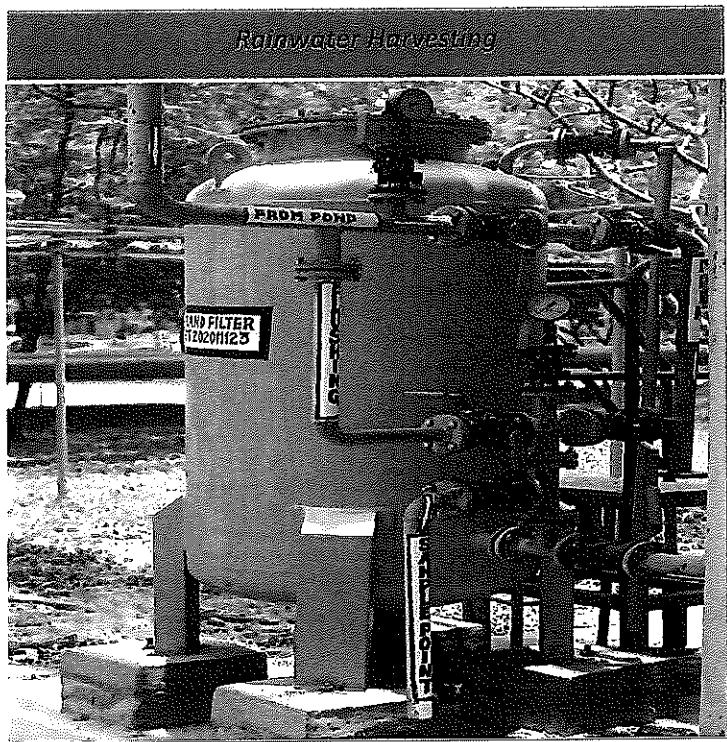
1	<p>The project authorities shall strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and any other statutory authority.</p>	<p>The company follows all stipulations made by State Pollution Control Board (SPCB).</p>
2	<p>No further expansion or modifications in the plant shall be carried without prior approval of the Ministry of Environment</p>	<p>Followed.</p>

	<p>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.</p>	
3	<p>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</p>	<p>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.</p> <div data-bbox="617 1411 1203 1971" data-label="Image"> </div>

and downwind direction as well as where maximum ground level concentration are anticipated.



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><tr><th colspan="13">Ambient Air Quality Monitoring (October 2021 to March 2022)</th></tr><tr><th>Parameters</th><th>PM₁₀</th><th>PM_{2.5}</th><th>Sulphur Dioxide (SO₂)</th><th>Oxides of Nitrogen</th><th>Lead</th><th>Benzo (a) Pyrene (BaP)</th><th>Arsenic</th><th>Nickel</th><th>CO</th><th>Benzene</th><th>NH₃</th><th>O₃</th></tr><tr><th>Unit</th><td>µg/m³</td><td>µg/m³</td><td>µg/m³</td><td>µg/m³</td><td>µg/m³</td><td>ng/m³</td><td>ng/m³</td><td>ng/m³</td><td>mg/m³</td><td>µg/m³</td><td>µg/m³</td><td>µg/m³</td></tr><tr><th>Month / Limit</th><td>100</td><td>50</td><td>80</td><td>80</td><td>1</td><td>1</td><td>5</td><td>20</td><td>4</td><td>5</td><td>400</td><td>180</td></tr><tr><td>Oct-21</td><td>66.41</td><td>33.10</td><td>13.51</td><td>23.22</td><td>0.47</td><td>ND</td><td>2.40</td><td>6.24</td><td>0.46</td><td>ND*</td><td>19.48</td><td>15.45</td></tr><tr><td>Nov-21</td><td>72.63</td><td>36.32</td><td>16.07</td><td>28.20</td><td>0.54</td><td>ND</td><td>2.68</td><td>6.96</td><td>0.52</td><td>ND*</td><td>22.31</td><td>18.78</td></tr><tr><td>Dec-21</td><td>78.36</td><td>40.64</td><td>18.02</td><td>32.87</td><td>0.62</td><td>ND</td><td>2.34</td><td>7.15</td><td>0.60</td><td>ND*</td><td>25.12</td><td>21.14</td></tr><tr><td>Jan-22</td><td>69.32</td><td>34.35</td><td>15.16</td><td>28.91</td><td>0.55</td><td>ND</td><td>2.53</td><td>6.94</td><td>0.49</td><td>ND*</td><td>21.81</td><td>17.99</td></tr><tr><td>Feb-22</td><td>78.37</td><td>39.19</td><td>17.99</td><td>32.84</td><td>0.44</td><td>ND</td><td>2.42</td><td>7.11</td><td>0.57</td><td>ND*</td><td>27.90</td><td>20.59</td></tr><tr><td>Mar-22</td><td>70.65</td><td>35.07</td><td>16.92</td><td>28.73</td><td>0.32</td><td>ND</td><td>2.32</td><td>6.42</td><td>0.51</td><td>ND*</td><td>24.14</td><td>16.86</td></tr><tr><td>Max</td><td>78.37</td><td>40.64</td><td>18.02</td><td>32.87</td><td>0.62</td><td>ND</td><td>2.68</td><td>7.15</td><td>0.60</td><td>ND*</td><td>27.90</td><td>21.14</td></tr><tr><td>Min</td><td>66.41</td><td>33.10</td><td>13.51</td><td>23.22</td><td>0.32</td><td>ND</td><td>2.32</td><td>6.24</td><td>0.46</td><td>ND*</td><td>19.48</td><td>15.45</td></tr></table> <p>*ND - Not Detected</p>	Ambient Air Quality Monitoring (October 2021 to March 2022)													Parameters	PM ₁₀	PM _{2.5}	Sulphur Dioxide (SO ₂)	Oxides of Nitrogen	Lead	Benzo (a) Pyrene (BaP)	Arsenic	Nickel	CO	Benzene	NH ₃	O ₃	Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	Month / Limit	100	50	80	80	1	1	5	20	4	5	400	180	Oct-21	66.41	33.10	13.51	23.22	0.47	ND	2.40	6.24	0.46	ND*	19.48	15.45	Nov-21	72.63	36.32	16.07	28.20	0.54	ND	2.68	6.96	0.52	ND*	22.31	18.78	Dec-21	78.36	40.64	18.02	32.87	0.62	ND	2.34	7.15	0.60	ND*	25.12	21.14	Jan-22	69.32	34.35	15.16	28.91	0.55	ND	2.53	6.94	0.49	ND*	21.81	17.99	Feb-22	78.37	39.19	17.99	32.84	0.44	ND	2.42	7.11	0.57	ND*	27.90	20.59	Mar-22	70.65	35.07	16.92	28.73	0.32	ND	2.32	6.42	0.51	ND*	24.14	16.86	Max	78.37	40.64	18.02	32.87	0.62	ND	2.68	7.15	0.60	ND*	27.90	21.14	Min	66.41	33.10	13.51	23.22	0.32	ND	2.32	6.24	0.46	ND*	19.48	15.45																																																																																																																																		
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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)	<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><tr><th colspan="16">Noise Monitoring (October 2021 to March 2022)</th></tr><tr><th rowspan="3">Sl. No.</th><th>Location</th><th colspan="7">Day Time (dBA)</th><th colspan="7">Night Time (dBA)</th></tr><tr><th>Unit</th><th colspan="7">75 dB(A)</th><th colspan="7">70 dB(A)</th></tr><tr><th>Month / Location</th><th>Oct-21</th><th>Nov-21</th><th>Dec-21</th><th>Jan-22</th><th>Feb-22</th><th>Mar-22</th><th>Average</th><th>Oct-21</th><th>Nov-21</th><th>Dec-21</th><th>Jan-22</th><th>Feb-22</th><th>Mar-22</th><th>Average</th></tr><tr><td>1</td><td>Near Main Gate</td><td>58.2</td><td>58.7</td><td>58.8</td><td>61.6</td><td>58.2</td><td>56.2</td><td>58.62</td><td>54.4</td><td>55.7</td><td>54.2</td><td>59.4</td><td>55.1</td><td>51.4</td><td>55.03</td></tr><tr><td>2</td><td>Near Admin. Building</td><td>56.4</td><td>57.4</td><td>57.9</td><td>64.4</td><td>57.6</td><td>54.9</td><td>58.10</td><td>53.2</td><td>53.3</td><td>55.4</td><td>57.1</td><td>53.4</td><td>50.6</td><td>53.83</td></tr><tr><td>3</td><td>Near ESO Plant</td><td>61.3</td><td>65.8</td><td>64.2</td><td>67.2</td><td>61.8</td><td>60.1</td><td>63.40</td><td>59.8</td><td>60.8</td><td>60.6</td><td>62.5</td><td>59.7</td><td>58.2</td><td>60.27</td></tr><tr><td>4</td><td>Near AICO Plant</td><td>63.2</td><td>62.2</td><td>64.4</td><td>63.8</td><td>59.9</td><td>63.4</td><td>62.82</td><td>58.6</td><td>58.2</td><td>57.7</td><td>60.3</td><td>57.3</td><td>60.5</td><td>58.77</td></tr><tr><td>5</td><td>Near Incinerator-2</td><td>69.8</td><td>69.2</td><td>71.2</td><td>68.5</td><td>68.4</td><td>65.1</td><td>68.70</td><td>66.7</td><td>64.2</td><td>67.1</td><td>66.2</td><td>62.6</td><td>61.4</td><td>64.70</td></tr><tr><td>6</td><td>Near Incinerator-3</td><td>67.2</td><td>67.4</td><td>66.5</td><td>66.9</td><td>67.2</td><td>67.4</td><td>67.10</td><td>62.2</td><td>63.4</td><td>61.4</td><td>64.7</td><td>65.8</td><td>63.6</td><td>63.52</td></tr><tr><td>7</td><td>Near Scrap Yard</td><td>66.4</td><td>58.5</td><td>62.8</td><td>60.7</td><td>64.4</td><td>61.5</td><td>62.38</td><td>61.9</td><td>55.5</td><td>57.2</td><td>56.2</td><td>58.1</td><td>59.3</td><td>58.03</td></tr><tr><td>8</td><td>Near HICO-1</td><td>68.7</td><td>65.2</td><td>61.6</td><td>62.4</td><td>59.8</td><td>64.6</td><td>63.72</td><td>65.5</td><td>61.2</td><td>59.3</td><td>58.6</td><td>54.5</td><td>59.4</td><td>59.75</td></tr><tr><td>9</td><td>Near CYFO Plant</td><td>62.4</td><td>63.7</td><td>62.4</td><td>57</td><td>62.4</td><td>66.8</td><td>62.45</td><td>57.1</td><td>60.4</td><td>58</td><td>53.3</td><td>60.9</td><td>62.5</td><td>58.70</td></tr><tr><td>10</td><td>Near Gate-II</td><td>58.3</td><td>57.2</td><td>58.7</td><td>55.2</td><td>59.2</td><td>59.2</td><td>57.97</td><td>55.6</td><td>55.2</td><td>54.5</td><td>52.5</td><td>56</td><td>54.1</td><td>54.65</td></tr><tr><td>11</td><td>Near Engineering Part Store</td><td>64.5</td><td>60.3</td><td>59.5</td><td>59.3</td><td>57.4</td><td>61.6</td><td>60.43</td><td>61.5</td><td>57.3</td><td>56.4</td><td>55.1</td><td>54.1</td><td>58.3</td><td>57.12</td></tr><tr><td>12</td><td>Near ETP</td><td>69.6</td><td>66.4</td><td>65.1</td><td>65.9</td><td>67.4</td><td>70.3</td><td>67.45</td><td>67.9</td><td>62.4</td><td>60.2</td><td>63.6</td><td>64.2</td><td>66.8</td><td>64.18</td></tr><tr><td></td><td>Max</td><td>69.8</td><td>69.2</td><td>71.2</td><td>68.5</td><td>68.4</td><td>70.3</td><td>68.7</td><td>67.9</td><td>64.2</td><td>67.1</td><td>66.2</td><td>65.8</td><td>66.8</td><td>64.7</td></tr><tr><td></td><td>Min</td><td>56.4</td><td>57.2</td><td>57.9</td><td>55.2</td><td>57.4</td><td>54.9</td><td>57.97</td><td>53.2</td><td>53.3</td><td>54.2</td><td>52.5</td><td>53.4</td><td>50.6</td><td>53.83</td></tr></table>	Noise Monitoring (October 2021 to March 2022)																Sl. No.	Location	Day Time (dBA)							Night Time (dBA)							Unit	75 dB(A)							70 dB(A)							Month / Location	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Average	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Average	1	Near Main Gate	58.2	58.7	58.8	61.6	58.2	56.2	58.62	54.4	55.7	54.2	59.4	55.1	51.4	55.03	2	Near Admin. Building	56.4	57.4	57.9	64.4	57.6	54.9	58.10	53.2	53.3	55.4	57.1	53.4	50.6	53.83	3	Near ESO Plant	61.3	65.8	64.2	67.2	61.8	60.1	63.40	59.8	60.8	60.6	62.5	59.7	58.2	60.27	4	Near AICO Plant	63.2	62.2	64.4	63.8	59.9	63.4	62.82	58.6	58.2	57.7	60.3	57.3	60.5	58.77	5	Near Incinerator-2	69.8	69.2	71.2	68.5	68.4	65.1	68.70	66.7	64.2	67.1	66.2	62.6	61.4	64.70	6	Near Incinerator-3	67.2	67.4	66.5	66.9	67.2	67.4	67.10	62.2	63.4	61.4	64.7	65.8	63.6	63.52	7	Near Scrap Yard	66.4	58.5	62.8	60.7	64.4	61.5	62.38	61.9	55.5	57.2	56.2	58.1	59.3	58.03	8	Near HICO-1	68.7	65.2	61.6	62.4	59.8	64.6	63.72	65.5	61.2	59.3	58.6	54.5	59.4	59.75	9	Near CYFO Plant	62.4	63.7	62.4	57	62.4	66.8	62.45	57.1	60.4	58	53.3	60.9	62.5	58.70	10	Near Gate-II	58.3	57.2	58.7	55.2	59.2	59.2	57.97	55.6	55.2	54.5	52.5	56	54.1	54.65	11	Near Engineering Part Store	64.5	60.3	59.5	59.3	57.4	61.6	60.43	61.5	57.3	56.4	55.1	54.1	58.3	57.12	12	Near ETP	69.6	66.4	65.1	65.9	67.4	70.3	67.45	67.9	62.4	60.2	63.6	64.2	66.8	64.18		Max	69.8	69.2	71.2	68.5	68.4	70.3	68.7	67.9	64.2	67.1	66.2	65.8	66.8	64.7		Min	56.4	57.2	57.9	55.2	57.4	54.9	57.97	53.2	53.3	54.2	52.5	53.4	50.6	53.83
Noise Monitoring (October 2021 to March 2022)																																																																																																																																																																																																																																																																																																
Sl. No.	Location	Day Time (dBA)							Night Time (dBA)																																																																																																																																																																																																																																																																																							
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1	Near Main Gate	58.2	58.7	58.8	61.6	58.2	56.2	58.62	54.4	55.7	54.2	59.4	55.1	51.4	55.03																																																																																																																																																																																																																																																																																	
2	Near Admin. Building	56.4	57.4	57.9	64.4	57.6	54.9	58.10	53.2	53.3	55.4	57.1	53.4	50.6	53.83																																																																																																																																																																																																																																																																																	
3	Near ESO Plant	61.3	65.8	64.2	67.2	61.8	60.1	63.40	59.8	60.8	60.6	62.5	59.7	58.2	60.27																																																																																																																																																																																																																																																																																	
4	Near AICO Plant	63.2	62.2	64.4	63.8	59.9	63.4	62.82	58.6	58.2	57.7	60.3	57.3	60.5	58.77																																																																																																																																																																																																																																																																																	
5	Near Incinerator-2	69.8	69.2	71.2	68.5	68.4	65.1	68.70	66.7	64.2	67.1	66.2	62.6	61.4	64.70																																																																																																																																																																																																																																																																																	
6	Near Incinerator-3	67.2	67.4	66.5	66.9	67.2	67.4	67.10	62.2	63.4	61.4	64.7	65.8	63.6	63.52																																																																																																																																																																																																																																																																																	
7	Near Scrap Yard	66.4	58.5	62.8	60.7	64.4	61.5	62.38	61.9	55.5	57.2	56.2	58.1	59.3	58.03																																																																																																																																																																																																																																																																																	
8	Near HICO-1	68.7	65.2	61.6	62.4	59.8	64.6	63.72	65.5	61.2	59.3	58.6	54.5	59.4	59.75																																																																																																																																																																																																																																																																																	
9	Near CYFO Plant	62.4	63.7	62.4	57	62.4	66.8	62.45	57.1	60.4	58	53.3	60.9	62.5	58.70																																																																																																																																																																																																																																																																																	
10	Near Gate-II	58.3	57.2	58.7	55.2	59.2	59.2	57.97	55.6	55.2	54.5	52.5	56	54.1	54.65																																																																																																																																																																																																																																																																																	
11	Near Engineering Part Store	64.5	60.3	59.5	59.3	57.4	61.6	60.43	61.5	57.3	56.4	55.1	54.1	58.3	57.12																																																																																																																																																																																																																																																																																	
12	Near ETP	69.6	66.4	65.1	65.9	67.4	70.3	67.45	67.9	62.4	60.2	63.6	64.2	66.8	64.18																																																																																																																																																																																																																																																																																	
	Max	69.8	69.2	71.2	68.5	68.4	70.3	68.7	67.9	64.2	67.1	66.2	65.8	66.8	64.7																																																																																																																																																																																																																																																																																	
	Min	56.4	57.2	57.9	55.2	57.4	54.9	57.97	53.2	53.3	54.2	52.5	53.4	50.6	53.83																																																																																																																																																																																																																																																																																	

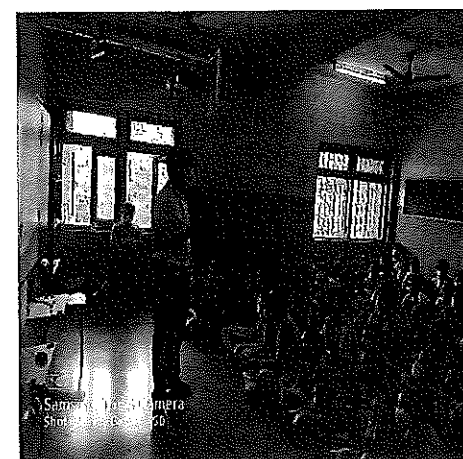
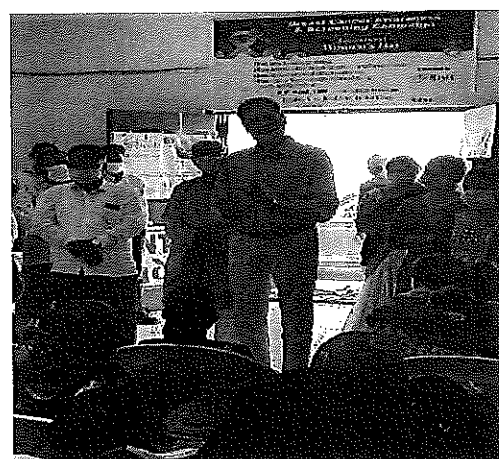
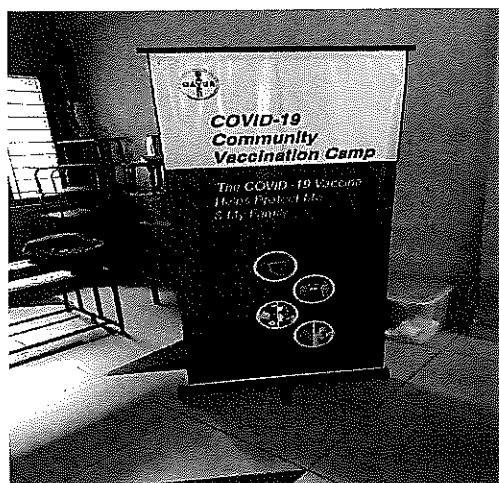
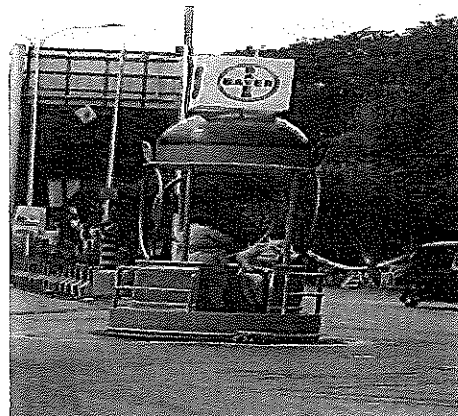
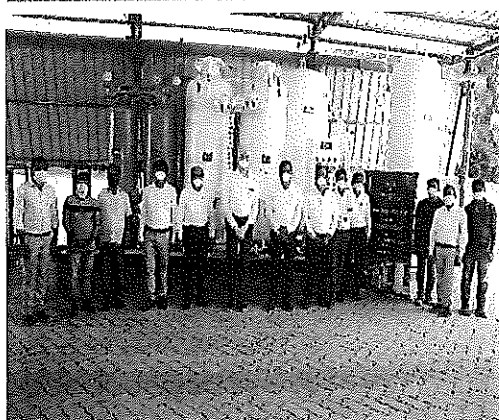
	Act,1986 Rules,1989 viz. 75 dBA (day time) and 70 dBA (night time)																			
6	The unit shall explore rainwater harvesting system in non-production building without recharging in to ground water.	Complied. 																		
7	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken	<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>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> <table><tr><th>Sr. No.</th><th>Training Imparted on Health & Safety</th></tr><tr><td>1</td><td>Awareness session on lesson learnt from incident of Bayer & chemical industries</td></tr><tr><td>2</td><td>Awareness session on Early detection & Prevention of breast cancer</td></tr><tr><td>3</td><td>Awareness session on Kidney & Health</td></tr><tr><td>4</td><td>Awareness session on Prevention of heart related illness</td></tr><tr><td>5</td><td>Awareness training for female employees on fire-fighting, Rescue, First aid</td></tr><tr><td>6</td><td>Basic Overview, Rules & regulation, Safety aspect of utilities</td></tr><tr><td>7</td><td>Bayer Safety norms emergency response</td></tr><tr><td>8</td><td>CSE permit training</td></tr></table>	Sr. No.	Training Imparted on Health & Safety	1	Awareness session on lesson learnt from incident of Bayer & chemical industries	2	Awareness session on Early detection & Prevention of breast cancer	3	Awareness session on Kidney & Health	4	Awareness session on Prevention of heart related illness	5	Awareness training for female employees on fire-fighting, Rescue, First aid	6	Basic Overview, Rules & regulation, Safety aspect of utilities	7	Bayer Safety norms emergency response	8	CSE permit training
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	on regular basis. Training to all employees on handling of chemicals shall be imparted.	9	FFP system operation
		10	Foam bladder tank deluge operation, gas suppression system
		11	How to use, clean & storage of respiratory personal protective equipment's
		12	ISO basic information, documentation & QHSE Policy
		13	Lesson Learnt - Incident Investigation case study
		14	Operation of AFFF in PESO area & hazmat 3 foam in non-PESO area
		15	Refresher training & live demo for an auto darking welding hood with PAPR
		16	Refresher training for fire fighters
		17	Refresher training for rescue squad
		18	Refresher training for working at height
		19	Respiratory & Noise protection
		20	Risk control matrix + ER+EIE+Risk identification expectation
		21	Safety Concepts, Explosion protection - Ventilation
		22	Safety Induction training
		23	Site permit to work system
		24	TBT - Basic fire fighting
		25	TBT - Electrical Safety
		26	TBT - SCBA Operation
		27	Thermal Hazards
		28	TOPPS category 2 training
		29	TOPPS category 4 training
		30	Training on Reporting of Incident Intellex System and Severity Score
		31	Training to company & contract employees working in High Noise Areas - on Prevention of Noise Induced Hearing Loss.
		32	Awareness session by External Specialist Doctor (Prevention of heart related illness)
		33	Prevention of Blood Born Pathogens awareness sessions for employees handling Bio-medical waste
		34	Protect yourself from heat related illnesses
		35	Hazardous chemical awareness with personal health & hygiene training
		36	Refresher Awareness on Best Ergonomic Practices at shop floor.
		37	Refresher First Aid Training for existing first aiders
		38	Recertification Course of First Aid Training for Existing First Aiders
		39	Shop Floor First aid treatment training
		40	Personal Health & Hygiene care awareness for Canteen & GMP employees
		41	Awareness session on Early Detection Prevention of Breast Cancer conducted by Dr.Ritesh Sharma- Gynecologist
		42	Awareness session on Kidney & health Conducted by Dr.Shivam Shah - MD Physician
		Total 3482 manhours spent for training on the above-mentioned topics to both company and contract employees.	
8	The company	Complied.	

	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 project shall be implemented.	
9	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities	<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. Converted existing Nitrogen plant available at site into Oxygen generation plant and successfully commissioned to support local Hospital catering to 50 beds. 2. Organized community vaccination camp for COVID – 19 3. Sponsored for Cyclothon event – Cycling for Health & Environment to promote Health & Fitness with Rotary Vapi 4. Provided 25 Nos of Police Booth to Support the road safety initiative by District Superintendent of Police, Valsad 5. Organized Breast Cancer awareness & screening campaign on the occasion of International Women's Day 6. Awareness on Safety & Hygiene at St. Xavier's School on the occasion of National Safety Week

shall undertaken by involving local villages and administrati on.

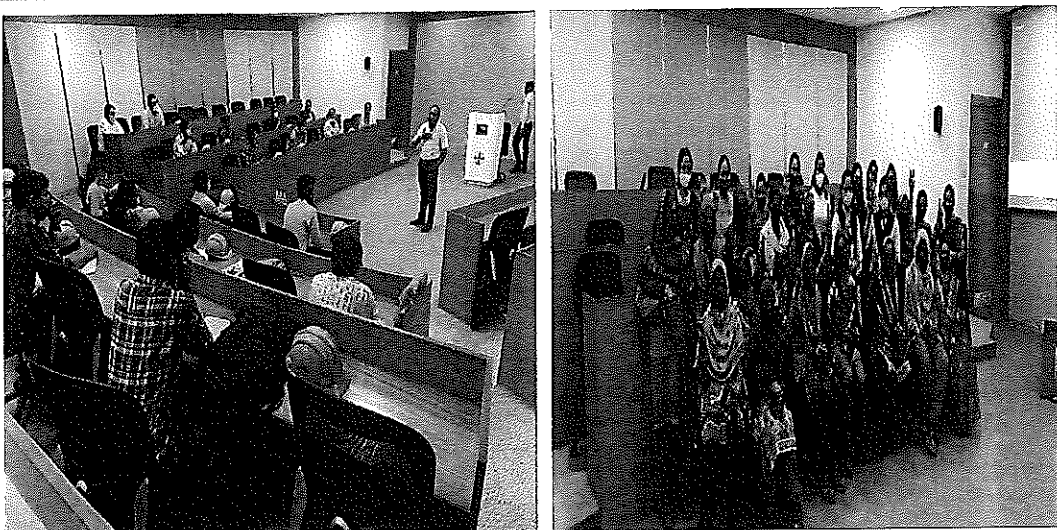
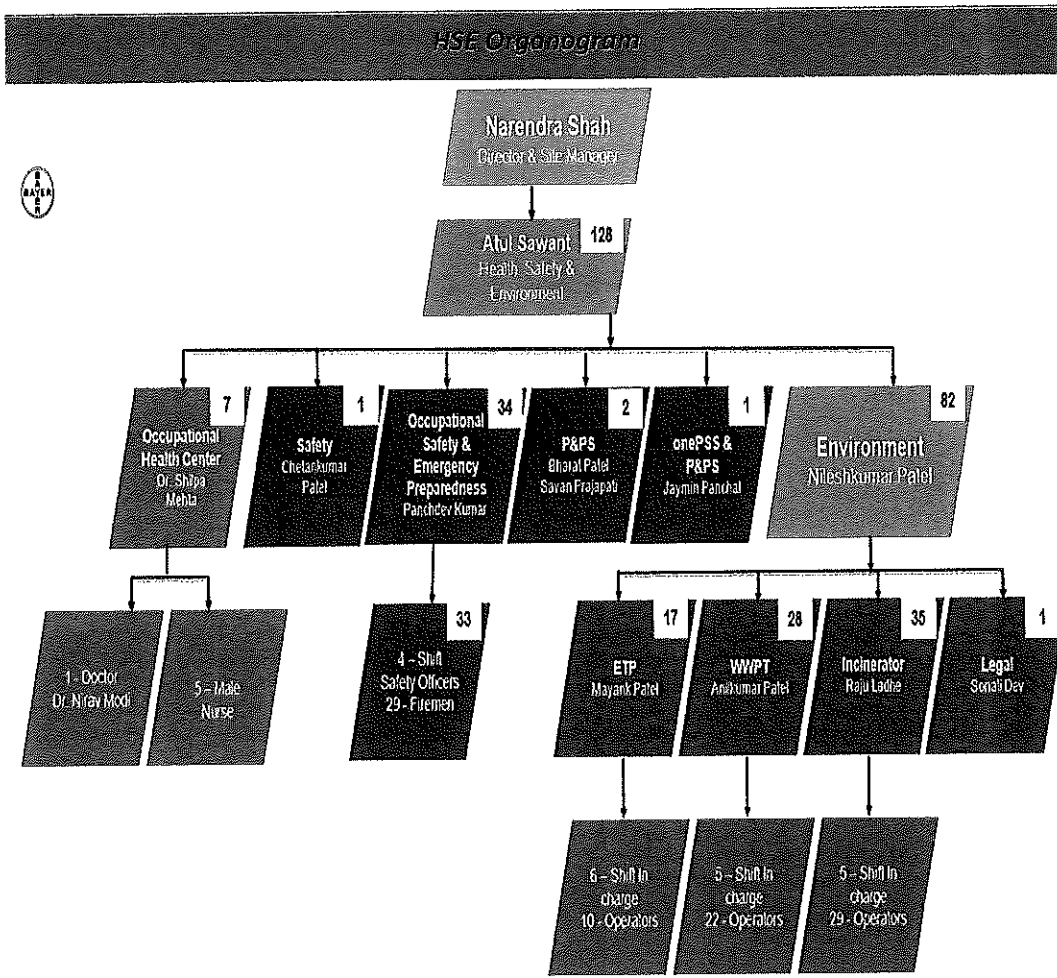
CSR Activities

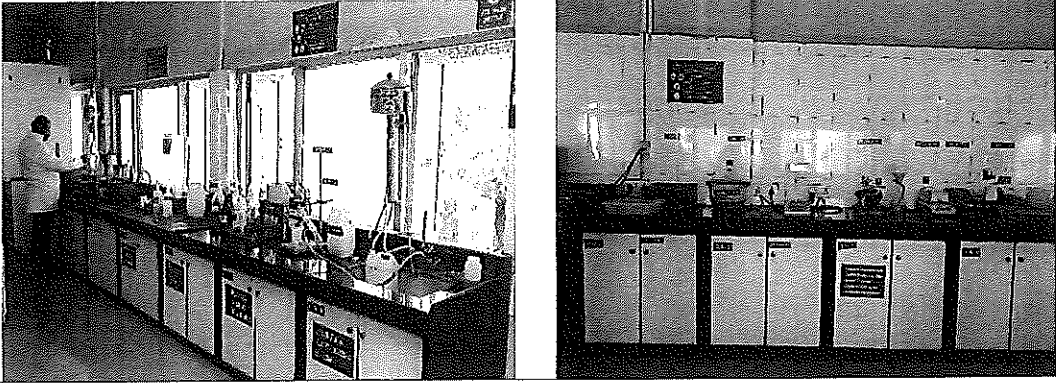


10

The company shall undertake eco-developmen

Complied.

	<p>tal measures including community welfare measures in the project area for the overall improvement of the environment</p>	<p><i>Community Welfare</i></p> 
11	<p>A separate Environmental Management cell equipped with full fledged laboratory facilities shall be set up to carry out Environmental Management and Monitoring functions.</p>	<p>Site has separate environment cell equipped with full-fledged laboratory facilities to carry environment management & monitoring functions.</p> <p><i>HSE Organogram</i></p>  <pre> graph TD NS[Narendra Shah Director & Site Manager] --> AS[Atul Sawant Health, Safety & Environment 128] AS --> OH[Occupational Health Center Dr. Shiba Mehra 7] AS --> S[Safety Chetankumar Patel 1] AS --> OSEP[Occupational Safety & Emergency Preparedness Panchdev Kumar 34] AS --> PPS[P&PS Bhupal Patel Saran Prajapati 2] AS --> OPSS[onePSS & P&PS Jaymin Pandhal 1] AS --> E[Environment Nileshkumar Patel 82] OH --> DO[1 - Doctor Dr. Nirav Modi] OH --> MN[5 - Male Nurse] OSEP --> SSO[4 - Shift Safety Officers 29 - Firemen 33] PPS --> ETP[ETP Mayank Patel 17] PPS --> WWPT[WW/PT Anandkumar Patel 28] PPS --> INC[Incinerator Raju Ladhe 35] PPS --> LEG[Legal Sondal Dev 1] ETP --> SO1[6 - Shift in charge 10 - Operators] WWPT --> SO2[5 - Shift in charge 22 - Operators] INC --> SO3[5 - Shift in charge 29 - Operators] </pre>

		<p style="text-align: center;"><i>Environment Laboratory @ Bayer Vapi</i></p> 																					
12	<p>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</p>	<p>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 2021 for Environment is INR 100.199 crs.</p> <table border="1"> <thead> <tr> <th colspan="3">Environment Management Cost Details</th></tr> <tr> <th>Sr.No</th><th>Units</th><th>Cost (INR)</th></tr> </thead> <tbody> <tr> <td>1</td><td>ETP</td><td>157688603</td></tr> <tr> <td>2</td><td>Incinerator</td><td>383327140</td></tr> <tr> <td>3</td><td>WWPT</td><td>460976198</td></tr> <tr> <td colspan="2">Total Cost</td><td>1001991941</td></tr> <tr> <td colspan="2">Approx. (Crs)</td><td>100.1991941</td></tr> </tbody> </table>	Environment Management Cost Details			Sr.No	Units	Cost (INR)	1	ETP	157688603	2	Incinerator	383327140	3	WWPT	460976198	Total Cost		1001991941	Approx. (Crs)		100.1991941
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	earmarked for environment management / pollution control measures shall not be diverted for any other purpose.	
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	Noted. Last half yearly EC compliance report for the period Apr'2021 to Sept'2021 was submitted to Concerned Stakeholders through our Letter No. ENV/14/21/2511. A copy of Environmental Clearance and six-monthly compliance status of EC report is uploaded on company's website.

	<p>Environment al 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 Environment al Clearance and six monthly compliance status report shall be posted on the website of the company.</p>	
15	<p>The environment al statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the</p>	<p>The Environmental Statement for the period of April-20 to March-21 was submitted to GPCB on August 23, 2021. A copy of Environmental statement and compliance report is uploaded on company's website.</p> <p>The EC compliance report has been uploaded on the MoEF & CC website dated Nov 25, 2021.</p>

	<p>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.</p>	
16	<p>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</p>	<p>Advertisement of Environmental clearance was published in two local news papers "SANDESH" & "DIVYABHASKAR" dated April 05,2017 and April 06,2017 respectively.</p> <p>The copies of advertisements were submitted to Regional Office of MoEF&CC, Bhopal vide letter No. ENV/14/17/0704 dated April 07, 2017.</p>

	<p>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.</p>	
17	<p>The project authorities shall inform the Regional Office as well as the Ministry, the</p>	<p>Shall be complied.</p>

	date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	
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