

DECEMBER 10, 2019

UPL Limited, Unit - 5  
Plot No.746 & 750, P.B. No.9  
GIDC, Dist. Bharuch  
Jhagadia 393 110 Gujarat, India

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UPL Limited, Unit # 05

Plot # 750 & 746, GIDC, Jhagadia, Dist – Bharuch, Gujarat

The Additional PCCF  
Ministry of Environment, Forests & Climate Change  
Western Region Office,  
Kendriya Paryavaran Bhavan,  
Link Road # 3,  
E – 5, Ravi Shankar Nagar,  
Bhopal – 462 016.  
Madhya Pradesh.

Dear Sir;

Sub :- Half yearly Compliance Report to conditions of Environmental Clearances obtained (Apr 2019 to Sep 2019)

- Ref :- 1. Environmental Clearance No. J-11011/42/95-IA.II (I), dated. 17<sup>th</sup> May, 1996 of 100 TPD Chlor-
- Alkali Plant;
2. Environmental Clearance No. J.13011/26/96-IA.II, dated. 24<sup>th</sup> December, 1996 of 50 MW Combined Cycle Co. Generation Power Plant; and
3. A. Environmental Clearance No. J-11011/325/2006-IA II (I) dated. 25<sup>th</sup> July, 2007 for various products.
- B. Amendment for process change of Glyphosate (Technical) in Environmental Clearance No. J-11011/325/2006-IA II (I) dated. 18<sup>th</sup> September, 2009
- C. Amendment for process change of Carbon Di Sulphide in Environmental Clearance No. J-11011/325/2006-IA II (I) dated. 10<sup>th</sup> June, 2011
4. Environmental Clearance No. J-11011/80/2015-IA II (I) dated. 5<sup>th</sup> April, 2018 for expansion of Agro and other organic chemicals

Kindly refer MoEF&CC Notification vide SO-5845-E dated 26.11.2018 regarding submission of half yearly EC Compliance Reports to MoEF&CC .

We are submitting herewith the half yearly compliance report to the above 04 (four) Environmental Clearances obtained to our Unit from MoEF.

We are operating our plants with valid Consents & Authorization from Gujarat Pollution Control Board (copy of CC&A is attached along with report). Out of the various products mentioned in EC, we are manufacturing Mancozeb, Pendimethylene, Carbon Di Sulphide and Glyphosate (OR Glufosinate), Acrolein, Antracol, PCL3, POCL3, TPPI, TTDP, DMPAT, MO,

Received  
Gujarat Pollution Control Board  
R.O Ankleshwar  
23/12/2019



भारतीय डाक



India Post

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PIN:462016, R.S.Nagar S.O

From:UPL ,GIDC

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Counter No:1,14/12/2019,14:58

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PIN:390023, Subhanpura SO

From:UPL ,GIDC

Wt:50gms

Amt:0.00PS:40.00

<Track on [www.indiapost.gov.in](http://www.indiapost.gov.in)>

<Dial 1800 266 6868>





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We are submitting herewith the half yearly compliance report to the above 04 (four) Environmental Clearances obtained to our Unit from MoEF.

We are operating our plants with valid Consents & Authorization from Gujarat Pollution Control Board (copy of CC&A is attached along with report). Out of the various products mentioned in EC, we are manufacturing Mancozeb, Pendimethylene, Carbon Di Sulphide and Glyphosate (OR Glufosinate), Acrolein, Antracol, PCL3, POCL3, TPPI, TTDP, DMPAT, MO,



Caustic Chlorine, UPDT which have been included in our Consent. Company has also obtained a CC&A amendment for Coal based power plants and 2 (two) @130 TPH boiler, Formulation products, and additional plants (DVACL, MPBAL and S-Metolachlor etc) as per the EC / NOC obtained.

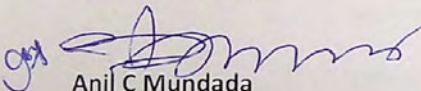
Unit has obtained Environmental clearance vide letter No. J-11011/80/2015-IA II (I) dated. 5th April, 2018 for expansion of Agro and other chemicals. We have applied for EC to Consent to Operate (CTO). Once we obtained Consent to Operate from SPCB, we will start production at our unit.

Our Unit has invested Rs. 249.39 Crores in Environmental Management System so far and the investment detail is attached along with the report.

We hope that above information is sufficient.

Thanking you,

Yours faithfully,  
For, **UPL Limited**

  
Anil C Mundada  
Unit Head

Encl : a/a

Copy to : The Zonal Officer  
Central Pollution Control Board  
Parivesh Bhavan, Opp- VMC Ward Office # 10,  
Subhanpura,  
Vadodara – 390 023.

: The Regional Officer  
Gujarat Pollution Control Board  
Ankleshwar – 393 002.

GPCB XGN ID # 25353



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep 2019**

<b>LIST OF ANNEXURES</b>	
ANNEXURE-1	Copy of CTE & CC&A Obtained
ANNEXURE-2	Third Party Analysis Reports
ANNEXURE-3	CSR Activities
ANNEXURE-4	Compliance Status for MoEF letter no. UJH/PRO/17/2007 dated 14 <sup>th</sup> May 2007 for the solvent and reactants storage
ANNEXURE-5	Copy of EC obtained dated, 5th April, 2019
ANNEXURE 6	Compliance of Hazardous Waste Rules
ANNEXURE 7	Compliance of MISHC Rules

**Compliance Report for Environmental Clearance No. J-11011/42/95-IA.II (I), dated 17<sup>th</sup> May, 1996 of 100 TPD Chlor-Alkali Plant for period Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status															
-	The project has been examined and environmental clearance is accorded to the project for manufacturing 100 TPD caustic soda (47%), 88 TPD chlorine gas, 25 TPD HCL (32%) and 25 TPD hydrogen gas subject to implementation of the following conditions and environmental safeguards:	<p>The unit has obtained Environmental Clearances further for expansions. As per latest Environmental Clearance granted by MoEF&amp;CC &amp; GPCB CC&amp;A – AWH 94827 dated 9/7/2018, the capacities are revised as below.</p> <table> <tr> <th>Sr. No</th><th>Product</th><th>Quantity in MT/Month</th></tr> <tr> <td>1</td><td>Caustic Soda Lye (48%)</td><td>4680</td></tr> <tr> <td>2</td><td>Chlorine Gas</td><td>3972</td></tr> <tr> <td>3</td><td>Hydrogen Gas</td><td>225</td></tr> <tr> <td>4</td><td>HCl</td><td>1200</td></tr> </table> <p style="text-align: center;">--</p>	Sr. No	Product	Quantity in MT/Month	1	Caustic Soda Lye (48%)	4680	2	Chlorine Gas	3972	3	Hydrogen Gas	225	4	HCl	1200
Sr. No	Product	Quantity in MT/Month															
1	Caustic Soda Lye (48%)	4680															
2	Chlorine Gas	3972															
3	Hydrogen Gas	225															
4	HCl	1200															
i	The project authorities must strictly adhere to the stipulation made by the State Pollution Control Board and the State govt.	<p>All conditions given by State Pollution Control Board (GPCB) is being strictly followed (CC&amp;A copy is enclosed as Annexure-1) and summarized result of third party (BEIL, Ankleshwar) is as follows and detail report is attached as Annexure- 2:</p> <p>All results are well within GPCB permissible limit.</p> <p><b>Complied.</b></p>															
Stack Monitoring Result (Period Apr-Sep 2019)																	
Parameter	Monitoring Result (Range value of Apr-Sep 2019)	GPCB Permissible Limit															
<b>Flue Gas Stack Emissions- Fuel as Imported Coal</b>																	
<b>Stack attached to power plant</b>																	
PM	19.1 – 48.6 mg/nm3	100 mg/nm3															
SO2	17.5- 38 ppm	100 ppm															
Nox	13.3-27.5 ppm	50ppm															
<b>Stack attached to Thermic fluid heater-TPPI plant- Fuel as Natural Gas</b>																	
SPM	9.4-29.7 mg/nm3	150 mg/nm3															
Sox	5.9-21 ppm	100 ppm															
Nox	7.7-15.8 ppm	50 ppm															
<b>Process Stack Emission</b>																	



*Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat  
Period from Apr 2019 to Sep2019*

Sr. No.	Condition	Compliance Status				
Process Stack Attached To		Unit	Parameter	Min	Max	GPCB Limit
Phosphorus Trichloride Plant (PCL3)						
PCL3 Process	mg/nm3	HCl	13.8	5.5	20	
	mg/nm3	Cl2	BDL	BDL	9	
	mg/nm3	PCl3	BDL	BDL	9	
PCL3 storage tank and drum filling station scrubber		mg/nm3	PCl3	BDL	BDL	9
Caustic Chlorine plant						
56 TPD CCP		mg/nm3	HCl	11	BDL	20
100 TPD CCP		mg/nm3	Cl2	BDL	BDL	9
56 TPD CCP		mg/nm3	HCl	15.1	5.7	20
100 TPD CCP		mg/nm3	Cl2	4.6	BDL	9
TPPA/BDP/DPMP Plant						
TPPa / BDP/ DPMP		mg/nm3	HCl	14.8	BDL	20
Phosphorus oxychloride (POCl3) / Phosphorus Thiochloride						
POCl3/PSCL3		mg/nm3	HCl	7.3	BDL	20
MANCOZEB / ANTRACOL plant						
Mancozeb / Antracol		mg/nm3	H2S	BDL	BDL	5
Mancozeb / Antracol		mg/nm3	CS2	56.3	BDL	180
Mancozeb / Antracol		mg/nm3	SPM	17.9	11.3	20
Mancozeb		mg/nm3	SPM	18.4	14.6	20
Glyphosate / GLUFOCINATE / FOSTHIAZATE Plant						
Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/Boscalid Tech	mg/nm3	HCL	14.8	4.9	20	
	mg/nm3	NH3	27.5	14.2	30	
	mg/nm3	HC	BDL	BDL	20	
Glyphosate / GLUFOSINATE	mg/nm3	NH3	17.2	BDL	30	
	mg/nm3	HC	BDL	BDL	20	
	mg/nm3	HCL	16.6	BDL	20	
Carbon Di Sulphide (CS2) Plant						
Carbon Di Sulphide (CS2) Plant		mg/nm3	H2S	BDL	BDL	10
DVACL PLANT						
DVACL		mg/nm3	HCl	8.9	7.4	30
DVACI/TEP		mg/nm3	SO2 OR NH3	56.2	BDL	175
DVACI-/ ACROLEIN	mg/nm3	HCl	BDL	BDL	20	
	mg/nm3	VOC	BDL	BDL	20	
MPBAL						
PESTICIDE INTERMEDIATE PLANT (N Alkylated Xyledene OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	mg/nm3	H2S	BDL	BDL	10	
	mg/nm3	CS2	60.2	BDL	180	
	mg/nm3	NOX	14.5	BDL	25	
	mg/nm3	CO	BDL	BDL	100	
	OR	OR	OR	OR	OR	
	mg/nm3	NH3	85.1	15.8	175	
Ambient Air Monitoring Result (April-Sep 2019)						
PARAMETERS	Range	GPCB Permissible Limit				
PM10	36.5-75.4 µg/m3	100 µg/m3				
PM2.5	15-42 µg/m3	60 µg/m3				
SOx	14.7-35.9 µg/m3	80 µg/m3				
NOx	11.7-25.7 µg/m3	80 µg/m3				



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
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Sr. No.	Condition	Compliance Status	
CO (AIR)	BDL	4 mg/m3	
AMMONIAB(AIR)	BDL	400 µg/m3	
OZONE (O3)	BDL	180 µg/m3	
ARSENIC as As	BDL	6.0 ng/m3	
LEAD as Pb	BDL	1.0 µg/m3	
NICKEL as Ni	BDL	20 ng/m3	
BENZENE as C6H6	BDL	5.0 ng/m3	
BENZOPYRENE (BaP)	BDL	1.0 ng/m3	
Effluent Discharge Range (Apr -Sep2019)			
Sr. No.	Parameters	GPCB Permissible Limit (All Units are in PPM Except pH & Temp)	3 <sup>rd</sup> party results (Range for Apr-sep2019)
1.	pH	6.5-8.5	6.6-7.14
2.	COD (mg/L)	250	43-219
3.	SS (mg/L)	100	24-63
4.	Amm. Nitrogen (mg/L)	50	BDL – 18.5
5.	BOD3 27°C	100	12-65
6.	Temperature	Shall not Exceed more than 5Deg c above the ambient water temperature	28.1-32-2
7.	Total Kjedal Nitrogen	50	BDL – 36.4
8.	Nitrate – Nitrogen	50	14.2 – 31
9.	Flouride (F)	15	BDL – BDL
10.	Sulphides as S	5	BDL-BDL
11.	Phenolic Compounds	1	BDL-BDL
12.	Total Residual Chlorine	1	BDL – 0.96
13.	Zinc (Zn)	1	0.1045-0.8359
14.	Iron (Fe)	3	0.0897 – 0.3787
15.	Copper (Cu)	1	BDL – 0.097
16.	Manganese (Mn)	1	0.0096 – 0.0692
17.	Cyanide (CN)	0.2	BDL – BDL
18.	Vanadium	0.2	BDL – BDL
19.	Hexavalent Chromium 6++	0.1	BDL – 0.0515
20.	Selenium (Se)	0.05	BDL – BDL
21.	Antimony (Sb)	0.1	BDL – BDL
22.	Cadmium (Cd)	0.015	BDL – 0.0136
23.	Lead (Pb)	0.05	BDL – 0.0468
24.	Mercury (Hg)	0.005	BDL – BDL
25.	Molybdenum (Mo)	0.35	BDL – BDL
26.	Nickel (Ni)	0.1	BDL – 0.0422
27.	Total Arsenic (Ar)	0.05	BDL – BDL
28.	Total Chromium (Cr)	0.25	BDL – 0.0938
29.	Phosphate (P)	5	BDL – 4.5
30.	Sulphur	0.03	BDL – BDL
31.	Benzene Hexachloride (BHC)	0.01	BDL - BDL
32.	Carbonyl	0.01	BDL - BDL

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

Sr. No.	Condition		Compliance Status
33	Copper Sulphate	0.05	BDL - BDL
34	Copper Oxychloride	9,6	BDL - BDL
35	DDT	0.01	BDL - BDL
36	Dimethoate	0.45	BDL - BDL
37	2,4 D	0.4	BDL - BDL
38	Endosulphan	0.01	BDL - BDL
39	Fenitrothion	0.01	BDL - BDL
40	Malathion	0.01	BDL - BDL
41	Methyl Parathion	0.01	BDL - BDL
42	Paraquat	2.3	BDL - BDL
43	Phenathoate	0.01	BDL - BDL
44	Phorate	0.01	BDL - BDL
45	Proponil	7.3	BDL - BDL
46	Pyrethrums	0.01	BDL - BDL
47	Ziram	1	BDL - BDL
48	Other Pesticides	0.1	BDL - BDL
49	Bio Assay Test	90% Survival after 96 Hrs in 100% Effluent	PASS
50	Color & Odour	All Efforts shall be made for removal of color and unpleasant odour as far as possible	Agreeable
ii	No further expansion or modification in the plant should be carried out without prior approval of this Ministry.		We have not done any modification in the plant without proper approval from the Ministry.  <b>Complied.</b>



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iii	Gaseous (Cl <sub>2</sub> , SO <sub>2</sub> , NO <sub>x</sub> & HC) and particulate emission from the various process vents and storage tanks should conform to the standards prescribed by the competent authorities from time to time. At no time, the emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be put out of operation immediately and should not be restarted until the pollution control measure are rectified to achieve the desired efficiency.	We do process stack monitoring through our lab and through third party (BEIL, Ankleshwar) and all parameters are within permissible limit prescribed by GPCB. Summarized monitoring data of BEIL, Ankleshwar is given below:					
		Process Stack Attached To	Unit	Parameter	Min	Max	GPCB Limit
		Phosphorus Tri Chloride Plant (PCL3)					
		PCL3 Process	mg/nm3	HCl	13.8	5.5	20
			mg/nm3	Cl2	BDL	BDL	9
			mg/nm3	PCI3	BDL	BDL	9
		PCL3 storage tank and drum filling station scrubber	mg/nm3	PCI3	BDL	BDL	9
		Caustic Chlorine plant					
		56 TPD CCP	mg/nm3	HCl	11	BDL	20
		100 TPD CCP	mg/nm3	Cl2	BDL	BDL	9
		56 TPD CCP	mg/nm3	HCl	15.1	5.7	20
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		TPPA/BDP/DPMP Plant					
		TPPa / BDP/ DPMP	mg/nm3	HCl	14.8	BDL	20
		Phosphorus oxychloride (POCl3) / Phosphorus Thiochloride					
		POCl3/PSCL3	mg/nm3	HCl	7.3	BDL	20
		MANCOZEB / ANTRACOL plant					
		Mancozeb / Antracol	mg/nm3	H2S	BDL	BDL	5
		Mancozeb / Antracol	mg/nm3	CS2	56.3	BDL	180
		Mancozeb / Antracol	mg/nm3	SPM	17.9	11.3	20
		Mancozeb	mg/nm3	SPM	18.4	14.6	20
		Glyphosate / GLUFOSINATE / FOSTHIAZATE Plant					
		Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/Boscalid Tech	mg/nm3	HCL	14.8	4.9	20
			mg/nm3	NH3	27.5	14.2	30
			mg/nm3	HC	BDL	BDL	20
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			mg/nm3	HCL	16.6	BDL	20
		Carbon Di Sulphide (CS2) Plant					
		Carbon Di Sulphide (CS2) Plant	mg/nm3	H2S	BDL	BDL	10
		DVACL PLANT					
		DVACL	mg/nm3	HCl	8.9	7.4	30
		DVACI/TEP	mg/nm3	SO2 OR NH3	56.2	BDL	175
		DVACI-/ ACROLEIN	mg/nm3	HCl	BDL	BDL	20
			mg/nm3	VOC	BDL	BDL	20
		MPBAL					
		PESTICIDE INTERMEDIATE PLANT (N Alkylated Xylenes OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	mg/nm3	H2S	BDL	BDL	10
			mg/nm3	CS2	60.2	BDL	180
			mg/nm3	NOX	14.5	BDL	25
			mg/nm3	CO	BDL	BDL	100
				OR			
			mg/nm3	NH3	85.1	15.8	175

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**Period from Apr 2019 to Sep2019**

Sr. No.	Condition	Compliance Status		
iv	At least three ambient air quality monitoring stations should be established in the downwind as well as where maximum ground level concentrations of SPM, SO <sub>2</sub> , NO <sub>x</sub> and Cl <sub>2</sub> are anticipated. The selection of the AAQ monitoring stations should be based on modeling exercise to represent short term ground level concentrations sensitive targets etc. in consultation with the SPCB.	We have installed three AAQ monitoring stations as per SPCB guidelines for monitoring of PM10, PM2.5, SO2, NOX and Cl2. Adequate scrubber system is provided in all stacks to meet the stipulation given by State Pollution Control Board (GPCB). We submit AAQ & stack monitoring data to the Ministry every six month and to State Pollution Control Board (GPCB) every month. Summarized monitoring data of BEIL, Ankleshwar is given below;		
	Stack emissions should also be regularly monitored by installing stack monitoring devices in consultation with the State Pollution Control Board.	Parameter	Average Monitoring Results (Apr-Sep 2019)	GPCB Permissible Limit (mg/nm3)
	Data on AAQ and stack emission should be submitted regularly to this Ministry once in six months and the State Pollution Control Board once in three months along with the statistical analysis and interpretation.	Flue Gas Stack Emissions- Fuel as Coal & Natural Gas		
		Stack attached to power plant		
		PM	19.1 – 48.6 mg/nm3	100
		SO2	17.5- 38 ppm	100
		Nox	13.3-27.5 ppm	50
		Stack attached to Thermic fluid heater-TPPI plant		
		SPM	9.4-29.7 mg/nm3	150
		Sox	5.9-21 ppm	100
		Nox	7.7-15.8 ppm	50
		Process Stack Emission – Please Refer Compliance Point No 3		
		AAQ monitoring result:		
		PARAMETERS	Avg Monitoring Result (Apr-Sep 2019)	GPCB Permissible Limit (µg/m3)
		PM10	36.5-75.4 µg/m3	100
		PM2.5	15-42 µg/m3	60
		SOx	14.7-35.9 µg/m3	80
		NOx	11.7-25.7 µg/m3	80
		CO (AIR)	BDL	4 mg/m3
		AMMONIAB(AIR)	BDL	400
		OZONE (O3)	BDL	180
		ARCENIC as As	BDL	6 ng/m3
		LEAD as Pb	BDL	1
		NICKEL as Ni	BDL	20 ng/m3
		BENZENE as C6H6	BDL	5 ng/m3
		BENZOPYRENE (BaP)	BDL	1 ng/m3
Detail report is attached as Annexure -2. All parameters are well within GPCB permissible limit.  Complied.				



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status																				
V	<p>Fugitive emissions should be controlled, regularly monitored and data recorded.</p> <p>Chlorine sensors should be installed in the chlorine storage area at lower level between the tanks.</p>	<p>Fugitive emission is controlled by using seal-less pumps for toxic chemicals, flange-guards, mechanical seals for pumps and reactors etc. We are monitoring fugitive emissions using portable monitors for Cl2, H2S and CS2. However, there are no such standards for fugitive emissions.</p> <p>We have installed 19 Chlorine sensors at various locations &amp; monitored on DCS regularly.</p> <p>The average monitored values are as follows; Cl2 in the range of 0 – 0.01 ppm against the limit @ 1 ppm. H2S @ NIL against the limit @ 10 ppm. CS2 in the range of 0 – 0.01 ppm against the limit @ 10 ppm.</p> <p>Additionally, we are also checking VOC for controlling fugitive emissions and VOC monitoring report is also attached herewith.</p> <p><b>Complied.</b></p>																				
VI	<p>Liquid effluents coming out of the plant should conform to the standards as prescribed by the State Pollution Control Board and the Ministry of Environment and Forests under the Environment (Protection) Act, 1986.</p> <p>Recycling and reuse of the treated waste water should be maximized to the extent possible.</p>	<p>We are monitoring effluent quality regularly through our internal lab and external party (BEIL, Ankleshwar) and all parameters are well within prescribed limit given by State Pollution Control Board (GPCB)/ MoEF.</p> <p>Steam condensate of Caustic Evaporation reused in Brine make up &amp; Cooling tower make up. In addition, we are having water recycling system with total capacity of 1580 KL / Day (380 KL/ Day for chlor-alkali plant with 75% recovery). The recovered water is recycled in Cooling Tower / Process. Treated effluent is being discharged to deep sea through closed above ground pipeline system developed by NCT (CETP). The summarized result of third party (BEIL, Ankleshwar) for treated effluent is as follows:</p> <table><tr><th>SR. No.</th><th>PARAMETERS</th><th>GPCB PERMISSIBLE LIMIT</th><th>3rd PARTY AVERAGE RESULT (Apr-Sep 2018)</th></tr><tr><td>1</td><td>pH</td><td>6.5-8.5</td><td>6.6-7.14</td></tr><tr><td>2</td><td>COD (mg/L)</td><td>250</td><td>43-219</td></tr><tr><td>3</td><td>SS (mg/L)</td><td>100</td><td>24-63</td></tr><tr><td>4</td><td>Amm. Nitrogen (mg/L)</td><td>50</td><td>BDL-18.5</td></tr></table> <p>All parameters are well within GPCB permissible limit and detailed report is attached as Annexure-2.</p> <p><b>Complied.</b></p>	SR. No.	PARAMETERS	GPCB PERMISSIBLE LIMIT	3rd PARTY AVERAGE RESULT (Apr-Sep 2018)	1	pH	6.5-8.5	6.6-7.14	2	COD (mg/L)	250	43-219	3	SS (mg/L)	100	24-63	4	Amm. Nitrogen (mg/L)	50	BDL-18.5
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4	Amm. Nitrogen (mg/L)	50	BDL-18.5																			
vii	<p>Adequate measures for the control of noise should be taken so as to keep noise level below 85 dB in the work environment.</p> <p>Persons working near the noisy machines like blowers, compressors etc. should be provided with well-designed ear muffs/plugs. Besides, measures should be taken to reduce the noise by engineering methods.</p>	<p>Acoustic enclosures are also provided at Power Plant. Noise monitoring through third party (BEIL, Ankleshwar) is being done twice in a month and parameter range is as follows:</p> <p>During Day Time: 58.8-70.0 dB (GPCB Permissible limit- 75 dB) During Night time: 53.8-65.4 dB (GPCB Permissible limit- 70 dB)</p> <p>Ear muffs &amp; ear plugs are provided to the person working in high noise area like H2 compressor, &amp; air compressor.</p> <p><b>Complied.</b></p>																				
viii	<p>Occupational health surveillance programme should be undertaken as regular exercise especially with respect to exposure to chlorine, thermal stresses and noise pollution</p>	<p>The company is having full time medical doctor and Occupational Health &amp; Safety. Pre-employment and routine medical examinations are being carried out. We are also doing full body medical checkup by external expert agency once in two years. All medical records are being maintained and attached herewith.</p> <p><b>Complied.</b></p>																				

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

Sr. No.	Condition	Compliance Status
ix	A green belt of adequate width and density (2000-2500 trees/ha.) covering 25 acres of land should be developed preferably using native plants species in consultation with the local DFO.  Final treated liquid effluent should be used for developing the greenery.	Presently we have about 1374.2 Nos. of trees (big trees) per hectare of total land and total 67.9 acre of the land has been developed as green belt area. We also do tree plantation in surrounding villages as CSR activity and the report is attached herewith. At present, sewage is treated along with industrial effluent in ETP, we are not using treated effluent for green belt development.  <b>Complied.</b>
x	Suitable alarm system and standard procedure for transmitting the information on accidental release of chlorine to the nearby areas and proper focal point should be established. Steps should also be taken to ensure access to information on weather conditions prevailing at that time and weather forecast. Wind socks at appropriate locations should be provided.  Necessary approval may be taken from the Explosive Department/ Chief Inspector of Factories regarding the safety of the pressure vessels, storage tanks etc.	Emergency Alarm System is provided for communication during any emergency. Disclosure of Information on CL2 to general public is given regularly. We have provided internet access to our control room for any weather updates. In addition, we have also installed 25 wind socks inside the factory premises.  We have also obtained all necessary approval for Hazardous chemicals storage, filling in tanks / toners and hydro testing; for H2 filling and storage. Maps of plant approved by Chief Inspector of Factories (Director – Industrial Safety & Health, Gujarat State). <b>Complied.</b>
xi	Hazardous wastes should be handled as per the Hazardous Waste (Management & Handling ) Rules, 1989 of the EPA, 1986	We are treating / disposing off the hazardous wastes generated as per the conditions of the Authorization given by GPCB under the HWM Rules. <b>In addition to this,</b> Yearly Hazardous Waste return is being submitted to GPCB regularly.  We are disposing our hazardous wastes (landfilling wastes and incineration wastes) to TSDF site of BEIL Ankleshwar. The summary of Hazardous Waste disposed for reporting period is enclosed with compliance report & Compliance of Hazardous Waste Rules 2016 is enclosed as Annexure 6. <b>Complied.</b>
xii	Handling, manufacture, storage and transportation of hazardous chemicals should be carried out in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994	MSIHC guideline is being followed. On site Emergency plan is updated and mock drills are conducted. MSDS of all materials are available in the premises. The compliance of MISHC Rules is enclosed as Annexure 7. <b>Complied.</b>
xiii	The project authorities must set up laboratory facilities for collection and analysis of samples under supervision of competent technical personnel, who will directly report to the Chief Executive	The unit has separate Environmental laboratory division & regular analysis is being done for waste water, stacks & ambient air, noise etc. and the results are well within limit prescribed by GPCB. The laboratory head is directly reporting to the respective Unit Head. <b>Complied.</b>
xiv	A separate Environmental Management Cell with suitably qualified people to carry out various functions should be set up under the control of Senior Executive, who will report directly to the Head of the Organization	Internal Environment management cell comprising of Unit Head, plant Head, SHE Head & Corporate Environment head is in operation for close monitoring. The environment cell verifies environmental performance and involves in environmental audit. The Environment Head reports to Chief Operating Officer. <b>Complied.</b>
xv	The funds earmarked for the environmental protection measures should not be diverted for any other purposes and year-wise expenditure should be reported to this Ministry	Project has been commissioned since 1997 with compliance of all environment related measures. Statement of expenditure is submitted along with this half yearly to MoEF. The investment for Environmental Protection Measures at the site is Rs 249.39 crores as on today. The list for total expenditures earmarked for EMP is attached as an attachment. <b>Complied.</b>
xvi	Six monthly reports on the compliance status of project implementation vis-à-vis above environmental measures should also be submitted to regional Office of the Ministry	The six monthly compliance report is being submitted regularly to the Ministry. Last compliance report was submitted for the period of October 2018- March 2019. <b>Complied.</b>

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat  
Period from Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status
3	This Ministry or any competent authority may stipulate any further condition (s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located in M.P. (Bhopal)	--
4	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	--
5	The above conditions will be enforced, inter-alia under the provisions of the water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; the Environment (Protection) act, 1986 and the public Liabilities Insurance Act, 1991 with their amendments and rules	--

**Compliance Report for Environmental Clearance No. I.13011/26/96-IA.II, dated 24<sup>th</sup> December, 1996 of  
50 MW Combined Cycle Co. Generation Power Plant for period Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status
-	The proposal for setting up of 50 MW Naphtha Based Captive Power Plant at Jhagadia, Dist. Bharuch, Gujarat, has been examined from environmental angle and clearance is hereby accorded subject to the following terms and conditions:	--
I	All the conditions stipulated by Gujarat Pollution Control Board vide their letter No. PC/NOC/BRCH/1600/7518 dated 31 <sup>st</sup> July, 1996 should be strictly implemented	The compliance status for all conditions given by GPCB is as follows;

**COMPLIANCE TO GPCB LETTER # PC/NOC/BRCH/1600/7518 dated 31<sup>st</sup> July, 1996 for 50 MW Naphtha based Co-  
Generation Power Plant**

Sr No.	Sr. No	Description	Status as on October 2019
(A)	(i)	The following units shall be installed for the treatment of effluent: <ul style="list-style-type: none"> <li>Equalization tanks</li> <li>Neutralization tanks</li> <li>Settling tanks</li> <li>Heavy metal removal system</li> <li>Sludge drying beds</li> <li>Secondary treatment (if required)</li> </ul>	We have installed all effluent treatment systems mentioned in the letter. ETP plant is under operation & performance is satisfactory.  <b>Complied.</b>
	(ii)	Quantity of the effluent shall not exceed 4166 m3/ day. Out of which 3800 m3/ day of waste water generated from the stream like cooling tower blow down etc. shall be re-cycled to reduce the quantity of waste water to be discharged in to the environment.	Average 110.13 m3/ day of effluent is generated from the power plant and being sent to R.O system of 380 KL/day for treatment. The permeate is recycled back in to cooling tower to reduce overall effluent generation load.  <b>Complied.</b>
	(iii)	The quantity of industrial effluent shall conform to the following standards:	We do wastewater (feed to R.O system) monitoring internally through lab and results are as follows:



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

Sr No.	Sr. No	Description				Status as on October 2019			
		Sr No	Source	Parameters	Permissible Limit	SR. No.	PARAMETERS	Range (Apr-Sep 2019)	Unit
		(a)	Condensate cooling water (Once through cooling system)	pH Temperature Free available Chlorine	6.5 to 8.5 Not more than 5°C higher than the receiving water temperature 0.5 mg/l	1	pH	6.6-7.14	--
						2	Temperature	28.1-32.2	°C
						3	SS (mg/L)	25-63	mg/L
						4	Free Chlorine	BDL – 0.96	mg/L
						5	Oil & Greece	BDL – BDL	mg/L
						6	Total Copper	BDL - 0.0571	mg/L
						7	Total Iron	0.089-0.378	mg/L
						8	Total Chromium	BDL – 0.09	mg/L
		(b)	Boiler blow down	Suspended solids Oil & Greece Total Copper (as Cu) Total Iron (as Fe)	100 mg/l 10 mg/l 1 mg/l 1 mg/l	9	Phosphate as P	2.1-4.5	mg/L
						10	Zinc as Zn	0.105-0.083	mg/L
						11	Total Hexavalent Chromium	BDL – 0.05	mg/L
		(c)	Cooling water blowdowns	Free available Chlorines Zn (as Zn) Hexavalent Chromium (as Cr) Total Chromium (as Cr) Phosphate (as P)	0.5 mg/l 1 mg/l 0.1 mg/l 0.2 mg/l 5 mg/l	<p>All parameters are well within prescribed GPCB limit. Analysis report is attached herewith.</p> <p><b>Complied.</b></p>			
		(d)	Combined effluent	pH Oil & Greece Suspended solids Hexavalent Chromium (as Cr) Total Copper (as Cu) Total Iron (as	6.5 to 8.5 10 mg/l 100 mg/l 0.1 mg/l 1 mg/l 1 mg/l 1mg/l 5 mg/l				

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

Sr No.	Sr. No	Description				Status as on October 2019																						
				Fe) Zinc (as Zn) Phosphate (as P)																								
	(iv)	The effluent should be required to be disposed of through closed pipeline into the underground drainage system of the GIDC.				Final treated effluent is being discharged to deep sea directly through closed above ground pipeline system developed by NCT (CETP). <b>Complied.</b>																						
	05	Sewage shall be disposed of through septic tank/soak pit system or it shall be treated along with industrial effluent or its shall be treated separately to conform to the following standards and shall be utilized on land for gardening/plantation and irrigation.  BOD : Less than 20 mg/l  Suspended solids: Less than 30 mg/l  Residual Chlorine: minimum 0.5 ppm				Sewage water is treated along with industrial effluent in our full-pledged ETP.  <b>Complied.</b>																						
	(B)	The following shall be applicable for the emission of gases:																										
	(i)	Neptha- 328 KL/day and HSD- 1.67 KL/day shall be used as fuel				We are not using Naphtha as fuel anymore. We have switched over to coal fired power plant now.  <b>Complied.</b>																						
	(ii)	Stack height: 30 meter from the ground level attached to boiler/furnace				We have maintained all process stack height at least 30 meter from the ground level.  <b>Complied.</b>																						
	(iii)	Quality of gaseous emission shall conform to the following limits: <table><tr><td>Parameters</td><td>Permissible Limit</td></tr><tr><td>Particulate matter</td><td>150 mg/nm3</td></tr><tr><td>SO2</td><td>100 ppm</td></tr><tr><td>NOx</td><td>50 ppm</td></tr></table>				Parameters	Permissible Limit	Particulate matter	150 mg/nm3	SO2	100 ppm	NOx	50 ppm	We have installed ESP for our coal fired captive power plant and summarized of third party (BEIL, Ankleshwar) monitoring results are as follows: <table><tr><th>Parameters</th><th>Range (Apr-Sep 2019)</th><th>GPCB Permissible Limit</th></tr><tr><td>Particulate matter</td><td>19.1 – 48.6 mg/nm3</td><td>100 mg/nm3</td></tr><tr><td>SO2</td><td>17.5- 38 ppm</td><td>100 ppm</td></tr><tr><td>NOx</td><td>13.3-27.5 ppm</td><td>50 ppm</td></tr></table> All parameters are well within permissible limit prescribed by GPCB. <b>Complied.</b>			Parameters	Range (Apr-Sep 2019)	GPCB Permissible Limit	Particulate matter	19.1 – 48.6 mg/nm3	100 mg/nm3	SO2	17.5- 38 ppm	100 ppm	NOx	13.3-27.5 ppm	50 ppm
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	(iv)	Ambient air quality requirement (within the premises of the industry): <table><tr><td>Suspended particulate matter</td><td>200 microgram/m3</td></tr><tr><td>Sulphur dioxides</td><td>80 microgram/m3</td></tr><tr><td>Nitrogen oxides</td><td>80 microgram/m3</td></tr></table>				Suspended particulate matter	200 microgram/m3	Sulphur dioxides	80 microgram/m3	Nitrogen oxides	80 microgram/m3	We do ambient air monitoring internally through our lab as well as through third party ( BEIL, Ankleshwar) and summarized data is as follows: <table><tr><th>Parameters</th><th>Range (Apr-Sep 2019)</th></tr><tr><td>PM10</td><td>36.5-75.4 µg/m3</td></tr><tr><td>PM2.5</td><td>15-42 µg/m3</td></tr><tr><td>SOX</td><td>14.7-35.9 µg/m3</td></tr><tr><td>NOX</td><td>11.7-25.7 µg/m3</td></tr></table>			Parameters	Range (Apr-Sep 2019)	PM10	36.5-75.4 µg/m3	PM2.5	15-42 µg/m3	SOX	14.7-35.9 µg/m3	NOX	11.7-25.7 µg/m3				
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**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

Sr No.	Sr. No	Description	Status as on October 2019
			<p><i>*Ambient Air Monitoring is done as per CPCB guideline (AAQMs, 2009).</i></p> <p>All parameters are well within permissible limit prescribed by GPCB. The detailed report is attached as Annexure-2.</p> <p><b>Complied.</b></p>
(C)		<p>Green belt development:</p> <p>A green belt of at least 15 meters width shall be developed all along the East, West and North boundaries and 30 meter width along the Southern of plot in such a way so that density of tree shall be at least 1000 trees per acre of greenbelt area.</p>	<p>Presently we have about 1374.2 Nos. of trees (big trees) per hectare of total land and total 67.9 acre of the land has been developed as green belt area. We also do tree plantation in surrounding villages as CSR activity and the report is attached herewith.</p>
(D)		Adequate arrangement for the management and handling of hazardous waste shall be made.	We have Constructed Hazardous/ Incinerable Waste Storage as per CPCB Guideline. <b>Complied.</b>
(E)		Important Note:	
	1.	This letter is issued to enable the applicant to be eligible for plot/shed allotment, N.A. permission, Sanction of full amount of financial loan/assistance. Based on this letter the applicant/entrepreneur is eligible for the receipt of financial assistance to the extent of 25% of the total project cost; so that the pollution control facilities can be installed prior to or simultaneously with the implementation of the main project.	--
	2.	The Board will issue another letter to the applicant/entrepreneur certifying the completion of pollution control equipment / system after carrying out inspection in this regard to enable him to be eligible for the receipt of the rest of the sanctioned funds from the financial institutions.	--
	3.	<p>The applicant/entrepreneur shall be required to obtain the following from the Board prior to commencement of production.</p> <p>(a) Consent under the Water (Prevention &amp; Control of Pollution) Act-1974.</p> <p>(b) Consent under the Air (Prevention &amp; Control of Pollution) Act-1981.</p> <p>(c) Authorisation under the Hazardous Waste (Management and Handling) Rules-1989 under the Environment (Protection) Act-1986.</p>	<p>We have obtained a Consolidated Consent &amp; Authorization (CC&amp;A) from GPCB (CC&amp;A # 53846 dated 07.05.2013 valid up to 19.11.2017), We have obtained CTO (CC&amp;A) AWH 94827 dated 25.10.2018 valid up to 19.11.2024. Copy of CTO attached along with report.</p> <p><b>Complied.</b></p>



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ii	An area of 103 acres should only be acquired for the project including 14 acres for green belt and installation of naphtha storage tanks	<p>Presently we have about 1354.35 Nos. of trees (big trees) per hectare of total land and total 67.89 acre of the land has been developed as green belt area. We also do tree plantation in surrounding villages as CSR activity and the report is attached herewith.</p> <p>Moreover, naphtha storage tanks are no longer in use.</p> <p><b>Complied.</b></p>																																							
iii	Three stacks of height 30 m, 35 m and 7 m for gas turbines, heat recovery steam generation and DG sets should be installed	<p>Total three nos. of stacks as per EC condition was Installed &amp; commissioned.</p> <p><b>Complied.</b></p>																																							
iv	Air quality monitoring should be carried out regularly around the power plant and records should be maintained. Complete analysis of the recorded data should be regularly undertaken and results should be submitted to the Ministry every six months for review	<p>We do ambient air monitoring through our internal lab and through external party (BEIL, Ankleshwar) twice in a month &amp; all parameters are within limits prescribed by GPCB. We are submitting half yearly reports to MOEF regularly (every six month). Summarized third party (M/s BEIL, Ankleshwar) monitoring data is as follows:</p> <table border="1"> <thead> <tr> <th>PARAMETERS</th><th>Avg Monitoring Result (April-Sep 2018)</th><th>GPCB Permissible Limit (µg/m3)</th></tr> </thead> <tbody> <tr> <td>PM10</td><td>36.5-75.4 µg/m3</td><td>100</td></tr> <tr> <td>PM2.5</td><td>15-42 µg/m3</td><td>60</td></tr> <tr> <td>SOx</td><td>14.7-35.9 µg/m3</td><td>80</td></tr> <tr> <td>NOx</td><td>11.7-25.7 µg/m3</td><td>80</td></tr> <tr> <td>CO (AIR)</td><td>BDL</td><td>4 mg/m3</td></tr> <tr> <td>AMMONIAB(AIR)</td><td>BDL</td><td>400</td></tr> <tr> <td>OZONE (O3)</td><td>BDL</td><td>180</td></tr> <tr> <td>ARCENIC as As</td><td>BDL</td><td>6 ng/m3</td></tr> <tr> <td>LEAD as Pb</td><td>BDL</td><td>1</td></tr> <tr> <td>NICKEL as Ni</td><td>BDL</td><td>20 ng/m3</td></tr> <tr> <td>BENZENE as C6H6</td><td>BDL</td><td>5 ng/m3</td></tr> <tr> <td>BENZOPYRENE (BaP)</td><td>BDL</td><td>1 ng/m3</td></tr> </tbody> </table> <p>All parameters are well within GPCB permissible limit and detailed report is attached as Annexure-2.</p> <p><b>Complied.</b></p>	PARAMETERS	Avg Monitoring Result (April-Sep 2018)	GPCB Permissible Limit (µg/m3)	PM10	36.5-75.4 µg/m3	100	PM2.5	15-42 µg/m3	60	SOx	14.7-35.9 µg/m3	80	NOx	11.7-25.7 µg/m3	80	CO (AIR)	BDL	4 mg/m3	AMMONIAB(AIR)	BDL	400	OZONE (O3)	BDL	180	ARCENIC as As	BDL	6 ng/m3	LEAD as Pb	BDL	1	NICKEL as Ni	BDL	20 ng/m3	BENZENE as C6H6	BDL	5 ng/m3	BENZOPYRENE (BaP)	BDL	1 ng/m3
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v	Naphtha @ 240 tonnes/day should be used as main fuel with sulphur content not exceeding 0.15%	<p><b>Not Applicable</b> as we have switched over from Naphtha to Natural Gas in June 2002. The Unit has added Coal based Power Plant as per EC / CC&amp;A obtained.</p>																																							
vi	Suitable NOx control device such as Water/Steam Injection in the combustion chamber should be installed to ensure that NOx emissions shall not exceed 50 PPM	<p>NOx control device is in place and we are maintaining combustion chamber temperature 850- 900° C to control NOx. NOx value is in the range of 13.3-27.5 ppm against GPCB permissible limit of 50 ppm.</p> <p><b>Complied.</b></p>																																							
vii	Liquid effluent should be properly treated and used for raising of green belt	<p>The inorganic effluent generated from the power plant is being recycled through R.O system and permeate is being used back into cooling tower.</p> <p><b>Complied.</b></p>																																							

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viii	Water use for the plant should be restricted to 6,480 m <sup>3</sup> /day. Closed Circuit cooling devices should be provided and minimum makeup water should be used	On an average approx. 8547 m <sup>3</sup> /day of GIDC fresh water (period: April-Sep 2019) is being used in boiler and in the cooling tower. Proper closed circuit cooling devices has provided. <b>The Unit has obtained further EC in year 2018 with approved water consumption of 10000 KL/Day which is well within limit.</b> <b>Complied.</b>
Ix	Adequate noise control measure should be provided to ensure that noise levels do not exceed the prescribed standards of 85 dBA. Workers in high noise area should be provided with ear protection devices and their use by the workers should also be enforced	Acoustic enclosures are also provided at Power Plant. Noise monitoring through third party (BEIL, Ankleshwar) is being done twice in a month and parameter range is as follows:  During Day Time: 58.3-71 dB (GPCB Permissible limit- 75 dB) During Night time: 53.1-65.8 dB (GPCB Permissible limit- 70 dB)  Ear muffs & ear plugs are provided to the person working in high noise area like H <sub>2</sub> compressor, & air compressor. <b>Complied.</b>
X	Considering the wind rose pattern in the area, green belt should be developed covering an area of 14 acres with primary, secondary and curtain zones with selection of indigenous species. A norm of 1500-2000 trees per ha should be followed. Details should be submitted to the Ministry by January, 1997. The guidelines evolved by the CPCB on afforestation should be followed by formulating the afforestation programme	<ul style="list-style-type: none"> <li>• Presently the unit has about total 33686 Nos. of trees available in 67.9 acres, out of which approx.. 16.43 acres of tree plantation has done in power plant area.</li> <li>• Presently the unit has about 1374.2 Nos. of trees per hectare of land.</li> <li>• All tree plantation details is submitted to the Ministry six monthly.</li> <li>• The CPCB guideline on afforestation is being strictly followed.</li> </ul> <p>We also do tree plantation in surrounding villages as CSR activity and the report is attached herewith.</p> <b>Complied.</b>
xi	The landfill site identified within the plant area for disposal of solid wastes should be properly lined and continuous monitoring of ground water should be undertaken in the project area and its impact zone for ascertaining the changes in the ground water quality	<b>Not Applicable</b> as no hazardous waste is being produced from the power plant. Fly Ash (non-hazardous) generated from the coal fired power plant is being sent to end user/brick manufacturer OR BEIL, Ankleshwar for stabilization.
xii	For ensuring that in worst case scenario of naphtha storage tanks on fire, the Switch Yard on the western side of the storage tank is not affected, a thermal proof wall should be provided. As proposed, on the eastern side of the plant only landfill activity should be taken up for disposal of waste material from the main plant as well as the sludge from the power project	<b>Not Applicable</b> as we have switched over from Naphtha to Natural Gas.
xiii	The sludge from the common sludge tank should be incinerated and the ash generated be disposed of by land filling with proper lining	<b>Not applicable</b> as we are not using Naphtha at present.
xiv	Full co-operation should be extended to the Scientists/Officers of the Regional Office of the Ministry at Bhopal/CPCB/SPCB who would be monitoring the compliance of environmental status. Complete set of impact assessment report and the Management Plans should be forwarded to the Regional Office for their use during monitoring	We co-operate to any officers/seniors from SPCB/CPCB/MoEF during their visit to our unit and also submit the required data OR reports on their request.  <b>Complied.</b>
xv	Financial provisions should be made for implementation of environmental mitigative measures with adequate scope for its enhancement in future and the funds so provided should be kept in a separate account and details intimated to this Ministry and the State Level authorities	The list of expenditures made for environmental mitigation measures is attached in the report and submitted to the Ministry & state level authorities every six monthly. The total investment for environmental protection measures at the site is Rs 249.39 crores as on today. <b>Complied.</b>
Xvi	Monitoring Committee should be constituted for reviewing the compliance in various safeguard measures by involving recognized local NGOs, Pollution Control Boards, Institutions, Experts etc.	As our plant is commissioned since long Internal Environment management cell comprising of Unit Head, plant head, Environment Head & Corporate Environment head is in operation for close monitoring.  After implementation of the project, we have constituted a monitoring committee and the last meeting was conducted in September – 2019.  <b>Complied.</b>

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3	The Ministry reserves the right to revoke the clearance if conditions stipulated, are not implemented to the satisfaction of the Ministry	--
4	For any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the ministry to assess the adequacy of the conditions imposed and to add additional environmental protection measures required, if any	There was no deviation during any project. However subsequently raw material changes from Naphtha to Natural Gas in 2002 for which we have already obtained an approval. Also, we have obtained CC&A for power plant using coal as fuel. <b>Complied.</b>
5	The above stipulations would be enforced, inter-alia under the provisions of the water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; the Environment (Protection) act, 1986 and the public Liabilities Insurance Act, 1991, the Impact Assessment Notification of January, 1994 and its amendments	---

**Compliance Report for Environmental Clearance No. J-11011/325/2006-IA II (I) dated 25<sup>th</sup> July, 2007**  
**for various products for period for Apr 2019 to Sep 2019**

Sr. No.	Condition				Compliance Status			
-	The ministry of Environment & forest has examined the proposal. It is noted that the proposal is for expansion of Unit – V at Jhagadia Gujarat. The expansion project comprise of addition of new units for producing Pesticide Intermediate & Technical Products and expansion of existing Chlor-alkali & Captive Power Plants. Company proposes to produce the following Pesticides Intermediate Products, Technical Grade Pesticide Products along with their By – Products				--			
Sr. No.	Products				By Products			
	Quantity in MT/Month				Quantity in MT/Month			
	Items	Existing Capacity	Additional Capacity	Overall capacity after expansion	Items	Existing capacity	Additional capacity	Overall capacity after expansion
1	Triphenyl Phosphite	300	-	300	HCl (30%)	353	-	353
2	Phosphorus Trichloride	2250	-	2250	-	-	-	-
3	2,4Di Chlorophenol	166	-	166	Mix Chlorophenol	15	-	15
4					HCl (30%)	250	-	250
5	Phosphorus Oxychloride	150	-	150	-	-	-	-
6	Phosphorus	900	-	900	Ferrous Phosphorus	150	-	150
7					Calcium Silicate	6000	-	6000
8	Phosphorus Acid	150	-	150	HCl (30%)	600	-	600
9	Trinonyl Phenyl Phosphite	100	-	100				
10	Phenyl Di Iso Decyl Phosphite	100	-	100				
11	Amino Tri Methylene Phosphoric Acid	200	-	200				



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12	Ethylene Diamine Tetra Phosphoric Acid- Penta Sodium Salt	100	-	100				
<b>PCI5 Plant</b>								
13	Phosphorus Penta Chloride		150	150				
<b>DVACI Plant</b>								
14	DVACI	-	300	300	Spent Sulphuric Acid	-	900	900
15					POCl3	-	400	400
16					HCL (28%)	-	490	490
17					Sodium Sulphite (20%)	-	1200	1200
<b>Pesticides Intermediate Products – Multi Product Plant</b>								
18	n – Alkylated Xylenes	-	300	300	Pera Toluene Sulphonic Acid (PTSA)	-	94	94
<b>OR</b>								
	HRT Ketone	-	200	200				
<b>OR</b>								
	2 – Ethyl 6 – Methyl – n – n Aniline	-	300	300				
<b>OR</b>								
	MPBAL	-	300	300				
<b>Caustic Chlorine Plant</b>								
19	Caustic Soda Lye 48% (On 100 % Basis)	4680	10500	15180	Sodium Hypochlorite	225	525	750
20	Chlorine	3972	8537	12509	-	-	-	-
21	Hydrogen	225	263	488	-	-	-	-
22	Hydrochloric Acid (30%)	1200	2625	3825	-	-	-	-
<b>Power Plant</b>								
	Electrical Power	50 MW/Hrs	37.6 MW/Hrs.	87.6 MW/Hrs.	Steam	30 MT / Hrs.	-	30 MT/Hrs
<b>Pesticides Technical Products</b>								
1	Glyphosate	-	1000	1000				
2	Pendimethylene	-	200	200				
3	Tebuconazole	-	200	200				
4	Metalochlor	-	200	200				
5	Aceflorfen	-	500	500	Acetic Acid (80%)	-	1185	1185
6	Mancozeb	-	4000	4000	Sodium Sulphate 96% / Sodium Sulphate Solution	-	4092/ 15680	4092/ 15680
7	Acephate	-	800	800	Ammonium Acetate	-	464	464

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8	Cypermethrin	-	500	500				
9	Permethrin	-	300	300	HCl (30%)	-	94.8	94.8
Pesticides Formulation								
1	Isopropyl Amine Salt of Glyphosate (liq) – Formulation (Kl/Month)	-	2600	2600				
2	Ammonium Salt of Glyphosate (liq) – Formulation (Kl/Month)	-	2600	2600				
3	Sodium Salt of Aceflorofen – Formulation	-	1500	1500				
CS2 (Carbon Disulfide) Plant								
1	Carbon Disulfide	-	3000	3000				
MnSO4 (Manganese Sulfate) Plant								
2	MnSO4 (31%)	-	10000	10000				
Sr. No.	Condition					Compliance Status		
-	The unit already has 50 MW CPP and additional 37.5 MW CPP is proposal to be added. Cooling Towers, N2 Plant, Compressor, Chilling unit, Biological ET, DM plant, Fire Fighting System etc. shall be added. Total cost of the expansion is Rs. 473.74 Crores. Proposed Capital cost for environmental management will be Rs. 43.09 Crores and recurring cost will be Rs. 07.00 Crores. The company has total 8,85,601 sq m (218 acres) of land and the proposed expansion project will be in the existing premises. Out of this, about 91,655 sq m is covered as green belt and greenery and an additional 1,12,091 sq m is proposed for the same. Narmada River is at 12 km from the site. No agricultural or forest land is involved in the project site and no eco-sensitive zone is involved in 7 km area of the project site. However, about 21 Reserve Forests exist with 10 to 24 km from the site					<ul style="list-style-type: none"><li>The unit has valid CC&amp;A for 50 MW &amp; 37.5 MW and all necessary systems, mentioned in EC conditions are provided.</li><li>The unit has invested approx. INR 249.39 Crores for Environmental Management Systems which is approx. 8.93 % more than the committed.</li><li>As per commitment we have already developed total 274808 m2 (67.89 acres) against total 203746 m2 (50 acres) and we are keep developing green belt.</li><li>We have not used any agricultural or forest land for any project expansion. We have done all expansion within industrial area only.</li></ul>		
-	The project activities are listed at 4(c) and 5(b) in the schedule of the EIA Notification, 2006 and are of 'A' category. The project is submitted under the EIA Notification, 2006 for evaluation of the completeness of Draft EIA/EMP and for additional TORs, if any, as per Para 2.2.1 (b) of the Interim Operational Guideline dated 13 <sup>th</sup> October 2006 issued by the Ministry. The additional information as desired by the Committee were submitted by the Proponent. Since the proposed project is in industrial area, it would not need Public Consultation as per Para 7(i). stage (3) (b)- Public Consultation of EIA Notification 2006					Complied.		
-	Based on the information provided, The Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14 <sup>th</sup> September 2006 subject to the compliance of the following Specific and General conditions:							
A→SPECIFIC CONDITIONS								
i	The gaseous emissions (SO2, NOx, HCl, Cl2, CH4, P2O5, DMS, H2S, HC, PCl3, NH3, CS and CO, HC and VOC along with SPM and RSPM from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.					We do internal monitoring through our lab and through third party (BEIL, Ankleshwar) for all stacks and all parameters are within permissible limit prescribed by GPCB. Summarized monitoring data of BEIL, Ankleshwar is given below: Complied.		
Stack Monitoring Result (period Apr-Sep 2019)								
Parameter			Monitoring Result (Average value of Apr-Sep 2019)			GPCB Permissible Limit		
Flue Gas Stack Emissions- Fuel as Imported Coal								
Stack attached to power plant								
PM			19.1 – 48.6 mg/nm3			100 mg/nm3		
SO2			17.5- 38 ppm			100 ppm		
Nox			13.3-27.5 ppm			50ppm		
Stack attached to Thermic fluid heater-TPPI plant- Fuel as Natural Gas								
SPM			9.4-29.7 mg/nm3			150 mg/nm3		

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Sox	5.9-21 ppm	100 ppm			
Nox	7.7-15.8 ppm	50 ppm			
Process Stack Emission					
Process Stack Attached To	Unit	Parameter	Min	Max	GPCB Limit
Phosphorus Trichloride Plant (PCL3)					
PCL3 Process	mg/nm3	HCl	13.8	5.5	20
	mg/nm3	Cl2	BDL	BDL	9
	mg/nm3	PCl3	BDL	BDL	9
PCL3 storage tank and drum filling station scrubber	mg/nm3	PCl3	BDL	BDL	9
Caustic Chlorine plant					
56 TPD CCP	mg/nm3	HCl	11	BDL	20
100 TPD CCP	mg/nm3	Cl2	BDL	BDL	9
56 TPD CCP	mg/nm3	HCl	15.1	5.7	20
100 TPD CCP	mg/nm3	Cl2	4.6	BDL	9
TPPA/BDP/DPMP Plant					
TPPa / BDP/ DPMP	mg/nm3	HCl	14.8	BDL	20
Phosphorus oxychloride (POCl3) / Phosphorus Thiochloride					
POCl3/PSCL3	mg/nm3	HCl	7.3	BDL	20
MANCOZEB / ANTRACOL plant					
Mancozeb / Antracol	mg/nm3	H2S	BDL	BDL	5
Mancozeb / Antracol	mg/nm3	CS2	56.3	BDL	180
Mancozeb / Antracol	mg/nm3	SPM	17.9	11.3	20
Mancozeb	mg/nm3	SPM	18.4	14.6	20
Glyphosate / GLUfocinate / FOSTHIAZATE Plant					
Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/Boscalid Tech	mg/nm3	HCL	14.8	4.9	20
	mg/nm3	NH3	27.5	14.2	30
	mg/nm3	HC	BDL	BDL	20
Glyphosate / GLUfOSINATE	mg/nm3	NH3	17.2	BDL	30
	mg/nm3	HC	BDL	BDL	20
	mg/nm3	HCL	16.6	BDL	20
Carbon Di Sulphide (CS2) Plant					
Carbon Di Sulphide (CS2) Plant	mg/nm3	H2S	BDL	BDL	10
DVACL PLANT					
DVACL	mg/nm3	HCl	8.9	7.4	30
DVACI/TEP	mg/nm3	SO2 OR NH3	56.2	BDL	175
DVACI-/ ACROLEIN	mg/nm3	HCl	BDL	BDL	20
	mg/nm3	VOC	BDL	BDL	20
MPBAL					
PESTICIDE INTERMEDIATE PLANT (N Alkylated Xyledene OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	mg/nm3	H2S	BDL	BDL	10
	mg/nm3	CS2	60.2	BDL	180
	mg/nm3	NOX	14.5	BDL	25
	mg/nm3	CO	BDL	BDL	100
	OR	OR	OR	OR	OR
	mg/nm3	NH3	85.1	15.8	175
All parameters are well within GPCB permissible limit. The detailed report is attached as Annexure-2.					
Complied.					



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ii	New standards for pesticides unit, as proposed by the CPCB under the E(P) A, 1986 shall be followed by the Unit.	We are following the new norms prescribed for pesticide sector. GPCB has already included new norms in CC&A as mentioned in sl. No. (i).  <b>Complied.</b>
iii	Three new boilers shall be based on Imported Coal/Lignite/ RDF (pellets or fluff). Fuel for other boilers and D.G. Sets will be Natural Gas, HSD and FO. Lignite shall be used only in emergency.	Out of three boilers we have installed only ONE boiler as it has sufficient capacity as on today and remaining boilers will be installed based on coal fired, as per future requirement. In installed boiler, We are using only imported coal and for all other boilers/ D.G. sets are being operated only on natural gas/HSD/FO. Lignite coal is not being used. <b>Complied.</b>
iv	Natural Gas, H2 and Cl2 shall be transported through pipelines. Present transportation mode of Hazardous Chemicals by road shall be switched over to railway line as soon as it is laid down. All Transportation of Hazardous Chemicals shall be as per the MVA, 1989	<ul style="list-style-type: none"> <li>Natural Gas is transported through pipe line. H2 &amp; Cl2 are given to neighboring industries through pipe line only.</li> <li>Majority of the raw materials and products are transported through road only as the new railway line is yet to be linked to our area.</li> </ul> <b>Complied.</b>
v	23 additional Stacks shall be provided for dispersion of gaseous emissions. The height of these shall be as per the prescribed Stack Height rules and CPCB guidelines. For process emissions like HCl, Cl2, SO2, PCl3, CS2 etc. scrubbers shall be provided with each reactor for quenching. Waste air de-chlorination system shall be provided in the Caustic chlorine Plant, Vent gases from 2, 4-Dichloro Phenol shall be subjected to two-stage absorption consisting of DM water and caustic jet. For Chlorine, 2 stages Scrubber with recovery of Sodium Hypo shall be provided.	<ul style="list-style-type: none"> <li>From the available EC products, we have started to manufacture only 11 products out of 32 products. Out of additional 23 stacks, we have provided 16 stacks as per process/product requirement.</li> <li>The height of the stacks are as per CPCB guidelines.</li> <li>Separate scrubber system is being provided for each reactor such as storage, filling, addition to control HCL, CL2, SO2, PCL3, CS2 etc. Additional scrubber with EDA as scrubbing media is provided in Mancozeb Plant to control CS2 emission. All parameters are within GPCB permissible limit and the summarized data is already explained in Sl. No. (i). The scrubbing media is used based on the emissions.</li> <li>In Caustic Chlorine Plant, two stage caustic scrubber is provided in de-chlorination section and DM water scrubber is provided in HCL furnace. The scrubbed liquor of Chlorine, Sodium Hypochlorite, is a by-product.</li> </ul> <b>Complied.</b>
vi	Water/ Alkali Two stage Scrubber systems, Mist Eliminator with Koch filter and Wet Scrubber with Mist Eliminator shall be installed for the boilers. Thermic Fluid heater, D.G.Sets. The scrubbed water shall be sent to ETP for further treatment.	<ul style="list-style-type: none"> <li>Air pollution from the installed boiler is controlled by Electrostatic precipitation (ESP) system in place of scrubbing system. One extra field of ESP is provided in design. Thermic Fluid Heaters are natural gas based only. DG Sets are only for emergency power in case of power failure.</li> <li>The scrubbed water generated from each process scrubber is being sent to ETP for further treatment. In certain cases, the scrubbed solution is by-product (Sodium Hypochlorite).</li> </ul> <b>Complied.</b>
vii	Flare system shall be provided for burning of contaminated H2 and Fume incinerator shall be provided for decomposition of contaminated air/gas from the plant.	Flare stack & Fume incinerators are provided in new CS2 plant and are in operation. <b>Complied.</b>
viii	For CPP, ESP will be provided which will meet SPM limits within 50 mg/nm3.	Total 5 nos. of ESP are incorporated in coal based power plant & boiler to control SPM emission, against only 4 nos. of ESP required. During April-Sep 2019, PM range is 19.1 – 48.6 mg/nm3 which is well within the prescribed limit by SPCB (100 mg/nm3). Online monitoring devices has installed for PM, SOx, NOx and data is being transmitted to online CPCB website. <b>Complied.</b>
ix	All liquid raw material shall be stored in storage Tanks and Drums	All liquid raw materials are being kept in rums & suitable storage tanks only. <b>Complied.</b>

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x	Regular monitoring for SO <sub>2</sub> , NO <sub>x</sub> , HCl, Cl <sub>2</sub> , CH <sub>4</sub> , P <sub>2</sub> O <sub>5</sub> , DMS, H <sub>2</sub> S, HC, PCl <sub>3</sub> , NH <sub>3</sub> , CS <sub>2</sub> and CO, HC and VOC along with SPM and RSPM in the ambient air at various probable locations in and around the plant shall be carried out.	<p>We do ambient air monitoring through our internal lab as well as through external party (BEIL, Ankleshwar) twice in a month. Summarized third party (BEIL, Ankleshwar) monitoring data is given below:</p> <table border="1"> <thead> <tr> <th>PARAMETERS</th><th>Range (Apr-Sep 2019)</th><th>GPCB Permissible Limit (µg/m<sup>3</sup>)</th></tr> </thead> <tbody> <tr> <td>PM<sub>10</sub></td><td>36.5-75.4 µg/m<sup>3</sup></td><td>100</td></tr> <tr> <td>PM<sub>2.5</sub></td><td>15-42 µg/m<sup>3</sup></td><td>60</td></tr> <tr> <td>SO<sub>x</sub></td><td>14.7-35.9 µg/m<sup>3</sup></td><td>80</td></tr> <tr> <td>NO<sub>x</sub></td><td>11.7-25.7 µg/m<sup>3</sup></td><td>80</td></tr> <tr> <td>CO</td><td>BDL</td><td>4 mg/m<sup>3</sup></td></tr> <tr> <td>AMMONIA</td><td>BDL</td><td>400</td></tr> <tr> <td>OZONE (O<sub>3</sub>)</td><td>BDL</td><td>180</td></tr> <tr> <td>ARCENIC as As</td><td>BDL</td><td>6 ng/m<sup>3</sup></td></tr> <tr> <td>LEAD as Pb</td><td>BDL</td><td>1</td></tr> <tr> <td>NICKEL as Ni</td><td>BDL</td><td>20 ng/m<sup>3</sup></td></tr> <tr> <td>BENZENE as C<sub>6</sub>H<sub>6</sub></td><td>BDL</td><td>5 ng/m<sup>3</sup></td></tr> <tr> <td>BENZOPYRENE (BaP)</td><td>BDL</td><td>1 ng/m<sup>3</sup></td></tr> </tbody> </table> <p>All parameters are well within limit prescribed by GPCB. The detailed report is attached as Annexure-2.  <b>Complied.</b></p>	PARAMETERS	Range (Apr-Sep 2019)	GPCB Permissible Limit (µg/m <sup>3</sup> )	PM <sub>10</sub>	36.5-75.4 µg/m <sup>3</sup>	100	PM <sub>2.5</sub>	15-42 µg/m <sup>3</sup>	60	SO <sub>x</sub>	14.7-35.9 µg/m <sup>3</sup>	80	NO <sub>x</sub>	11.7-25.7 µg/m <sup>3</sup>	80	CO	BDL	4 mg/m <sup>3</sup>	AMMONIA	BDL	400	OZONE (O <sub>3</sub> )	BDL	180	ARCENIC as As	BDL	6 ng/m <sup>3</sup>	LEAD as Pb	BDL	1	NICKEL as Ni	BDL	20 ng/m <sup>3</sup>	BENZENE as C <sub>6</sub> H <sub>6</sub>	BDL	5 ng/m <sup>3</sup>	BENZOPYRENE (BaP)	BDL	1 ng/m <sup>3</sup>
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xi	The location of ambient air quality monitoring station shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required in the downwind direction as well as where maximum ground level concentration are anticipated.	<p>We have installed three Ambient Air Monitoring stations as per SPCB guideline and are in operation.  <b>Complied.</b></p>																																							
xii	Use of toxic solvent like Methylene Chloride (M.C.) etc. shall be minimized to the extent possible. Benzene shall not be used as solvent and no odorous compounds/ gas like Mercaptans or Hydrogen Sulfide shall be used or formed in any of reactions at the site.	<p>We are not using Methylene Chloride OR Benzene or Mercaptans at the site. However, H<sub>2</sub>S is formed in the process of manufacturing of CS<sub>2</sub> which is taken to Sulphur Recovery Unit (SRU) as per the Amendment given in the EC.  <b>Complied.</b></p>																																							
xiii	Bioassay test and toxicity index shall be carried out regularly.	<p>We do Bioassay and toxicity test through our Internal lab as well as through external party ( BEIL, Ankleshwar). As per third party result, average 90 to 92 % fish survival ratio is obtained by keeping fish for 96 hrs in 100% treated effluent.  <b>Complied.</b></p>																																							
xiv	All the storage tanks shall be under negative pressure to avoid any leakages. Breathers, N <sub>2</sub> blanketing and condensers will be provided for all the storage tanks. Closed handling systems for chemicals and solvents will be provided. Mechanical seals will be provided for pumps/agitators for reactors for reduction of fugitive emissions. Chilled Brine based condensers shall be used to prevent VOC emissions. Solvent traps shall be installed wherever necessary.	<p>Nitrogen blanketing is used for certain material storages. Breather valves are provided for solvent storages wherever necessary. Closed handling system is also used. Seal-less pumps are used for hazardous/toxic chemical handling. Solvent traps/ Condensers are provided. Chilled Brine system is provided for VOC emission control. VOC monitoring is being carried out through third party ( BEIL, Ankleshwar) and result is attached herewith as Annexure-2.  <b>Complied.</b></p>																																							

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xv	All venting equipment shall have vapour recovery system. All the pumps and other equipment's where there is a likelihood of HC leakages shall be provided with Leak Detection and Repair (LDAR) system and LEL indicators and Hydrocarbon detectors. Provision for immediate isolation of such equipment, in case of a leakage will also be made. The company shall provide a well defined Leak Detection and Repair (LDAR) programme for quantification and control of fugitive emissions. The detectors sensitivity will be in ppm levels.	<p>All venting of equipment are connected to condensers/ process Scrubbers to scrub excess vapour.</p> <p>LDAR (Leak Detection And Repairs) system is being followed to reduce VOC / HC emission. We also do third party (BEIL, Ankleshwar) VOC/ HC monitoring and report is attached herewith. We also monitor LEL through LEL meter. In addition, on line sensors are provided with alarm system for hazardous chemicals like H<sub>2</sub>S, Cl<sub>2</sub>, Ammonia, TEP, EO, HCN, Acrolein, CS<sub>2</sub>, H<sub>2</sub>, HCL etc.</p> <p>Usage of seal less pumps for toxic chemicals.</p> <p>Mechanical seals for certain reactors. Regular inspections are carried out with reference to plant operations like Pumps, Valves, Pipes etc, as per maintenance software (SAP).</p> <p><b>Complied.</b></p>
xvi	Spent solvents shall be recovered as possible & solvent recovery shall be further increased from the present 95% to at least 98%. Solvent vapours emitted during purification process from purification tanks as fugitive emissions shall be reduced as far as possible.	<p>Solvent recovery is above 98% from spent solvent and will be further improved. With additional chilled water / brine in secondary condenser, the solvent vapour recovery is increasing and fugitive emissions are reduced. To reduce fugitive emissions, scrubbers are also provided through condenser.</p> <p><b>Complied.</b></p>
xvii	Portable monitoring instruments for all relevant gases like Chlorine and Ammonia shall be provided.	<p>Portable gas detectors for Chlorine, CS<sub>2</sub>, VOC, H<sub>2</sub>S, NH<sub>3</sub> are available.</p> <p><b>Complied.</b></p>
xviii	Fugitive emissions in the work zone environment, product, raw materials storage area shall be regularly monitored for all relevant parameters. The emissions shall conform to the limits imposed by the State Pollution Boards/Central Pollution Control Board.	<p>Fugitive emission is controlled by using seal-less pumps for toxic chemicals, flange-guards, mechanical seals for pumps and reactors etc. We are monitoring fugitive emissions using portable monitors for Cl<sub>2</sub>, H<sub>2</sub>S and CS<sub>2</sub>. In addition, we have also installed 19 Chlorine sensors at various locations &amp; monitored on DCS regularly. The average monitored values are as follows;</p> <p>Cl<sub>2</sub> in the range of 0 – 0.01 ppm against the limit @ 1 ppm.</p> <p>H<sub>2</sub>S @ NIL against the limit @ 10 ppm.</p> <p>CS<sub>2</sub> in the range of 0 – 0.01 ppm against the limit @ 10 ppm.</p> <p>Additionally, we are also checking VOC for controlling fugitive emissions through portable VOC meter. However, there is no such standards are provided for fugitive emissions by SPCB/ CPCB.</p> <p><b>Complied.</b></p>
xix	No ground water shall be used for the project. Water requirement will not exceed 10,000 m <sup>3</sup> /day, which will be met through GIDC Water supply.	<p>We are not using ground water and the entire water requirement is met by GIDC water supply only. Our water consumption is well within the limit prescribed by GPCB. Avg water consumption is @ 8547 KLD against GPCB permissible limit of 8779 KLD for period April-Sep2019. The copy of water-cess assessment is attached herewith.</p> <p><b>Complied.</b></p>

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

xx	Daily waste water generation will not exceed to 4,575 m3/day. The whole waste water shall be treated in the proposed two ETPs. One Effluent Treatment Plant shall consist of primary, secondary and tertiary treatment units for the proposed Pesticide, CS2 and MnSO4 Plants. The inorganic stream shall be sent to CETP after the primary treatment. The Biodegradable stream shall be treated up to tertiary treatment. High TDS and low COD stream shall be taken to MEE System and High Organic (high COD) stream will be incinerated. The final treated effluent will be collected in collection sump and discharged through GIDC drainage line. The effluent generated from the proposed 350 TPD Caustic Chlorine and enhanced CPP shall be treated in the existing ETP of CPP which will be modified. The effluent generated from the proposed pesticides intermediate and technical products, CS2 and MnSO4 shall be treated in the proposed ETP. The treated effluent shall be sent to CETP of BEAIL for final discharge into the deep sea through closed pipeline. No free solvent shall go to the ETP.	Average effluent discharge @ 1888 KLD against GPCB permissible limit of 2797 KLD for period April-Sep 2019. All effluent streams are being treated in ETP. Biodegradable Effluent treatment plant consists of primary, Secondary and tertiary treatment; and all parameters are well within limit. We are using C-Tech's SBR technology & Latest MBBR Technology for effluent treatment. We have proper segregation system for inorganic effluent, organic Biodegradables effluent, high TDS effluent and toxic effluent. We are segregating Mother Liquor containing Sodium Sulphate and taking to Multiple Effect Evaporation System (MEE). In another MEE, high TDS effluent is treated and the salt generated is disposed off to TSDF. All incinerable streams are being sent for incineration at BEIL. The inorganic effluent stream from caustic chlorine & captive power plant is being treated separately internally (ETP) and taken to RO System of 380 KLD capacity. The treated effluent (from biodegradable streams) is being discharged to deep sea through closed above ground pipeline system. No solvent is being carried over to ETP and summarized third party (BEIL, Ankleshwar) data is as follows: <table><tr><th>SR. No.</th><th>PARAMETERS</th><th>GPCB PERMISSIBLE LIMIT</th><th>3<sup>rd</sup> PARTY RESULTS (Apr-Sep2019)</th></tr><tr><td>1</td><td>pH</td><td>6.5-8.5</td><td>6.6-7.14</td></tr><tr><td>2</td><td>COD (mg/L)</td><td>250</td><td>43-219</td></tr><tr><td>3</td><td>SS (mg/L)</td><td>100</td><td>24-63</td></tr><tr><td>4</td><td>Amm. Nitrogen (mg/L)</td><td>50</td><td>BDL-18.5</td></tr></table> All parameters are well within limit prescribed by GPCB. The detailed report is attached as Annexure-2. <b>Complied.</b>	SR. No.	PARAMETERS	GPCB PERMISSIBLE LIMIT	3 <sup>rd</sup> PARTY RESULTS (Apr-Sep2019)	1	pH	6.5-8.5	6.6-7.14	2	COD (mg/L)	250	43-219	3	SS (mg/L)	100	24-63	4	Amm. Nitrogen (mg/L)	50	BDL-18.5
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xxi	Hazardous / Solid Waste generated shall be as per the list and quantities submitted to this Ministry as per the letter no. UJH/PRO/17/2007 dated 14 <sup>th</sup> May 2007. On-site Incinerator shall be installed to incinerate incinerable waste. Otherwise the waste shall be sent to the Common Incinerator of BEIL. Land fillable waste shall be sent to BEIL-TSDF.	We have taken membership of BEIL and sending hazardous wastes (landfillable and incinerable) to BEIL regularly. We have not installed captive incinerator yet. The detail of wastes disposed off is given below (Apr-Sep 2019):  Landfilling waste @ 25898 MT against GPCB permitted quantity @ 28262.5 MT.  Incineration waste @ 2270.6 MT against GPCB permitted quantity @ 2892.25 MT.  Copy of the letter is attached as Annexure-4. <b>Complied.</b>																				
xxii	Emissions from the incinerator shall be within the prescribed norms for the incinerators. Monitoring Protocol as prescribed in these standards shall be followed.	<b>Not Applicable</b> as Captive incinerator is not installed yet.																				
xxiii	Fly ash generated from the CPP will be utilized for Brick manufacturing and for Cement manufacturing as per the Fly Ash Utilization Notification.	We have started selling fly ash for utilization – to brick manufacturers/ end users. <b>Complied.</b>																				
xxiv	All safety measures suggested in the letter no. UJH/PRO/17/2007 dated 14 <sup>th</sup> May 2007 for the solvent and reactants storage shall be implemented.	All safety measures considered during project implementation. Copy of the letter is attached as Annexure-4. <b>Complied.</b>																				
xxv	The company shall undertake following Waste Minimization measures.																					

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	a.	Metering and control of quantities of active ingredients to minimize waste.	We are using measured quantities for manufacturing and all records are maintained in SAP system for better control over waste generation. <b>Complied.</b>
	b.	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	We are recovering various by-products from plants. List of by-products are included in our CC&A. <b>Complied.</b>
	c.	Use of automated filling to minimize spillage.	We are using Auto robots in solid products for packaging and looking for other possibilities in other area as well. <b>Complied.</b>
	d.	Use of "Close Feed" system into batch reactors.	We are using closed feed systems with automatic feeding in all reactions. <b>Complied.</b>
	e.	Venting equipment through vapour recovery system.	All vents are linked with scrubbers to scrub excess vapour through condensers. <b>Complied.</b>
	f.	Use of high pressure hoses for equipment clearing to reduce wastewater generation.	We are using high pressure hoses for equipment cleaning. <b>Complied.</b>
xxvi		The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in 2000 for handling of hazardous chemicals. Necessary approvals from Chief Controller of Explosives must be obtained before commissioning of the expansion project. Requisite On-Site and Off-Site Disaster Management Plans will be prepared and implemented. Regular mock drills shall be carried out for both On-Site and Off-Site plans.	We have got approval from Chief Controller of Explosives as per the requirements. On Site Emergency Plan is updated and mock drills are conducted regularly on quarterly basis. We have submitted required data for off site emergency plan which is coordinated by District authorities. Regular mock drills are also being conducted. <b>Complied.</b>
xxvii		The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.	We are collecting the rain water from SHE office building & canteen area and utilized for gardening/nearby cooling tower. We do not recharge ground water as per local restriction. <b>Complied.</b>
xxvii		Minimum 25% of the total area shall be developed as green belt as per the CPCB guidelines. Additional 1,12,091 sq.m shall be developed as green belt.	We have covered approximate 30% (67.9 against 54.5 acre) area of the total area as a greenbelt and rest we are planning for coming monsoon. In addition, we have also planted approx. 43000 trees (92 acre) in nearby villages. <b>Complied.</b>
xxix		Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	The company is having full time medical doctor and also Occupational Health & Safety. Pre-employment and routine medical examinations are being carried out. We are also doing full body medical checkup by external expert agency once in year. All medical records are being maintained. <b>Complied.</b>
xxx		Training shall be imparted to all employees on safety and health aspects of chemicals handling. As informed to the Ministry, OHSAS 18001 shall be continued. 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.	Pre-employment and routine medical examinations are conducted. Training is imparted to all employees. There is Safety Talk every day. <b>Complied.</b>
xxxi		Usage of PPEs by all employees/ workers shall be ensured.	Proper PPEs are given to all employees & workers. <b>Complied.</b>
xxxii		The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	All points are implemented. Details are given below; <b>Complied.</b>

Ref : jhag/f/a-6/03  
June 30, 2003

Mr S H Vegda – Regional Officer  
Gujarat Pollution Control Board  
C - 1 / 119 / 3, GIDC Phase III  
Narmada Nagar  
Bharuch – 392 015

Dear Sir,

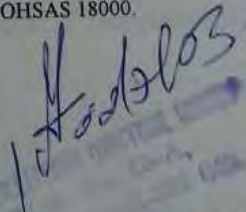
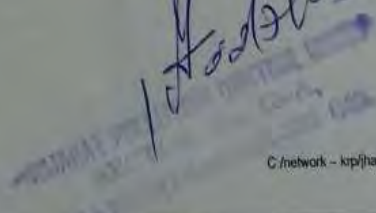
Sub - Charter on Corporate Responsibilities for Environmental Protection (CREP) – Chlor-  
Alkali Industry

Kindly refer discussion at Ankleshwar during the seminar on CREP. We are operating a Caustic Chlorine Plant using Membrane Cell technology at our Jhagadia works situated at Plot # 750, GIDC Estate, Jhagadia, Dist – Bharuch, Gujarat. As we are not using mercury cells, most of the points in the action plan, except the one relating to chlorine handling safety, are not applicable to us.

We are following the various safety requirements with respect to handling, filling, transportation and storage of chlorine. We are attaching herewith the safety procedures with respect to chlorine handling. We hope that the above is in order.

We are also following the guideline on chlorine handling, prepared by Alkali Manufacturers' Association of India (AMAI). AMAI have prepared the guidelines based on the meeting on CREP at New Delhi.

Our unit is already certified under Environmental Management System Standards ISO 14001 and Occupational Health & Safety Assessment System Standards OHSAS 18000.

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750, GIDC, P.B. No. 9, Jhagadia - 393 110, Dist. : Bharuch (Gujarat) Ph. : (02645) 26012 - 14 Fax : (02645)  
Office : A-2/1, GIDC, Vapi - 396 195, Dist : Valsad, Gujarat. Phones : (02638) :



**SEARCH CHEM INDUSTRIES LTD**  
**JHAGADIA**

**SAFETY PROCEDURES FOR CHLORINE HANDLING**

June 30, 2003

We have already provided two nos. Three Stage Chlorine Scrubber System to absorb any emission of Chlorine from the plant. In the Scrubbing System, Caustic solution is used as a medium. The Scrubber System is designed in such a way that in the first stage of scrubber, the concentration of Sodium Hypochlorite can go up to 10 % so that it can be sold as a by - product. Any unabsorbed Chlorine coming from first stage is scrubbed in the second one. The second scrubber outlet is connected to third one. Fresh caustic is taken in the second stage and third stage so that chlorine coming out in the vent will be always less than the permitted level of 9 mg / m<sup>3</sup>. The caustic solution is cooled with chilled water for better absorption. At the stack, we have provided chlorine sensors for continuous monitoring. The chlorine concentration in the stack is indicated in the control room. In addition to this, chlorine sensors are installed at various locations including storage area, filling area etc. The chlorine header is connected to the following points;

- Cell House;
- Chlorine Compression and Liquefaction Area
- Chlorine Filling Area
- Chlorine Storage Area
- All Safety Valves' Discharge Lines
- Uncondensed Chlorine from Liquefaction section for making hypochlorite
- Various Vents
- Emergency Chlorine Handling System

All safety aspects for Chlorine Bullets are also followed like; CCE approved storage tanks, isolated storage area. We always ensure that one tank is empty. Storage tanks are provided with high level alarm for over filling, double safety valve, bursting disc connected to hypochlorite.

We always ensure positive pressure of Chlorine tonner before degassing of any chlorine tonner. Hydrotest of each Chlorine tonner is being carried out at regular intervals (two years). Mock drill is conducted at regular intervals and necessary PPEs like SCBA set, air line respirator are provided and two chlorine kits are also available for preventing any accidental release of chlorine from the tonner. We are regularly imparting training on the safety handling of chlorine to all our employees of chlorine handling system.

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xxxiii	The company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the expansion project and storm water drains to recharge the ground water and use the same water for various activities of the project to conserve fresh water.	We are collecting the rain water from SHE office building & canteen area and utilized for gardening/nearby cooling tower. We do not recharge ground water as per local restriction. <b>Complied.</b>
xxxiv	All the recommendations made by the consultants in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	All the recommendations with respect to Environment Management Plan and Risk Assessment have been implemented.  Environmental Cell – in operation Water Environment – segregation, proper treatment and disposal.  Air Environment – air pollution control systems installed and operated.  Noise Environment – monitoring being done and within limits.  Green belt development – developed green belt and further area being developed.  Health and Safety – implemented OHSAS 18001, Risk Mitigation measures are implemented.  On Site Emergency Plan updated – mock drills are conducted regularly. <b>Complied.</b>
xxxv	The company shall undertake all relevant measures as indicated during the Public Hearing for improving the Socio-economic conditions of the surrounding area. CSR activities will be undertaken by involving local villages and administration.	<b>Not applicable</b> as Public Hearing was not conducted for this project. However, CSR Activities are undertaken by the Company and list of CSR activities for the period of April-Sep 2019 is already attached as Annexure-3.
xxvi	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Various eco-development activities are undertaken. Training programs on cleaner production was organized at our Company along with GPCB / GCPC / JIA. The Company has taken the following CSR activities in Jhagadia / surrounding area report is attached as Annexure-3. One of the major CSR activities taken up by the UPL Group is setting up and operation of an Engineering College – Shroff S R Rotary Institute of Chemical Technology – approximately 15 kms from the Unit.  <b>Complied.</b>
<b>B→GENERAL CONDITIONS</b>		
i	The project authorities shall strictly adhere to the stipulations made by the State Pollution Control Board.	We are complying with the all conditions of CC&A given by GPCB. <b>Complied.</b>
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	The Unit has not done any modification OR expansion without getting prior approval from the Ministry. Valid EC/NOC/CC&A received from the Government Authorities for any expansion OR modification.  <b>Complied.</b>
iii	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	We do internal monitoring through our lab as well as through third party (BEIL, Ankleshwar) twice in a month and Summarized monitoring data is given below: All parameters are well within GPCB permissible limit. The detailed report is attached as Annexure-2. <b>Complied.</b>

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
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Stack Monitoring Result (Period Apr-Sep 2019)					
Parameter	Monitoring Result (Average value of Apr-Sep 2019)		GPCB Permissible Limit		
Flue Gas Stack Emissions- Fuel as Imported Coal					
Stack attached to power plant					
PM	19.1 – 48.6 mg/nm3		100 mg/nm3		
SO2	17.5- 38 ppm		100 ppm		
Nox	13.3-27.5 ppm		50ppm		
Process Stack Emission					
Process Stack Attached To	Unit	Parameter	Min	Max	GPCB Limit
Phosphorus Trichloride Plant (PCL3)					
PCL3 Process	mg/nm3	HCl	13.8	5.5	20
	mg/nm3	Cl2	BDL	BDL	9
	mg/nm3	PCl3	BDL	BDL	9
PCL3 storage tank and drum filling station scrubber	mg/nm3	PCl3	BDL	BDL	9
Caustic Chlorine plant					
56 TPD CCP	mg/nm3	HCl	11	BDL	20
100 TPD CCP	mg/nm3	Cl2	BDL	BDL	9
56 TPD CCP	mg/nm3	HCl	15.1	5.7	20
100 TPD CCP	mg/nm3	Cl2	4.6	BDL	9
TPPA/BDP/DPMP Plant					
TPPa / BDP/ DPMP	mg/nm3	HCl	14.8	BDL	20
Phosphorus oxychloride (POCl3) / Phosphorus Thiochloride					
POCl3/PSCL3	mg/nm3	HCl	7.3	BDL	20
MANCOZEB / ANTRACOL plant					
Mancozeb / Antracol	mg/nm3	H2S	BDL	BDL	5
Mancozeb / Antracol	mg/nm3	CS2	56.3	BDL	180
Mancozeb / Antracol	mg/nm3	SPM	17.9	11.3	20
Mancozeb	mg/nm3	SPM	18.4	14.6	20
Glyphosate / GLUFocinate / FOSTHIAZATE Plant					
Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/Boscalid Tech	mg/nm3	HCL	14.8	4.9	20
	mg/nm3	NH3	27.5	14.2	30
	mg/nm3	HC	BDL	BDL	20
Glyphosate / GLUFOSINATE	mg/nm3	NH3	17.2	BDL	30
	mg/nm3	HC	BDL	BDL	20
	mg/nm3	HCL	16.6	BDL	20
Carbon Di Sulphide (CS2) Plant					
Carbon Di Sulphide (CS2) Plant	mg/nm3	H2S	BDL	BDL	10
DVACL PLANT					
DVACL	mg/nm3	HCl	8.9	7.4	30
DVACl/TEP	mg/nm3	SO2 OR NH3	56.2	BDL	175
DVACl-/ ACROLEIN	mg/nm3	HCl	BDL	BDL	20
	mg/nm3	VOC	BDL	BDL	20
MPBAL					
PESTICIDE INTERMEDIATE PLANT (N Alkylated Xyledene OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	mg/nm3	H2S	BDL	BDL	10
	mg/nm3	CS2	60.2	BDL	180
	mg/nm3	NOX	14.5	BDL	25
	mg/nm3	CO	BDL	BDL	100
	OR	OR	OR	OR	OR
	mg/nm3	NH3	85.1	15.8	175
Ambient Air Monitoring Result (Apr-Sep 2018)					

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
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PARAMETERS	Range	GPCB Permissible Limit
PM10	36.5-75.4 µg/m3	100
PM2.5	15-42 µg/m3	60
SOx	14.7-35.9 µg/m3	80
NOx	11.7-25.7 µg/m3	80
CO (AIR)	BDL	4
AMMONIAB(AIR)	BDL	400
OZONE (O3)	BDL	180
ARCENIC as As	BDL	6
LEAD as Pb	BDL	1
NICKEL as Ni	BDL	20
BENZENE as C6H6	BDL	5
BENZOPYRENE (BaP)	BDL	1
iv	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.	We are complying with the MSIHC Rules and Hazardous waste & other wastes (Handling & transboundary Movement) rules 2016. We have obtained valid Authorization from SPCB. <b>Complied.</b>
v	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources 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).	Noise monitoring is being done twice in a month through third party (BEIL, Ankleshwar). Ear muffs & ear plugs are provided to the person working in high noise area like H <sub>2</sub> compressor, & air compressor. Acoustic enclosures are also provided. Noise parameter range is as follows:  During Day Time: 58.8-70.0 dB (GPCB Permissible limit- 75 dB) During Night time: 53.8-65.4 dB (GPCB Permissible limit- 70 dB)  The detailed report is attached as Annexure-2. <b>Complied.</b>
vi	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.	All the recommendations with respect to Environment Management Plan and Risk Assessment have been implemented.  Environmental Cell – in operation.  Water Environment – segregation, proper treatment and disposal.  Air Environment – air pollution control systems installed and operated.  Noise Environment – monitoring being done and within limits.  Green belt development – developed green belt and further area being developed.  Health and Safety – implemented OHSAS 18001, Risk Mitigation measures are implemented.  On Site Emergency Plan updated – mock drills are conducted regularly. <b>Complied.</b>

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vii	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	We have separate Environmental Management Cell. Additionally, Company have Green Cell working exclusively on improving in environmental performance by converting waste streams into valuable products, improving ETP performance etc. Water, Stack Monitoring, Bio Assay Test, T <sub>f</sub> Factor Test, Ambient Air Monitoring, VOC monitoring, Solid Waste Analysis, Noise Level Monitoring are carried out in our full-fledged internal laboratory. Also, Environmental Audit is being carried out regularly. <b>Complied.</b>
viii	The project authorities shall earmark separate funds of Rs. 43.09 Crores to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. Rs. 07.00 crores will be the annual recurring expenditure for environmental protection measures. The funds so provided shall not be diverted for any other purpose.	The Company has spent Rs. 249.39 crores for environmental protection measures along with the projects implemented. The revenue expenditure for environmental protection measures is included in our budget and sufficient amount is available. The detail of expenditure is given separately. <b>Complied.</b>
ix	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry / SPCB / CPCB. A six monthly compliance status report shall be submitted to monitoring agencies.	We are submitting the half yearly compliance report in February and August every year to the Ministry/SPCB/CPCB. <b>Complied.</b>
x	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Advertisement was given in two newspapers i.e. Times of India- Surat Edition dated 7 <sup>th</sup> August 2007 and Gujarat Samachar dated 5 <sup>th</sup> August 2007 (English and Gujarati) and details submitted to GPCB and MoEF. <b>Complied.</b>
xi	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.	We are giving details of the projects implemented along with the half yearly report. We are giving below the details of the projects implemented.  Mancozeb – 20.11.2012. Pendimethylene – 20.11.2012. CS2 – 16.05.2013. Glufosinate /Glyphosate – 08.05.2014. Coal-based power plant– November 2014. DMPAT- July 2015. MPBAL/UPDT- February 2016. DVACL/Acrolein/TEP- June 2016. <b>Complied.</b>
-	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	---
-	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	---
-	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous Waste (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	---

**Compliance Report for Environmental Clearance No. J-11011/325/2006-IA II (I) dated 18<sup>th</sup> September, 2009 for Amendment of Glyphosate Technical product for period Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status
-	The production capacity of "Glyphosate- Tech" is mentioned as 1000 MT/month under pesticides technical. The company wants to start manufacturing of product (Glyphosate-Technical viz- 1 <sup>st</sup> step-DSIDA preparation: 2 <sup>nd</sup> step- Conversion of DSIDA to PMIDA and 3 <sup>rd</sup> step- PMIDA conversion to Glyphosate Technical. Now 3 <sup>rd</sup> step proposed to be modified as "Intermediate product from 2 <sup>nd</sup> stage (PMDIA) will be reacted with Ammonia and clean air in the presence of a catalyst. Ammonium Salt formed is reacted with Sulphuric Acid to precipitate Glyphosate (Technical). Mother Liquor containing Ammonium Sulphate will be recovered as by-product. In the original process, oxidation of PMDIA with Oxygen giving Glyphosate (Technical) and by-product Formaldehyde and CO <sub>2</sub> was given.	--
-	It is noted that due to change in process, water consumption will reduce from 1,151 KL per day to 812 KL per day; effluent quantity will reduce from 813 KL per day to 98.54 KL per day, and solid waste (ETP sludge) quantity will be reduced from 2.39 TPD to 0.3 TPD. The emission to additional NH <sub>3</sub> will be controlled by providing wet scrubber and company will recover Ammonium Sulphate 120 KLD (equivalent to 25 TPD Solid) generated and sold as by-product.	--
- 1	The proposal was considered during 93 <sup>rd</sup> meeting of the Expert Appraisal Committee (Industry) held on 14 <sup>th</sup> – 16 <sup>th</sup> April, 2009. The Committee noted that change in process will reduce water pollution as well as hazardous waste generation with addition of NH <sub>3</sub> pollution which will be controlled by providing wet scrubber and decided necessary amendment in environmental clearance may be made subject to stipulation of following additional conditions: The production of Glyphosate (Technical) shall not be more than 1000 TPM and the by product Ammonium Sulphate 120 KL per day (equivalent to 25 TPD Solid) generated during process shall be sold to actual user and record shall be produced with monitoring report to the Ministry's Regional Office at Bhopal.	Due to market conditions, we have not manufactured Glyphosate during this period. However, we have obtained Amended CC&A for manufacture of alternate product i.e. Glufosinate which belongs to same group in the same plant on dated 08.05.2014. We have also obtained a valid consent for the product mix change from SPCB. <b>Complied.</b>
2	The water consumption, wastewater generation and hazardous waste (ETP sludge) generation shall reduce from 1,151 KLD to 812 KLD; 813 KLD to 98.54 KLD and 2.39 TPD to 0.3 TPD respectively.	The water consumption for Glyphosate / Glufosinate plant is approx.. 215 KL/day and wastewater generation is approx. 70 KL/day which is far less than the given limits in EC condition. All HW generated is disposed off to Common TSDF Site of BEIL Ankleshwar. <b>Complied.</b>
3	The company shall provide wet scrubber for control of NH <sub>3</sub> emissions within the GPCB norms and monitoring arrangements shall be made in the vent.	We do internal & third party (BEIL, Ankleshwar) stack monitoring twice in a month and All results are well within GPCB permissible limit. <b>Complied.</b>
4	The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the State Pollution Control Board. The levels of SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> , HCL and VOC (ambient level) and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	Compliance details are submitted along with half yearly report. The half yearly reports are uploaded on our Company web site. The monitoring results are also displayed on the display board kept at the company gate. <b>Complied.</b>
5	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copy as well as by e-mail) to the respective Regional office of MoEF, the respective Zonal Office of CPCB and the State Pollution Control Board.	The half yearly EC compliance report is submitted to MoEF regional Office, CPCB Zonal Office and SPCB regularly. <b>Complied.</b>



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status
6	The environment statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices to MoEF by e-mail.	We have submitted Environmental Statement for period April-2018 to March -2019. Half yearly reports are submitted and displayed on company web site. Soft copy is also sent to MoEF.  <b>Complied.</b>
-	The Ministry accepts the above recommendation of the Expert Appraisal Committee (Industry) with the additional conditional suggested for amendment of environment clearance and all other conditions and paras of environmental clearance issued by the Ministry vide letter no. J-11011/325/2006/IA. II (I) dated 25.07.2007 shall remain same.	The point wise compliance status is as follows:  <b>Complied.</b>

**Compliance Report for Environmental Clearance No. J-11011/325/2006-IA II (I) dated 10<sup>th</sup> June, 2011**  
**for CS2 process change use of natural gas instead of charcoal for period April 2019 to Sep 2019**

Sr. No.	Condition	Compliance Status						
-	The Ministry has issued EC , subject to following conditions: “Sulfur recovery Unit shall be installed to control H2S emissions from the Furnace into elemental Sulfur and shall be recycled to the process. The “S” recovery shall be above 99.5 % (as per Refinery Norms, Notification No. GSR 186(E) dated 18.03.2008) and H2S emissions shall be less than 10 mg/ Nm3. The tail gas from Clauss Unit shall be sent to Tail Gas Treatment Unit (TGTU) for further treatment to reduce SO2 emissions. Tail Gas Treatment Unit (TGTU) shall consist of Spot Hydrogeneration, removal of H2S from, the gas by Amine treatment and fume incinerator”.	We have installed all EMS system as per EC -like Sulphur Recovery Unit (SRU unit), Tail Gas Treatment Unit (TGTU), For removal of H2S from the gas by Amine treatment and Fume Incinerator. We are achieving “S” recover above 99.5 %. We do stack monitoring twice in a month internally through our lab as well through third party (BEIL, Ankleshwar) and summarized data is as follows: <table border="1"> <thead> <tr> <th colspan="2">Stack attached to CS2 plant fume incinerator</th><th>GPCB Permissible Limit</th></tr> </thead> <tbody> <tr> <td>H2S</td><td>BDL</td><td>10 mg/nm3</td></tr> </tbody> </table> <b>Complied.</b>	Stack attached to CS2 plant fume incinerator		GPCB Permissible Limit	H2S	BDL	10 mg/nm3
Stack attached to CS2 plant fume incinerator		GPCB Permissible Limit						
H2S	BDL	10 mg/nm3						
-	This letter may be kept with the original letter.	<b>Noted and Complied.</b>						
-	This has been issued with prior approval from the Competent Authority in the Ministry.	---						

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

**Compliance Report for Environmental Clearance No. J-11011/80/2015-IA II (I) dated. 5th April, 2018 for expansion of Agro and other organic chemicals product for period Apr 2019 to Sep 2019**

UPL Limited, Unit # 05, Jhagadia							
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018							
Condition							Compliance status
No	Description						
--	This has reference to online proposal # IA/GJ/IND2/27263/2015 dated 04.01.2017 along with project documents namely EIA / EMP Report for the project						Noted
02	MoEF&CC has examined the proposal for grant of Environmental Clearance to the project for expansion of agro and other organic chemicals manufacturing unit by UPL Limited, Unit # 05, in a total plot area of 8,86,286.42 Sq M located at Plot # 746 & 750, GIDC, Jhagadia, Dist - Bharuch, Gujarat						Noted
03	Different products / by-products, existing and proposed are reported to be as under;						Noted. For existing products / by-products, the production is well within the limit and same will be ensured for proposed expansion. We have obtained CTE and once we receive final copy of CTO for some products, we will start production activities.
	Sr No	Product	CAS No	Existing TPM	Proposed TPM	Total TPM	Category
A – PRODUCTS REQUIRING ENVIRONMENTAL CLEARANCE							
	01	Mancozeb	8018-01-07	4000	8333.33	11633.33	Pesticide
	02	Antracol	12071-83-9		1000	1700	Pesticide
	03	Pendimethylene	40487-42-1	400	833.33	1233.33	Pesticide
	04	Glyphosate	77182-82-2	500	1250	1700	Pesticide
	05	Glyphosate	38641-94-0		Nil	100	Pesticide
	06	CS2 (Carbon Di Sulphide)	000075-15-0	3000	3750	6750	Pesticide intermediate
	07	S Metolachlor	87392-12-9	200	1666.67	1866.67	Pesticide
	08	Acephate	30560-19-1	800	1666.67	2466.67	Pesticide
	09	Acrolein	107-02-9	Nil	666.67	666.67	Pesticide intermediate
	10	CCITM (Di Methyl Cyanioinodithio Carbonate)	10191-60-3	Nil	167.67	167.67	Pesticide intermediate
	11	Tri Ethyl Phosphite	122-52-1	Nil	1000	1000	Pesticide intermediate
	12	CS2 based products					
	12.1	Potassium Ethyl Xanthate	140-89-6	Nil	833.33	833.33	Intermediate chemicals
	12.3	Sodium Isopropyl Xanthate	140-93-2				
	12.3	Potassium Isopropyl Xanthate	140-93-1				
	12.4	Potassium Amyl Xanthate	2720-73-2				
	12.5	1,6-Bis (N,N-Dibenzylthiocarbamyl)dithio Hexane (Rubber chemicals)	151900-44-6				
	12.6	1-Methylamino 1-Methyl Thio 2-Nitroethene (Pharma intermediate)	61832-41-5				
	13	Clomazone	81777-89-1	Nil	416.67	416.67	Pesticide
	14	Mesotrion	104206-82-8	Nil	416.67	416.67	Pesticide
	15	Flonicamide IKI-220	158062-67-0	Nil	166.67	166.67	Pesticide
	16	H2S based products					
	17	Di Methyl Sulfoxide (DMSO)	67-68-5	Nil	1250	1250	Cyemical intermediate
		156 TPD Caustic Chlorine Plant					
		Caustic Soda Lye 48 % on 100 % basis	1310-73-2	15180	Nil	15180	Chlor alkali industry

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia							
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018							
Condition							Compliance status
No	Description						
		Chlorine Gas	7782-50-5	12509	Nil	12509	
		Hydrogen Gas	1333-74-0	488	Nil	488	
		Hydrochloric Acid 30 %	7647-01-0	3825	Nil	3825	
	18	Power Plant Electric Power	Not applicable	87.5 MW / HR	Nil	87.5 MW / HR	1D Power Plant
	19	Phenyl Di Iso Decyl Phosphite OR	25550-98-5	100	Nil	100	Chemical intermediate
		Tri Decyl Phosphite (TDP) OR	2929-86-4				
		Tris Tri Iso Decyl Phosphite (TTDP)	77745-66-5				
	20	Di Phenyl Methyl Phosphonate (DPMP) OR	7526-26-3	200 OR	Nil	200 OR	Chemical intermediate
		Tri Phenyl Phosphate (TPPa) OR	115-86-6	200 OR		200 OR	
		Bis Phenol Di Phosphate (BDP)	181028-79-5	50		50	
	21	Fosthiazate IKI-1145	98886-44-3	250	Nil	250	Pesticide
	22	Di Chloro Vinyl Acid Chloride (DVACL)	52314-67-7	300	Nil	300	Pesticide intermediate
	23	N Alkylated Xylenedene OR	1330-20-7	300	Nil	300	Pesticide intermediate
		HRT Ketone OR	108-10-1	200			
		2 Ethyl 6 Methyl N N Aniline OR	24549-06-2	300			
		Meta Phenoxy Benzyl Alcohol (MPBAL)	13826-35-2	300			
	24	Tebuconazole	107534-96-3	200	Nil	200	Pesticide
	25	Acifluorfen	50594-66-6	500	Nil	500	Pesticide
	26	Cypermethrin	52315-07-9	500	Nil	500	Pesticide
	27	Permethrin	52645-53-1	300	Nil	300	Pesticide
	28	Tri Phenyl Phosphite	101-02-0	300	Nil	300	Chemical intermediate
TOTAL				43902	23418.68	67319.68	
B – PRODUCTS NOT REQUIRING ENVIRONMENTAL CLEARANCE							
	29	NAHS 40 % Solution	1310-73-2	Nil	2500	2500	Specialty chemical
	30	Na2S Solution	1313-82-2	Nil	2500	2500	Specialty chemical
	31	Na2S Solid	1313-82-2	Nil	2500	2500	Specialty chemical
	32	Liquid formulation products (Pentimethylene, Glufosinate, S Metolachlor, Clomazone, Mesotrion, Acifluorfen, Cypermethrin, Permethrin)		Nil	4166.67	4166.67	Pesticide Formulation
	33	Solid pesticide formulation products (Mancozeb, Antracol, Glyphosate, Acephate, Flonicamide, Fosthiazate, Tebuconazole)		Nil	7083.33	7083.33	Pesticide formulation
	34	PCL3 Plant	7719-12-	2550	Nil	2550	Specialty

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia							
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018							
Condition							Compliance status
No	Description						
		Phosphorus Tri Chloride	2				chemical
	35	Phosphorus	7723-14-0	900	Nil	900	Specialty chemical
	36	Phosphorus Acid	13598-36-2	150	Nil	150	Specialty chemical
		Tri Butyl Phosphate (TBPO)	126-73-8				
		Tri Iso Butyl Phosphite (TIBP)	126-71-7				
	37	Phosphorus Penta Chloride (PCL5)	10026-13-8	200	Nil	200	Specialty chemical
	38	Phosphorus Oxychloride (POCL3) OR	10025-87-3	250 OR	Nil	250 OR	Specialty chemical
		Phosphorus Thiochloride (PSCL3)	3982-91-0	200		200	Specialty chemical
	39	Pesticide formulation products					
		Iso Propyl Amine Salt of Glyphosate Formulation		2600	Nil	2600	Pesticide formulation
		Ammonium Salt of Glyphosate Formulation		2600	Nil	2600	
		Sodium Salt of Aceflorofen Formulation		1500	Nil	1500	
	40	MnSO4 (Manganese Sulphate) 31 % Solution	10124-55-7	10000	Nil	10000	Intermediate chemical
	TOTAL			20750	18750	39500	
	C – BYPRODUCTS						
	Sr No	By-product	NOC available TPM	CC&A available TPM	Additional TPM	Total TPM	
	01	HCL Solution	94.6	2732.02	440	3266.82	
	02	Dilute Sulphuric Acid	262.5	1655	1250	3167.5	
	03	Sodium Sulphate Powder OR	--	4092	9066.75	13158.75	
	3-a	Sodium Sulphate Solution	--	15680	35895.67	51575.67	
	04	MnOH2 (Manganese Hydroxide)	--	236	492	728	
	05	NnOH2 (Zinc Hydroxide)	--	39	9.75	48.75	
	06	NASH Solution	--	1876	16418.08	18294.08	
	07	Mangnesium Chloride Solution	--	2070	4702.5	6772.50	
	08	Ammonium Acetate OR	464	--	3926.67	4390.67	
	8-a	Acetic Acid and Ammonium Sulphate OR	--	--	4633.33	4633.33	
	8-b	Ammonium Sulphate and Sodium Acetate 30 %	--	--	5920	5920	
	09	Ammonium Chloride Powder OR	--	1034.25	3676.5	4710.75	
	9-a	Anhydrous Ammonia OR	--	--	415	415	
	9-b	20 % Aqueous Ammonia OR	--	--	2075	2075	
	9-c	CaCL2 Solution OR	--	--	4800	4800	
	9-d	CaCL2 Powder	--	--	1600	1600	
	10	Methyl Mercaptan	--	--	295.83	295.83	
	11	Sodium Bi Sulphite Solution	--	--	1276.58	1276.58	
	12	Ethanol	--	--	37.83	37.83	
	13	Spent Solvent (MDC)	--	--	208.33	208.33	
	14	Sodium Hypochlorite	525	225	--	750	
	15	Ferrous Phosphorus	--	150	--	150	
	16	Calcium Silicate	--	6000	--	6000	
	17	Ti Phenyl Phosphate (TPPa)	--	66.51	--	66.51	
	18	Ammonium Sulphate Solution	--	3600	--	3600	
	19	Ammonium Sulphate Solid	--	750	--	750	
	20	Ethylene Chloride	--	44.5	--	44.5	
	21	Ammonium Hydroxide 20 %	--	116.75	--	116.75	
	22	POCL3	--	400	--	400	
	23	Sodium Sulphite	--	1200	--	1200	
	24	PTSA	--	94	--	94	

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia							
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018							
Condition						Compliance status	
No	Description						
	25	Acetic Acid	1185	--	--		1185
	26	Ammonia Solution	--	118	--		118
	27	Ammonium Chloride	--	348	--		348
	28	Steam	--	60	--	60	
04	Existing land area is 8,86,286.42 Sq M and no additional land will be required for proposed expansion. Green belt will be developed in an area of 2,21,571.6 Sq M. Estimated project cost is Rs 1923.68 Crores. Capital cost earmarked for pollution control measures is Rs 69.4 Crores and recurring cost (O&M) will be about Rs 1.4 Crores per annum					Noted for Compliance. There is no additional land required for proposed expansion. Estimated project cost is Rs 1923.68 Crores. Capital cost earmarked for pollution control measures is Rs 69.4 Crores and recurring cost (O&M) will be about Rs 1.4 Crores per annum. We have obtained provisional CTO for few products and once we receive final copy of CTO, we will start production activity	
05	There are no national parks, wild life sanctuaries, biosphere, reserves, tiger / elephant reserves and wildlife corridors etc within 10 kms of project site. Kaveri river is flowing at distance of 2.97 kms in north					Noted.	
06	Fresh water requirement will be 10,000 KLD proposed to be met from GIDC supply. Treated effluent of 3000 KLD will be discharged to conveyance system of NCTL for disposal to deep sea					Noted for compliance. Fresh water requirement will be 10,000 KLD proposed to be met from GIDC supply. Treated effluent of 3000 KLD will be discharged to deep sea through NCT above ground pipeline. We have obtained provisional CTO and once we receive final copy of CTO, we will start production activity	
	Power requirement after expansion will be increased from 21 MWH to 71 MWH proposed to be sourced from DGVCL and captive power plant. Existing unit has five DG Sets of 625 KVA, 750 KVA, 1250 KVA, 1000 KVA and 320 KVA capacity. More six DG Sets of 1000 KVA each shall be used as standby during power failure. Stack of 20 meters height will be provided as per CPCB norms to proposed DG sets of 1000 KVA					Noted for compliance	
	One new natural gas / coal / biomass / briquettes fired boiler of 150 TPH will be equipped with bunker bay, ESP and stack of 100 meters height to control particulate emissions. Two stage water scrubbers with 30 meters stack height to be provided for control of process emissions of ammonia, HCL and SO2 emissions					Noted for compliance	
	Spent filter material, spent catalyst will be sent to CHWIF. Insulation wate, non recyclable plastic waste, used PPE and incineration ash will be sent to TSDF. Contaminated cotton waste to be sent to TSDF / CHWIF.					Noted for compliance Unit has membership for TSDF facility and CHWIF. Spent filter material, spent catalyst will be sent to CHWIF. Insulation wate, non recyclable plastic waste, used PPE and incineration ash will	

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep 2019**

UPL Limited, Unit # 05, Jhagadia		
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018		
Condition		Compliance status
No	Description	
		be sent to TSDF. Contaminated cotton waste to be sent to TSDF / CHWIF
07	Project covered under Category A of item 5b i.e. Pesticide Industry and Pesticide specific intermediates (excluding formulations)" of schedule to EIA Notification 2006 and requires appraisal at central level by sectoral WAC in MoEF&CC	Noted for compliance.
08	ToR for project was granted on 13th July 2015 followed by Amendment therein on 31st August 2015 providing exemption from Public Hearing	Noted
09	Proposal was considered by EAC (Industry2) in its meetings held during 8-9 December 2016, 27-28 February 2017, 17-18 April 2017 and 20-22 December 2017. PP and their consultant (Siddhi Green Excellence P Ltd) presented EIA / EMP report as per ToR. EAC found EIA / EMP Report to be satisfactory and in consonance with presented ToR. Committee has recommended the proposal for grant of EC	Noted
10	Based on proposed submitted by PP and recommendations of EAC, MoEF&CC hereby accords EC to project EXPANSION OF AGRO AND OTHER ORGANIC CHEMICALS manufacturing unit by UPL Ltd., Unit # 05 in total plot area of 8,86,286.42 Sq M located at Plot # 750 & 746, GIDC Estate, Jhagadia, Dist – Bharuch, Gujarat, under provisions of EIA Notification 2006 and amendments therein, subject to compliance of terms and conditions as under;	Noted for compliance
10.a	PP shall take stringent mitigating measures to minimize incremental concentration of air pollutants namely PM10 and PM 2.5 to the extent possible due to proposed industrial operations	Noted for compliance Unit has internal and external monitoring team and Unit will take mitigating measures to minimize incremental PM10 and PM 2.5
10.b	PP shall develop local air quality management plan in consultation with SPCB and implement to achieve desired standards	Complied. We have installed AAQM Monitoring location in consultation with GPCB and Monitoring results are given in Annexure 2. All Values are well within limit.
10.c	Incremental ground level concentrations for PM-10, PM-2.5, SO2 and NOX due to increased vehicular and other allied / developmental activities, shall be analyzed and reported for actual impact of the project, besides remedial measures	Complied. We have installed AAQM Monitoring location in consultation with GPCB and Monitoring results are given in Annexure 2. All Values are well within limit.
10.d	National Emission Standards for Pesticide Manufacturing and Formulation Industry, issued by MoEF&CC vide GSR 46(E) dated 03.02.2006 and amended from time to time, shall be followed by PP	Noted for compliance We are complying pesticide specific standards published by MoEF&CC.
10.e	Natural Gas / Imported Coal with less than 5 % Sulphur content / Biomass / Briquettes shall be used as fuel source for one no. New boiler of 150 TPH. Two stage water scrubbers with 30 meters stack height to be provided for control of process emissions of Ammonia, HCL and SO2 emissions separately	Noted for compliance We are using coal having sulfur less than 5%.
10.f	Two stage water scrubber followed by alkali scrubber to be provided to process vent to control process emissions like HCL, SO2, Cl2, Nox, HBr. Acidic scrubber to be provided to process vent to control process emissions of NH3 and HC. Scrubbed water to be sent to ETP For further treatment. Efficiency of scrubber to be monitored regularly and maintained properly. Scrubbers vent to be provided with online detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, emission levels to go beyond prescribed standards. System to be interlocked with pollution control equipment so that in case of any increase in pollutants beyond permissible, plant should be automatically stopped	Noted for compliance Two stage water scrubber followed by alkali scrubber will be provided to process vent to control process emissions like HCL, SO2, Cl2, Nox, HBr. Acidic scrubber will be



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia		
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018		
Condition		Compliance status
No	Description	
		provided to process vent to control process emissions of NH3 and HC. Scrubbed water will be sent to ETP For further treatment. Efficiency of scrubber will be monitored regularly and maintained properly.
10.g	In plant control measures for checking fugitive emissions from all vulnerable sources to be provided. Fugitive emissions to be controlled by providing closed storage, closed handling and conveyance of chemicals / materials, multi cyclone separate and water sprinkling system. Dust suppression system including water sprinkling system to be provided at loading and unloading areas to control dust emissions. Fugitive emissions in work zone environment, product, raw materials storage area etc to be regularly monitored and records maintained	Complied We have started fugitive emission monitoring.
10.h	For further control of fugitive emissions, following steps to be followed; <ul style="list-style-type: none"> <li>• Closed handling system to be provided for chemicals</li> <li>• Reflux condenser to be provided over reactor</li> <li>• System of LDAR of pump / pipeline based on preventive maintenance</li> <li>• Acids to be taken from storage tanks to reactors through closed pipeline. Storage tanks to be vented through trap receiver and condenser operated on chilled water</li> <li>• Cathodic protection to be provided with underground solvent storage tank</li> </ul>	Complied. We have provided closed handling system with reflux condenser, LDAR & suitable chilling system.
10.i	Proper LDAR program for pesticide unit to be prepared and implemented as per CPCB guidelines. Focus to 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 to be given. Preventive maintenance schedule for each unit to be prepared and adhered to	Complied. We have provided closed handling system with reflux condenser, LDAR & suitable chilling system.
10.j	PP to take all measures in order to protect machineries and equipments for pesticide producing unit from ageing	Complied. We have implemented SAP Based Operation & Maintenance Schedule for Update / Fitness of Machinery.
10.k	Continuous monitoring system for CL2, HCL as well as Vocs to be installed at all important areas / places. Effective measures to be taken immediately when monitoring results indicate above the permissible limits. Alarm for chlorine leakage, if any, in liquid chlorine storage area is provided along with automatic start of scrubbing system	Complied. We have already implemented Online Cl2&HCL Monitoring system.
10.l	Gaseous emissions from DG Set to be dispersed through adequate stack height as per CPCB Standards. Acoustic enclosure to be provided to DG Sets to mitigate noise pollution	Noted for compliance
10.m	Solvent management to be carried out as follows; <ul style="list-style-type: none"> <li>• Chilled brine circulation system to be provided to condensate solvent vapours and reduce solvent losses, ensuring that solvent recovery should not be less than 95 %</li> <li>• Reactor and solvent handling pump to have mechanical seals to prevent leakages</li> <li>• Condensers to be provided with sufficient HTA and residence time so as to achieve more than 95 % recovery</li> <li>• Solvent to be stored in separate space specified with all safety measures</li> <li>• Proper earthing to be provided in all electrical equipment wherever solvent handling is done</li> <li>• Entire plant to be flameproof. Solvent storage tanks should be provided with breather valve to prevent losses</li> </ul>	Complied. Solvent recovery won't be less than 95 %. Solvent will be stored in separate space specified with all safety measures Reactor and solvent handling pump have mechanical seals to prevent leakages.
10.n	Fresh water demand after proposed expansion should be limited from 17,000 KLD to 10,000 KLD and prior permission to be obtained from competent authority	Complied. Fresh water demand after proposed expansion will be limited from 17,000

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia		
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018		
Condition		Compliance status
No	Description	
		KLD to 10,000 KLD.
10.o	Effluent to be segregated into cyanide stream and high TDS / COD effluent streams. Cyanide effluent streams will be treated with Sodium Hypochlorite in alkaline medium, high TDS / COD effluent stream will be passed through steam stripper followed by concentrated in MEE. MEE condensate will be treated in ETP. Treated effluent from ETP will be passed through RO. RO permeate will be recycled / reused within plant premises. Domestic sewage should be treated in STP. Water quality of treated effluent should meet norms prescribed by CPCB / SPCB	Complied. We have implemented effluent segregation system in plant level.
10.p	Industry will reduce effluent quantity from 4768 KLD to 3000 KLD by adopting recycle / reuse. Treated effluent to be discharged to NCTL and disposed to deep sea	Complied. Effluent generation quantity is well within limit given by GPCB.
10.q	Process effluent / any wastewater shall not be allowed to mix with storm water. SWD to be passed through guard pond	Complied. We have separate storm water drainage network connected with CCTV Camera and Online pH Meters,
10.r	Hazardous chemicals to be stored in tanks in tank farm, drums, carboys etc. Flame arresters to be provided on tank farm. Solvent transfer to be by pumps	Complied. We have provided Hazardous Chemicals Storages in tank farm, drums, carboys with flame arrestors.
10.s	PP to obtain authorization for collection, storage and disposal of hazardous waste under Hazardous & Other Wastes (Management & Trans-Boundary Movement) Rules 2016 and amended as on date for management of HW and prior permission from GPCB to be obtained for disposal of solid / hazardous waste in TSDF. Measures to be taken for fire fighting facilities in case of emergency. Membership of TSDF for HW Disposal to be obtained	Complied Unit has obtained authorization for collection, storage and disposal of hazardous waste under Hazardous & Other Wastes (Management & Trans-Boundary Movement) Rules 2016 and amended as on date for management of hazardous waste in TSDF.
10.t	ETP sludge, inorganic waste to be sent to TSDF. High CV waste such as spent organic to be sent to cement factory / incinerated	Complied ETP sludge, inorganic waste will be sent to TSDF. High CV waste such as spent organic will be sent to cement factory / incinerated
10.u	PP to strictly comply with rules and guidelines under MSIHC Rules 1989 as amended in October 1994 and January 2000. All transportation of hazardous chemicals to be as per Motor Vehicle Act 1989	Noted for compliance
10.v	PP to make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system to be as per norms	Complied Unit has made arrangement for protection of possible fire hazards during manufacturing process in material handling
10.w	Occupational health surveillance of workers to be done regularly and records maintained as per Factory's Act	Complied. The Unit maintains medical records for all employees as per Factory Act.
10.x	10 meters wide green belt of perennial trees like neem, seasam, teak etc to be developed inside along the plant periphery to mitigate effects of fugitive emissions all around the plant as per CPCB guidelines in consultatio with DFO	Complied. We have developed green belt within site for

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

UPL Limited, Unit # 05, Jhagadia		
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018		
Condition		Compliance status
No	Description	
		mitigation of fugitive emissions.
10.y	At least 5 % of total cost of project to be earmarked towards Enterprise Social Commitment based on public hearing issues and itemwise details along with time bound action plan to be prepared and submitted to MoEF&CC Bhopal. Implementation of such program to be ensured accordingly in a time bound manner within 5 years	Complied. Public Hearing is exempted & least 5 % of total cost of project will be earmarked towards Enterprise Social Commitment
10.1	Grant of EC is further subject to compliance of other generic conditions as follows	
(i)	PP must strictly adhere to stipulations made by SPCB, State Government and other statutory authority	Noted for compliance
(ii)	No further expansion or modification in plant to be carried out without prior approval of MoEF&CC. In case of deviations or alterations in project proposal from those submitted to this Ministry, fresh reference to be made to assess adequacy of conditions imposed and add additional environmental protection measures required, if any	Noted for compliance
(iii)	Locations of AAQM stations to be decided in consultation with SPCB and ensured that at least one station is installed in upwind and downwind direction as well as where maximum ground level concentrations are anticipated	Complied. The Unit has established 3 AAQM Station as per GPCB Guidelines.
(iv)	National Ambient Air Quality Emissions Standards issued by MoEF vide GSR 826(E) Dated 16.11.2009 to be complied with	Complied. Unit is having internal & external monitoring and all values are well within limit.
(v)	Overall noise levels in and around plant area to be kept well within standards by providing noise control measures including acoustic hoods, silencers, enclosures etc on all sources of noise generation. Ambient noise levels to conform to standard prescribed under EPA 1986 i.e. 75 dB(A) (day time) and 70 dB(A) (night time)	Noted for compliance. Unit is having internal & external monitoring and all values are well within limit
(vi)	PP to harvest rain water from roof tops of buildings and SWD to recharge ground water and utilize for different industrial operations within the plant	Complied. We have implemented Rain water harvesting at Canteen & Admin Building.
(vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regularly. Training to all employees on handling of chemicals shall be imparted	Complied. The safety and environmental training is given to all employees including contract workmen. Unit is having Pre-employment and routine periodical medical examinations for all employees
(viii)	PP to comply with all environmental protection measures and safeguards proposed in documents submitted to MoEF. All recommendations made in EIA / EMP in respect of environment management, risk mitigation measures and public hearing, shall be implemented	Noted for compliance. Public hearing is exempted as Unit falls under Notified Industrial Estate.
(ix)	PP to undertake all measures for improving socio-economic conditions of surrounding area. CSR Activities to be undertaken by involving local villagers, administration and other stake holders. Also, eco-developmental measures to be undertaken for overall improvement of the environment	Noted for compliance. We have already CSR Team working for lively hood of community surrounding our operation area
(x)	Separate Environment Management Cell equipped with full-fledged laboratory facilities to be set up to carry out environmental management and monitoring functions	Complied. We have separate Environment Management Cell in

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
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UPL Limited, Unit # 05, Jhagadia		
Compliance to conditions mentioned in Environmental Clearance issued by Ministry of Environment, Forests & Climate Change – vide letter # J-11011/80/2015-IA-II(I) dated 05.04.2018		
Condition		Compliance status
No	Description	
		Place at site.
(xi)	PP to earmark sufficient funds towards capital cost and recurring cost per annum to implement conditions stipulated by MoEF as well as state government along with implementation schedule for all conditions stipulated herein. Funds so earmarked for environment management / pollution control measures shall not be diverted for any other purpose	Noted for compliance.
(xii)	Copy of clearance letter to be sent by PP to concerned Panchayat, Zila Parishad, Municipal Corporation, Urban local body and local NGO if any, from whom suggestions / representations, if any, were received while processing the proposal	Complied. EC copy has been shared with JIA / GIDC / nearby Gram Panchayat
(xiii)	PP shall also submit six monthly reports on status of compliance of stipulated EC conditions including results of monitored data (both in hard copy as well as by email) to respective RO of MoEF, respective ZO of CPCB and GPCB. Copy of EC and six monthly compliance status report shall be posted on web site of PP	Noted for compliance. Unit submits six monthly reports on status of compliance of stipulated EC conditions including results of monitored data to respective RO of MoEF, respective ZO of CPCB and GPCB and Copy of EC and six monthly compliance status report will be posted on web site
(xiv)	Environmental Statement for each financial year ending 31st March in Form V as is mandated to be submitted to SPCB as prescribed under EPA as amended subsequently, to be put on web site of PP along with status of compliance of EC conditions and to be sent to respective RO of MoEF by email	Noted for compliance. Unit submits Environmental Statement for each financial year ending 31st March in Form V to GPCB
(xv)	PP to confirm the public that project has been accorded EC by MoEF and copies of EC are available with SPCB and may also be seen at web site of MoEF ( <a href="http://moef.nic.in">http://moef.nic.in</a> ). This shall be advertised within seven days from date of issue of EC at least in two local news papers that are widely circulated in the region of which one shall be in vernacular language of the locality concerned and copy of the same shall be forwarded to concerned RO of MoEF	Complied. This is advertised within seven days from date of issue of EC in two local news papers i.e Times of India & Gujarat Samachar.
11	Ministry may revoke or suspend EC if implementation of any of above conditions is not found to be satisfactory	Noted for compliance
12	Ministry reserves the right to stipulate additional conditions if found necessary. PP in a time bound manner will implement these conditions	Noted for compliance
13	Above conditions will be enforced, inter-alia under provisions of Water Act 1974, Air Act 1981, EPA 1986, HWM Rules 2016 and PLI Act 1991 read with subsequent amendments therein	Noted for compliance

**PRODUCTION DETAIL**  
**(Apr-Sep 2019)**

Sr. No.	Product / By-product	GPCB Consent Capacity (MT/Month)	Half yearly GPCB Consent Capacity in MT	Total Production in MT during the period Apr- Sep 2019
A	Tri Phenyl Phosphite /Tri Butyl Phosphite/Tri Iso Butyl Phosphite			
	TPPI/TBPO OR	260 (Combined Capacity) OR	1560	839
	TIBP	140		--
	By Product			
	HCl (30%)	620	3720	1138
B	PCl <sub>3</sub> Plant (Phosphorus Trichloride) Product			
	Phosphorus Trichloride	3050	18300	14947
C	156 TPD Caustic Chlorine Plant Products			
	Caustic Soda Lye as 48% (On 100% Basis)	4680	28080	17197
	Chlorine Gas	3972	23832	17859
	Hydrogen Gas	225	1350	409
	Hydrochloric Acid (30%)	1200	7200	2903
	By Product			
	Sodium Hypochlorite	225	1350	407
	Dilute Sulphuric Acid 78%	155	930	404.8
D	50 MW Power Plant Product (Natural Gas Based)			Not in Operation
	Electrical Power	50 MW/Hr	--	
	By Product			
	Steam	30 MT/hr	--	
E	37.5 MW Power Plant Product (Coal Fired)			29.92 MW/Hr
	Electrical Power	37.5 MW/Hr	37.5 MW/Hr	
F	Phosphorus Oxychloride Plant /PCL5/PSCL3			1369
	POCL3/PCL5/PSCL3	375	2250	
G	Phosphorous Plant Product			Not in Operation
	Phosphorous	300	--	

Sr. No.	Product / By-product	GPCB Consent Capacity (MT/Month)	Half yearly GPCB Consent Capacity in MT	Total Production in MT during the period Apr- Sep 2019
	By Product			
	Ferro Phosphorus	45	--	
	Calcium Silicate	2310	--	
H	TDP/TTDP			136
	Tri Decyl Phosphite (TDP) OR	50 (Combined capacity)	300	
	Phenyl Di-Iso Decyl Phosphite OR			
	Tris Tri Decyl Phosphite (TTDP)			
I	Mancozeb Plant/ Antracol Plant			
	Mancozeb	4000 (Combined Capacity)	24000	13263
	Antracol			3161
	By Product			
	Sodium Sulphate 96% / sodium sulphate solution	4092 / 15680	118632	1734
J	Pendimethalin/Fipronil/ Buprofezin	400	2400	1356
K	CS2	3000	18000	13590
L	Glyphosate /Glufosinate	550 (Combined Capacity)	3300	2394
M	N Alkylated Xyledene OR	300 OR	1800 OR	--
	HRT Ketone OR	200 OR	1200 OR	--
	2 Ethyl 6 Methyl N N Aniline OR	300 OR	1800 OR	--
	MPBAL OR	300 OR	1800 OR	--
	UPDT	300	1800	712



*Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat  
Period from Apr 2019 to Sep 2019*

Sr. No.	Product / By-product	GPCB Consent Capacity (MT/Month)	Half yearly GPCB Consent Capacity in MT	Total Production in MT during the period Apr- Sep 2019
<b>N</b>	<b>DMPAT OR MO OR</b>	600 OR 600 (Combined Capacity) OR	3600 OR	2906
	DESMP	300	1800	--
<b>O</b>	DVACL/ <b>Acrolein/</b> TEP	300/300/300 (Combined Capacity)	1800	1141
<b>P</b>	Di Phenyl Methyl Phosphonate (DPMP) OR	15 OR	--	--
	Tri Phenyl Phosphate (TPPA) OR	15 OR	--	--
	Bisphenol Di Phosphate (BDP)	3.75	--	--
<b>Q</b>	Fosthiazate (IKI-1145) OR Cyproconazole OR Atrazine (Combined Capacity) OR	250 (Combined Capacity) OR	--	--
	2,4 D Technical	125	--	--

**WATER and WASTEWATER DETAIL  
(April- Sep 2019)**

Month	Total G.I.D.C Fresh Water Consumption (KL)	GPCB Fresh Water Permissible Limit (KL/ Day)	Total Wastewater Discharged (including sewage water) to FETP, M/s NCT (KL)	GPCB Treated Effluent Discharge Permissible Limit (KL/ Day)
Apr'19	263350	8779	54479	2797
May'19	272000		56242	
Jun'19	253723		54300	
July'19	276105		86473	
Aug'19	289016		70574	
Sep'19	209892		23409	
<b>TOTAL</b>	<b>1564086</b>		<b>345477</b>	
<b>AVERAGE/DAY</b>	<b>8547</b>	<b>8779</b>	<b>1888</b>	<b>2797</b>

**HAZARDOUS/ SOLID WASTE DETAIL**

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep2019**

**(Apr-Sep2019)**

<b>Type of Waste</b>	<b>Category</b>	<b>Source of Generation</b>	<b>GPCB Consent Quantity (MT/Yr)</b>	<b>Actual Generation in MT during the period Apr-Sep 2018</b>
1. Brine sludge from Chloro-Alkali Plant	Z32	CCP	4672	1688
2. Sludge from Old & New ETP	35.3	ETP Cleaning	2783	1240
3. White Phosphorus Plant-Phosphorus Distillation Residue	B40	WP Plant	584	278
4. Used Oil	5.1	Plants	8100 Liters	0 Liters
5. Discarded Containers/Barrels/ Liners	33.1	Unit is receiving some of the raw materials in drums (e.g. P4)	36500 Nos.	21940 Nos.
6. Process Distillation Residue (Organic)	29.1	During process & cleaning of reactors	3920	2730
7. Inorganic Solid Waste	B35	During process	100	7
8. Batteries	A5	During maintenance of equipments	160 Nos.	130
9. Filter Aids	36.2	During maintenance of equipments	1.5	0.4
10. Contaminated Cotton Waste	33.2	During maintenance of equipments	12	0
11. Waste Insulation Material	B01	During maintenance of equipments	23	2.1
12. Used Contaminated Personal Protective Equipments	Z46	Plants	3	0.53
13. Non-Recyclable Plastic Waste- Gaskets etc.	33.1	Plants	11	1.8
14. Asbestos (Rope, Gland, PPE etc.)	B01	Plants	4	0.75
15. Date Expired/ Off Specification Products	29.3	During Process Disturbance	14	0
16.Solid Waste From Neutralization of Spent Acid	35.3	Inorganic from Pendimethylene Plant	9600	4418
17. Aqueous Waste	29.1	During Operation in the Plants	1832	795
18. Solid/Salt from MEE Plant	35.3	MEE	39729	13550
19.Spent Catalyst	29.5	Plants	5	1.5

**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Apr 2019 to Sep 2019**

Type of Waste	Category	Source of Generation	GPCB Consent Quantity (MT/Yr)	Actual Generation in MT during the period Apr-Sep 2018
20. Incinerator/Furnace Ash	37.2	---	22	NOT IN OPERATION
21. Flyash	Z14	Coal Fired Power Plant	61690	14390
22. Intact/Broken tube lights, Broken glass	---	Plants	1	NIL
23. Spent Resin from DM Plant	35.2	DM Plant	1	0.04

### SUMMARY OF STACK MONITORING PARAMETERS (Apr – Sep 2019)

Stack Monitoring Result (period Apr-Sep 2019)		
Parameter	Monitoring Result (Average value of Apr-Sep 2019)	GPCB Permissible Limit
<b>Flue Gas Stack Emissions- Fuel as Imported Coal</b>		
<i>Stack attached to power plant</i>		
PM	19.1 – 48.6 mg/nm <sup>3</sup>	100 mg/nm <sup>3</sup>
SO <sub>2</sub>	17.5- 38 ppm	100 ppm
Nox	13.3-27.5 ppm	50ppm
<i>Stack attached to Thermic fluid heater-TPPI plant- Fuel as Natural Gas</i>		
SPM	9.4-29.7 mg/nm <sup>3</sup>	150 mg/nm <sup>3</sup>
Sox	5.9-21 ppm	100 ppm
Nox	7.7-15.8 ppm	50 ppm

Process Stack Attached To	Unit	Parameter	Min	Max	GPCB Limit
<b>Phosphorus Trichloride Plant (PCL3)</b>					
PCL3 Process	mg/nm <sup>3</sup>	HCl	13.8	5.5	20
	mg/nm <sup>3</sup>	Cl <sub>2</sub>	BDL	BDL	9
	mg/nm <sup>3</sup>	PCl <sub>3</sub>	BDL	BDL	9
PCL3 storage tank and drum filling station scrubber	mg/nm <sup>3</sup>	PCl <sub>3</sub>	BDL	BDL	9
<b>Caustic Chlorine plant</b>					
56 TPD CCP	mg/nm <sup>3</sup>	HCl	11	BDL	20
100 TPD CCP	mg/nm <sup>3</sup>	Cl <sub>2</sub>	BDL	BDL	9
56 TPD CCP	mg/nm <sup>3</sup>	HCl	15.1	5.7	20
100 TPD CCP	mg/nm <sup>3</sup>	Cl <sub>2</sub>	4.6	BDL	9
<b>TPPA/BDP/DPMP Plant</b>					
TPPa / BDP/ DPMP	mg/nm <sup>3</sup>	HCl	14.8	BDL	20
<b>Phosphorus oxychloride (POCl<sub>3</sub>) / Phosphorus Thiochloride</b>					
POCl <sub>3</sub> /PSCL <sub>3</sub>	mg/nm <sup>3</sup>	HCl	7.3	BDL	20
<b>MANCOZEB / ANTRACOL plant</b>					
Mancozeb / Antracol	mg/nm <sup>3</sup>	H <sub>2</sub> S	BDL	BDL	5
Mancozeb / Antracol	mg/nm <sup>3</sup>	CS <sub>2</sub>	56.3	BDL	180
Mancozeb / Antracol	mg/nm <sup>3</sup>	SPM	17.9	11.3	20
Mancozeb	mg/nm <sup>3</sup>	SPM	18.4	14.6	20
<b>Glyphosate / GLUFocinate / FOSTHIAZATE Plant</b>					
Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/Boscalid Tech	mg/nm <sup>3</sup>	HCL	14.8	4.9	20
	mg/nm <sup>3</sup>	NH <sub>3</sub>	27.5	14.2	30

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**Period from Apr 2019 to Sep2019**

	mg/nm3	HC	BDL	BDL	20
Glyphosate / GLUFOSINATE	mg/nm3	NH3	17.2	BDL	30
	mg/nm3	HC	BDL	BDL	20
	mg/nm3	HCL	16.6	BDL	20
<b>Carbon Di Sulphide (CS2) Plant</b>					
Carbon Di Sulphide (CS2) Plant	mg/nm3	H2S	BDL	BDL	10
<b>DVACL PLANT</b>					
DVACL	mg/nm3	HCl	8.9	7.4	30
DVACI/TEP	mg/nm3	SO2 OR NH3	56.2	BDL	175
DVACI-/ ACROLEIN	mg/nm3	HCl	BDL	BDL	20
	mg/nm3	VOC	BDL	BDL	20
<b>MPBAL</b>					
PESTICIDE INTERMEDIATE PLANT (N Alkylated Xylenes OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	mg/nm3	H2S	BDL	BDL	10
	mg/nm3	CS2	60.2	BDL	180
	mg/nm3	NOX	14.5	BDL	25
	mg/nm3	CO	BDL	BDL	100
	OR	OR	OR	OR	OR
	mg/nm3	NH3	85.1	15.8	175

**\*Please Note: BDL= Below Detectable Limit**

### SUMMARY OF AMBIENT MONITORING PARAMETERS (Apr – Sep 2019)

SR. NO.	PARAMETERS	GPCB PERMISSIBLE LIMIT		AVERAGE	MAXIMUM	MINIMUM
1	PM10	100	µg/m <sup>3</sup>	55.7	75.4	36.5
2	PM2.5	60	µg/m <sup>3</sup>	25.3	42	15
3	SOx	80	µg/m <sup>3</sup>	24.1	35.9	14.7
4	NOx	80	µg/m <sup>3</sup>	17.9	25.7	11.7
5	CO (AIR)	4	mg/m <sup>3</sup>	BDL	BDL	BDL
6	AMMONIAB(AIR)	400	µg/m <sup>3</sup>	BDL	BDL	BDL
7	OZONE (O3)	180	µg/m <sup>3</sup>	BDL	BDL	BDL
8	ARCENIC as As	6	ng/m <sup>3</sup>	BDL	BDL	BDL
9	LEAD as Pb	1	µg/m <sup>3</sup>	BDL	BDL	BDL
10	NICKEL as Ni	20	ng/m <sup>3</sup>	BDL	BDL	BDL
11	BENZENE as C6H6	5	ng/m <sup>3</sup>	BDL	BDL	BDL
12	BENZOPYRENE (BaP)	1	ng/m <sup>3</sup>	BDL	BDL	BDL

**\*Please Note: BDL= Below Detection Limit**

## SUMMARY OF EFFLUENT PARAMETERS (Apr-Sep 2019)

SR. No.	PARAMETERS	GPCB PERMISSIBLE LIMIT		3 <sup>rd</sup> PARTY (BEIL, ANKLESHWAR) ANALYSIS RESULT	
				MAXIMUM	MINIMUM
1	pH	6.5-8.5	--	7.14	6.6
2	COD (mg/L)	250	mg/L	219	43
3	TSS (mg/L)	100	mg/L	65	12
4	Ammonical Nitrogen (mg/L)	50	mg/L	18.5	BDL

**NOTE:** Treated water is being sent directly to deep sea through closed above ground pipeline systems developed by NCT (CETP).

## TOTAL EXPENDITURE ON POLLUTION CONTROL MEASURES

Capital cost for Pollution Control Measures:

Sr. No.	Plant	Pollution Control Measures	EMS Cost in INR (Crores)
1	PCL3/ POCL3	Scrubbers	0.5
2	Caustic – Chlorine	Caustic & DM Scrubbers, RO (380 KLD), Solid Waste Storage Area & its shed	6.3
3	PCI5	Scrubbers	0.2
4	Mancozeb/ MEEs	Scrubbers, MEEs	39
5	CS2	SRU (Sulphur Recovery Unit), TGTU (Tail Gas Treatment Unit), Fume Incinerator, Flare Stack, RO (350 KLD)	92.11
6	Natural Gas based Power Plant	Heat Recovery Steam Generator (HRSG), Stack	0.5
7	Coal Fired Power Plant	ESP, Dust Collectors	5.5
8	Central ETP	ETP	0.53
9	ETP	ETP, Guard Pond	13.5
10	TOC / TKN Meter	TOC analyzer	0.42
11	Glyphosate/ <b>Glufosinate</b>	Scrubbers, RO (250 KLD), Incineration Waste Storage Area	7.52
12	Pendimethylene	Scrubbers	0.2
<b>TOTAL</b>			<b>166.28</b>

Other EMS expenditure detail is as follows:

Sr. No.	Plant	EMS System	EMS Cost in INR (Crores)
1	Storm Water Drain	CCTV Cameras & pH Meters	1.39
2	CCP Plant & ETP	HCL analyzer for process stack & TSS sensor in ETP	0.13
3	ETP	New Three nos. of Bio-reactor	10.27
4	All Plant	pH sensors for all process stacks; H2S analyzer for CS2 plant process stack; Online COD meter for ETP	1.2
5	Mancozeb	New MEEs ( 2 nos. having 648 KLD each)	46
6	MEE	Reverse Osmosis System (600 KLD)	1.8
7	Storm Water Drain	SWD Upgradation	6
8	Green Canteen	New Modernized Canteen	16
9	BIO Gas Plant	New Modernized Canteen	0.32
<b>TOTAL</b>			<b>83.11</b>

Total capital investment cost for Pollution Control Measures is **Rs. 249.39 crores.**

### **ANNEXURE – 3**

<b>UPL CSR / Unit -5</b>				
<b>UPL CSR / Progress Report APRIL to SEPTEMBER 2019</b>				
<b>Sl. No.</b>	<b>Month</b>	<b>Name of Activity</b>	<b>Unit / No.</b>	<b>Name Of Villages</b>
1	April	3 Demonstration of Creeper Vegetable Cultivation of Half Acre Demonstrated in Fulwadi	3 Demo	Fulwadi
		4-SHG's monthly meeting and 49 SHG members participated in Selod, Fulvadi, Sardarpura & Untiya	49 Women	Selod, Fulvadi, Sardarpura & Untiya
		62 AI (artificial insemination) have been performed in 8 villages.	62 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja
		Meeting with farmer group at Selod, Sardarpura, Untia and Fulwadi and discussion on formation of Farmers Producer Company (FPO), NABARD support and benefits, planning on the training on Farmer Producer Organisation.	82 farmers	Selod, Sardarpura, Untia and Fulwadi
2	May	Completed the Sanitation Block in Dadheda Primary School, 200 Students benefited and access safe and hyegine facilities in their own School Campus	1	Dadheda
		Gap Filling (150 Plants Planted) in Fulwadi Social Forestry Site	150	Fulwadi
		"4-SHG's monthly meeting and 59 SHG members participated in Kharchi, Fulvadi, Sardarpura & Untiya	59 women	Selod, Fulvadi, Sardarpura & Untiya
		2 Demonstration of Creeper Vegetable Cultivation of Half Acre Demonstrated in Fulwadi and 1 Demo of Rose Cultivation to increse the income of Farmers	3 Demo	Selod & Fulwadi
		Meeting with farmer group at Selod, Sardarpura, Untia and Fulwadi and discussion on formation of Farmers Producer Company (FPO).	22 Farmers	Selod, Sardarpura, Untia and Fulwadi

		"Cattle Breed Improvement Program- 52 AI (artificial insemination) have been performed in 8 villages. "	52 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja
3	June	Celebrated environment day on 5th June, 2019. 25 volunteers participated and planted 3000 trees in the social forestry location.	25 Volunteers & 3000 Plants	Uchhali
		"3-SHG's monthly meeting and 48 SHG member participated in Selod, Fulvadi & Untiya "	48 Members	Fulwadi & Selod
		3- Campain in schools to conserve natural resources	342 students	Fulwadi, Kharchi & Sardarpura
		"Cattle Breed Improvement Program- 58 AI (artificial insemination) have been performed in 8 villages. "	58 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja
4	July	Provide Drip irrigation in the 4250 plants in 9.5 acres of land in social forestry in Fulwadi	4250 Plants	Fulwadi
		"Distributed 2154 saplings in the schools of Sardarpura, Talodra, Untia, Kharchi, Selod, Fulvadi & Dadheda "	2154 Plants	Sadarpura, Talodra, Untia, Kharchi, Selod, Fulvadi & Dadheda
		Gap filling of 120 plants planted in Fulvadi Plantation area.	120 Plants	Fulvadi
		"4-SHG's monthly meeting and 51 SHG member participated in Selod, Fulvadi, Kharchi & Untiya "	51 Members	Selod, Fulvadi & Untiya
		Conducted Awareness program in schools on sanitation hygiene	569 students	dadheda, kapalsadi, fulwadi, sardarpura, Unita
		3- Meeting with farmers group at Sardarpura & Untiya and discussed about horticulture plantation in	32 Farmers	Sardarpura, Untiya, Selod

		the farm land, Wadi Project & agriculture mechanization & mandap systems.		
		"Cattle Breed Improvement Program- 53 AI (artificial insemination) have been performed in 8 villages. "	53 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja
5	August	Celebrated 15th August at Jhagadia block and distributed gifts (Gemetry box, Notebooks, Pencil, Scale, Sharpener, eraser to 1100 students of 9 schools)	9 Schools & 1100 Students	Fulvadi, Kapalsari, selod, Sardarpura, Dadheda, Kapalsadi, Gumanpura, Talodra & Unitiya
		"Conducted Awareness meeting with farmers group at Sardarpura, Untiya & Selod on Agro-Horti Forestry (Wadi) Project & agriculture mechanization & equipment & benefits of mandap systems for creeper vegetable. Conducted a special meeting on scope of medicinal plant plantation and marketing at Selod. "	48 Farmers	Selod, Fulvadi & Unitia
		"Cattle Breed Improvement Program- 49 AI (artificial insemination) have been performed in 8 villages. "	49 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja
		Conducted Green Ganesh Workshop in 6 Primary School and 665 Students Participated and made Ganesha Idols in Mud	665 Students	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Dadheda
		3-SHG's monthly meeting and 43 SHG members participated and Facilitated to provision of Rs. 5 Lakh to the Federation of Fulwadi	43 Members	Fulvadi, Selod, & Untiya
6	September	Provided 1846 Plants to the Farmers 37 Farmers for Agro-Horti Model	1846 Plants	Selod, Sardarpura, & Fulwadi



	Conducted 4 farmers meeting at Selod & Fulwadi, discussed about the procedure to form a new group and the additional benefits that UPL provide to them. Also discussed about the Agro-Horti Forestry (Wadi), Drip-irrigation Project & agriculture mechanization & equipment & benefits of mandap systems for creeper vegetable.	66 Farmers	Selod, Sardarpura, Kharchi & Fulwadi
	25 Farmers visited to Vikram Farm for Exposer Visit from Jhagadia Cluster	25 farmers	Selod, Sardarpura & Fulwadi
	3 Awareness program on Micro-Irrigation System conducted with collaboration with GGRD and MIS company. 43 Farmers from Selod & Fulwadi and 18 Farmers from Talodara Participated in the program	51 Farmers	Fulwadi, Selod & Talodra
	3- Meeting with SHGs members at Fulwadi and kharchi and discussed on saving, internal loan, scope and benefits of animal husbandry and requirement of skill development training for them.	43 Members	Kharchi, Untiya, & Fulwadi
	"Cattle Breed Improvement Program- 58 AI (artificial insemination) have been performed in 8 villages." "	58 AI	Sardarpura, Untiya, Fulvadi, Selod, Kharchi, Mulad, Nana Sanja, Mota Sanja



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

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By R.P.A.D.

## CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A)

**CCA NO: AWH- 94827**

**NO: GPCB/ANK/CCA-134(24)/ID-25353/**

**DT: /10/2018**

In exercise of the power conferred under Section-25 of the Water (Prevention and Control of Pollution) Act-1974, under Section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated 24/02/2018 & 05/06/2018 and inward no.133240 & 138321 respectively for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consolidated Consent & Authorization is hereby granted as under.

### CONSOLIDATED CONSENT AND AUTHORISATION:

(Under the provisions / rules of the aforesaid Environmental Acts)

To,

✓ **M/S. UPL LIMITED (UNIT-5)**

**PLOT NO. 750 & 746**

**GIDC NOTIFIED INDUSTRIAL ESTATE JHAGADIA,**

**DIST-BHARUCH.**

1. **Consent Order No. : AWH-94827 date of Issue 09/07/2018.**
2. The consent under Water Act-1974 for conveying the industrial effluent discharge to the onshore effluent conveying underground pipeline for collection of treated effluent from member industrial units of Jhagadia industrial estates and conveyance of the collected effluent upto the Kantiyajal booster (Jhagadiya-to- Kantiyajal) Pumping Station, Village: Kantiyajal, Dist: Bharuch, The consent under Air Act-1981 & Authorization under Environment (Protection) Act, 1986 shall be **valid up to 19/11/2024** to operate industrial plant to manufacture following products:

Sr No	Product	Quantity - MT / Month			By-Product (Hazardous Waste)	Quantity - MT / Month		
		Existing	Additi onal	Total after produc t mix change		Existi ng	Addit ional	Total after produ ct mix chang e
01	<b>PCL3 Plant</b>							
	Phosphorus Tri Chloride	3050	NIL	3050	--	--	--	--
02	<b>156 TPD Caustic Chlorine Plant</b>							
	Caustic Soda Lye 48 % (on 100 %	4680	NIL	4680	Sodium Hypochlorite	225	--	225

Sr No	Product	Quantity – MT / Month			By-Product (Hazardous Waste)	Quantity – MT / Month			
		Existing	Additi onal	Total after produc t mix change		Existi ng	Addit ional	Total after produ ct mix chang e	
	basis)								
	Chlorine Gas	3972	NIL	3972	Dilute Sulphuric Acid (78 %)	155	--	155	
	Hydrogen Gas	225	NIL	225					
	Hydrochloric Acid (30 %)	1200	NIL	1200					
	03	50 MW Power Plant (NG base)							
	Electric Power	50 MW / HR	NIL	50 MW / HR	Steam	60 MT / HR	--	60 MT / HR	
04	Phosphorus	300	NIL	300	Ferrous Phosphorus	45		45	
					Calcium Silicate	2310		2310	
05	PCL5 Plant								
	Phosphorus Penta Chloride (PCL5)	375 (Combine Capacity)	NIL	375 (Combine Capacity)	HCL (30 %)	17.33	--	17.33	
06	Phosphorus Oxychloride OR Phosphorus Thiochloride								
07	Mancozeb / Antracol (combined capacity)	4000	NIL	4000	Sodium Sulphate Solution	15680	--	15680	
					Manganese Hydroxide	236	--	236	
7A	NASH / Na2S	1276	---	1276	Zinc Hydroxide	39	--	39	
7B	Sodium Sulphate 96 % (Solid)	4092	--	4092	--	--	--	--	
08	Pendimethalin OR Fipronil OR Buprofezin OR Prothioconazole Tech OR Benoxacor	400 OR 400 OR 400 OR 400 OR 400 OR 400	NIL OR NIL OR 400 OR 400 OR 400 OR 400	400 (Combine Capacity)	Spent HCL Acid	200	--	200	
					Spent H2SO4 Acid	600	NIL	600	
					Nitric Acid	& 160	& NIL	& 160	

Sr No	Product	Quantity – MT / Month			By-Product (Hazardous Waste)	Quantity – MT / Month		
		Existing	Additional	Total after product mix change		Existing	Additional	Total after product mix change
09	Glyphosate OR Glufosinate (combined capacity)	550	NIL	550	Ammonium Sulphate Solution	3600	--	3600
					Ammonium Sulphate Solid	750	--	750
					Magnesium Chloride Solution	2070	--	2070
					Ammonium Chloride(Solid)	950	-	950
10	CS <sub>2</sub> (Carbon Di Sulphide)	3000	NIL	3000	--	--	--	--
11	37.5 MW POWER PLANT (Coal Fired )	37.5 MW/H (Existing - 23 MW/H)	NIL	37.5 MW/H	Steam	60 MTH	-	60 MTH
12	Phenyl Di IsoDecyl Phosphite OR Tri Decyl Phosphite (TDP) OR Tris Tri Decyl Phosphite (TTD)	50	NIL	50	--	--	--	--
13	Di Phenyl Methyl Phosphonate (DPMP)	15	NIL	15	HCL (30%)	56.6	-	56.6
	OR Tri Phenyl Phosphate (TPPA)	OR 15		OR 15	HCL (30%)	17.08	-	17.08
	OR Bisphenol Di Phosphate (BDP)	OR 3.75		OR 3.75	HCL (30%)	6.64	-	6.64
					TPPA	5.1	-	5.1
14	Tri Phenyl Phosphite (TPPI)	260	NIL	260	HCL (30 %)	620	-	620

Sr No	Product	Quantity – MT / Month			By-Product (Hazardous Waste)	Quantity – MT / Month		
		Existing	Additional	Total after product mix change		Existing	Additional	Total after product mix change
15	Tri Butyl Phosphate (TBPO) OR Tri Iso Butyl Phosphite (TIBP) OR Phosphorus Acid	( Combine Capacity )  OR 140		( Combine Capacity )  OR 140				
16	Di Methyl PhosphoroAmido Thioate (DMPAT) OR Myristyl amine(MO) (Combine Capacity) OR Phosphonate Diethyl P – Toluene Sulfonyloxy Methyl Phosphonate (DESMP)	600  OR 600 (Combine Capacity) OR 300	NIL	600  OR 600 (Combine Capacity) OR 300	HCL (30 %)	998	-	998
					Ammonium Chloride (NH4CL)	211	-	211
17	Fosthiazate (IKI-1145) OR Cyproconazole OR Atrazine (Combine Capacity) OR 2,4 D Technical (2,4 DiChloroPhenoxy Acetic Acid) OR	250 OR 250 OR 250 (Combine Capacity) OR 125  OR NIL	NIL OR NIL OR NIL  OR NIL  OR 125  OR	250 OR 250 OR 250 (Combine Capacity) OR 125  OR 125	Ethylene Chloride	44.5	--	44.5
					Ammonium Chloride	84.25	--	84.25
					Ammonium Hydroxide (20 %)	116.75	--	116.75
					Sodium Hypochlorite (IKI – 1145)	NIL	130	130
							64	

Sr No	Product	Quantity – MT / Month			By-Product (Hazardous Waste)	Quantity – MT / Month		
		Existing	Additi onal	Total after produc t mix change		Existi ng	Addit ional	Total after produ ct mix chang e
	Sulfentrazone		125		HCl 30%	NIL		64
	OR Trifloxystrobin	OR NIL	OR 125	OR 125	OR Succinimide NaBr	NIL	42 34	42 34
	OR Boscalid	OR NIL		OR 125	OR 30% HCl	NIL	44	44
18	Dichloro Vinyl Acid Chloride (DVACL)/ Acrolein/ Triethyl Phosphite (Combine capacity)	300/300/300 Combine capacity	NIL	300/300/300 Combine capacity	Spent Sulphuric Acid	900	-	900
					POCl3	400	-	400
					HCl (28%)	490	-	490
					Sodium Sulphite	1200	-	1200
					Ammonia Solution	37	-	37
					Ammonium Chloride	348	-	348
19	N Alkylated Xylenes OR	300	NIL	300	Ammonia Solution	81	-	81
	HRT Ketone OR	200		200				
	2 Ethyl 6 Methyl N N Aniline OR	300		300				
	MPBAL OR	300		300				
	UPDT(Saponified Polyacrylonitrile Starch Graft Polymer)	300		300				
		300		300				
20	Metolachlor (as per CTE No.- 49030 dated 04.01.2013)	NIL	200	200	NIL	NIL	NIL	NIL
21	Mancozeb, Antracol, Glufosinate, Pendimethalin, S-Metolachlor, Flonicamide (IKI220),	6700			---	---	---	---

Sr No	Product	Quantity – MT / Month			By-Product (Hazardous Waste)	Quantity – MT / Month		
		Existing	Additi onal	Total after produc t mix change		Existi ng	Addit ional	Total after produ ct mix chang e
	Clomazone, Acephate (Combined capacity)							

**SPECIFIC CONDITIONS:-**

- Unit shall not carryout any activity / production without prior permission that attracts EIA Notification dated 14/09/2006 amended from time to time.
- Unit shall obtain permission from CPCB / GPCB under rule- 9 of Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 for utilization of spent of other industry as Raw material.
- All the efforts shall be made to send hazardous waste to cement industry for Co- processing first & there after it shall be disposed through other option.
- Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9.
- The Hazardous Waste which are not being generated as their related products production is not yet started. But whenever unit is starting production of such products and Hazardous Waste being generated from those, have to be sold to only such units with whom unit has made MoU and have valid Rule-9 permission.
- Unit shall comply with central government pesticide (prohibition) order 2018 notified vide letter No. S.O.3951(E), dated:08/08/2018.

**3. CONDITION UNDER THE WATER ACT:**

- 3.1 The quantity of total water consumption shall not exceed 8779 KL/Day as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.
  - a) Industrial: 8624 KL/Day
  - b) Domestic: 155 KL/Day
- 3.2 The quantity of total waste water generation shall not exceed 1820 KL/Day as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.
  - a) Industrial: 1677.5 KL/Day
  - b) Domestic: 142.5 KL/Day
- 3.3 Sewage shall be disposed off through septic tank/ soak pit system or shall be treated separately in Sewage Treatment Plant (STP) to conform the following standards and treated sewage shall be utilized on land for irrigation / plantation.

Sr. No.	PARAMETERS	PERMISSIBLE LIMIT
1	Biochemical Oxygen Demand, BOD <sub>3</sub> , 27° C	20 mg/L
2	Total Suspended Solids (TSS)	30 mg/L
3	Total Residual Chlorine	Minimum 0.5 ppm

Or Sewage shall be treated in ETP along with Industrial effluent and discharged into onshore effluent conveying underground pipeline for collection of treated effluent from member industrial units of Jhagadia industrial estates and conveyance of the collected effluent upto the Kantiyajal booster (Jhagadia-to- Kantiyajal) Pumping Station, Village: Kantiyajal, Dist: Bharuch.

- 3.4 The quality of industrial effluent shall conform to the following standards (as per GPCB norms, whichever is applicable)

Parameters	Max. permissible values (in milligram/liter except for pH and Temperature) for discharge of treated effluent into JPP
pH	6.5-8.5
Biological Oxygen Demand, BOD <sub>3</sub> , 27° C (For Technical grade unit)	100
Chemical Oxygen Demand (COD)	250
Total Suspended Solids (TSS)	100
Temperature, ° C	Shall not exceed more than 5° C above ambient water temperature
Oil & Grease	10
Ammonical -Nitrogen	50
Total Kjeldahl Nitrogen (TKN)	50
Nitrate- Nitrogen	50
Flouride (F)	15
Sulphides, as S	5
Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	1
Total Residual Chlorine	1
Zinc (Zn)	1
Iron (Fe)	3
Copper (Cu)	1
Manganese (Mn)	1
Cyanide (CN)	0.2
Vanadium	0.2
Hexavalent Chromium (Cr <sup>+6</sup> )	0.1
Selenium (Se)	0.05
Antimony (Sb)	0.1
Cadmium (Cd)	0.015
Lead (Pb)	0.05
Mercury (Hg)	0.005
Molybdenum (Mo)	0.35
Nickel (Ni)	0.1
Total arsenic (As)	0.05
Total chromium (Cr)	0.25



Phosphate (P)	5
Sulphur	0.03
Benzene Hexachloride (BHC)	0.01
Carbonyl	0.01
Copper Sulphate	0.05
Copper Oxychloride	9.6
DDT	0.01
Dimethoate	0.45
2,4 D	0.4
Endosulfan	0.01
Fenitrothion	0.01
Malathion	0.01
Methyl Parathion	0.01
Paraquat	2.3
Phenathoate	0.01
Phorate	0.01
Proponil	7.3
Pyrethrums	0.01
Ziram	1
Other Pesticide (individually)	0.1
Bio-assay test	90 % Survival of fish after 96 hours in 100 % effluent.
Colour & Odor	All efforts shall be made to remove Colour & unpleasant odour as far as possible

- 3.5 The effluent conforming to the above standards shall be discharged into onshore effluent conveying underground pipeline for collection of treated effluent from member industrial units of Jhagadia industrial estates and conveyance of the collected effluent upto the Kantiyajal booster (Jhagadiya-to- Kantiyajal) Pumping Station, Village: Kantiyajal, Dist: Bharuch.
- 3.6 Unit shall be required to make storage facilities to store the effluent for at least 72 hours by providing acid proof brick lined impervious tanks/HDPE tanks.
- 3.7 Unit shall implement & follow communication plan so that respected work can be done in minimum response time in case of emergencies.
- 3.8 Hydraulic Load given to member unit of NCT Jhagadia Pipeline Project is non-transferable i.e member unit can not sell or buy hydraulic load to/from any other units. No addition / alteration of the booked volume shall be done without permission of the board.
- 3.9 Hydraulic load of unit shall be as per hydraulic load freezed as on 10/01/17.
- 3.10 Unit shall provide online monitoring system for pH, TOC and TKN with recorder & magnetic flow meters for flow measurement of treated waste water.
- 3.11 Unit shall have only one authorized outlet over the ground with full access from outside the premises, as per design approved by NCT Jhagadia Pipeline Project authority.
- 3.12 In case of shut-down of plant for more than three (3) days for any reason, the NCT Jhagadia Pipeline Project member shall intimate to NCT Jhagadia Pipeline Project authority & GPCB well in advance for the better operation & management of pipeline.
- 3.13 Unit shall make fixed arrangement for discharge of the effluent from their Final collection tanks to the underground drainage network of NCT Jhagadia Pipeline. Unit

- shall not keep any by-pass line or system or loose or flexible pipe line for discharge of the effluent into underground drainage network of NCT Jhagadia Pipeline.
- 3.14 Magnetic flow meters shall be installed at the inlet & outlet of effluent collection tanks/ETP to measure the quantity of effluent discharged into the underground drainage network of NCT Jhagadia Pipeline.
  - 3.15 Unit shall affix of water meters as per Section 4 (1) of the water (Prevention and Control of Pollution) Cess Act – 1977 for the purpose of measuring and recording the quantity of water consumed at such places as may be required, within 15 days and it shall be presumed that the quantity indicated by the meter has been consumed by the unit until the contrary is proved.
  - 3.16 Unit shall provide adequate / safe effluent sampling facility for the effluent being stored in final collection / discharge tank of ETP or being discharged into NCT Jhagadia Pipeline.
  - 3.17 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process, the name of proprietor/partners /directors of the unit, NCT Jhagadia Pipeline Project membership number & date of joining of NCT Jhagadia Pipeline Project, the electricity consumer number as on the record of DGVCL.
  - 3.18 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises.
  - 3.19 Unit shall either stop or curtail its production activities if the effluent is not conforming to the standards of NCT Jhagadia Pipeline specified by GPCB.
  - 3.20 The authorized representative of NCT Jhagadia Pipeline Project shall have right of entry at any time for the purpose of inspection and monitoring the effluent collection facilities/ETP (if required) of Unit.
  - 3.21 Unit shall have to keep accurate records of quality & quantity of effluent discharged to NCT Jhagadia Pipeline on day-to-day basis. Separate logbook shall be maintained for recording the data & shall be made available for inspection as & when asked.
  - 3.22 Unit shall keep accurate records of quantity of production of each product, quantity of water consumption, quantity of effluent generated and consumption of electricity on day to day basis and required to submit the complied record of each month to GPCB on or before fifth day of the succeeding month.
  - 3.23 In case of incinerators or MEE, the flow measuring devices for mother liquor/ toxic effluent/ Non-biodegradable effluent, light diesel oil, Furnace oil, etc. i.e. fuel used for combustion, air used for combustion shall be separately provided. Incinerator temperature recording devices as well as gaseous flow measuring devices for scrubber shall also be provided. These data of temperature & flow should be recorded every day & submitted to GPCB on monthly basis.
  - 3.24 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.
  - 3.25 Leachate from the hazardous solid waste, if any shall also be connected into a collection tank through leachate collection facilities and shall be treated along with industrial effluent and final treated effluent shall be discharged to the NCT Jhagadia Pipeline.
  - 3.26 If the NCT Jhagadia Pipeline Project authority terminates the membership of Pipeline Project, the NCT Jhagadia Pipeline Project member unit shall have to close down the

- manufacturing activities/industrial operation of the process plant immediately until the NCT Jhagadia Pipeline Project membership is resumed.
- 3.27 The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environment safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell / Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issued. These Cells also coordinate the exercise of environmental audit and preparation of environmental statements.
- 3.28 The Environmental audit shall be carryout yearly, if applicable. The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30<sup>th</sup> September every year.
- 3.29 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.
- 3.30 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.
- 3.31 The Board reserves the right to review and/or revoke the consent and / or make modifications in the conditions which it seems fit in accordance with provisions of Water Act-1974.

#### 4. CONDITIONS UNDER THE AIR ACT:

- 4.1 The following shall be used as fuel:

Sr. No.	Fuel Name	Quantity		
		Existing	Proposed	Total
1	Natural Gas	380164 m3/day	NIL	380164 m3/day
2	HSD	7700 lit/day	NIL	7700 lit/day
3	FO	19.7 KL/Day	50 KL/Day	69.7 KL/Day
4	Coal for power Plant	25700 MT/M	NIL	25700 MT/M

- 4.2 The flue gas emission through stack shall conform to the following standards:

Stack No.	Stack attached to	Stack Height in Meter (From G.L.)	Air Pollution Control Measure (APCM)	Parameter	Permissible limit
<b>Existing</b>					
1.	STEAM BOILER I&II	45	---	PM So2 NOx	150 mg/Nm3 100 ppm 50 ppm
2.	Gas Turbine Generator of Power	30	---	PM So2	150 mg/Nm3 100 ppm

	Plant			NO <sub>x</sub>	50 ppm
3.	Heat Recovery steam boiler	35	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
4.	Thermic fluid heater of TPPI	33	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
5.	D.G Set (625 KVA)	5	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
6.	D.G Set (750 KVA)	5	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
7.	D.G Set (1250 KVA)	17	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
8.	Gas burner mounted furnace of WP Plant	30	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
9.	D.G Set (1000 KVA)	30	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
10.	D. G Set (320 KVA) ETP Plant Backup power	07	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
11	CS <sub>2</sub> Plant STEAM BOILER -7 MT/HR for CS <sub>2</sub> Plant	45	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
12	ESP of Coal fired Boiler-I of Power plant (130 TPH)	100	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
<b>Proposed</b>					
13	ESP of Coal fired Boiler- II of Power plant (114 TPH)	75	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
14	MNZ Utility (1010 KVA) (Mancozeb)	30	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
15	Near GF3000 PCC Room (900 KVA) (WDG Phase I and II)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
16	Near GF3000 PCC Room (900 KVA)	11	---	PM So <sub>2</sub>	150 mg/Nm <sup>3</sup> 100 ppm

	(GF3000)			NO <sub>x</sub>	50 ppm
17	Nr CS2 Fire Hydrant System (600 KVA) (For fire hydrant system)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
18	Nr CS2 Fire Hydrant System (750 KVA) (for Fire Hydrant System)	6	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
19	Nr CS2 Fire Hydrant System (750 KVA) (for Fire Hydrant System)	6	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
20	At ETP Plant (600 KVA) (ETP + UPH ETP + Gate no. 3)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
21	Nr GF 3000 PCC Building (600 KVA) (DMPAT)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
22	Nr GF 3000 PCC Building (600 KVA) (DMPAT)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
23	WDG MEE (900 KVA) (WDG MEE + UPH5000)	11	---	PM So <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm

4.3 The Process emission through various stacks/ vent of reactors, process, vessel shall conform to the following standards:

Sr. No.	TYPE OF STACK	AIR POLLUTION CONTROL SYSTEM	HEIGHT (M)	AIR EMISSION	
				POLLUTANT	PERMISSIBLE LIMIT.
Existing					
(A) Phosphorus Trichloride PLANT (PCL3)					
1.	PCL3 Process-	Caustic scrubber for distillation section	30 (Combine D stack)	HCl Cl2 PCL3	20 mg/Nm3 09 mg/Nm3 09 mg/Nm3
	PCL3 Storage tank & drum filling station Scrubber-	Caustic scrubber for storage Tank			
(B) Caustic Chlorine (CCP) PLANT					

Sr. No.	TYPE OF STACK	AIR POLLUTION CONTROL SYSTEM	HEIGHT (M)	AIR EMISSION	
				POLLUTANT	PERMISSIBLE LIMIT.
2	56 TPD CCP-	Caustic scrubber system for waste air dechlorination of 56 TPD CCP	30 (Combine D stack)	HCl Cl <sub>2</sub>	20 mg/Nm <sup>3</sup> 09 mg/Nm <sup>3</sup>
	100 TPD CCP Plant-	Caustic scrubber system for waste air dechlorination of 100 TPD CCP			
3	56 TPD CCP Plant	DM water scrubber attached to HCl furnace 56 TPD furnaces CCP	30	HCl Cl <sub>2</sub>	20 mg/Nm <sup>3</sup> 09 mg/Nm <sup>3</sup>
	100 TPD CCP	DM water scrubber attached to HCl furnace 100 TPD furnaces CCP	30	HCl Cl <sub>2</sub>	20 mg/Nm <sup>3</sup> 09 mg/Nm <sup>3</sup>
(C ) TPPA/BDP/DPMP PLANT					
4.	TPPA/BDP/DP MP	Stack attached to Process Scrubbers ( water and alkali)	30	HCL	20 mg/nm <sup>3</sup>
(D)PHOSPHORUS OXYCHLORIDE (POCL <sub>3</sub> )/PHOSPHORUS THIO CHLORIDE					
5	POCl <sub>3</sub> / Phosphorus Thio Chloride (PSCL <sub>3</sub> ) –	Caustic two stage scrubber attached to distillation column	30	HCl	20 mg/Nm <sup>3</sup>
(E) WHITE PHOSPHORUS PLANT					
6	White Phosphorus (WP) plant	Phosphorus Sludge pot vent reactor (distillation column)-Ventury scrubber for pot cleaning	10	P <sub>2</sub> O <sub>5</sub> P <sub>2</sub> O <sub>3</sub>	5 mg/Nm <sup>3</sup> 9 mg/Nm <sup>3</sup>
7.	White Phosphorus (WP) plant	Ventury scrubber for slag tapping	10	P <sub>2</sub> O <sub>5</sub> P <sub>2</sub> O <sub>3</sub>	5 mg/Nm <sup>3</sup> 9 mg/Nm <sup>3</sup>
8.	White Phosphorus (wp) plant	Furnace CO flare stack & pressure relief vent	28	P <sub>2</sub> O <sub>5</sub> CO	5 mg/Nm <sup>3</sup> 100 mg/Nm <sup>3</sup>
( F) PHOSPHORIC ACID PLANT					

Sr. No.	TYPE OF STACK	AIR POLLUTION CONTROL SYSTEM	HEIGHT (M)	AIR EMISSION	
				POLLUTANT	PERMISSIBLE LIMIT.
09	Phosphoric Acid (H3PO4) Plant /TBP/TBPI	Water & Alkali Scrubber attached to reactor	30	HCl Cl2 NOx SO2	20 mg/Nm3 09 mg/Nm3 25 mg/Nm3 40 mg/Nm3
(G) Tri Phenyl Phosphite Plant (TPPI)					
10	Tri Phenyl Phosphite Plant (TPPI)	Water scrubber & venturi Scrubber attached to reactor	30	HCl	20 mg/Nm3
(H) PCL5 PLANT					
11	PCI5 Process	Water scrubber and Caustic Scrubber (Two stage scrubber)	30(Combined stack)	HCl Cl2	20 mg/Nm3 9 mg/Nm3
	PCI5 Process	Water scrubber and Caustic Scrubber (Two stage scrubber)			
(I) MANCOZEB/ANTRACOL PLANT					
12	Mancozeb / Antracol	Caustic Scrubber Attached to D-14, Reactor	30 (Combined stack)	H2S CS2	5 mg/Nm3 180 mg/Nm3
	Mancozeb / Antracol	Caustic Scrubber attached to Precipitation reactor		H2S CS2	5 mg/Nm3 180 mg/Nm3
13	Mancozeb / Antracol	Bag filter attached to RVDF	30 (Combined D stack)	SPM (Combined stack )	20 mg/Nm3
	Mancozeb	Water Scrubber attached to Spray Dryer			
(J) Glyphosate / GLUFOSINATE / FOSTHIAZATE Plant					
14	Glyphosate / Fosthiazate (IKI 1145)/ Sulfentrazone/ Boscalid Tech	Water scrubber /Caustic scrubber attached to Reactor	30	NH3 HCL OR  NOx HCl OR HCl SO2	30 mg/nm3 20 mg/nm3 OR  25 mg/nm3 20 mg/nm3 OR 25 mg/nm3 20 mg/nm3

Sr. No.	TYPE OF STACK	AIR POLLUTION CONTROL SYSTEM	HEIGHT (M)	AIR EMISSION	
				POLLUTANT	PERMISSIBLE LIMIT.
15	Glyphosate / GLUFOSINATE	Scrubber attached to DSIDA reactor	30	NH3 HC HCL	30 MG/NM3 20 MG/NM3 20 MG / NM3
(K) Carbon Di Sulphide (CS2) Plant					
16	Carbon Di Sulphide (CS2) Plant	Sulfur recovery Unit & Fume Incinerator	30	H2S	10 mg/nm3
17	Carbon Di Sulphide (CS2) Plant	Flare stack attached to CS2 plant for emergency	30	H2S CS2 CO	10 mg/nm3 180 MG/NM3 100 MG/NM3
(L) DVACL PLANT					
18	DVACL	General(Alkali) Scrubber	30	HCL	20 mg/Nm3
19	DVACL/TEP	Alkali Scrubber OR HCL scrubber	30	SO2 OR NH3	40 mg/Nm3 OR 175 mg/nm3
20	DVACL-/ACROLEIN	DM water Scrubber OR Catalytic Convertor	30	HCL OR VOC	20 mg/Nm3
(M) MPBAL					
21	PESTICIDE INTERMEDIATE PLANT (N Alkylated Xylenes OR HRT Ketone OR 2 Ethyl 6 Methyl N N Aniline OR MPBAL) / UPDT (Saponified Polyacrylonitrile Starch Graft Polymer)	Caustic Scrubber / Flare Stack  OR Water scrubber	30	NOX H2S CO CS2 OR NH3	25 mg/nm3 10 mg/nm3 100 mg/nm3 180 mg/nm3 OR 175 mg/nm3

4.4 The concentration of the following parameters in the ambient air within the premises of the unit shall not exceed the limits specified hereunder.



Sr. No.	Parameters	Permissible Limit (microgram /m <sup>3</sup> )	
		Annual	24 Hours Average
1.	Particulate Matter (PM <sub>10</sub> )	60	100
2.	Particulate Matter (PM <sub>2.5</sub> )	40	60
3.	Oxides of Sulphur (SO <sub>x</sub> )	50	80
4.	Oxides of Nitrogen (NO <sub>x</sub> )	40	80

- **Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.**
- **24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.**

- 4.5 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified as above.
- 4.6 The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified as above.
- 4.7 Unit shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 4.8 Unit shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 4.9 All efforts shall be made to control VOC emissions and odor problem, if any.

**5. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 6(2)).**

5.1 Number of authorization: **AWH-94827 date of Issue 09/07/2018.**

5.2 **M/s. UPL LIMITED (UNIT-5)** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **PLOT NO:750, 746, GIDC ESTATE JHAGADIA, DIST: BHARUCH.**

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
1	Brine Sludge from Chloro - Alkali Plant (chemical waste)	Z	Z32	4672 MT	NIL	NIL	4672 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s. BEIL for land filling

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
2	Sludge from old ETP and New ETP (chemical sludge from Wastewater Treatment Plant)	I	35.3	2283 MT	NIL	500 MT	2783 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s. BEIL for land filling
3	White and Red Phosphorus Plant Phosphorus Residue	II	Schd-II B-40	584 MT	NIL	NIL	584 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s. BEIL for land filling
4	Used Oil (used or spent oil)	I	5.1	8100 lit	NIL	500 Lit	8600 lit	Collection, recycling, generation, disposal, reuse, storage, transportation	Sold to CPCB registered recycler
5	Discarded containers / Barrels / Liners (Empty barrels / containers / liners contaminated with hazardous chemicals / wastes)	I	33.1	401 MT	NIL	NIL	401 MT	Collection, recycling, decontamination, generation, utilization, disposal, reuse, storage, transportation	Decontamination, detoxification and sold to GPCB approved vendors OR Contaminated discarded containers / barrels / liners to BEIL Dahej
6	Process Distillation Residue (Organic) (process waste or	I	29.1	3920 MT	NIL	NIL	3920 MT	Collection, generation, incineration, disposal, storage, transportation	To M/s. BEIL for incineration

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	residue)								
7	Inorganic Solid Waste (Phosphate compounds except phosphates of Aluminium, Calcium and Iron)	II	Schd-II B-35	100 MT	NIL	NIL	100 MT	Treatment, storage, transportation	To M/s. BEIL for land filling
8	Batteries (Lead)	II	Schd-II A5	145 Nos (7 MT)	NIL	25 Nos	160 NOs	Collection, recycling, generation, disposal, storage, transportation	Send to recycler
9	Filter Aids (spent carbon or filter medium)	I	36.2	1.5 MT	NIL	NIL	1.5 MT	Collection, generation, incineration, disposal, treatment, storage, transportation	To m/s BEIL for incineration
10	Contaminated cotton waste (contaminated cotton rags or other cleaning materials)	I	33.2	12 MT	NIL	NIL	12 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s. BEIL for land filling/incineration
11	Waste insulation material (Asbestos)	II	Schd-II B01	20 MT	NIL	3 MT	23 MT	Collection, generation, disposal, storage, treatment, transportation	To M/s. BEIL for land filling

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
12	Used contaminated personal protective equipments (PVC and Plastic Waste)	Z	Z46	3 MT	NIL	NIL	3 MT	Collection, generation, disposal, storage, transportation	To M/s. BEIL for land filling
13	Non-recyclable plastic waste Gaskets (empty barrels / containers / liners contaminated with hazardous chemicals / wastes)	I	33.1	11 MT	NIL	NIL	11 MT	Collection, decontamination, generation, utilization, disposal, reuse, storage, transportation	To M/s. BEIL for land filling
14	Asbestos (Rope, gland, PPE etc.) (Asbestos)	II	SCH-II B01	04 MT	NIL	NIL	04 MT	Treatment, storage, transportation	To M/s. BEIL for land filling
15	Date expired/Off specification product (Date expired and off specification pesticides)	I	29.3	13 MT	NIL	1 MT	14 MT	Collection, generation, incineration, disposal, storage, transportation	To M/s. BEIL for incineration
16	Solid waste from Neutralizati	I	35.3	9600 MT	NIL	NIL	9600 MT	Collection, generation, disposal,	To M/s. BEIL for land filling

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	on of Spent Acid (chemical sludge from waste water treatment)							treatment, storage, transportation	
17	Aqueous waste (process waste or residue)	I	29.1	1832 MT	NIL	NIL	1832 MT	Collection, generation, incineration, disposal, storage, transportation	To M/s. BEIL for incineration
18	Solid/Salt from MEE /Evaporation Plant (chemical sludge from wastewater treatment)	I	35.3	39225 MT	NIL	504 MT	39729 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s BEIL for Landfilling
19	Spent catalyst (spent catalysts)	I	29.5	5 MT	NIL	NIL	5 MT	Collection, generation, incineration, disposal, storage, transportation	To M/s. BEIL for incineration
20	Incineration / Furnace Ash (ash from incineration and flue gas cleaning residue)	I	37.2	22 MT	NIL	NIL	22 MT	Collection, generation, disposal, treatment, storage, transportation	To M/s. BEIL for land filling
21	Fly Ash from Coal fired Power plant (fire ash)	Z	Z14 Non Hazardous	61690 MT	NIL	NIL	61690 MT	Collection, disposal, storage, transportation	To bricks manufactures /end users /BEIL, Ankleshwar

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	BY-PRODUCTS								
22	Sodium Hypochlorite	II	SCH-II B7	4260	NIL	NIL	4260	Collection, recycling, storage, transportation	Recycle or sale to actual end-users
23	Dilute Sulphuric Acid 78 % (Spent Acids)	I	29.6	1860	NIL	NIL	1860	Collection, generation, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
24	Ferro Phosphorus (Ferro Silicate and Alloys)	II	SCH-II B9	540	NIL	NIL	540	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
25	Calcium Silicate (Ferro	II	SCH-II B9	27720	NIL	NIL	27720	Collection, disposal, storage,	Recycle or Unit shall send their

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	Silicate and Alloys)							transportation	Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
26	HCL 30 % (Spent Acids)	I	29.6	26388	NIL	NIL	26388	Collection, generation, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
27	Sodium Sulphate Solution (Metal Hydrogen Sulphates)	II	SCH-II B32	188160	NIL	NIL	188160	Collection, generation, disposal, treatment storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
									from CPCB/GPCB under Rule-9
28	Manganese Hydroxide (Manganese )	II	SCH-II A6	2832	NIL	NIL	2832	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
29	Zinc Hydroxide (Oxides and hydroxides except those of hydrogen carbon, silicon, iron, aluminium, titanium, manganese, magnesium, calcium)	II	SCH-II B32	468	NIL	NIL	468	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
30	Spent H <sub>2</sub> SO <sub>4</sub> Acid (Spent Acids)	I	29.6	18000	NIL	NIL	18000	Collection, generation, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with



Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
									whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
31	Nitric Acid (Spent Acids)	I	29.6	1632	NIL	NIL	1632	Collection, generation, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
32	Ammonium Sulphate Solution (Ammonia)	II	SCH-II A10	43200	NIL	NIL	43200	Collection, generation, treatment, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
33	Ammonium Sulphate Solid (Ammonia)	II	SCH-II A10	9000	NIL	NIL	9000	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
34	Magnesium Chloride Solution (Halogen containing compounds which produce acidic vapours on contact with humid air or water e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride)	II	SCH-II B10	24840	NIL	NIL	24840	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
35	Ammonium Chloride Solid (Halogen)	II	SCH-II B10	15576	NIL	NIL	15576	Collection, generation, disposal, storage,	Recycle or Unit shall send their Hazardous

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	containing compounds which produce acidic vapours on contact with humid air or water e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride)							transportation	Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
36	TPPA (Phosphate compounds except Phosphates of Aluminium, Calcium and Iron)	II	SCH-II B35	61.2	NIL	NIL	61.2	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
37	Ammonium Chloride (NH <sub>4</sub> CL) (Halogen containing compounds which produce	II	SCH-II B10	3542.88	NIL	NIL	3542.88	Collection, generation, storage, treatment, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	acidic vapours on contact with humid air or water e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride)								MoU and receptor unit has permission from CPCB/GPCB under Rule-9
38	Ethylene Chloride (Hexachloroethane)	II	SCH-III B4010	534	NIL	NIL	534	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
39	Ammonium Hydroxide 20 % (Oxides and hydroxides except those of hydrogen, carbon, silicon, iron, aluminium, titanium,	II	SCH-II A31	1401	NIL	NIL	1401	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional I AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	manganese, magnesium, calcium)								from CPCB/GPCB under Rule-9
40	POCL3 (Halogen containing compounds which produce acidic vapours on contact with humid air or water e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride)	II	SCH-II B10	4800	NIL	NIL	4800	Collection, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
41	Spent HCL (Spent Acids)	I	29.6	2400	865	NIL	3265	Collection, generation, disposal, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
42	Sodium Sulphite (Metal	II	SCH-III B23	14400	NIL	NIL	14400	Collection, generation, disposal,	Recycle or Unit shall send their

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
	Hydrogen Sulphates)							treatment, storage, transportation	Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
43	Ammonia Solution (Ammonia)	II	SCH-II A10	1416	NIL	NIL	1416	Collection, recycling, disposal, treatment, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9
44	Succinimide (Trifloxystrobin)	II	SCH-II C15	--	4044	NIL	4044	Collection, recycling, disposal, treatment, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from

Sr. No.	Name of hazardous waste	SC H	CATEGORY NO.	Quantity MT/year	Additional AFTER PRODUCT MIX CHANGE MT/YR	Additional after EXPANSION MT / YR	TOTAL Qty MT/YR	FACILITY	Disposal at
									CPCB/GPCB under Rule-9
45	Sodium Bromide (Trifloxystrobin)	III	SCH-III B2040	--	3252	NIL	3252	Collection, recycling, disposal, treatment, storage, transportation	Recycle or Unit shall send their Hazardous Waste to only those with whom unit has made MoU and receptor unit has permission from CPCB/GPCB under Rule-9

- 5.3 The authorization is granted to operate a facility as above.
- 5.4 The authorization shall be in force for a period up to 19/11/2024.
- 5.5 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

**6. TERMS AND CONDITIONS OF AUTHORISATION:**

- 6.1 The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 6.2 The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the Gujarat Pollution Control Board.
- 6.3 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 6.4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
- 6.5 The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
- 6.6 The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"



## GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : [www.gpcb.gov.in](http://www.gpcb.gov.in)

- 6.7 It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- 6.8 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 6.9 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 6.10 The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 6.11 The importer or exporter shall bear the cost of import or export and mitigation of damages if, any.
- 6.12 An application for the renewal of an authorisation shall be made as laid down under Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016.
- 6.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 6.14 Annual return shall be filed by June 30<sup>th</sup> for the period ensuring 31<sup>st</sup> March of the year.
- 6.15 Unit shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No. 657 of 1995 dated 14<sup>th</sup> October 2003.

For and on behalf of  
GUJARAT POLLUTION CONTROL BOARD

(G.H. TRIVEDI)  
SR. ENVIRONMENT ENGINEER





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Page: 1 of 1

Barcode ID: 4450503a38

Report No/Sample ID : 5936178725

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel Used	Furnace Oil

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	130	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	9.3	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	29.7	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	21.0	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	Ppm	15.8	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: cee52f6d30

Report No/Sample ID: 5936178726

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	146	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.1	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	25.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	30.0	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	20.5	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: 74e8380703

Report No/Sample ID: 5936178727

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	131	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.4	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	38.0	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	50
6	Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	37.5	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	600
7	Oxides of Nitrogen (NO <sub>x</sub> )	mg/Nm <sup>3</sup>	24.2	IS:11255(Part-7), 2005	300
8	*Mercury	mg/Nm <sup>3</sup>	BDL	By EPA	0.03

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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AUTHORIZED BY  
HOD (QA)



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Barcode ID: 63beb65ea5

Report No/Sample ID: 5936178728

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	22-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	55	IS:11255(Part-3), 2008	--
4	Velocity	m/s	6.98	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	15.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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AUTHORIZED BY  
HOD (QA)



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Barcode ID: 1aa9d5cc70

Report No/Sample ID: 5936178731

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	---	Analysis Completion Date	20-Apr-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	---	---
2	Stack Diameter	Meter	2.5	---	---
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: 726b97c093

Report No/Sample ID: 5936178732

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	16.6	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 1ed5fb2f30

Report No/Sample ID: 5936178733

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	14.8	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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HOD (QA)



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Barcode ID: 94f22d47a8

Report No/Sample ID: 5936178736

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	9.2	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: 20b35df439

Report No/Sample ID: 5936178737

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	37	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	11.0	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: e3681444f7

Report No/Sample ID: 5936178738

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	18-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	32	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	11.8	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: cf349d7979

Report No/Sample ID: 5936178741

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	56.3	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
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HOD (QA)



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Barcode ID: 77eb6bb176

Report No/Sample ID: 5936178742

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	18-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	*HCl	mg/Nm <sup>3</sup>	11.7	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: af6d26aaed

Report No/Sample ID: 5936178743

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Water Scrubber</b>		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	<b>UPDT Plant</b>	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	17.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: 32e6cd7f6c

Report No/Sample ID: 5936178744

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	60.2	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	14.5	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: 10042637ce

Report No/Sample ID: 5936178745

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	HCL Scrubber		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	37	IS:11255(Part-3), 2008	--
3	*HCl	mg/Nm <sup>3</sup>	7.4	USEPA 0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: e04ce0394a

Report No/Sample ID: 5936178747

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	36	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	16.0	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 828023eec9

Report No/Sample ID: 5936178750

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 3b3cbeb53c

Report No/Sample ID: 5936178751

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	20-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	5.3	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: be97126536

Report No/Sample ID : 5936178629

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	11-Apr-19
		Fuel Used	Natural Gas


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	115	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.1	IS: 11255 (Part-3), 2008	
5	*Particulate Matter	mg/Nm <sup>3</sup>	9.7	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	*Sulphur Dioxide (SO <sub>2</sub> )	ppm	7.5	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	*Oxides of Nitrogen (NOx)	Ppm	13.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: b9c9e54f4b

Report No/Sample ID: 5936178630

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	11-Apr-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	139	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	9.1	IS:11255(Part-3), 2008	
5	*Particulate Matter	mg/Nm <sup>3</sup>	19.1	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	*Sulphur Dioxide (SO <sub>2</sub> )	ppm	24.6	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	*Oxides of Nitrogen (NO <sub>x</sub> )	ppm	19.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 487493ffc8

Report No/Sample ID: 5936178631

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	---	Analysis Completion Date	12-Apr-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	147	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.3	IS:11255(Part-3), 2008	--
5	*Particulate Matter	mg/Nm <sup>3</sup>	38.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	*Sulphur Dioxide (SO <sub>2</sub> )	ppm	32.5	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	*Oxides of Nitrogen (NOx)	ppm	22.9	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 0f4824a53c

Report No/Sample ID: 5936178632

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	64	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.3	IS: 11255 (Part-3), 2008	--
5	*Particulate Matter	mg/Nm <sup>3</sup>	16.1	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: badd20a91b

Report No/Sample ID: 5936178634

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	*Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: 5bdc76e841

Report No/Sample ID: 5936178635

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	HCl	mg/Nm <sup>3</sup>	6.8	USEPA -0050	20
5	PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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*[Signature]*  
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*[Signature]*  
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Barcode ID: 516e6b15f4

Report No/Sample ID: 5936178636

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	--



Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	HCl	mg/Nm <sup>3</sup>	5.1	USEPA -0050	20
4	NH <sub>3</sub>	mg/Nm <sup>3</sup>	19.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: ea7f2f79b0

Report No/Sample ID: 5936178637

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	HCl	mg/Nm <sup>3</sup>	7.9	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: f54182c1c9

Report No/Sample ID: 5936178640

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	HCl	mg/Nm <sup>3</sup>	8.4	USEPA 0050	20
5	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	4.6	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: 0923e3e33a

Report No/Sample ID: 5936178641

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Process Stack – De-chlorination Section of 56 &amp; 100 TPD</b>		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	<b>Caustic Chlorine Plant</b>	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	09-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	HCl	mg/Nm <sup>3</sup>	4.9	USEPA 0050	20
5	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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Barcode ID: 09d8567605

Report No/Sample ID: 5936178644

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	VOC	mg/Nm <sup>3</sup>	5.3	By Photovac	20
2	HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: d29026c55d

Report No/Sample ID: 5936178645

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	25.9	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit


\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 621ad39d5e

Report No/Sample ID: 5936178646

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	38.6	IS: 11255 (Part - 4)	180
4	*Oxides of Nitrogen (NO <sub>x</sub> )	ppm	8.6	IS:11255(Part-7), 2005	25
5	Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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**TEST REPORT**

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Page: 1 of 1

Barcode ID: f439be1450

Report No/Sample ID: 5936178647

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	NH <sub>3</sub>	mg/Nm <sup>3</sup>	67.5	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

Neha  
ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

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Barcode ID: f27d34a01b

Report No/Sample ID: 5936178648

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: f2b7fcca91

Report No/Sample ID: 5936178649

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	HCL Scrubber		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	08-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
3	HCl	mg/Nm <sup>3</sup>	8.9	USEPA 0050	20

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 5cf11379ea

Report No/Sample ID: 5936178651

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	11-Apr-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	NH <sub>3</sub>	mg/Nm <sup>3</sup>	21.9	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

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Barcode ID: 3a11ad2f9c

Report No/Sample ID: 5936178652

Page: 1 of 1

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Scrubber		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	10-Ape-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
3	SO2	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	NH3	mg/Nm <sup>3</sup>	47.1	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

*Neha*  
ANALYSED BY

*[Signature]*  
VERIFIED BY

*[Signature]*  
AUTHORIZED BY  
HOD (QA)





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

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Barcode ID: eed7bd6a6f

Report No/Sample ID: 5936178654

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Apr-19
Packing Detail	--	Analysis Completion Date	10-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	HCl	mg/Nm <sup>3</sup>	5.9	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 7df3f282d5

Report No/Sample ID: 5936178883

Page: 1 of 1  
Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)</b>		
Sample Quantity	01	Sample Received Date	01-May-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-May-19
Packing Detail	--	Analysis Completion Date	05-May-19
		Fuel	Imported Coal


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	143	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	9.1	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	28.3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	23.8	IS: 11255 (Part – 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	16.9	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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AUTHORIZED BY  
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Barcode ID: 61a340125a

Report No/Sample ID: 5936178884

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	01-May-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-May-19
Packing Detail	--	Analysis Completion Date	05-May-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	147	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.2	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	32.7	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	28.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	26.6	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
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Barcode ID: 81feccaf25

Report No/Sample ID: 5936178885

Page: 1 of 1

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	---	Analysis Completion Date	07-May-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	65	IS:11255(Part-3), 2008	--
4	Velocity	m/s	6.2	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	12.8	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

Terms &amp; Condition are on backside



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Barcode ID: 5908d0185c

Report No/Sample ID: 5936178887

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope\*

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)





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Barcode ID: 6a08a64966

Report No/Sample ID: 5936178888

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	PCI <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	5.5	USEPA -0050	20
5	*PCI <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

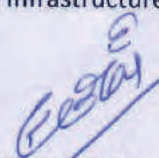
\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: c476915d5f

Report No/Sample ID: 5936178889

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	6.2	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	17.8	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: Ofcc3742ae

Report No/Sample ID: 5936178890

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.2	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 2ccc128dc8

Report No/Sample ID: 5936178893

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	-


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	12.7	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	3.6	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 356268084b

Report No/Sample ID: 5936178894

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	5.9	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: e8260422a9

Report No/Sample ID: 5936178897

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	01-May-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-May-19
Packing Detail	--	Analysis Completion Date	04-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	2.8	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: 9021784008

Report No/Sample ID: 5936178898

Report Date: 09-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	31.8	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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HOD (QA)





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

ANALYTICAL RESEARCH LABORATORY

## TEST REPORT

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Page: 1 of 1

Barcode ID: 30aa19a3b7

Report No/Sample ID: 5936178900

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	22.6	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	7.4	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100


BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: cf55e9ea93

Report No/Sample ID: 5936178901

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	48.3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 1c2c29132d

Report No/Sample ID: 5936178902

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

Terms & Condition are on backside



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Page: 1 of 1

Barcode ID: 8ffdf3f177

Report No/Sample ID: 5936178904

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--



Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	34.1	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 80d2e92080

Report No/Sample ID: 5936178906

Page: 1 of 1

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Scrubber		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	58.6	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

END OF REPORT

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: dc8d3cf330

Report No/Sample ID: 5936178907

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Ammonia Scrubber		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--



Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*NH3	mg/Nm <sup>3</sup>	66.3	IS: 11255 (Part - 4) "	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6be3f42a06

Report No/Sample ID: 5936178908

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	03-May-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-May-19
Packing Detail	--	Analysis Completion Date	07-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 825168d71d

Report No/Sample ID : 5936179006

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel Used	Natural Gas


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	112	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.1	IS: 11255 (Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	9.4	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	6.8	IS: 11255 (Part – 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	Ppm	10.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6b0a970369

Report No/Sample ID: 5936179007

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)</b>		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	Imported Coal


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	151	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.9	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	35.2	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	28.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	17.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: e35b21b76f

Report No/Sample ID: 5936179008

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	138	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.1	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	42.3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	29.1	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	22.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: 764c897b5e

Report No/Sample ID: 5936179009

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	67	IS:11255(Part-3), 2008	--
4	Velocity	m/s	6.8	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	15.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

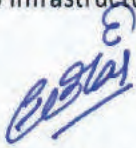
\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 0f2d4f36f7

Report No/Sample ID: 5936179011

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	---

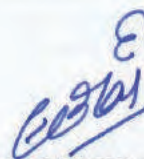
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: c88aa76cad

Report No/Sample ID: 5936179012

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Process Stack – Caustic Scrubber of Distillation</b>		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	6.3	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: f5ce6df06f

Report No/Sample ID: 5936179013

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	4.9	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	14.2	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

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Barcode ID: a779420fbe

Report No/Sample ID: 5936179014

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	8.4	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 1ad87fc564

Report No/Sample ID: 5936179017

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	37	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	10.8	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 9465700055

Report No/Sample ID: 5936179018

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-May-19
Packing Detail	--	Analysis Completion Date	20-May-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	36	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

Terms &amp; Condition are on backside



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Page: 1 of 1

Barcode ID: 611aaae297

Report No/Sample ID: 5936179021

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Converter		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	3.1	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: 73c34ddfe8

Report No/Sample ID: 5936179022

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	25.4	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: de811e58f6

Report No/Sample ID: 5936179023

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>General Scrubber (UPDT Plant)</b>		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	<b>UPDT Plant</b>	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	5.9	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Page: 1 of 1

Barcode ID: cf55e9ea93

Report No/Sample ID: 5936178901

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	67.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: 7bcb77b803

Report No/Sample ID: 5936179025

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: f07a9160ec

Report No/Sample ID: 5936179031

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

-----END OF REPORT-----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 163b8e1646

Report No/Sample ID: 5936179034

Report Date: 24-Mar-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	18-Mar-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Mar-19
Packing Detail	--	Analysis Completion Date	22-Mar-19
		Fuel	--



Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	HCl	mg/Nm <sup>3</sup>	5.8	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: d6b8dccaab

Report No/Sample ID: 5936179035

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Wet Spray Dryer		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	Mancozeb Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	21-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	1.8	--	--
3	Stack Temperature	°C	61	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	9.4	IS:11255(Part-3), 2008	--
5	*Particulate Matter	mg/Nm <sup>3</sup>	16.8	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Barcode ID: 3ff2e1f115

Report No/Sample ID : 5936179112

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	10-Jun-18
		Fuel Used	Natural Gas

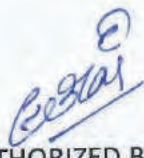
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	111	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.9	IS: 11255 (Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	14.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	10.0	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	7.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Page: 1 of 1

Barcode ID: f4fe0446d5

Report No/Sample ID: 5936179113

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	10-Jun-18
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	145	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.62	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	32.0	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	17.5	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	13.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
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Page: 1 of 1

Barcode ID: 9f63773832

Report No/Sample ID: 5936179114

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	10-Jun-18
		Fuel	Imported Coal


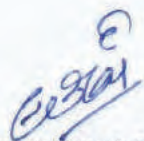
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	150	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.6	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	38.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	33.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	21.5	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: e4447681c8

Report No/Sample ID: 5936179115

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	10-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	68	IS:11255(Part-3), 2008	--
4	Velocity	m/s	6.5	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	16.3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: ebf16e4000

Report No/Sample ID: 5936179116

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	05-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	39	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	6.2	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: f3033c7f3f

Report No/Sample ID: 5936179118

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	05-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	7.4	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: fa9a6ee12c

Report No/Sample ID: 5936179119

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	05-Jun-18
		Fuel	--

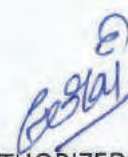
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	11.0	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	14.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
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HOD (QA)

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CIN NO : U45300GJ1997PLC032696

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Barcode ID: 5f9d57e8f2

Report No/Sample ID: 5936179120

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.2	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	5.4	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 4a428fc674

Report No/Sample ID: 5936179123

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	-


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	42	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	9.1	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	3.6	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

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Barcode ID: 80a6ac6f1f

Report No/Sample ID: 5936179124

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	36	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	7.0	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

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Barcode ID: 75ad51d150

Report No/Sample ID: 5936179125

Report Date: 10-Jun-19


Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Wet Spray Dryer		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Mancozeb Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	1.8	--	--
3	Stack Temperature	°C	64	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	6.7	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	14.6	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

\*Parameters are not covered in NABL scope

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Barcode ID: 5670807598

Report No/Sample ID: 5936179127

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	03-Jun-18
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jun-18
Packing Detail	--	Analysis Completion Date	04-Jun-18
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	---	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: 5670807598

Report No/Sample ID: 5936179127

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	03-Jun-18
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jun-18
Packing Detail	--	Analysis Completion Date	04-Jun-18
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 0bb0cb86ac

Report No/Sample ID: 5936179128

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	07-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	25.6	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 52b171a321

Report No/Sample ID: 5936179129

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	10-Jun-18
		Fuel	--



Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	34.3	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	6.0	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: f3ae1710a5

Report No/Sample ID: 5936179130

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	05-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	15.8	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 2c9d01ec17

Report No/Sample ID: 5936179131

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6801f4beee

Report No/Sample ID: 5936179134

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	17.3	IS: 11255 (Part – 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	23.5	IS: 11255 (Part – 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 5b95c2b19f

Report No/Sample ID: 5936179137

Report Date: 10-Jun-18

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	03-Jun-18
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jun-18
Packing Detail	--	Analysis Completion Date	04-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	14.8	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b798f386e3

Report No/Sample ID: 5936179187

Report Date: 10-Jun-18

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Converter		
Sample Quantity	01	Sample Received Date	04-Jun-18
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	05-Jun-18
Packing Detail	--	Analysis Completion Date	06-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	1.6	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 0b734a7fe3

Report No/Sample ID : 5936179372

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel Used	Natural Gas

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	118	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.8	IS: 11255 (Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	10.3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	8.5	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	12.8	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

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HOD (QA)



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Barcode ID: 521a2436a5

Report No/Sample ID: 5936179373

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	139	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.6	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	42.0	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	25.6	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	19.9	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 978740bfa2

Report No/Sample ID: 5936179374

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	147	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.6	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	48.6	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	33.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	25.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
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Barcode ID: be38606f9f

Report No/Sample ID: 5936179375

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	69	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.1	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	17.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

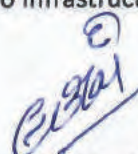
\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)





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Barcode ID: ba6e744c39

Report No/Sample ID: 5936179376

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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AUTHORIZED BY  
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Barcode ID: 037f8f0582

Report No/Sample ID:5936179378

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	PCI <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	6.9	USEPA -0050	20
5	*PCI <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

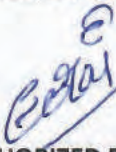
\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: a4fcc6b5df

Report No/Sample ID: 5936179379

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	04-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	8.3	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	21.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 644c52468c

Report No/Sample ID: 5936179380

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Jul-19
Packing Detail	--	Analysis Completion Date	05-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	9.4	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 9d8ef861b8

Report No/Sample ID: 5936179383

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	39	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	12.7	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 5e7483e3c0

Report No/Sample ID: 5936179384

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 5513ee33e1

Report No/Sample ID: 5936179387

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 6f31b4f166

Report No/Sample ID: 5936179388

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Caustic Scrubber attached to D-14 Reactor &amp; Precipitation Reactor</b>		
Sample Quantity	01	Sample Received Date	01-Jul-19
Sampling Location	<b>Mancozeb/ Antracol Plant</b>	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	31.6	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 4aac98984b

Report No/Sample ID: 5936179389

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	BDL	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 02934fd140

Report No/Sample ID: 5936179390

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: 8b177fc025

Report No/Sample ID: 5936179391

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
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Barcode ID: 0525907965

Report No/Sample ID: 5936179394

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	13.9	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
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AUTHORIZED BY  
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Barcode ID: d379ec1cbd

Report No/Sample ID: 5936179396

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	8.2	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: d379ec1cbd

Report No/Sample ID: 5936179397

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jul-19
Packing Detail	--	Analysis Completion Date	06-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	BDL	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: d369f919f7

Report No/Sample ID: 5936179272

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Scrubber		
Sample Quantity	01	Sample Received Date	19-Jun-18
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	20-Jun-18
Packing Detail	--	Analysis Completion Date	21-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	36	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	12.1	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: e0bf0b7b1b

Report No/Sample ID: 5936179269

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	19-Jun-18
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	20-Jun-18
Packing Detail	--	Analysis Completion Date	21-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



**BHARUCH ENVIRO INFRASTRUCTURE LTD.**

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Barcode ID: e58c33038e

Report No/Sample ID: 5936179268

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	19-Jun-18
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	20-Jun-18
Packing Detail	--	Analysis Completion Date	21-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	71.8	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

*Neha*  
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*[Signature]*  
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Barcode ID: 58d2fd9a91

Report No/Sample ID: 5936179267

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	19-Jun-18
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	20-Jun-18
Packing Detail	--	Analysis Completion Date	21-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	16.5	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	7.3	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: eda23ce1f7

Report No/Sample ID: 5936179266

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	19-Jun-18
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	20-Jun-18
Packing Detail	--	Analysis Completion Date	21-Jun-18
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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Barcode ID: 119ac01f43

Report No/Sample ID: 5936179262

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Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	20-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

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Barcode ID: b901d4a4a6

Report No/Sample ID: 5936179261

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	20-Jun-18
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	39	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	5.7	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	2.6	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

*Neha*  
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*[Signature]*  
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Barcode ID: 5c507c04c2

Report No/Sample ID: 5936179258

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	---	Analysis Completion Date	20-Jun-18
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.2	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: 05e43fda20

Report No/Sample ID: 5936179257

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	20-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.3	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	16.4	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 31797861d7

Report No/Sample ID: 5936179256

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	20-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	37	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

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Barcode ID: bc48dbc68e

Report No/Sample ID: 5936179255

Report Date: 25-Jun-18

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	18-Jun-18
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	20-Jun-18
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	9.2	USEPA -0050	20

BDL: Below Detectable Limit

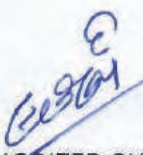
\*Parameters are not covered in NABL scope

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Barcode ID: 00062d48ca

Report No/Sample ID: 5936179254

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	18-Jun-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-19
Packing Detail	--	Analysis Completion Date	20-Jun-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	7.3	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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Barcode ID: 0578124179

Report No/Sample ID: 5936179253

Report Date: 25-Jun-18

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	18-Jun-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-19
Packing Detail	--	Analysis Completion Date	20-Jun-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	0.7	By Photovac	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

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Barcode ID: 9fd98aa5d1

Report No/Sample ID : 5936179250

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	18-Jun-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-18
Packing Detail	--	Analysis Completion Date	23-Jun-18
		Fuel Used	Natural Gas

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	117	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.5	IS: 11255 (Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	12.7	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	8.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	12.8	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: c272572b9a

Report No/Sample ID : 5936179532

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel Used	Natural Gas

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	127	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.7	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	9.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	7.3	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	14.0	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: e1e9883d2c

Report No/Sample ID: 5936179522

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	142	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.9	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	46.0	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	29.7	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	21.2	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 68b0361b46

Report No/Sample ID: 5936179520

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	16-Jul-19
Packing Detail	--	Analysis Completion Date	16-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	68	64	By Sound Level Meter
2	Secondary Brine	dB(A)	67	58	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	68	62	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	70	65	By Sound Level Meter
5	Power Plant	dB(A)	71	65	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	68	64	By Sound Level Meter
7	Nr. Main Gate	dB(A)	65	62	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	72	68	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	69	65	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	66	63	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)


\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: c272572b9a

Report No/Sample ID : 5936179532

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel Used	Natural Gas

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	127	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.7	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	9.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	7.3	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	14.0	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

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Barcode ID: e1e9883d2c

Report No/Sample ID: 5936179522

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	142	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.9	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	46.0	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	29.7	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	21.2	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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HOD (QA)



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Barcode ID: da4b33e5c8

Report No/Sample ID: 5936179523

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	Imported Coal


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	140	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.9	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	40.9	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	27.3	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	23.8	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6cb61a616c

Report No/Sample ID: 5936179524

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	73	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.2	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	14.8	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 70a821fbb9

Report No/Sample ID: 5936179525

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: d0c014701a

Report No/Sample ID:5936179527

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	13.8	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b6b59630a6

Report No/Sample ID: 5936179528

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	6.2	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	27.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b9b63e4307

Report No/Sample ID: 5936179529

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	10.4	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	17.2	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: cc45e126dc

Report No/Sample ID: 5936179532

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	-


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	15.1	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: f9b4e2a9fc

Report No/Sample ID: 5936179533

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	17-Jul-19
Packing Detail	--	Analysis Completion Date	19-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 7c86ee675e

Report No/Sample ID: 5936179536

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	17-Jul-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jul-19
Packing Detail	--	Analysis Completion Date	21-Jul-19
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: dfc4209066

Report No/Sample ID: 5936179537

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	17-Jul-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jul-19
Packing Detail	--	Analysis Completion Date	21-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	39.5	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 052c302f2a

Report No/Sample ID: 5936179538

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	17-Jul-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jul-19
Packing Detail	--	Analysis Completion Date	21-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	BDL	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 2010c18bde

Report No/Sample ID: 5936179539

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	17-Jul-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jul-19
Packing Detail	--	Analysis Completion Date	21-Jul-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	--	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	68	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b749250c1d

Report No/Sample ID: 5936179540

Report Date: 24-Jul-18

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Wet Spray Dryer		
Sample Quantity	01	Sample Received Date	17-Jul-19
Sampling Location	New WDG Plant (Phase II)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jul-19
Packing Detail	--	Analysis Completion Date	21-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	1.8	--	--
3	Stack Temperature	°C	80	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	6.5	IS:11255(Part-3), 2008	--
5	*Particulate Matter	mg/Nm <sup>3</sup>	15.9	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: cffa5c1efa

Report No/Sample ID: 5936179691

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	38	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	13.5	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: c8b070dba0

Report No/Sample ID: 5936179706

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Converter		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	BDL	By Phocheck Tiger	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: cab5899feb

Report No/Sample ID : 5936179680

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel Used	Natural Gas

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	121	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.9	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	9.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	7.8	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	11.5	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
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HOD (QA)

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CIN NO : U45300GJ1997PLC032696

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Barcode ID: 53a3f00551

Report No/Sample ID: 5936179681

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	131	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.9	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	39.2	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	29.6	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	22.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6d37103ce0

Report No/Sample ID: 5936179682

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	138	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.6	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	45.2	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	37.9	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	23.1	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: Qc0db66e56

Report No/Sample ID: 5936179683

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	70	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.2	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	15.0	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: c3b5dcb43c

Report No/Sample ID: 5936179684

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling-Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	33	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: c3858a091a

Report No/Sample ID:5936179686

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	6.9	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 180735853f

Report No/Sample ID: 5936179687

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	6.3	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	24.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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VERIFIED BY  
AUTHORIZED BY  
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Barcode ID: f0ba42135d

Report No/Sample ID: 5936179688

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.0	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: eddb952638

Report No/Sample ID: 5936179692

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	02-Aug-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	--	Analysis Completion Date	05-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 9ec3487099

Report No/Sample ID: 5936179696

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	27.0	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 6c0d81f431

Report No/Sample ID: 5936179697

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	BDL	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 019c61e0db

Report No/Sample ID: 5936179698

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	85.1	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

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Barcode ID: 10Q5ebad45

Report No/Sample ID: 5936179699

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
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Barcode ID: b311841596

Report No/Sample ID: 5936179703

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Scrubber		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	56.2	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

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HOD (QA)

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Barcode ID: 2a970cf8b0

Report No/Sample ID: 5936179705

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
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Barcode ID: 2d55ce3f2a

Report No/Sample ID: 5936179707

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	05-Aug-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	06-Aug-19
Packing Detail	--	Analysis Completion Date	08-Aug-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BYAUTHORIZED BY  
HOD (QA)



**BEILINFRASTRUCTURE LTD.**

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Barcode ID: 603c585472

Report No/Sample ID : 5936179805

Page: 1 of 1

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel Used	Natural Gas

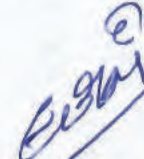
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	118	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.5	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	12.2	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	5.9	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	8.0	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)





# BHARUCH ENVIRO INFRASTRUCTURE LTD.

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Barcode ID: 1338e16ee0

Report No/Sample ID: 5936179806

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	129	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.4	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	31.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	26.3	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	21.0	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: f528dd4f72

Report No/Sample ID: 5936179807

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	142	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.8	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	35.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	33.0	IS: 11255 (Part – 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	25.4	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

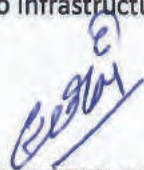
\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 9d84e80802

Report No/Sample ID: 5936179808

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 938faf53d3

Report No/Sample ID: 5936179809

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	PCI <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	7.4	USEPA -0050	20
5	*PCI <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

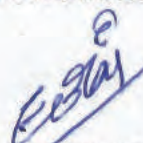
\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 76d95ab0c6

Report No/Sample ID: 5936179811

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	5.4	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: fa16525818

Report No/Sample ID: 5936179814

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

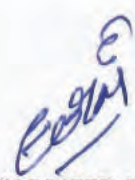
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 73bcef7d73

Report No/Sample ID: 5936179815

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	36	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	7.0	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 3fb9efc900

Report No/Sample ID: 5936179816

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

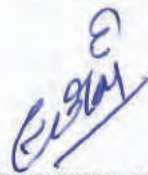
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Page: 1 of 1

Barcode ID: 1f8996e3b9

Report No/Sample ID: 5936179817

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

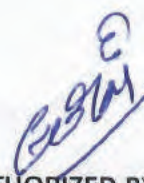
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	BDL	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	ppm	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b2a06a2a5a

Report No/Sample ID: 5936179818

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	62.8	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
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Barcode ID: 81a1f511c9

Report No/Sample ID: 5936179819

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 49362f1144

Report No/Sample ID: 5936179823

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Scrubber		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	TEP Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

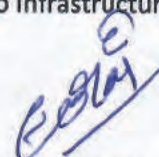
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
3	SO <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	40
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	32.9	IS: 11255 (Part - 4)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 8f5b394634

Report No/Sample ID: 5936179825

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	---


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: 099fbc1e52

Report No/Sample ID: 5936179828

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	71	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.0	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	11.3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: a66921a34e

Report No/Sample ID: 5936179862

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	23-Aug-19
		Fuel	--

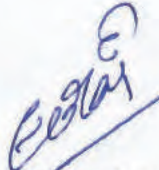
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	11.0	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	16.2	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
AUTHORIZED BY  
HOD (QA)



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Barcode ID: cbe407c0e8

Report No/Sample ID : 5936179928

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	Thermic Fluid Heater	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel Used	Natural Gas

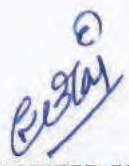
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	33	--	--
2	Stack Diameter	Meter	0.6	--	--
3	Stack Temperature	°C	124	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.8	IS: 11255 (Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	11.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	9.4	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	14.3	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
ANALYSED BY  
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Barcode ID: 122b1876cc

Report No/Sample ID: 5936179929

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	139	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.95	IS:11255(Part-3), 2008	
5	Particulate Matter	mg/Nm <sup>3</sup>	35.7	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	28.6	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	23.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 1b55133652

Report No/Sample ID: 5936179930

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	Imported Coal

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	141	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.5	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	47.3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	36.0	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	25.5	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

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Barcode ID: d71d4dbade

Report No/Sample ID: 5936179931

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia Dist.: Bharuch		
Sample Description	Process Stack – Bag Filter of Spray Dryer		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--

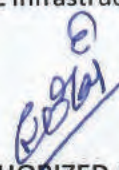
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Stack Temperature	°C	72	IS:11255(Part-3), 2008	--
4	Velocity	m/s	7.3	IS: 11255 (Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	16.8	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 20b7b1e823

Report No/Sample ID: 5936179932

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	33	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 2e388f61f9

Report No/Sample ID: 5936179934

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	PCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	32	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	8.6	USEPA -0050	20
5	*PCl <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: e6b1e2f00c

Report No/Sample ID: 5936179935

Report Date: 17-sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	6.3	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	24.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 8928058b2e

Report No/Sample ID: 5936179936

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.5	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 4ce2e952cb

Report No/Sample ID: 5936179939

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	--	Analysis Completion Date	06-Sep-19
		Fuel	-


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	37	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	11.7	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 3d5e74fea0

Report No/Sample ID: 5936179943

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – De-chlorination Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	--	Analysis Completion Date	06-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 884d0ba697

Report No/Sample ID: 5936179944

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Caustic Scrubber attached to D-14 Reactor & Precipitation Reactor		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	Mancozeb/ Antracol Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	--	Analysis Completion Date	06-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	5
4	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	31.5	IS: 11255 (Part - 4)	180

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: afe785a294

Report No/Sample ID: 5936179945

Report Date: 17-sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	General Scrubber (UPDT Plant)		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	---	Analysis Completion Date	05-Sep-19
		Fuel	--

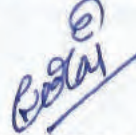
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	---	---
2	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	10
3	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part - 4)	180
4	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	BDL	IS:11255(Part-7), 2005	25
5	*Carbon Monoxide as CO	PPM	BDL	EPA Method 3C	100

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

  
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Barcode ID: 1b922c2136

Report No/Sample ID: 5936179946

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Water Scrubber		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	UPDT Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	-	--	--
3	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	82.3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	175

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 18ebb7d715

Report No/Sample ID: 5936179947

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack attached to Process Scrubber (Water & Alkali Scrubber)		
Sample Quantity	01	Sample Received Date	03-Sep-19
Sampling Location	TPPA Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	04-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--

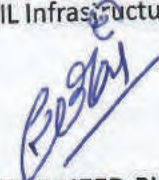
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

  
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Barcode ID: 83ab1b5554

Report No/Sample ID: 5936179948

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	DM water Scrubber / Catalytic Convertor		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	Acrolein Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*VOC	mg/Nm <sup>3</sup>	BDL	By Phoccheck Tiger	20
2	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: f729746c73

Report No/Sample ID: 5936179949

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	--	Analysis Completion Date	05-Sep-19
		Fuel	---

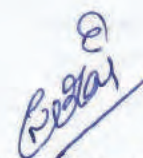
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
ANALYSED BY  
VERIFIED BY  
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Barcode ID: 9b53649044

Report No/Sample ID: 5936180195

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic scrubber (plant 2)		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	9.4	USEPA -0050	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	21.0	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

  
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Barcode ID: a11776ea92

Report No/Sample ID: 5936180089

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	CFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	Imported Coal


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	100	--	--
2	Stack Diameter	Meter	3.86	--	--
3	Stack Temperature	°C	139	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.7	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	42.7	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	38.0	IS: 11255 (Part – 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NOx)	ppm	27.5	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 66ba739746

Report No/Sample ID: 5936180090

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Stack - Flue Gas Emission (Coal Fired Boiler-II of Powerplant - 114 TPH)		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	AFBC Boiler Stack	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	Imported Coal


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	75	--	--
2	Stack Diameter	Meter	2.97	--	--
3	Stack Temperature	°C	128	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	8.3	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	38.4	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	150
6	Sulphur Dioxide (SO <sub>2</sub> )	ppm	32.6	IS: 11255 (Part - 2), 1985 (Reaffirmed 2003)	100
7	Oxides of Nitrogen (NO <sub>x</sub> )	ppm	25.7	IS:11255(Part-7), 2005	50

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

  
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Barcode ID: 51d3026482

Report No/Sample ID: 5936180091

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – CS2 Incinerator		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	CS2 Plant (H-5202)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	45	--	--
2	Stack Diameter	Meter	2.5	--	--
3	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

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Barcode ID: b0242ac2d4

Report No/Sample ID: 5936180092

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – PPT Scrubber (New WDG)		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	New WDG Plant (Liq.)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.1	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	6.3	IS:11255(Part-3), 2008	--
5	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5
6	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	180

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

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Barcode ID: c3b75e2ca6

Report No/Sample ID: 5936180093

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Alkali Scrubber of D-14 Reactor		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	New WDG Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.1	--	--
3	Stack Temperature	°C	35	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	6.6	IS:11255(Part-3), 2008	--
5	Hydrogen Sulphide (H <sub>2</sub> S)	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	5
6	*Carbon Di-Sulphide (CS <sub>2</sub> )	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 4)	180

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

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Barcode ID: 1a6dbbcf2f

Report No/Sample ID: 5936180094

Report Date: 29-Sep-18


Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Wet Spray Dryer		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	New WDG Plant (Phase I)	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	1.8	--	--
3	Stack Temperature	°C	83	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	6.7	IS:11255(Part-3), 2008	--
5	*Particulate Matter	mg/Nm <sup>3</sup>	18.5	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

\*Parameters are in NABL scope

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For BEIL Infrastructure Ltd.

  
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Barcode ID: fb72eee0d8

Report No/Sample ID: 5936180096

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	TEP Plant (PCL3 Scrubber)		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	PCL3 Scrubber	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	18-Sep-19
Packing Detail	--	Analysis Completion Date	19-Sep-19
		Fuel	--

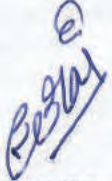
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.25	--	--
3	*PCI3	mg/Nm <sup>3</sup>	BDL	USEPA	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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Barcode ID: 9e48da119f

Report No/Sample ID: 5936180191

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>Process Stack – De-chlorination Section of 56 &amp; 100 TPD</b>		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.15	--	--
3	Stack Temperature	°C	33	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 492278269e

Report No/Sample ID: 5936180192

Report Date: 28-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – HCl furnace Section of 56 & 100 TPD		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	Caustic Chlorine Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	-

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	12.5	USEPA 0050	20
5	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	USEPA 0050	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

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Barcode ID: 3381faabb8

Report No/Sample ID: 5936180193

Report Date: 29-sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation column		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	POCl <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	32	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	BDL	USEPA -0050	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

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For BEIL Infrastructure Ltd.

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Barcode ID: 0c2ef678d6

Report No/Sample ID: 5936180194

Report Date: 29-sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Caustic Scrubber of Distillation		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	PCI <sub>3</sub> Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--

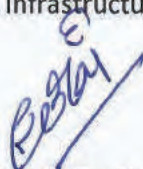
Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	0.2	--	--
3	Stack Temperature	°C	34	IS:11255(Part-3), 2008	--
4	*HCl	mg/Nm <sup>3</sup>	12.9	USEPA -0050	20
5	*PCI <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	USEPA	9
6	*Cl <sub>2</sub>	mg/Nm <sup>3</sup>	BDL	IS 11255	9

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
ANALYSED BY  
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HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Barcode ID: 988ff3c7a4

Report No/Sample ID: 5936180195

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Common Scrubber (Plant 1)-Liquid		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	Glufosinate Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	18	--	--
2	Stack Diameter	Meter	0.8	--	--
3	*HCl	mg/Nm <sup>3</sup>	7.6	IS 11255	20
4	*NH <sub>3</sub>	mg/Nm <sup>3</sup>	BDL	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	30
5	*HC	mg/Nm <sup>3</sup>	BDL	By GC	20

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
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Barcode ID: 3824a75918

Report No/Sample ID: 5936180199

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Process Stack – Wet Spray Dryer		
Sample Quantity	01	Sample Received Date	25-Sep-19
Sampling Location	Mancozeb Plant	Sampling Procedure	IS 11255
Sample Collected By	By BEIL Team	Analysis Start Date	26-Sep-19
Packing Detail	--	Analysis Completion Date	28-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	Stack Height	Meter	30	--	--
2	Stack Diameter	Meter	1.8	--	--
3	Stack Temperature	°C	68	IS:11255(Part-3), 2008	--
4	Average Velocity	m/s	7.5	IS:11255(Part-3), 2008	--
5	Particulate Matter	mg/Nm <sup>3</sup>	18.4	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	20

\*Parameters are not covered in NABL scope

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For BEL Infrastructure Ltd..

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ANALYTICAL RESEARCH LABORATORY

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Barcode ID: b4d5dcc80a

Report No/Sample ID:5936178628

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Noise Monitoring		
Sample Quantity	01	Sample Received Date	05-Apr-19
Sampling Location	As per Below Table	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	05-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	69.5	64.7	By Sound Level Meter
2	Secondary Brine	dB(A)	66.4	60.8	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	65.7	60.3	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	70.9	67.2	By Sound Level Meter
5	Power Plant	dB(A)	69.3	65.5	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	73.4	67.3	By Sound Level Meter
7	Nr. Main Gate	dB(A)	63.0	53.8	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	71.5	67.5	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	68.6	63.4	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	65.9	62.1	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)


\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



**BHARUCH ENVIRO INFRASTRUCTURE LTD.**

ANALYTICAL RESEARCH LABORATORY

**TEST REPORT**

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Page: 1 of 1

Barcode ID: 98fd766cb0

Report No/Sample ID: 5936178724

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	15-Apr-19
Packing Detail	--	Analysis Completion Date	15-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	69	62.0	By Sound Level Meter
2	Secondary Brine	dB(A)	68	61.5	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	67	60.0	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	71	63.1	By Sound Level Meter
5	Power Plant	dB(A)	68	62.5	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	70	64.0	By Sound Level Meter
7	Nr. Main Gate	dB(A)	62	55.3	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	73	64.5	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	68	61.8	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	65	59.4	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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AUTHORIZED BY  
HOD (QA)Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in

Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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Page: 1 of 1

Barcode ID: f0d517f37c

Report No/Sample ID: 5936178881

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	01-May-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	01-May-19
Packing Detail	--	Analysis Completion Date	01-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	68.2	60.3	By Sound Level Meter
2	Secondary Brine	dB(A)	65.5	58.6	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	69.3	60.9	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	70.0	63.7	By Sound Level Meter
5	Power Plant	dB(A)	71.0	62.6	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	69.8	61.7	By Sound Level Meter
7	Nr. Main Gate	dB(A)	65.0	59.4	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	72.6	66.0	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	70.5	62.5	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	67.0	61.2	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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Barcode ID: 464e2f3ea8

Report No/Sample ID: 5936179005

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	17-May-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	17-May-19
Packing Detail	--	Analysis Completion Date	17-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	66.5	59.4	By Sound Level Meter
2	Secondary Brine	dB(A)	63.2	57.2	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	70.4	62.8	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	69.8	61.7	By Sound Level Meter
5	Power Plant	dB(A)	71.0	64.8	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	68.3	64.3	By Sound Level Meter
7	Nr. Main Gate	dB(A)	64.2	57.2	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	71.5	62.6	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	69.0	61.4	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	66.1	58.8	By Sound Level Meter

Permissible Limit:


Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: 02f739aec5

Report No/Sample ID: 5936179111

Report Date: 010-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	03-Jun-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	03-Jun-19
Packing Detail	--	Analysis Completion Date	03-Jun-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	65.3	59.3	By Sound Level Meter
2	Secondary Brine	dB(A)	64.1	60.7	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	68.0	63.2	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	69.7	62.5	By Sound Level Meter
5	Power Plant	dB(A)	70.8	64.1	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	68.4	62.0	By Sound Level Meter
7	Nr. Main Gate	dB(A)	66.0	60.5	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	71.4	67.8	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	71.2	65.4	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	66.9	66.6	By Sound Level Meter

Permissible Limit:



Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: b73e454aea

Report No/Sample ID: 596179249

Report Date: 25-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	18-Jun-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	18-Jun-19
Packing Detail	--	Analysis Completion Date	18-Jun-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	67.5	65.9	By Sound Level Meter
2	Secondary Brine	dB(A)	65.4	61.1	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	68.9	64.8	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	68.4	66.7	By Sound Level Meter
5	Power Plant	dB(A)	69.3	64.0	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	69.7	65.3	By Sound Level Meter
7	Nr. Main Gate	dB(A)	65.6	59.8	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	70.8	67.3	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	70.9	64.7	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	64.7	62.8	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

*Noha*

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*[Signature]*

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*[Signature]*

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Page: 1 of 1

Barcode ID: 7d121e5ad4

Report No/Sample ID: 5936179371

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	02-Jul-19
Sampling Location	As per Below Table	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	--	Analysis Completion Date	02-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	67.5	62.4	By Sound Level Meter
2	Secondary Brine	dB(A)	66.7	64.3	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	68.0	64.9	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	70.1	65.7	By Sound Level Meter
5	Power Plant	dB(A)	70.5	65.8	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	68.0	63.4	By Sound Level Meter
7	Nr. Main Gate	dB(A)	67.5	62.6	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	71.8	68.8	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	72.2	63.7	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	65.9	64.6	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
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AUTHORIZED BY  
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Barcode ID: 68b0361b46

Report No/Sample ID: 5936179520

Report Date: 24-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	*Noise Monitoring		
Sample Quantity	01	Sample Received Date	16-Jul-19
Sampling Location	As per Below Table	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	16-Jul-19
Packing Detail	--	Analysis Completion Date	16-Jul-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	68	64	By Sound Level Meter
2	Secondary Brine	dB(A)	67	58	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	68	62	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	70	65	By Sound Level Meter
5	Power Plant	dB(A)	71	65	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	68	64	By Sound Level Meter
7	Nr. Main Gate	dB(A)	65	62	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	72	68	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	69	65	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	66	63	By Sound Level Meter

Permissible Limit:

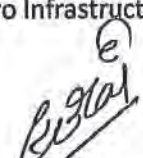
Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

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For Bharuch Enviro Infrastructure Ltd.

  
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Barcode ID: a1120ba63d

Report No/Sample ID: 5936179804

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	21-Aug-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	21-Aug-19
Packing Detail	--	Analysis Completion Date	21-Aug-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	61.0	55.0	By Sound Level Meter
2	Secondary Brine	dB(A)	64.3	58.4	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	66.7	60.5	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	56.4	52.7	By Sound Level Meter
5	Power Plant	dB(A)	58.3	53.1	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	54.4	50.2	By Sound Level Meter
7	Nr. Main Gate	dB(A)	58.0	52.0	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	58.5	53.6	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	50.8	48.0	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	60.1	54.6	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY  
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CIN NO : U45300GJ1997PLC032696

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Page: 1 of 1

Barcode ID: b2a3b7dc39

Report No/Sample ID:5936179927

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	02-Sep-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	02-Sep-19
Packing Detail	--	Analysis Completion Date	02-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	69	63	By Sound Level Meter
2	Secondary Brine	dB(A)	66	63	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	67	64	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	72	68	By Sound Level Meter
5	Power Plant	dB(A)	70	64	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	67	62	By Sound Level Meter
7	Nr. Main Gate	dB(A)	68	55	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	72	67	By Sound Level Meter
9	Nr. Antracol Plant	dB(A)	69	66	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	65	63	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

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VERIFIED BY

AUTHORIZED BY  
HOD (QA)



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Page: 1 of 1

Barcode ID: 71ec20520d

Report No/Sample ID: 5936180088

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	<b>*Noise Monitoring</b>		
Sample Quantity	01	Sample Received Date	17-Sep-19
Sampling Location	<b>As per Below Table</b>	Sampling Procedure	Instrumental Method
Sample Collected By	By BEIL Team	Analysis Start Date	17-Sep-19
Packing Detail	--	Analysis Completion Date	17-Sep-19
		Fuel	--

Sr. No.	Parameters	Unit	Result		Method Ref.
			Day	Night	
1	Primary Brine	dB(A)	63.0	59.0	By Sound Level Meter
2	Secondary Brine	dB(A)	64.0	58.0	By Sound Level Meter
3	Nr. Caustic Chlorine Plant	dB(A)	67.0	58.0	By Sound Level Meter
4	Utility Block Mechanical	dB(A)	69.0	65.0	By Sound Level Meter
5	Power Plant	dB(A)	62.0	60.0	By Sound Level Meter
6	Mancozeb Plant- Nr. D-14	dB(A)	61.0	53.0	By Sound Level Meter
7	Nr. Main Gate	dB(A)	66.0	52.0	By Sound Level Meter
8	Nr. ETP Plant	dB(A)	71.0	68.0	By Sound Level Meter
9	Nr. Antralcol Plant	dB(A)	68.0	56.0	By Sound Level Meter
10	Nr. CS2 Plant	dB(A)	60.0	54.0	By Sound Level Meter

Permissible Limit:

Day- Not More Than 75 dB(A)

Night- Not More Than 70 dB(A)

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

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**BEIL INFRASTRUCTURE LIMITED**

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Barcode ID: cdc7cbe24

Report No/Sample ID: 5936179926

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	02-Sep-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	03-Sep-19
Packing Detail	Plastic Carboy	Analysis Completion Date	07-Sep-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	pH	--	6.60	APHA* 4500H+ B, 4-95 to 4-99, 23rd Edition 2017	6.5 to 8.5
2	*Temperature	*C	28.8	APHA 2550 B 23rd Edition 2017	>5 °C above Ambient Water Temperature
3	*Odor	Agreeable	Agreeable	APHA 2150 B, 23rd Ed. 2017	--
4	Color	Pt. Co. Scale	68.4	APHA 2120 C, 2-7 to 2-8, 23rd Ed. 2017	--
5	Total Suspended Solids	mg/Ltr.	49	APHA-2540-D 2-70 to 2-71, 23rd Ed. 2017	100
6	BOD (3 day @27°C)	mg/Ltr.	45	BIS :3025 (part 44)	100
7	COD	mg/Ltr.	183	APHA 5220-B, 5-18 to 5-19, 23rd Ed. 2017	250
8	Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-42 to 5-44, 23rd Ed. 2017	10
9	*Phenolic Compound	mg/Ltr.	BDL	APHA, 5530-B, 5-52, 23rd Ed. 2017	5
10	Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S-2-F 4-187, 23rd Ed. 2017	5
11	Ammonical Nitrogen	mg/Ltr.	18.5	APHA 4500-NH3-C, 4-116, 23rd Ed., 2017	50
12	*Total kjeldahl Nitrogen	mg/Ltr.	36.4	APHA 4500 Norg C, 23rd Ed., 2017	50
13	*Cyanide, as CN	mg/Ltr.	BDL	APHA 4500-CN, 23rd Ed., 2017	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-89 to 4-90, 23rd Ed. 2017	15
15	*Nitrate-Nitrogen	mg/Ltr.	17.8	APHA 4500-NH3-B, 4-112, 23rd Ed., 2017	50
16	*Total Residual Chlorine	mg/Ltr.	0.53	APHA 4500 Cl- B, 23rd Ed., 2017	1.0
17	*Hexavalent Chromium	mg/Ltr.	BDL	APHA 3500 CR B, 23rd Ed. 2017	0.1

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Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696

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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MeEF Approved Laboratory

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Page: 2 of 3

Barcode ID: ccdc7cbe24

Report No/Sample ID: 5936179926

Report Date: 17-Sep-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
18	Total Chromium	mg/Ltr.	BDL	APHA 3111-Cr-B 3-20 to 3-21, 23rd Ed.2017	0.25
19	Copper	mg/Ltr.	0.0529	APHA 3111-Cu-B 3-20 to 3-21, 23rd Ed.2017	1.0
20	Nickel	mg/Ltr.	BDL	APHA 3111-Ni-B, 3-20 to 3-21, 23rd Ed. 2017	0.1
21	Zinc	mg/Ltr.	0.1353	APHA 3111-Zn-B, 3-20 to 3-21, 23rd Ed.2017	1.0
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-25 to 3-27, 23rd Ed.2017	0.005
23	Iron	mg/Ltr.	0.0897	APHA 3111-Fe-B, 3-20 to 3-21, 23rd Ed. 2017	3.0
24	Lead	mg/Ltr.	0.0468	APHA 3111-Pb-B, 3-20 to 3-21, 23rd Ed.2017	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3111-As-B, 23rd Ed.2017	0.05
26	*Cadmium	mg/Ltr.	0.0136	APHA 3111-CD-B, 23rd Ed.2017	0.015
27	*Vanadium	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.2
28	*Selenium	mg/Ltr.	BDL	APHA 3500-SE-B-C, 23rd Ed. 2017	0.05
29	*Manganese	mg/Ltr.	0.0158	APHA 3111 A, 23rd Ed. 2017	1.0
30	*Antimony	mg/Ltr.	BDL	APHA 3500 Sb, 23rd Ed. 2017	0.1
31	*Molybdenum (Mo)	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.35
32	*Phosphate	mg/Ltr.	2.1	APHA, 4500-P-C, 23rd Ed. 2017	5.0
33	*Sulphur	mg/Ltr.	BDL	Elemental Analysis	0.03
<b>*Pesticides</b>					
34	Benzene Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.05
37	Copper Oxichloride	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	9.6
38	DDT	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01

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CIN NO : U45300GJ1997PLC032698

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Kutch Infrastructure Ltd.)  
ANALYTICAL RESEARCH LABORATORY

## TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

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Barcode ID: ccdc7cbe24

Report No/Sample ID: 5936179926

Report Date: 17-Sep-19

48	Proponil	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	1.0
51	Other Pesticide (individually)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.1
52	*Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition 2017.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

END OF REPORT

For BEIL Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)

**BEIL INFRASTRUCTURE LIMITED**

(Formerly known as Bharuch Geotech Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MBEF Approved Laboratory

ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory

Page: 1 of 3

Barcode ID: 4b2b96104f Report No./Sample ID: 5936179678 Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	02-Aug-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	03-Aug-19
Packing Detail	Plastic Carboy	Analysis Completion Date	08-Aug-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1.	pH	—	7.14	APHA* 4500H+—B, 4-95 to 4-99, 23rd Edition 2017	6.5 to 8.5
2	*Temperature	*C	28.1	APHA 2550 B 23rd Edition 2017	>5 °C above Ambient Water Temperature
3	*Odor	Agreeable	Agreeable	APHA 2150 B, 23rd Ed. 2017	—
4	Color	Pt. Co. Scale	65	APHA 2120 C, 2-7 to 2-8, 23rd Ed. 2017	—
5	Total Suspended Solids	mg/Ltr.	24	APHA 2540-D 2-70 to 2-71, 23rd Ed. 2017	100
6	BOD (3 day @27°C)	mg/Ltr.	12	BIS :3025 (part 44)	100
7	COD	mg/Ltr.	43	APHA 5220-B, 5-18 to 5-19, 23rd Ed. 2017	250
8	Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-42 to 5-44, 23rd Ed. 2017	10
9	*Phenolic Compound	mg/Ltr.	BDL	APHA, 5530-D, 5-52, 23rd Ed. 2017	5
10	Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S-2-F 4-187, 23rd Ed. 2017	5
11	Ammonical Nitrogen	mg/Ltr.	4.0	APHA 4500-NH3-C, 4-116, 23rd Ed., 2017	50
12	*Total kjeldahl Nitrogen	mg/Ltr.	29	APHA 4500 Norg C. 23rd Ed., 2017	50
13	*Cyanide, as CN	mg/Ltr.	BDL	APHA 4500-CN, 23rd Ed., 2017	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-89 to 4-90, 23rd Ed. 2017	15
15	*Nitrate-Nitrogen	mg/Ltr.	18	APHA 4500-NH3-B, 4-112, 23rd Ed., 2017	50
16	*Total Residual Chlorine	mg/Ltr.	BDL	APHA 4500 Cl- B, 23rd Ed., 2017	1.0
17	*Hexavalent Chromium	mg/Ltr.	BDL	APHA 3500 CR B, 23rd Ed. 2017	0.1
18	Total Chromium	mg/Ltr.	0.0223	APHA 3111-Cr-B 3-20 to 3-21, 23rd Ed. 2017	0.25

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 CIN NO : U45300GJ1997PLC032696  
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ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory Page: 2 of 3

Barcode ID: 4b2b96104f

Report No/Sample ID: 5936179678

Report Date: 08-Aug-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
19	Copper	mg/Ltr.	0.0112	APHA 3111-Cu-B, 3-20 to 3-21, 23rd Ed.2017	1.0
20	Nickel	mg/Ltr.	BDL	APHA 3111-Ni-B, 3-20 to 3-21, 23rd Ed. 2017	0.1
21	Zinc	mg/Ltr.	0.8359	APHA 3111-Zn-B, 3-20 to 3-21, 23rd Ed.2017	1.0
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-25 to 3-27, 23rd Ed.2017	0.005
23	Iron	mg/Ltr.	0.3787	APHA 3111-Fe-B, 3-20 to 3-21, 23rd Ed. 2017	3.0
24	Lead	mg/Ltr.	0.0094	APHA 3111-Pb-B, 3-20 to 3-21, 23rd Ed.2017	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3111-AS-B, 23rd Ed.2017	0.05
26	*Cadmium	mg/Ltr.	0.004	APHA 3111-CD B, 23rd Ed.2017	0.025
27	*Vanadium	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.2
28	*Selenium	mg/Ltr.	BDL	APHA 3500-SE- B-C, 23rd Ed. 2017	0.05
29	*Manganese	mg/Ltr.	0.0196	APHA 3111 A, 23rd Ed. 2017	1.0
30	*Antimony	mg/Ltr.	BDL	APHA 3500 Sb, 23rd Ed. 2017	0.1
31	*Molybdenum (Mo)	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.35
32	*Phosphate	mg/Ltr.	2.8	APHA 4500-P-C, 23rd Ed. 2017	5.0
33	*Sulphur	mg/Ltr.	BDL	Elemental Analysis	0.03
<b>*Pesticides</b>					
34	Benzine Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.05
37	Copper Oxychloride	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	9.6
38	DDT	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01

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**BEIL INFRASTRUCTURE LIMITED**  
(Formerly known as Bharuch Enviro Infrastructure Ltd.)  
**ANALYTICAL RESEARCH LABORATORY**

**TEST REPORT**

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ISO 14001 & BS OHSAS 18001 Certified Laboratory

Barcode ID: 4b2b96104f

Report No./Sample ID: 5936179678

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Report Date: 08-Aug-19

48	Proponil	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	1.0
51	Other Pesticide (individually)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.1
52	*Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition 2017.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

END OF REPORT

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



**BEIL INFRASTRUCTURE LIMITED**(Formerly known as Bharuch Estate Infrastructure Ltd.)  
**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory

Page: 1 of 3

Barcode ID: 769c32e019

Report No./Sample ID: 5936179370

Report Date: 07-Jul-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	01-Jul-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	02-Jul-19
Packing Detail	Plastic Carboy	Analysis Completion Date	07-Jul-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	pH	—	8.39	APHA* 4500H+ B, 4-95 to 4-99, 23rd Edition 2017	6.5 to 8.5
2	*Temperature	*C	28.5	APHA 2550 B 23rd Edition 2017	>5 °C above Ambient Water Temperature
3	*Odor	Agreeable	Agreeable	APHA 2150 B, 23rd Ed. 2017	—
4	Color	Pt. Co. Scale	114.3	APHA 2120 C, 2-7 to 2-8, 23rd Ed. 2017	—
5	Total Suspended Solids	mg/Ltr.	25	APHA-2540-D 2-70 to 2-71, 23rd Ed.2017	100
6	BOD (3 day @27°C)	mg/Ltr.	51	BIS :3025 (part 44)	100
7	COD	mg/Ltr.	172	APHA 5220-B, 5-18 to 5-19, 23rd Ed.2017	250
8	Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-42 to 5-44, 23rd Ed.2017	10
9	*Phenolic Compound	mg/Ltr.	BDL	APHA, 5530-D, 5-52, 23rd Ed.2017	5
10	Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S-2-F 4-187, 23rd Ed.2017	5
11	Ammonical Nitrogen	mg/Ltr.	7.6	APHA 4500-NH3-C, 4-116, 23rd Ed.,2017	50
12	*Total kjeldahl Nitrogen	mg/Ltr.	39	APHA 4500 Norg C, 23rd Ed.,2017	50
13	*Cyanide, as CN	mg/Ltr.	BDL	APHA 4500-CN, 23rd Ed.,2017	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-89 to 4-90, 23rd Ed.2017	15
15	*Nitrate-Nitrogen	mg/Ltr.	31	APHA 4500-NH3-B, 4-112, 23 <sup>rd</sup> Ed.,2017	50
16	*Total Residual Chlorine	mg/Ltr.	0.82	APHA 4500 Cl- B, 23 <sup>rd</sup> Ed.,2017	1.0

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CIN NO : U45300GJ1997PLC032896

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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Barcode ID: 769c32e019

Report No/Sample ID: 5936179370

Report Date: 07-Jul-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
17	*Hexavalent Chromium	mg/Ltr.	0.0515	APHA 3500 CR B, 23rd Ed.2017	0.1
18	Total Chromium	mg/Ltr.	0.0889	APHA 3111-Cr-B 3-20 to 3-21, 23rd Ed.2017	0.25
19	Copper	mg/Ltr.	0.0961	APHA 3111-Cu-B 3-20 to 3-21, 23rd Ed.2017	1.0
20	Nickel	mg/Ltr.	0.0422	APHA 3111-Ni-B, 3-20 to 3-21, 23rd Ed. 2017	0.1
21	Zinc	mg/Ltr.	0.2188	APHA 3111-Zn-B, 3-20 to 3-21, 23rd Ed.2017	1.0
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-25 to 3-27, 23rd Ed.2017	0.005
23	Iron	mg/Ltr.	0.1236	APHA 3111-Fe-B, 3-20 to 3-21, 23rd Ed. 2017	3.0
24	Lead	mg/Ltr.	0.0412	APHA 3111-Pb-B, 3-20 to 3-21, 23rd Ed.2017	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3111-As-B, 23rd Ed.2017	0.05
26	*Cadmium	mg/Ltr.	BDL	APHA 3111-CD-B, 23rd Ed.2017	0.015
27	*Vanadium	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.2
28	*Selenium	mg/Ltr.	BDL	APHA 3500-SE-B-C, 23rd Ed. 2017	0.05
29	*Manganese	mg/Ltr.	0.0164	APHA 3111 A, 23rd Ed. 2017	1.0
30	*Antimony	mg/Ltr.	BDL	APHA 3500 Sb, 23rd Ed. 2017	0.1
31	*Molybdenum (Mo)	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.35
32	*Phosphate	mg/Ltr.	BDL	APHA ,4500-P-C, 23rd Ed. 2017	5.0
<b>*Pesticides</b>					
34	Benzene Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.05
37	Copper Oxychloride	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	9.6
38	DDT	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01

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CIN NO : U45300GJ1997PLC032696

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

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Barcode ID: 769c32e019

Report No./Sample ID: 5936179370

Report Date: 07-Jul-19

48	Proponil	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	1.0
51	Other Pesticide (individually)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.1
52	*Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition 2017.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

END OF REPORT

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)

**BEIL INFRASTRUCTURE LIMITED**(Formerly known as Bharuch Estate Administration Ltd.)  
**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MoEF Approved Laboratory

ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory

Page: 1 of 2

Barcode ID: 826abdc46e

Report No./Sample ID: 5936179110

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	03-Jun-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jun-19
Packing Detail	Plastic Carboy	Analysis Completion Date	10-Jun-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	pH	—	6.91	APHA* 4500H+-B, 4-95 to 4-99, 23rd Edition 2017	6.5 to 8.5
2	*Temperature	*C	31.1	APHA 2550 B 23rd Edition 2017	>5 °C above Ambient Water Temperature
3	*Odor	Agreeable	Agreeable	APHA 2150 B, 23rd Ed. 2017	—
4	Color	Pt. Co. Scale	44.0	APHA 2120 C, 2-7 to 2-8, 23rd Ed. 2017	—
5	Total Suspended Solids	mg/Ltr.	63	APHA-2540-D 2-70 to 2-71, 23rd Ed.2017	100
6	BOD (3 day @27°C)	mg/Ltr.	45	BIS :3025 (part 44)	100
7	COD	mg/Ltr.	150	APHA 5220-B, 5-18 to 5-19, 23rd Ed.2017	250
8	Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-42 to 5-44, 23rd Ed.2017	10
9	*Phenolic Compound	mg/Ltr.	0.077	APHA, 5530-D, 5-52, 23rd Ed.2017	5
10	Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S-2-F 4-187, 23rd Ed.2017	5
11	Ammonical Nitrogen	mg/Ltr.	3.08	APHA 4500-NH3-C, 4-116, 23rd Ed.,2017	50
12	*Total kjeldahl Nitrogen	mg/Ltr.	30	APHA 4500 Norg C, 23rd Ed.,2017	50
13	*Cyanide, as CN	mg/Ltr.	BDL	APHA 4500-CN, 23rd Ed.,2017	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-89 to 4-90, 23rd Ed.2017	15
15	*Nitrate-Nitrogen	mg/Ltr.	23	APHA 4500-NH3-B, 4-112, 23rd Ed.,2017	50
16	*Total Residual Chlorine	mg/Ltr.	0.96	APHA 4500 Cl- B, 23rd Ed.,2017	1.0

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CIN NO : U45300GJ1997PLC032696

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**BEIL INFRASTRUCTURE LIMITED**

(Formerly known as Bharuch Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MoEF Approved Laboratory

ISO 14001 &amp; ISO 9001:2015 Certified Laboratory

Page: 2 of 3

Barcode ID: 825abdc46e

Report No./Sample ID: 5936179110

Report Date: 10-Jun-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
17	*Hexavalent Chromium	mg/Ltr.	0.0236	APHA 3500 CR B, 23rd Ed.2017	0.1
18	Total Chromium	mg/Ltr.	0.0938	APHA 3111-Cr-B 3-20 to 3-21, 23rd Ed.2017	0.25
19	Copper	mg/Ltr.	BDL	APHA 3111-Cu-B 3-20 to 3-21, 23rd Ed.2017	1.0
20	Nickel	mg/Ltr.	BDL	APHA 3111-Ni-B, 3-20 to 3-21, 23rd Ed. 2017	0.1
21	Zinc	mg/Ltr.	0.1045	APHA 3111-Zn-B, 3-20 to 3-21, 23rd Ed.2017	1.0
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-25 to 3-27, 23rd Ed.2017	0.005
23	Iron	mg/Ltr.	0.3561	APHA 3111-Fe-B, 3-20 to 3-21, 23rd Ed. 2017	3.0
24	Lead	mg/Ltr.	BDL	APHA 3111-Pb-B, 3-20 to 3-21, 23rd Ed.2017	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3111-AS-B, 23rd Ed.2017	0.05
26	*Cadmium	mg/Ltr.	BDL	APHA 3111-CD B, 23rd Ed.2017	0.015
27	*Vanadium	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.2
28	*Selenium	mg/Ltr.	BDL	APHA 3500-SE- B-C, 23rd Ed. 2017	0.05
29	*Manganese	mg/Ltr.	0.0096	APHA 3111 A, 23rd Ed. 2017	1.0
30	*Antimony	mg/Ltr.	BDL	APHA 3500 Sb, 23rd Ed. 2017	0.1
31	*Molybdenum (Mo)	mg/Ltr.	BDL	APHA 3111 A, 23rd Ed. 2017	0.35
32	*Phosphate	mg/Ltr.	3.3	APHA 4500-P-C, 23rd Ed. 2017	5.0
33	*Sulphur	mg/Ltr.	BDL	Elemental Analysis	0.03
<b>*Pesticides</b>					
34	Benzene Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.05
37	Copper Oxychloride	mg/Ltr.	Absent	APHA 23rd Edition 2017	9.6
38	DDT	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23rd Edition 2017	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01

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CIN NO : U45300GJ1997PLC032686

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MoEF Approved Laboratory

ISO 14001 & ISO 9001 Certified Laboratory

Page: 3 of 3

Barcode ID: 826abdc46e

Report No./Sample ID: 5936179110

Report Date: 10-Jun-19

48	Proponil	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	1.0
51	Other Pesticide (individually)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.1
52	*Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition 2017.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit

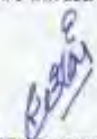
\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Sewer Infrastructure Ltd.)  
ANALYTICAL RESEARCH LABORATORY

## TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

Page: 1 of 2

Barcode ID: 4fb51a1426

Report No/Sample ID: 5936178880

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	01-May-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	02-May-19
Packing Detail	Plastic Carboy	Analysis Completion Date	07-May-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	pH	--	7.05	APHA* 4500H+-B, 4-95 to 4-99, 23rd Edition 2017	6.5 to 8.5
2	*Temperature	°C	30.3	APHA 2550-B 23rd Edition 2017	>5 °C above Ambient Water Temperature
3	*Odor	Agreeable	Agreeable	APHA 2150-B, 23rd Ed. 2017	--
4	Color	Pt. Co. Scale	19.5	APHA 2120-C, 2-7 to 2-8, 23rd Ed. 2017	--
5	Total Suspended Solids	mg/Ltr.	57	APHA-2540-D 2-70 to 2-71, 23rd Ed.2017	100
6	BOD (3 day @27°C)	mg/Ltr.	21	BS :3025 (part 44)	100
7	COD	mg/Ltr.	80	APHA 5220-B, 5-18 to 5-19, 23rd Ed.2017	250
8	Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-42 to 5-44, 23rd Ed.2017	10
9	*Phenolic Compound	mg/Ltr.	0.065	APHA, 5530-D, 5-52, 23rd Ed.2017	5
10	Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S-2-F 4-187, 23rd Ed.2017	5
11	Ammonical Nitrogen	mg/Ltr.	BDL	APHA, 4500-NH3-C, 4-116, 23rd Ed.,2017	50
12	*Total kjeldahl Nitrogen	mg/Ltr.	BDL	APHA 4500 Norg C, 23rd Ed.,2017	50
13	*Cyanide, as CN	mg/Ltr.	BDL	APHA 4500-CN, 23rd Ed.,2017	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-89 to 4-90, 23rd Ed.2017	15
15	*Nitrate-Nitrogen	mg/Ltr.	14.2	APHA 4500-NH3-B, 4-112, 23rd Ed.,2017	50
16	*Total Residual Chlorine	mg/Ltr.	0.88	APHA 4500 Cl- B, 23rd Ed.,2017	1.0

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CIN NO : U45300GJ1997PLC032866

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**BEIL INFRASTRUCTURE LIMITED**

(Formerly known as Bharuch Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

ISO 14001 &amp; ISO 9001:2015 Approved Laboratory

ISO 14001 &amp; ISO 9001:2015 Certified Laboratory Page: 2 of 3

Barcode ID: 4fb51a1426

Report No/Sample ID: 5936178880

Report Date: 09-May-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
17	*Hexavalent Chromium	mg/Ltr.	BDL	APHA 3500 CR-B, 23rd Ed.2017	0.1
18	Total Chromium	mg/Ltr.	0.0901	APHA 3111-Cr-B, 3-20 to 3-21, 23rd Ed.2017	0.25
19	Copper	mg/Ltr.	0.0571	APHA 3111-Cu-B, 3-20 to 3-21, 23rd Ed.2017	1.0
20	Nickel	mg/Ltr.	BDL	APHA 3111-Ni-B, 3-20 to 3-21, 23rd Ed. 2017	0.1
21	Zinc	mg/Ltr.	0.1050	APHA 3111-Zn-B, 3-20 to 3-21, 23rd Ed.2017	01
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-25 to 3-27, 23rd Ed.2017	0.005
23	Iron	mg/Ltr.	0.2520	APHA 3111-Fe-B, 3-20 to 3-21, 23rd Ed. 2017	3.0
24	Lead	mg/Ltr.	0.0294	APHA 3111-Pb-B, 3-20 to 3-21, 23rd Ed.2017	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3111-As-B, 23rd Ed.2017	0.05
26	*Cadmium	mg/Ltr.	BDL	APHA 3111-CD-B, 23rd Ed.2017	0.015
27	*Vanadium	mg/Ltr.	BDL	APHA 3111-A, 23rd Ed. 2017	0.2
28	*Selenium	mg/Ltr.	BDL	APHA 3500-SE-B-C, 23rd Ed. 2017	0.05
29	*Manganese	mg/Ltr.	0.0692	APHA 3111-A, 23rd Ed. 2017	1.0
30	*Antimony	mg/Ltr.	BDL	APHA 3500-Sb, 23rd Ed. 2017	0.1
31	*Molybdenum (Mo)	mg/Ltr.	BDL	APHA 3111-A, 23rd Ed. 2017	0.35
32	*Phosphate	mg/Ltr.	4.5	APHA 4500-P-C, 23rd Ed. 2017	5.0
33	*Sulphur	mg/Ltr.	BDL	Elemental Analysis	0.03
	*Pesticides				
34	Benzine Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.05
37	Copper Oxychloride	mg/Ltr.	Absent	APHA 23rd Edition 2017	9.6
38	DDT	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23rd Edition 2017	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23rd Edition 2017	0.01

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CIN NO: U46300GJ1997PLC032696

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

Page: 3 of 3

Barcode ID: 4fb51a1426

Report No/Sample ID: 5936178880

Report Date: 09-May-19

48	Proponil	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	01
51	Other Pesticide (Individually)	mg/Ltr.	Absent	APHA 23 <sup>rd</sup> Edition 2017	0.1
52	*Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition 2017.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

END OF REPORT

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)

**BEIL INFRASTRUCTURE LIMITED**

(Formerly known as Bharuch Civil Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MoEF Approved Laboratory

ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory

Page: 1 of 2

Barcode ID: 7fcb28d9b3

Report No/Sample ID: 5936178627

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC Jhagadia, Dist.: Bharuch		
Sample Description	Industrial Treated Effluent		
Sample Quantity	5 Ltr.	Sample Received Date	04-Apr-19
Sampling Location	Discharge Point	Sampling Procedure	As per IS 3025
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	Plastic Carboy	Analysis Completion Date	12-Apr-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*pH	—	7.12	APHA 4500H+-B, 4-92 to 4-96, 23rd Ed., 2012	6.5 to 8.5
2	Temperature	°C	32.2	APHA 2550	>5 °C above Ambient Water Temperature
3	Odor	Agreeable	Agreeable	AS PER APHA	—
4	*Color	Pl. Co. Scale	34.4	APHA 2120 C, 2-7 to 2-8, 23rd Ed., 2012	—
5	*Total Suspended Solids	mg/Ltr.	32.8	APHA-2540-D 2-66 to 2-67, 23rd Ed., 2012	100
6	*BOD (3 day @27°C)	mg/Ltr.	65	APHA 5210-B, 5-5 to 5-10, 23rd Ed., 2012 & BIS:3025 (Part 44)	100
7	*COD	mg/Ltr.	219	APHA 5220-B, 5-17 to 5-18, 23rd Ed., 2012	250
8	*Oil & Grease	mg/Ltr.	BDL	APHA 5520-B, 5-40 to 5-41, 23rd Ed., 2012	10
9	*Phenolic Compound	mg/Ltr.	0.005	APHA, 5530-D, 5-49 to 5-50, 23rd Ed., 2012	5
10	*Sulphides, as S	mg/Ltr.	BDL	APHA 4500-S <sup>2</sup> -F	5
11	*Ammonical Nitrogen	mg/Ltr.	3.8	APHA 4500-NH3-C, 4-112, 23rd Ed., 2012	50
12	Total kjeldahl Nitrogen	mg/Ltr.	23	APHA, 23rd Ed. 2012	50
13	Cyanide, as CN	mg/Ltr.	BDL	APHA 4500- CN <sup>-</sup>	0.2
14	*Fluoride	mg/Ltr.	BDL	APHA 4500-F- C, 4-85 to 4-87, 23rd Ed. 2012	15
15	Nitrate-Nitrogen	mg/Ltr.	15.7	APHA 4500-NH3-B, 4-112, 23rd Ed., 2012	50
16	Total Residual Chlorine	mg/Ltr.	0.9	APHA 4500 Cl- B	1.0

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CIN NO : U45300GJ1997PLC032696

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Term Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

Page: 2 of 3

Barcode ID: 7fcb28d9b3

Report No./Sample ID: 5936178627

Report Date: 13-Apr-19

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
17	Hexavalent Chromium	mg/Ltr.	BDL	APHA 3111-Cr-B, 3-18 to 3-20, 23rd Ed. 2012	0.1
18	Total Chromium	mg/Ltr.	BDL	APHA 3111-Cr-B, 3-18 to 3-20, 23rd Ed. 2012	0.25
19	*Copper	mg/Ltr.	BDL	APHA 3111-Cu-B, 3-18 to 3-20, 23rd Ed. 2012	1.0
20	*Nickel	mg/Ltr.	BDL	APHA 3111-Ni-B, 3-18 to 3-20, 23rd Ed. 2012	0.1
21	*Zinc	mg/Ltr.	0.1686	APHA 3111-Zn-B, 3-18 to 3-20, 23rd Ed. 2012	01
22	*Mercury	mg/Ltr.	BDL	APHA 3112-Hg-B, 3-23 to 3-25, 23rd Ed. 2012	0.005
23	*Iron	mg/Ltr.	0.1370	APHA 3112, 23rd Ed. 2012	3.0
24	*Lead	mg/Ltr.	0.0385	APHA 3111-Pb-B, 3-18 to 3-20, 23rd Ed. 2012	0.05
25	*Total Arsenic	mg/Ltr.	BDL	APHA 3114-As-B, 3-34 to 3-38, 23rd Ed. 2012	0.05
26	*Cadmium	mg/Ltr.	BDL	APHA 3111-Cd-B, 3-18 to 3-20, 23rd Ed. 2012	0.015
27	Vanadium	mg/Ltr.	BDL	APHA 3111	0.2
28	Selenium	mg/Ltr.	BDL	APHA 3500-Se-B-C, 3-89 23rd Ed. 2012	0.05
29	Manganese	mg/Ltr.	BDL	APHA 4500, 23rd Ed. 2012	1.0
30	Antimony	mg/Ltr.	BDL	APHA 23rd Edition, 2012	0.1
31	Molybdenum (Mo)	mg/Ltr.	BDL	APHA 23rd Edition, 2012	0.35
32	Phosphate	mg/Ltr.	3.8	APHA 4500-PC-E, 4-153, 23rd Ed.,	5.0
33	Sulphur	mg/Ltr.	BDL	APHA 23rd Edition, 2012	0.03
34	Benzene Hexachloride (BHC)	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
35	Carbonyl	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
36	Copper Sulphate	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.05
37	Copper Oxychloride	mg/Ltr.	Absent	APHA 23rd Edition, 2012	9.6
38	DDT	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
39	Dimethoate	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.45
40	2,4 D	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.4
41	Endosulfan	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
42	Fenitrothion	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
43	Malathion	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
44	Methyl Parathion	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
45	Paraquat	mg/Ltr.	Absent	APHA 23rd Edition, 2012	2.3
46	Phenathoate	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01
47	Phorate	mg/Ltr.	Absent	APHA 23rd Edition, 2012	0.01

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CIN NO : U45300GJ1997PLC032606

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# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MeEF Approved Laboratory

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Page: 3 of 3

Barcode ID: 7fcb28d9b3

Report No/Sample ID: 5936178627

Report Date: 13-Apr-19

48	Proponil	mg/Ltr.	Absent	APHA 23rd Edition,2012	7.3
49	Pyrethrums	mg/Ltr.	Absent	APHA 23rd Edition,2012	0.01
50	Ziram	mg/Ltr.	Absent	APHA 23rd Edition,2012	1
50	Other Pesticide (individually)	mg/Ltr.	Absent	APHA 23rd Edition,2012	0.1
51	Bio Assay	Observation	90% Fish survive in 100% Effluent after 96 Hrs.	APHA 8910 23rd Edition.	90% Fish survive in 100% Effluent after 96 Hrs.

BDL: Below Detectable Limit


\*Parameters are in NABL scope

END OF REPORT

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

MoEF Approved Laboratory

ISO 14001 & BS OHSAS 18001 Certified Laboratory

Page: 1 of 1

Barcode ID: ed9d8c071b

Report No/Sample ID: 5936180579

Report Date: 07-Nov-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sampling Location	Near ETP	Sample Received Date	02-Nov-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	01-Nov-19 10:30	Analysis Start Date	03-Nov-19
Sampling End Date & Time	02-Nov-19 10:30	Analysis Completion Date	05-Nov-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	69.4	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	28.4	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	24.9	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	15.1	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Barcode ID: fd4682f536

Report No/Sample ID: 5936180312

Report Date: 12-Oct-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sampling Location	Near Main Gate	Sample Received Date	07-Oct-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	05-Aug-19 10:00	Analysis Start Date	08-Oct-19
Sampling End Date & Time	06-Aug-19 10:00	Analysis Completion Date	09-Oct-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	52.3	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	21.8	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	20.4	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	17.5	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



**BEIL INFRASTRUCTURE LIMITED**

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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Barcode ID: 2151f03c76

Report No/Sample ID: 5936180460

Report Date: 22-Oct-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	<b>Ambient Air Monitoring</b>		
Sampling Location	Near Main Gate	Sample Received Date	17-Oct-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	05-Aug-19 10:00	Analysis Start Date	18-Oct-19
Sampling End Date & Time	06-Aug-19 10:00	Analysis Completion Date	22-Oct-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	62.5	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	26.3	CPCB Guideline –Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	22.0	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	18.4	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0


BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
 ANALYSED BY

  
 VERIFIED BY

  
 AUTHORIZED BY  
 HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

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## ANALYTICAL RESEARCH LABORATORY

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Barcode ID: ef7aa21dd0

Report No/Sample ID:5936179925

Report Date: 17-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sampling Location	Near Main Gate	Sample Received Date	03-Sep-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	02-Sep-19 10:30	Analysis Start Date	04-Sep-19
Sampling End Date & Time	03-Sep-19 10:30	Analysis Completion Date	06-Sep-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	38.5	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	22.3	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	15.4	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	11.7	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

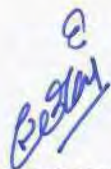
\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

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Barcode ID: fe57bb01cf

Report No/Sample ID: 5936180086

Report Date: 29-Sep-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sampling Location	Near Main Gate	Sample Received Date	17-Sep-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	05-Aug-19 10:00	Analysis Start Date	18-Sep-19
Sampling End Date & Time	06-Aug-19 10:00	Analysis Completion Date	20-Sep-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	45.1	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	18.6	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	16.9	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	15.2	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For BEIL Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)



**BEIL INFRASTRUCTURE LIMITED**

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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Barcode ID: faf5fc2154

Report No/Sample ID:5936179677

Report Date: 08-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	<b>Ambient Air Monitoring</b>		
Sampling Location	Near Main Gate	Sample Received Date	05-Aug-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	05-Aug-19 10:00	Analysis Start Date	06-Aug-19
Sampling End Date & Time	06-Aug-19 10:00	Analysis Completion Date	08-Aug-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	45.3	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	20.4	CPCB Guideline –Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	19.1	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	13.7	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Barcode ID: 9ae71d2cb5

Report No/Sample ID: 5936179802

Report Date: 27-Aug-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sampling Location	Near Main Gate	Sample Received Date	21-Aug-19
Sample Collected By	By BEIL Team	Sampling Procedure	IS 5182 & Inst. Manual
Sampling Start Date & Time	05-Aug-19 10:00	Analysis Start Date	22-Aug-19
Sampling End Date & Time	06-Aug-19 10:00	Analysis Completion Date	26-Aug-19
Sampling Duration	24 Hrs	Wind Direction	E to W

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	36.5	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	15.0	CPCB Guideline –Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	14.7	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	16.4	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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HOD (QA)



**BEIL INFRASTRUCTURE LIMITED**

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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Page: 1 of 1

Barcode ID: ef0ace094f

Report No/Sample ID:5936179518

Report Date: 23-July-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	<b>Ambient Air Monitoring</b>		
Sample Quantity	01	Sample Received Date	16-July-19
Sampling Location	<b>Near Main Gate Area</b>	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	17-July-19
Packing Detail	--	Analysis Completion Date	20-July-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	65.3	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	26.2	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	21.0	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	15.4	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0


BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
 ANALYSED BY

  
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 HOD (QA)



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**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

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Page: 1 of 1

Barcode ID: 81fc790858

Report No/Sample ID:5936179369

Report Date: 07-July-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	<b>Ambient Air Monitoring</b>		
Sample Quantity	01	Sample Received Date	02-July-19
Sampling Location	<b>Near ETP Area</b>	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	03-July-19
Packing Detail	--	Analysis Completion Date	06-July-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	58.7	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	25.6	CPCB Guideline –Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	23.5	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	19.8	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)

Works Office: Plot No 9701-16, G.I.D.C. Estate, Post Box No 82, Ankleshwar - 393002, Dist - Bharuch (Gujarat)  
 Tel: (02646) 253135, 225228 | Fax: (02646) 222849 | E-Mail: dalwadibd@beil.co.in, sathish.gaddam@beil.co.in  
 Regd. office: Plot No 117-118, G.I.D.C. Estate, Ankleshwar - 393002, Dist - Bharuch (Gujarat)

CIN NO : U45300GJ1997PLC032696  
 Terms & Condition are on backside





# BEIL INFRASTRUCTURE LIMITED

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## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Page: 1 of 1

Barcode ID: ffa6cf4f5a

Report No/Sample ID: 5936179109

Report Date: 10-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sample Quantity	01	Sample Received Date	03-Jun-19
Sampling Location	Near Main Gate	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	04-Jun-19
Packing Detail	--	Analysis Completion Date	10-Jun-19
		Fuel	--


Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	65.3	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	31.2	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	35.0	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	25.7	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0


BDL: Below Detectable Limit


\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

  
ANALYSED BY

  
VERIFIED BY

  
AUTHORIZED BY  
HOD (QA)



**BEIL INFRASTRUCTURE LIMITED**

(Formerly known as Bharuch Enviro Infrastructure Ltd.)

**ANALYTICAL RESEARCH LABORATORY****TEST REPORT**

MoEF Approved Laboratory

ISO 14001 &amp; BS OHSAS 18001 Certified Laboratory

Page: 1 of 1

Barcode ID: 3738d81d6e

Report No/Sample ID: 5936179247

Report Date: 21-Jun-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	<b>Ambient Air Monitoring</b>		
Sample Quantity	01	Sample Received Date	18-Jun-19
Sampling Location	<b>Near Main Gate</b>	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	19-Jun-19
Packing Detail	---	Analysis Completion Date	21-Jun-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	55.4	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	23.6	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	28.0	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	21.3	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

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HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

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## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Page: 1 of 1

Barcode ID: 9dc46dbce7

Report No/Sample ID: 5936178879

Report Date: 09-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sample Quantity	01	Sample Received Date	01-May-19
Sampling Location	Near Main Gate	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	02-May-19
Packing Detail	---	Analysis Completion Date	07-May-19
		Fuel	---

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	59.9	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	27.4	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	28.5	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	19.3	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

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HOD (QA)





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## ANALYTICAL RESEARCH LABORATORY

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Page: 1 of 1

Barcode ID: 9aff0f872

Report No/Sample ID: 5936179003

Report Date: 23-May-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sample Quantity	01	Sample Received Date	18-May-19
Sampling Location	Near Main Gate	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	19-May-19
Packing Detail	--	Analysis Completion Date	22-May-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	65.2	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	25.6	CPCB Guideline –Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	22.7	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	18.2	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)





# BEIL INFRASTRUCTURE LIMITED

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## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Page: 1 of 1

Barcode ID: 3390b0fe8c

Report No/Sample ID: 5936178722

Report Date: 25-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sample Quantity	01	Sample Received Date	15-Apr-19
Sampling Location	Near ETP Area	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	16-Apr-19
Packing Detail	--	Analysis Completion Date	24-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	PM <sub>10</sub>	µg/m <sup>3</sup>	75.4	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	PM <sub>2.5</sub>	µg/m <sup>3</sup>	42.0	CPCB Guideline -Volume-I	60
3	Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	35.9	IS : 5182 (Part- 2)-2001	80
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	19.9	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	*Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	*Benzene C <sub>6</sub> H <sub>6</sub>	ng/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	*Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are not covered in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

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## ANALYTICAL RESEARCH LABORATORY

### TEST REPORT

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Page: 1 of 1

Barcode ID: 6167a74965

Report No/Sample ID: 5936178626

Report Date: 13-Apr-19

Name of Customer	UPL Limited (Unit-5)		
Address of Customer	Plot No. 750, GIDC, Jhagadia, Dist.: Bharuch		
Sample Description	Ambient Air Monitoring		
Sample Quantity	01	Sample Received Date	04-Apr-19
Sampling Location	Near Main Gate	Sampling Procedure	IS 5182 & Inst. Manual
Sample Collected By	By BEIL Team	Analysis Start Date	05-Apr-19
Packing Detail	--	Analysis Completion Date	11-Apr-19
		Fuel	--

Sr. No.	Parameters	Unit	Result	Method Ref.	Permissible Limit
1	*PM <sub>10</sub>	µg/m <sup>3</sup>	58.3	IS : 5182 (Part- 23)-2006 (Reaffirmed 2012)	100
2	*PM <sub>2.5</sub>	µg/m <sup>3</sup>	25.7	CPCB Guideline -Volume-I	60
3	*Sulphur Dioxide (SO <sub>x</sub> )	µg/m <sup>3</sup>	28.5	IS : 5182 (Part- 2)-2001	80
4	*Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	18.3	IS : 5182 (Part- 6)- 2006	80
5	*CO (AIR)	mg/m <sup>3</sup>	BDL	NDIR Digital Gas Analyzer.	4.0
6	*Ammonia (AIR)	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	400
7	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	BDL	IS : 5182 (Part-IX) 1974	180
8	*Arsenic as As	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	6.0
9	*Lead as Pb	µg/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0
10	*Nickel as Ni	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	20
11	Benzene C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	BDL	IS:5182 (part XI) 2006	5.0
12	Benzopyrene (BaP)	ng/m <sup>3</sup>	BDL	CPCB Method (vol.I,may-2011)	1.0

BDL: Below Detectable Limit

\*Parameters are in NABL scope

----- END OF REPORT -----

For Bharuch Enviro Infrastructure Ltd.

ANALYSED BY

VERIFIED BY

AUTHORIZED BY  
HOD (QA)

**ANNEXURE – 3**

UPL CSR / Unit -5				
UPL CSR / Progress Report OCTOBER'18 to MARCH'19				
S. No	Month	Name of Activity	Unit / No.	Name Of Villages
1	October, 2018	Conducted farmers meeting at Selod & Fulwadi, discussed about winter vegetable crop cultivation and market linkage of the vegetable crop.	44 Farmers	Selod, Fulwadi
		Organized Agriculture training on orchard (WADI) and different vegetable crop. In training given knowledge of crop till sowing to harvesting treatment IPM (Integrated pest Management) INM (Integrated Nutrients Management) technological. Participated farmers 25 of Selod villages.	25 Farmers	Selod
		Conducted 3 awareness program in Sardarpura, Fulwadi and Daheda Primary School, Elocution and drawing competition organized on Swachhata Abhiyan. Total 353 students participated in the three event.	353 students	Sardarpura, Fulwadi & Daheda
		Meeting with SHG (2 Groups & 32 Members)	32 women	Fulwadi & Kharchi
2	November, 2018	Organized farmers training on "ZEBA Uses & Benefits" at UPL Niyojani, Farmers from Ankleshwar Participated. Also distributed 60 Kgs ZEBA to the Farmers.	40 Farmers	Fulwadi, Selod & Sardarpura
		Meeting with farmer group at Selod and Fulwadi and discussion on winter vegetable crop.	30 Farmers	Fulwadi, Selod & Sardarpura
		Exposure visit of farmers to Vikram Farm Vapi	25 Farmers	Fulwadi & Selod
		Exposure visit of farmers to KVK Chaswad	32 Farmers	Fulwadi, Sardarpura & Selod
		Artificial Insemination (AI) under AH project.	73 AI	8 villages
		Meeting with SHG (4 Groups & 45 Members)	3 Villages	Selod, Fulwadi, & Untiya
3	December, 2018	Organized farmers meeting on vegetable & cash crop farming	45 farmer	Untiya, selod, fulwadi, Selod
		Crop demonstration on creper vegetable	2 villages	Sardarpura, & Selod
		Nature & Energy Conservation in 6 Schools through Puppet Show, Celebrated Signature Campaign, Oath Ceremony, more than 600 students participated	5 Schools	Fulwadi, selod, Sardarpura, Kharchi, Kapalsadi, Daheda
		Artificial Insemination (AI) under AH project.	35 AI	8 villages
		40 farmers participated in the celebration "Kisan Divas" at Unit -1, 6 best farmers awarded for best agriculture practices	40 farmers	Fulwadi, Selod, sardarpura
		Meeting with SHG (3 Groups & 45 Members)	3 Villages	Fulwadi, selod, sardarpura



**Half Yearly Environmental Clearance Compliance Report by UPL Limited, Unit # 05, Jhagadia, Gujarat**  
**Period from Oct'18 to Mar'19**

4	January, 2019	Organised 4 farmers meeting group at Selod, Sardarpura, Untia and Fulwadi and discussion on formation of Farmers Producer Company (FPO), what are winter vegetable crop, planning on the training on Farmer Producer Organization.	46 farmer	Selod, Sardarpura, Untia and Fulwadi
		Crop demonstration on creepier vegetable (3 Farmers)	3 villages	Sardarpura, Fulwadi & Selod
		Conducted energy conservation Campaign at Kapalsadi (371), Fulwadi (209), Selod (135), Sardarpura (86), Talodra (110). Students were motivated through Puppet Show on water conservation, maintain hygiene. A total 911 students and 15 teachers, 12 volunteers participated in the campaign.	6 Schools	Fulvadi, selod, Sardarpura, Kharchi, Kapalsadi, Dadheda
		Artificial Insemination (AI) under AH project.	28 AI	9 villages
		Meeting with SHG (4 Groups & 44 Members)	1 Village	Fulvadi
5	February, 2019	Meeting with farmer group at Selod, Sardarpura, Untia and Fulwadi and discussion on formation of Farmers Producer Company (FPO), what are winter vegetable crop, planning on the training on Farmer Producer Organisation.	54 farmer	Selod, Sardarpura, Untia and Fulwadi
		Crop demonstration on creepier vegetable (2 Farmers)	3 villages	Sardarpura, Fulwadi & Selod
		Artificial Insemination (AI) under AH project.	39 AI	9 villages
		Completed the construction at Dadheda Primary Schools , 290 students will be benefited.	1 Village	Dadheda
		60 students get benefited from the Motivational training to 9th & 10th Students of Kapalsadi High School.	1 Village, 60 Students	Kapalsadi
		Meeting conducted at Sardarpura, Fulwadi, Kharchi on understanding the role of Federation and how a federation can be work in different sector. (4 Groups & 56 Members)	3 Villages	Fulvadi, Sardarpura & Kharchi
6	March, 2019	Meeting with farmer group at Selod, Sardarpura, Untia and Fulwadi and discussion on formation of Farmers Producer Company (FPO), NABARD support and benefits, planning on the training on Farmer Producer Organisation.	72 farmers	Selod, Sardarpura, Untia and Fulwadi
		Crop demonstration on creepier vegetable (3 Farmers)	1 Village	Fulwadi
		Artificial Insemination (AI) under AH project.	42 AI	9 villages
		Meeting conducted with SHGs at Sardarpura, Unitia Fulwadi, Kharchi on understanding the role of Federation and how a federation can be work in different sector. Exploring different opportunities for increasing income. (5 Meetings, 62 Beneficiaries)	4 Villages	Sardarpura, Unitia Fulwadi, Kharchi



# United Phosphorus Limited

750, G.I.D.C., P.B. No. 9, Phone : (02645) 226011-15  
Jhagadia 393110 Fax : (02645) 226017-18  
Dist. Bharuch, Gujarat.

**Mumbai Office :** Phone : (022) 26040462, 26041111  
"UNIPHOS" House Fax : (022) 26040467  
C.D.Marg, 11th Road,  
Khar (W), Mumbai.

Ref : UJH/PRO/17/2007  
May 14, 2007

UNITED PHOSPHORUS LTD, Unit # 5  
Plot # 750, GIDC, Jhagadia, Dist - Bharuch, Gujarat

To,  
Ministry of Environment and Forests  
Paryavaran Bhavan  
CGO Complex, Lodhi Road  
New Delhi - 110 003

Kind attn :- Dr (Mrs) Sanchita Jindal

Dear Madam;

Sub. : New Pesticides Intermediate and Technical Products and Expansion of Chlor Alkali along with a Captive Power Plant in Existing Unit in GIDC Industrial Estate, Jhagadia, Bharuch, Gujarat by M/s United Phosphorus Ltd. (Additional TORs)

Ref :- MoEF Ref. No. J -11011/325/2006-IA.II(I)

With respect of above mentioned subject and MoEF reference no., we are submitting herewith **various clarifications** (point by point with bold format) **and separate note desired by the Expert Appraisal Committee.**

- 1) Fly ash management is poor. Ash can not be left in the disposal pond neither should be in TSDF. Utilization plan as per the Fly Ash Utilization Notification needs to be submitted.
- We will be utilizing 100 % quantity of ash generated from the Power Plant - for making bricks or use in cement industries.
- 2) The unit will be transporting large amount of Hazardous Chemicals by road. It was informed that a separate railway line is being laid down. A note on the same may be provided giving possible date for the same. The unit needs to follow rules for transportation of Hazardous Chemicals under the MVA, 1989.
- At present, Jhagadia Industrial Estate is connected by road through national highway and state highway. There is a proposal from Jhagadia Industrial Association for connection of rail-line to Jhagadia Industrial Estate. Once the rail-line is available, substantial quantity of raw materials and finished goods will be transported by rail.
- 3) Existing data on compliance of EC, Stack monitoring, ambient air quality etc. may also be asked for.
- Please find enclosed as Annexure # 1.



4) Water requirement and waste water generation is many folds in comparison to the expansion. Justification for the same needs to be provided.

→ With the expansion, the water consumption will be increasing by 10,000 kl per day on full capacity. GIDC has given permission for supply of water. The higher water consumption is mainly due to cooling tower evaporation loss, water going along with product (we are making 48 % Caustic Lye).

→ Waste water generation - We have given details of the water balance which is included in the EIA Report. The treated wastewater will be disposed off to the Final Effluent Treatment Plant of BEIL for further treatment and disposal. We have got membership of BEIL. The wastewater, after treatment, will be disposed at deep sea.

5) Occupational Safety and surveillance program need to be submitted.

→ We are having surveillance program for occupational health and safety. Full fledged safety department is existing in the Unit. Safety department is headed by senior manager. Also, we are having safety officer and other staff required. In the Company, pre-employment and periodical medical examinations are carried out regularly. We also have our own ambulance and fire tender. We have also implemented Occupational Health and Safety Assessment Standards OHSAS 18001. More details of the occupational health and safety are attached as Annexure # 2.

6) The quantities of solid and hazardous wastes especially the inorganic wastes may be rechecked and resubmitted.

→ Solid / Hazardous Wastes' generation

We have re-worked the solid / hazardous wastes' generation. By oversight, we have included some of the by-product streams also in the EIA / presentation matter which has projected a high quantity of solid / hazardous wastes. The revised detail of hazardous waste generation is given as Annexure # 3. It may be noted that there is a considerable reduction in the generation of hazardous waste quantity, by way of classifying properly the by-products, non hazardous waste, landfillable waste and incinerable waste. The additional generation of non hazardous waste (brine sludge) quantity is 8,945 MT / Year; hazardous waste quantity for secured landfilling is 14937 MT / Year and quantity of incinerable waste will be 7066 MT / Year. Inorganic waste for secured landfilling consists of inorganic salt and ETP sludge.

7) A note on safety measures for the solvent and reactants storage.

→ For proposed expansion, following points will be considered for the solvent and reactants storage.

- (a) Provision of flame proof electrical equipment
- (b) Dyke wall enclosure

- (c) Fire hydrant, foam pouring
- (d) Fire extinguishers, foam trolley
- (e) Safety shower & eye wash fountain
- (f) Separate fencing, isolated storage area
- (g) Bonding & double earthing
- (h) Another hazardous chemical (i.e. CS<sub>2</sub>), it will be stored under water, with all the required safety precautions.
- (i) Provision of Smoke detectors & continuous monitoring sensors
- (j) Carry out HAZOP Study through external team consisting of experts before commission.

8) Data on Fugitive emissions on strategic points. Measured concentration of solvents (HC and VOC), Cl<sub>2</sub>, CS<sub>2</sub> etc. in the storage area.

- For existing product manufacturing, we are not using any volatile organic compound as raw material. We are monitoring fugitive emissions, HC and Cl<sub>2</sub> in existing scenario.
- We have provided 14 Cl<sub>2</sub> sensors at our Chlor - Alkali plants which gives indication at our DCS
- High volume samplers are also provided at strategic locations to monitor emissions, which we are doing twice in a week and records of the same are available in Annexure # 1.
- After proposed expansion, we will be monitored VOC & CS<sub>2</sub> also.

9) The Lignite may not be used as it has more sulphur content and if enough gas is available, it may be continued. A confirmation for the same may be submitted.

- For proposed boiler is designed for coal fired and our main fuel is imported coal. If there is shortage of imported coal, we will be used the lignite. At the same time our boiler is designed for fuel as lignite. We have considered the stack height as per CPCB guideline.

We hope that the above details will be sufficient for processing our application for Environmental Clearance. In case you need any additional information, we can furnish the same on hearing from you.

Thanking you

Yours faithfully

For, United Phosphorus Ltd



RAJESH SHARMA  
General Manager (Works)

Encl : a/a



F. No. J-11011/80/2015-IA-II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA Division)

Indira Paryavaran Bhawan  
Jor Bagh Road, N Delhi - 3  
Dated: 5<sup>th</sup> April, 2018

To,

**M/s UPL Ltd (Unit-V)**  
Plot No. 750 & 746, GIDC Jhagadia,  
District **Bharuch**-393110 (Gujarat)

**Sub: Expansion of agro and other organic chemicals manufacturing unit by M/s UPL Ltd (Unit-V) at plot No.746&750, Jhagadia Industrial Estate, Taluka Jhagadia, District Bharuch (Gujarat) - Environmental Clearance - reg.**

**Ref: Online proposal no. IA/GJ/IND2/27263/2015 dated 4<sup>th</sup> January, 2017**

Sir,

This has reference to your online proposal No.IA/GJ/IND2/27263/2015 dated 4<sup>th</sup> January, 2017 along with project documents namely, EIA/EMP Report for the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for grant of environmental clearance to the project for expansion of agro and other organic chemicals manufacturing unit by M/s UPL Ltd (Unit-V) in a total plot area of 886286.42 sqm, located at plot No.746 & 750, Jhagadia Industrial Estate, Taluka Jhagadia, District Bharuch (Gujarat).

3. Different products/by-products, existing and the proposed are reported to be as under:-

S. No.	Product	CAS No.	Existing (MTPM)	Proposed (MTPM)	Total (MTPM)	Category
<b>A. Products requiring Environmental Clearance</b>						
1	Mancozeb	8018-01-07	4000	8333.33	11633.33	Pesticide
2	Antracol	12071-83-9		1000	1700	Pesticide
3	Pendimethalin	40487-42-1	400	833.33	1233.33	Pesticide
4	Glufosinate	77182-82-2	550	1250	1700	Pesticide
5	Glyphosate	38641-94-0		NIL	100	Pesticide
6	CS <sub>2</sub> (Carbon Di Sulfide)	000075-15-0	3000	3750	6750	Pesticide Intermediate
7	S Metolachlor	87392-12-9	200	1666.67	1866.67	Pesticide
8	Acephate	30560-19-1	800	1666.67	2466.67	Pesticide
9	Acrolein	107-02-8	NIL	666.67	666.67	Pesticide Intermediates

10	CCITM (Di Methyl Cyanominodithio Carbonate)	10191-60-3	NIL	167.67	167.67	Pesticide Intermediate
11	Tri Ethyl Phosphite	122-52-1	NIL	1000	1000	Pesticide Intermediates
12	CS <sub>2</sub> based Products					
12.1	Potassium Ethyl Xanthate	140-89-6	NIL	833.33	833.33	Intermediates Chemicals
12.2	Sodium isopropyl Xanthate	140-93-2				
12.3	Potassium isopropyl Xanthate	140-93-1				
12.4	Potassium amyl Xanthate	2720-73-2				
12.5	1,6-Bis (N,N-dibenzylthiocarbamylthio)hexane (Rubber Chemicals)	151900-44-6				
12.6	1-METHYLAMINO-1-METHYLTHIO-2-NITROETHENE (Pharma Intermediates)	61832-41-5				
13	Clomazone	81777-89-1	NIL	416.67	416.67	Pesticide
14	Mesotrione	104206-82-8	NIL	416.67	416.67	Pesticide
15	Flonicamide (IKI220)	158062-67-0	NIL	166.67	166.67	Pesticide
	H <sub>2</sub> S based Products					
16	Di Methyl Sulfoxide (DMSO)	67-68-5	NIL	1250	1250	Chemical Intermediates
17	156 TPD caustic Chlorine Plant					
	1) caustic soda lye 48% (on 100 % basis)	1310-73-2	15180	NIL	15180	Chlor Alkali Industry
	2) Chlorine Gas	7782-50-5	12509	NIL	12509	
	3) Hydrogen Gas	1333-74-0	488	NIL	488	
	4) Hydrochloric Acid 30%	7647-01-0	3825	NIL	3825	
18	Power plant		87.5 MW / HR	NIL	87.5MW/Hrs	1(d) Power Plant
	(Electrical Power)	NA				
19	Phenyl Di IsoDecylPhosphite OR	25550-98-5	100	NIL	100	Chemical Intermediates
	Tri DecylPhosphite (TDP) OR	2929-86-4				
	Tris Tri IsoDecylPhosphite (TTDP)	77745-66-5				
20	Di Phenyl Methyl Phosphonate OR	7526-26-3	200 OR	NIL	200 OR	Chemical Intermediates
	Tri Phenyl Phosphate (TPPA) OR	115-86-6	200 OR		200 OR	
	Bisphenol Di Phosphate (BDP)	181028-79-5	50		50	

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21	Fosthiazate (IKI 1145)	98886-44-3	250	NIL	250	Pesticide
22	Dichloro Vinyl Acid Chloride (DVACL)	52314-67-7	300	NIL	300	Pesticide Intermediate
23	N Alkylated Xylenedene <u>OR</u>	1330-20-7	300	NIL	300	Pesticide Intermediate
	HRT Ketone <u>OR</u>	108-10-1	200		200	
	2 Ethyl 6 Methyl N NANILine <u>OR</u>	24549-06-2	300		300	
	Meta Phenoxy Benzyl Alcohol (MPBAL)	13826-35-2	300		300	
24	Tebuconazole	107534-96-3	200	NIL	200	Pesticide
25	Acifluorfen	50594-66-6	500	NIL	500	Pesticide
26	Cypermethrin	52315-07-8	500	NIL	500	Pesticide
27	Permethrin	52645-53-1	300	NIL	300	Pesticide
28	Tri Phenyl Phosphite	101-02-0	300	NIL	300	Chemical Intermediates
Total			43902	23418.68	67319.68	
<b>B. Products not requiring Environmental Clearance</b>						
29	NaHS (40%) Solution	1310-73-2	NIL	2500	2500	Specialty Chemicals
30	Na <sub>2</sub> S solution	1313-82-2	NIL	2500	2500	Specialty Chemicals
31	Na <sub>2</sub> S Solid	1313-82-2	NIL	2500	2500	Specialty Chemicals
32	Liquid Formulation Products (Pendimethalin, Glufosinate, S Metolachlor, Clomazone, Mesotrione, Acifluorfen, Cypermethrin, Permethrin)		NIL	4166.67	4166.67	Pesticide Formulation products
33	Solid Pesticide Formulation products (Mancozeb, Antracol, Glyphosate, Acephate, Flonicamide, Fosthiazate, Tebuconazole)		NIL	7083.33	7083.33	Pesticide Formulation products
34	PCL <sub>3</sub> Plant (Phosphorous Tri Chloride)	7719-12-2	2550	NIL	2550	Specialty Chemicals
35	Phosphorous	7723-14-0	900	NIL	900	Specialty Chemicals
36	Phosphorus Acid	13598-36-2	150	NIL	150	Specialty Chemicals
	Tri butyl phosphate (TBPO)	126-73-8				
	Tri Iso butyl Phosphite (TIBP)	126-71-7				
37	Phosphorous Penta Chloride (PCl <sub>5</sub> )	10026-13-8	200	NIL	200	Specialty Chemicals
38	Phosphorous Oxychloride (POCl <sub>3</sub> ) <u>OR</u>	10025-87-3	250 OR	NIL	250 OR	Specialty Chemicals

	Phosphorous Thioclchloride (PSCI3)	3982-91-0	200		200	
39	<b>Pesticide Formulation Products</b>					Pesticide Formulation
	Iso Propyl Amine Salt of Glyphosate Formulation		2600	NIL	2600	
	Ammonium Salt of Glyphosate Formulation		2600	NIL	2600	
	Sodium Salt of Aceflorofen Formulation		1500	NIL	1500	
40	MNSO4 (MAGANESE Sulphate) Solution 31%	10124-55-7	10000	NIL	10000	Intermediates Chemicals
Total			<b>20750</b>	<b>18750</b>	<b>39500</b>	

### C. By-products

S. No.	By Product	NOC (available) (TPM)	CC&A Available (TPM)	Additional (TPM)	Total (TPM)
1	HCl solution	94.8	2732.02	440	3266.82
2	Dilute Sulphuric Acid	262.5	1655	1250	3167.5
3	Sodium sulphate (Powder) Or	-	4092	9066.75	13158.75
3.a	Sodium Sulphate Solution	-	15680	35895.67	51575.67
4	Mn(OH) <sub>2</sub> (manganese Hydroxide)	-	236	492	728.00
5	Zn(OH) <sub>2</sub> (Zinc Hydroxide)	-	39	9.75	48.75
6	NaSH solution	-	1876	16418.08	18294.08
7	Magnesium Chloride Solution	-	2070	4702.5	6772.50
8	Ammonium Acetate Or	464	NIL	3926.67	4390.67
8.a	Acetic Acid & Ammonium Sulphate or	-	NIL	4633.33	4633.33
8.b	Ammonium sulphate & Sodium Acetate (30%)	-	NIL	5920.00	5920.00
9	Ammonium Chloride (Powder) Or	-	1034.25	3676.5	4710.75
9.a	Anhydrous Ammonia or	-	NIL	415.00	415.00
9.b	20 % AQ Ammonia or	-	NIL	2075.00	2075.00
9.c	CaCl <sub>2</sub> SOL or	-	NIL	4800.00	4800.00
9.d	CaCl <sub>2</sub> POWDER	-	NIL	1600.00	1600.00
10	METHYL MERCAPTANT	-	NIL	295.83	295.83
11	Sodium Bisulphite SOL	-	NIL	1276.58	1276.58
12	ETHANOL	-	NIL	37.83	37.83
13	Spent Solvent (MDC)	-	NIL	208.33	208.33

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14	Sodium Hypochlorite	525	225	NIL	750
15	Ferrous Phosphorous	-	150	NIL	150
16	Calcium Silicate	-	6000	NIL	6000
17	Tri Phenyl Phosphate (TPPA)	-	66.51	NIL	66.51
18	Ammonium Sulphate Solution	-	3600	NIL	3600
19	Ammonium Sulphate Solid	-	750	NIL	750
20	Ethylene Chloride	-	44.5	NIL	44.5
21	Ammonium Hydroxide (20%)	-	116.75	NIL	116.75
22	POCl <sub>3</sub>	-	400	NIL	400
23	Sodium Sulphite	-	1200	NIL	1200
24	PTSA	-	94	NIL	94
25	Acetic Acid	1185	NIL	NIL	1185
26	Ammonia solution	-	118*	--	118*
27	Ammonium Chloride	-	348*	--	348*
28	Steam	-	60	NIL	60

4. Existing land area is 886286.42 sqm and no additional land will be required for the proposed expansion. Green belt will be developed in an area of 221571.6 sqm. The estimated project cost is Rs.1923.68 crore. Total capital cost earmarked for pollution control measures is Rs.69.4 crore and the recurring cost (O&M) will be about Rs.1.40 Crore per annum.

5. There are no National Parks, Wildlife Sanctuaries, Biosphere, Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc within 10 km of the project site. Kaveri river is flowing at a distance of 2.97 km in the North.

6. Fresh water requirement will be 10,000 cum/day, proposed to be met from GIDC supply. Treated effluent of 3000 cum/day will be discharged to the conveyance system of M/s Narmada Clean Tech Ltd for disposal to deep sea.

Power requirement after expansion will be increased from 21 MWH to 71 MWH, proposed to be sourced from DGVCL & Captive power plant respectively. Existing unit has five DG sets of 625 kVA, 750 kVA, 1250 kVA, 1000 kVA, 320 kVA capacity. More six DG sets of 1000 kVA each shall be used as standby during power failure. Stack of 20 m height will be provided as per CPCB norms to the proposed DG sets of 1000 KVA.

One new Natural Gas/Coal/Biomass/briquettes fired boiler of 150 TPH will be equipped with bunker bay, ESP and stack of 100 m height to control the particulate emissions. Two stage water scrubbers with 30 m stack height shall be provided for control of process emissions of ammonia, HCL and SO<sub>2</sub> emissions separately.

Spent filter material, spent catalyst will be sent to Common Hazardous Wastes Incineration Facility (CHWIF). Insulation waste, non recyclable plastic waste, used PPE, and incineration ash will be sent to TSDF. Contaminated cotton waste will be sent to TSDF/incineration site.

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7. The project/activities are covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates (excluding formulation)' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

8. The ToR for the project was granted on 13<sup>th</sup> July, 2015 followed by amendment therein on 31<sup>st</sup> August, 2015, providing exemption from public hearing.

9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held during 8-9 December, 2016, 27-28 February, 2017, 17-18 April, 2017 and 20-22 December, 2017. The project proponent and their accredited consultant M/s Siddhi Green Excellence Pvt Ltd presented EIA/EMP report as per the ToR. The EAC found the EIA/ EMP report to be satisfactory and in consonance with the presented ToR. The Committee has recommended the proposal for grant of environmental clearance.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to project '**Expansion of Agro and other Organic Chemicals**' manufacturing unit by M/s UPL Ltd (Unit-V) in a total plot area of 886286.42 sqm, located at plot No.746&750, Jhagadia Industrial Estate, Taluka Jhagadia, District Bharuch (Gujarat), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to the compliance of the terms and conditions as under:

(a) The project proponent shall take stringent mitigating measures to minimize the incremental concentration of air pollutants (mainly PM<sub>10</sub> & PM<sub>2.5</sub>) to the extent possible due to the proposed industrial operations.

(b) The project proponent shall develop local air quality management plan in consultation with SPCB and implemented to achieve desired standards.

(c) The incremental ground level concentrations for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> & NO<sub>x</sub> due to the increased vehicular and other allied/developmental activities, shall be analysed and reported for actual impact of the project, besides remedial measures.

(d) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3<sup>rd</sup> February, 2006 and amended time to time shall be followed by the unit.

(e) Natural Gas/imported coal with less than 5% sulphur content/Biomass/briquettes shall be used as fuel source for One no. new boiler of 150 TPH. Two stage water scrubbers with 30 m stack height shall be provided for control of process emissions of ammonia, HCl and SO<sub>2</sub> emissions separately.

(f) Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO<sub>2</sub>, Cl<sub>2</sub>, NO<sub>x</sub>, HBr. Acidic scrubber shall be provided to process vent to control process emissions viz. NH<sub>3</sub> & HC. 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.





(g) 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.

(h) For further control of fugitive emissions, following steps shall be followed :

- Closed handling system shall be provided for chemicals.
- Reflux condenser shall be provided over reactor.
- System of leak detection and repair of pump/pipeline based on preventive maintenance.
- The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
- Cathodic protection shall be provided to the underground solvent storage tanks.

(i) A proper Leak Detection and Repair (LDAR) Program for pesticide unit 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.

(j) Company shall take all the measures in order to protect the machineries and equipments for pesticide producing unit from ageing.

(k) Continuous monitoring system for chlorine, HCl 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.

(l) 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.

(m) Solvent management shall be carried out as follows:

- Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses, ensuring that solvent recovery should not be less than 95%.
- Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
- The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
- Solvents shall be stored in a separate space specified with all safety measures.
- Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

(n) Fresh water demand after the proposed expansion should be limited to 17,000 cum/day to 10,000 cum/day and prior permission should be obtained from the competent authority.

(o) The effluent shall be segregated into cyanide stream and High TDS/COD effluent streams. Cyanide effluent stream will be treated with sodium hypochlorite in alkaline medium. High TDS/COD effluent stream will be passed through steam stripper followed by concentrated

in MEE. MEE condensate will be treated in the ETP. Treated effluent from ETP will be passed through RO. RO permeate will be recycled/reused within plant premises. Domestic sewage should be treated in STP. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.

(p) The industry will reduce the effluent quantity from 4,768 KL/Day to 3,000 KL/Day by adopting recycle/reuse. Treated effluent will be discharged to Conveyance System of Narmada Clean Tech and disposed to deep sea.

(q) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(r) 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.

(s) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous & Other Wastes (Management & Trans-Boundary Movement) Rules 2016 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.

(t) 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.

(u) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

(v) 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.

(w) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(x) 10 m wide Green belt of perennial trees like neem, seasam, teak etc should be developed inside along the plant periphery to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO.

(y) At least 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 within 5 years.

**10.1** The grant of Environmental Clearance is further subject to compliance of other generic conditions as under:-

(i) The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and/ or any other statutory authority.





(ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry. In case of deviations or alterations in the project proposal from those submitted to this Ministry, a fresh reference shall be made to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

(iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.

(v) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources 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).

(vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.

(vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.

(viii) The company shall 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 shall be implemented.

(ix) The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.

(x) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

(xi) 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.

(xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.



(xiii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.


(xiv) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF&CC by e-mail.

(xv) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.

11. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not found to be satisfactory.


12. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

13. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991, read with subsequent amendments therein.

  
5/4/2018  
(S. K. Srivastava)  
Scientist E

**Copy to:-**

1. The APCCF, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, **Bhopal-462016 (MP)**
2. The Principal Secretary, Environment Department, Government of Gujarat, Block 14, 8<sup>th</sup> floor, Sachivalaya, **Gandhinagar-382 010 (Gujarat)**
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, **New Delhi - 32**
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar-382 010, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, **New Delhi**
6. Guard File/Monitoring File/Record File

  
5/4/2018  
(S. K. Srivastava)  
Scientist E



HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016 COMPLIANCE		
RULE NO.	CONDITIONS OF RULE	COMPLIANCE
<b>CHAPTER I - PRELIMINARY</b>		
1.	<b>Short title and commencement</b>	
	(1) These rules may be called the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. (2) They shall come into force on the date of their publication in the Official Gazette.	Noted.
2.	<b>Application. -</b>	
	These rules shall apply to the management of hazardous and other wastes as specified in the Schedules to these rules but shall not apply to - (a) waste-water and exhaust gases as covered under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder and as amended from time to time; (b) wastes arising out of the operation from ships beyond five kilometres of the relevant baseline as covered under the provisions of the Merchant Shipping Act, 1958 (44 of 1958) and the rules made thereunder and as amended from time to time; (c) radio-active wastes as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and the rules made thereunder and as amended from time to time; (d) bio-medical wastes covered under the Bio-Medical Wastes (Management and Handling) Rules, 1998 made under the Act and as amended from time to time; and (e) wastes covered under the Municipal Solid Wastes (Management and Handling) Rules, 2000 made under the Act and as amended from time to time.	Noted.
3.	<b>Definitions. -</b>	
	(1) In these rules, unless the context otherwise requires,-	
	1. "Act" means the Environment (Protection) Act, 1986 (29 of 1986);	Noted.

	<p>2. “actual user” means an occupier who procures and processes hazardous and other waste for reuse, recycling, recovery, pre-processing, utilisation including coprocessing;</p> <p>3. “authorisation” means permission for generation, handling, collection, reception, treatment, transport, storage, reuse, recycling, recovery, pre-processing, utilisation including co-processing and disposal of hazardous wastes granted under sub-rule (2) of rule 6;</p> <p>4. “Basel Convention” means the United Nations Environment Programme Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal;</p> <p>5. “captive treatment, storage and disposal facility” means a facility developed within the premises of an occupier for treatment, storage and disposal of wastes generated during manufacture, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of hazardous and other wastes;</p> <p>6. “Central Pollution Control Board” means the Central Pollution Control Board constituted under sub-section (1) of section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);</p> <p>7. “common treatment, storage and disposal facility” means a common facility identified and established individually or jointly or severally by the State Government, occupier, operator of a facility or any association of occupiers that shall be used as common facility by multiple occupiers or actual users for treatment, storage and disposal of the hazardous and other wastes;</p> <p>8. “co-processing” means the use of waste materials in manufacturing processes for the purpose of energy or resource recovery or both and resultant reduction in the use of conventional fuels or raw materials or both through substitution;</p> <p>9. “critical care medical equipment” means life saving equipment and includes such equipment as specified by the Ministry of Health and Family Welfare from time to time;</p>	<p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p>
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10. "disposal" means any operation which does not lead to reuse, recycling, recovery, utilisation including co-processing and includes physico-chemical treatment, biological treatment, incineration and disposal in secured landfill;	Noted.
11. "export", with its grammatical variations and cognate expressions, means taking out of India to a place outside India;	Noted.
12. "exporter" means any person or occupier under the jurisdiction of the exporting country who exports hazardous or other wastes, including the country which exports hazardous or other waste;	Noted.
13. "environmentally sound management of hazardous and other wastes" means taking all steps required to ensure that the hazardous and other wastes are managed in a manner which shall protect health and the environment against the adverse effects which may result from such waste;	Noted.
14. "environmentally sound technologies" means any technology approved by the Central Government from time to time;	Noted.
15. "facility" means any establishment wherein the processes incidental to the generation, handling, collection, reception, treatment, storage, reuse, recycling, recovery, preprocessing, co-processing, utilisation and disposal of hazardous and, or, other wastes are carried out;	Noted.
16. "Form" means a form appended to these rules;	Noted.
17. "hazardous waste" means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances, and shall include – (i) waste specified under column (3) of Schedule I; (ii) waste having equal to or more than the concentration limits specified for the constituents in class A and class B of Schedule II or any of the characteristics as specified in class C of Schedule II; and (iii) wastes specified in Part A of Schedule III in respect of import or export of such wastes or the wastes not specified in Part	Noted.

	<p>A but exhibit hazardous characteristics specified in Part C of Schedule III;</p> <p>18. "import", with its grammatical variations and cognate expressions, means bringing into India from a place outside India;</p> <p>19. "importer" mean any person or occupier who imports hazardous or other waste;</p> <p>20. "manifest" means transporting document prepared and signed by the sender authorised in accordance with the provisions of these rules;</p> <p>21. "occupier" in relation to any factory or premises, means a person who has, control over the affairs of the factory or the premises and includes in relation to any hazardous and other wastes, the person in possession of the hazardous or other waste;</p> <p>22. "operator of disposal facility" means a person who owns or operates a facility for collection, reception, treatment, storage and disposal of hazardous and other wastes;</p> <p>23. "other wastes" means wastes specified in Part B and Part D of Schedule III for import or export and includes all such waste generated indigenously within the country;</p> <p>24. "pre-processing" means the treatment of waste to make it suitable for co-processing or recycling or for any further processing;</p> <p>25. "recycling" means reclamation and processing of hazardous or other wastes in an environmentally sound manner for the originally intended purpose or for other purposes;</p> <p>26. "reuse" means use of hazardous or other waste for the purpose of its original use or other use;</p> <p>27. "recovery" means any operation or activity wherein specific materials are recovered;</p> <p>28. "Schedule" means a Schedule appended to these rules;</p> <p>29. "State Government" in relation to a Union territory means, the Administrator thereof appointed under article 239 of the Constitution;</p> <p>30. "State Pollution Control Board" means the State Pollution Control Board constituted under section 4 of the Water (Prevention and Control of Pollution) Act,</p>	<p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p>
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	<p>1974 (6 of 1974) and includes, in relation to a Union territory, the Pollution Control Committee;</p> <p>31. “storage” mean storing any hazardous or other waste for a temporary period, at the end of which such waste is processed or disposed of;</p> <p>32. “transboundary movement” means any movement of hazardous or other wastes from an area under the jurisdiction of one country to or through an area under the jurisdiction of another country or to or through an area not under the jurisdiction of any country, provided that at least two countries are involved in the movement;</p> <p>33. “transport” means off-site movement of hazardous or other wastes by air, rail, road or water;</p> <p>34. “transporter” means a person engaged in the off-site transportation of hazardous or other waste by air, rail, road or water;</p> <p>35. “treatment” means a method, technique or process, designed to modify the physical, chemical or biological characteristics or composition of any hazardous or other waste so as to reduce its potential to cause harm;</p> <p>36. “used oil” means any oil-</p> <p>(i) derived from crude oil or mixtures containing synthetic oil including spent oil, used engine oil, gear oil, hydraulic oil, turbine oil, compressor oil, industrial gear oil, heat transfer oil, transformer oil and their tank bottom sludges; and</p> <p>(ii) suitable for reprocessing, if it meets the specification laid down in Part A of Schedule V but does not include waste oil;</p> <p>37. “utilisation” means use of hazardous or other waste as a resource;</p> <p>38. “waste” means materials that are not products or by-products, for which the generator has no further use for the purposes of production, transformation or consumption.</p> <p>Explanation.- for the purposes of this clause,</p> <p>(i) waste includes the materials that may be generated during, the extraction of raw materials, the processing of raw materials into intermediates and final products, the consumption of final products, and through other human activities and</p>	<p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p>
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	<p>excludes residuals recycled or reused at the place of generation; and</p> <p>(ii) by-product means a material that is not intended to be produced but gets produced in the production process of intended product and is used as such;</p> <p>39. "waste oil" means any oil which includes spills of crude oil, emulsions, tank bottom sludge and slop oil generated from petroleum refineries, installations or ships and can be used as fuel in furnaces for energy recovery, if it meets the specifications laid down in Part-B of Schedule V either as such or after reprocessing.</p> <p>(2) Words and expressions used in these rules and not defined but defined in the Act shall have the meanings respectively assigned to them in the Act.</p>	Noted.
<b>CHAPTER II - PROCEDURE FOR MANAGEMENT OF HAZARDOUS AND OTHER WASTES</b>		
4.	<b>Responsibilities of the occupier for management of hazardous and other wastes.-</b>	
	<p>(1) For the management of hazardous and other wastes, an occupier shall follow the following steps, namely: -</p> <ul style="list-style-type: none"> <li>(a) prevention;</li> <li>(b) minimization;</li> <li>(c) reuse,</li> <li>(d) recycling;</li> <li>(e) recovery, utilization including co-processing;</li> <li>(f) safe disposal.</li> </ul> <p>(2) The occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes.</p> <p>(3) The hazardous and other wastes generated in the establishment of an occupier shall be sent or sold to an authorised actual user or shall be disposed of in an authorised disposal facility.</p>	<p>The unit follows steps prescribed in the rules namely, prevention, minimization; and safe disposal of generated hazardous waste to authorized common TSDF - Bharuch Enviro Infrastructure Ltd. (BEIL) Ankleshwar or given to approved end user based on applicability.</p> <p>The unit practices safe and environmentally sound management by safely collecting wastes, storing the wastes in separate storage areas and transporting to the common TSDF facility of BEIL, Ankleshwar.</p> <p>The unit generates hazardous and other wastes and sends to an authorized actual user having valid approval as per rule 9 or is sent to Common Hazardous Waste Treatment Facility - BEIL Ankleshwar for disposal through Incineration or Landfilling. The copy of Membership of BEIL, Ankleshwar is attached as <b>Annexure 05</b>.</p>



	<p>(4) The hazardous and other wastes shall be transported from an occupier's establishment to an authorised actual user or to an authorised disposal facility in accordance with the provisions of these rules.</p> <p>(5) The occupier who intends to get its hazardous and other wastes treated and disposed of by the operator of a treatment, storage and disposal facility shall give to the operator of that facility, such specific information as may be needed for safe storage and disposal.</p> <p>(6) The occupier shall take all the steps while managing hazardous and other wastes to</p> <ul style="list-style-type: none"> <li>(a) contain contaminants and prevent accidents and limit their consequences on human beings and the environment; and</li> <li>(b) provide persons working in the site with appropriate training, equipment and the information necessary to ensure their safety.</li> </ul>	<p>Based on applicability, UPL Unit 5 transports hazardous and other waste safely to authorised actual user or authorised TSDF, BEIL Ankleshwar in accordance with the provision in these rules. The UPL Unit 5 is authorised for collection, storage, transportation of Hazardous waste by GPCB Vide CCA No – AWH-102834.</p> <p>Complied.</p> <p>The unit provides details of hazardous and other wastes to be treated and disposed of in form 8 and Form 10. The copy of Form 8 &amp; Form 10 is attached as <b>Annexure - 6 &amp; 8</b>.</p> <p>The unit has implemented safe collection practices of Hazardous wastes and separate confined hazardous waste storage area for temporary storage of Hazardous waste. The unit has prepared On-site Emergency plan covering all activities including hazardous waste management accidents. The unit also provides appropriate training like Safety Training level 0, 1, and 2, operational training, etc. to the persons working in site. Also, appropriate PPEs are provided for the persons to work safely. The attendance sheet of training for water and wastewater plant operation with inclusion of Hazardous waste management is attached as <b>Annexure - 1</b></p>
5.	<b>Responsibilities of State Government for environmentally sound management of hazardous and other wastes. –</b>	NOT APPLICABLE
(1)	Department of Industry in the State or any other government agency authorised in this regard by the State Government, to ensure earmarking or allocation of industrial space or shed for recycling, pre-processing and other utilization of hazardous or other waste in the existing and upcoming industrial park, estate and industrial clusters;	NOT APPLICABLE
(2)	Department of Labor in the State or any other government agency authorised in	NOT APPLICABLE

	<p>this regard by the State Government shall, -</p> <p>(a) ensure recognition and registration of workers involved in recycling, preprocessing and other utilization activities;</p> <p>(b) assist formation of groups of such workers to facilitate setting up such facilities;</p> <p>(c) undertake industrial skill development activities for the workers involved in recycling, pre-processing and other utilization;</p> <p>(d) undertake annual monitoring and to ensure safety and health of workers involved in recycling, pre-processing and other utilization.</p>	
(3)	Every State Government may prepare integrated plan for effective implementation of these provisions and to submit annual report to the Ministry of Environment, Forest and Climate Change, in the Central Government.	NOT APPLICABLE
6.	<b>Grant of authorization for managing hazardous and other wastes. -</b>	
(1)	<p>Every occupier of the facility who is engaged in handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilization, offering for sale, transfer or disposal of the hazardous and other wastes shall be required to make an application in <b>Form 1</b> to the State Pollution Control Board and obtain an authorization from the State Pollution Control Board within a period of sixty days from the date of publication of these rules.</p> <p>Such application for authorization shall be accompanied with a copy each of the following documents, namely: -</p> <p>(a) consent to establish granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981);</p> <p>(b) Consent to operate granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and/or</p>	<p>Complied.</p> <p>The unit has obtained authorization and is operated as per GPCB Consent to Operate (CC&amp;A) vide GPCB CC&amp;A # 102834 dated 17.10.2019 valid up to 19.11.2024 (The copy of valid CC&amp;A is attached as <b>Annexure-1 of EC Compliance</b>).</p>



	<p>Air (Prevention and Control of Pollution) Act, 1981, (21 of 1981);</p> <p>(c) in case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes:</p> <p>Provided that an application for renewal of authorization may be made three months before the expiry of such authorization:</p> <p>Provided further that-</p> <p>(i) any person authorised under the provisions of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008, prior to the date of commencement of these rules, shall not be required to make an application for authorisation till the period of expiry of such authorisation;</p> <p>(ii) any person engaged in recycling or reprocessing of the hazardous waste specified in Schedule IV and having registration under the provisions of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008, shall not be required to make an application for authorisation till the period of expiry of such registration.</p>	
(2)	<p>On receipt of an application complete in all respects for the authorisation, the State Pollution Control Board may, after such inquiry as it considers necessary, and on being satisfied that the applicant possesses appropriate facilities for collection, storage, packaging, transportation, treatment, processing, use, destruction, recycling, recovery, pre-processing, co-processing, utilisation, offering for sale, transfer or disposal of the hazardous and other waste, as the case may be, and after ensuring technical capabilities and equipment complying with the standard operating procedure or other guidelines specified by the Central Pollution Control Board from time to time and through site inspection, grant within a period of one hundred and twenty days, an authorisation in <b>Form 2</b> to the applicant, which shall be valid for a period of five years subject to such conditions as may be laid down therein. For commonly recyclable hazardous waste as given in Schedule IV, the guidelines already</p>	Noted.

	<p>prepared by the Central Pollution Control Board shall be followed:</p> <p>Provided that in the case of an application for renewal of authorisation, the State Pollution Control Board may, before granting such authorisation, satisfy itself that there has been no violation of the conditions specified in the authorisation earlier granted by it and same shall be recorded in the inspection report.</p>	
(3)	<p>The authorisation granted by the State Pollution Control Board under sub-rule (2) shall be accompanied by a copy of the field inspection report signed by that Board indicating the adequacy of facilities for collection, storage, packaging, transportation, treatment, processing, use, destruction, recycling, recovery, pre-processing, co-processing, utilisation, offering for sale, transfer or disposal of the hazardous and other wastes and compliance to the guidelines or standard operating procedures specified by the Central Pollution Control Board from time to time.</p>	Noted.
(4)	<p>The State Pollution Control Board may, for the reasons to be recorded in writing and after giving reasonable opportunity of being heard to the applicant, refuse to grant any authorisation under these rules.</p>	Noted.
(5)	<p>Every occupier authorised under these rules, shall maintain a record of hazardous and other wastes managed by him in <b>Form 3</b> and prepare and submit to the State Pollution Control Board, an annual return containing the details specified in <b>Form 4</b> on or before the 30th day of June following the financial year to which that return relates.</p>	<p>The unit maintains record of hazardous and other wastes generated in Form 3. The monthly generation, storage and disposal quantities with manifest Form 10 have been submitted to GPCB. The copy of covering letter with Hazardous waste quantities is given as <b>Annexure 3 A</b> &amp; latest submitted Annual Return (Form 4) is attached as <b>Annexure 3B</b>.</p>
(6)	<p>The State Pollution Control Board shall maintain a register containing particulars of the conditions imposed under these rules for management of hazardous and other wastes and it shall be open for inspection during office hours to any interested or affected person.</p>	Not Applicable.
(7)	<p>The authorised actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorisation.</p>	Not Applicable.



(8)	Handing over of the hazardous and other wastes to the authorised actual user shall be only after making the entry into the passbook of the actual user.	Not Applicable.
7.	<b>Power to suspend or cancel an authorisation.-</b>	
(1)	The State Pollution Control Board, may, if in its opinion the holder of the authorisation has failed to comply with any of the conditions of the authorisation or with any provisions of the Act or these rules and after giving him a reasonable opportunity of being heard and after recording reasons thereof in writing cancel or suspend the authorisation issued under rule 6 for such period as it considers necessary in the public interest.	Noted.
(2)	Upon suspension or cancellation of the authorisation, the State Pollution Control Board may give directions to the person whose authorisation has been suspended or cancelled for the safe storage and management of the hazardous and other wastes, and such occupier shall comply with such directions.	Noted.
8.	<b>Storage of hazardous and other wastes.-</b>	
(1)	<p>The occupiers of facilities may store the hazardous and other wastes for a period not exceeding ninety days and shall maintain a record of sale, transfer, storage, recycling, recovery, pre-processing, co-processing and utilisation of such wastes and make these records available for inspection:</p> <p>Provided that the State Pollution Control Board may extend the said period of ninety days in following cases, namely:-</p> <ul style="list-style-type: none"> <li>(i) small generators (up to ten tonnes per annum) up to one hundred and eighty days of their annual capacity;</li> <li>(ii) actual users and disposal facility operators up to one hundred and eighty days of their annual capacity,</li> <li>(iii) occupiers who do not have access to any treatment, storage, disposal facility in the concerned State; or</li> <li>(iv) the waste which needs to be specifically stored for development of a process for its recycling, recovery, pre-processing, co-processing or utilisation;</li> </ul>	<p><b>Complied.</b></p> <p>The unit has provided Hazardous waste storage area as per CPCB Guidelines. The photograph showing Hazardous Waste Storage area is attached as <b>Annexure – 4</b>. The hazardous waste generated is disposed off on regular basis. The monthly statement of generation, collection, storage and disposal has been submitted to GPCB. The copy of statement is attached as Annexure 3A.</p>

	(v) in any other case, on justifiable grounds up to one hundred and eighty days.	
9.	<b>Utilisation of hazardous and other wastes.-</b>	
(1)	<p>The utilisation of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator (if it is not part of process), shall be carried out only after obtaining authorisation from the State Pollution Control Board in respect of waste on the basis of standard operating procedures or guidelines provided by the Central Pollution Control Board.</p>	<p>Complied.</p> <p>The unit has obtained authorisation and is operated as per GPCB Consent to Operate (CC&amp;A) vide GPCB CC&amp;A # 102834 dated 17.10.2019 valid up to 19.11.2024 (The copy of valid CC&amp; A is attached as <b>Annexure-1 of EC Compliance Report</b>).</p> <p>The unit is no in process of co-processing or other use of Hazardous waste. The generated by products are given to authorised end users based on applicability of rules.</p>
(2)	<p>Where standard operating procedures or guidelines are not available for specific utilisation, the approval has to be sought from Central Pollution Control Board which shall be granting approval on the basis of trial runs and thereafter, standard operating procedures or guidelines shall be prepared by Central Pollution Control Board:</p> <p>Provided, if trial run has been conducted for particular waste with respect to particular utilisation and compliance to the environmental standards has been demonstrated, authorisation may be granted by the State Pollution Control Board with respect to the same waste and utilisation, without need of separate trial run by Central Pollution Control Board and such cases of successful trial run, Central Pollution Control Board shall intimate all the State Pollution Control Board regarding the same.</p>	Noted.
(3)	No trial runs shall be required for co-processing of waste in cement plants for which guidelines by the Central Pollution Control Board are already available; however, the actual users shall ensure compliance to the standards notified under the Environment (Protection)	Not Applicable.



	Act, 1986 (29 of 1986), for cement plant with respect to co-processing of waste: Provided that till the time the standards are notified, the procedure as applicable to other kind of utilisation of hazardous and other waste, as enumerated above shall be followed.	
10.	<b>Standard Operating Procedure or guidelines for actual users.-</b>	
	The Ministry of Environment, Forest and Climate Change or the Central Pollution Control Board may issue guidelines or standard operating procedures for environmentally sound management of hazardous and other wastes from time to time.	Noted.
<b>CHAPTER III - IMPORT AND EXPORT OF HAZARDOUS AND OTHER WASTES</b>		
11.	<b>Import and export (transboundary movement) of hazardous and other wastes.-</b> The Ministry of Environment, Forest and Climate Change shall be the nodal Ministry to deal with the transboundary movement of the hazardous and other wastes in accordance with the provisions of these rules.	Not Applicable.
12.	<b>Strategy for Import and export of hazardous and other wastes.-</b>	Not Applicable.
	(1) No import of the hazardous and other wastes from any country to India for disposal shall be permitted. (2) The import of hazardous and other wastes from any country shall be permitted only for recycling, recovery, reuse and utilisation including co-processing. (3) The import of hazardous waste in Part A of Schedule III may be allowed to actual users with the prior informed consent of the exporting country and shall require the permission of the Ministry of Environment, Forest and Climate Change. (4) The import of other wastes in Part B of Schedule III may be allowed to actual users with the permission of the Ministry of Environment, Forest and Climate Change. (5) The import of other wastes in Part D of Schedule III will be allowed as per procedure given in rule 13 and as per the note below the said Schedule.	Not Applicable.

	<p>(6) No import of the hazardous and other wastes specified in Schedule VI shall be permitted.</p> <p>(7) The export of hazardous and other wastes from India listed in Part A and Part B of Schedule III and Schedule VI shall be with the permission of Ministry of Environment, Forest and Climate Change. In case of applications for export of hazardous and other waste listed in Part A of Schedule III and Schedule VI, they shall be considered on the basis of prior informed consent of the importing country.</p> <p>(8) The import and export of hazardous and other wastes not specified in Schedule III, but exhibiting the hazardous characteristics outlined in Part C of Schedule III shall require prior written permission of the Ministry of Environment, Forest and Climate Change before it is imported to or exported from India, as the case may be.</p>	
13.	<b>Procedure for import of hazardous and other wastes.-</b>	Not Applicable.
	<p>(1) Actual users intending to import or transit for transboundary movement of hazardous and other wastes specified in Part A and Part B of Schedule III shall apply in <b>Form 5</b> along with the documents listed therein, to the Ministry of Environment, Forest and Climate Change for the proposed import together with the prior informed consent of the exporting country in respect of Part A of Schedule III waste, and shall send a copy of the application, simultaneously, to the concerned State Pollution Control Board for information and the acknowledgement in this respect from the concerned State Pollution Control Board shall be submitted to the Ministry of Environment, Forest and Climate Change along with the application.</p>	Not Applicable.
	<p>(2) For the import of other wastes listed in Part D of Schedule III, the importer shall not require the permission of the Ministry of Environment, Forest and Climate Change. However, the importer shall furnish the required information as per <b>Form 6</b> to the Customs authorities, accompanied with the following documents in addition to those listed in Schedule VIII, wherever applicable. For</p>	Not Applicable.



	<p>used electrical and electronic assemblies listed at serial numbers 4 (e) to 4(i) of Schedule VIII (Basel No. B1110), there is no specific requirement of documentation under these rules:</p> <p>(a) the import license from Directorate General of Foreign Trade, if applicable;</p> <p>(b) the valid consents under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981) and the authorisation under these rules as well as the authorisation under the E-Waste (Management and Handling) Rules, 2011, as amended from time to time, whichever applicable;</p> <p>(c) importer who is a trader, importing waste on behalf of actual users, shall obtain one time authorisation in <b>Form 7</b> and copy of this authorisation shall be appended to <b>Form 6</b>.</p>	
	<p>(3) For Part B of Schedule III, in case of import of any used electrical and electronic assemblies or spares or part or component or consumables as listed under Schedule I of the E-Waste (Management and Handling) Rules, 2011, as amended from time to time, the importer need to obtain extended producer responsibility-authorisation as producer under the said E-Waste (Management and Handling) Rules, 2011.</p>	Not Applicable.
	<p>(4) Prior to clearing of consignment of wastes listed in Part D of Schedule III, the Custom authorities shall verify the documents as given in column (3) of Schedule VIII.</p>	Not Applicable.
	<p>(5) On receipt of the complete application with respect to Part A and Part B of Schedule III, the Ministry of Environment, Forest and Climate Change shall examine the application considering the comments and observations, if any, received from the State Pollution Control Boards, and may grant the permission for import within a period of sixty days subject to the condition that the importer has –</p> <p>(i) the environmentally sound facilities;</p> <p>(ii) adequate arrangements for treatment and disposal of wastes generated;</p> <p>(iii) a valid authorisation and consents from the State Pollution Control Board;</p>	Not Applicable.

	(iv) prior informed consent from the exporting country in case of Part A of Schedule III wastes.	
	(6) The Ministry of Environment, Forest and Climate Change shall forward a copy of the permission to the concerned Port and Customs authorities, Central Pollution Control Board and the concerned State Pollution Control Board for ensuring compliance with respect to their respective functions given in Schedule VII.	Not Applicable.
	(7) The importer of the hazardous and other wastes shall maintain records of the hazardous and other waste imported by him in <b>Form 3</b> and the record so maintained shall be made available for inspection.	Not Applicable.
	(8) The importer of the hazardous and other wastes shall file an annual return in <b>Form 4</b> to the State Pollution Control Board on or before the 30 <sup>th</sup> day of June following the financial year to which that return relates.	Not Applicable.
	(9) Samples of hazardous and other wastes being imported for testing or research and development purposes up to 1000 gm or 1000 ml shall be exempted from need of taking permission for import under these rules.	Not Applicable.
	(10) The Port and Customs authorities shall ensure that shipment is accompanied with the movement document as given in <b>Form 6</b> and the test report of analysis of the waste, consignment, wherever applicable, from a laboratory accredited or recognised by the exporting country. In case of any doubt, the customs may verify the analysis.	Not Applicable.
14.	<b>Procedure for Export of hazardous and other wastes from India.-</b>	Not Applicable.
	(1) Any occupier intending to export waste specified in Part A of Schedule III, Part B of Schedule III and Schedule VI, shall make an application in <b>Form 5</b> along with insurance cover to the Ministry of Environment, Forest and Climate Change for the proposed transboundary movement of the hazardous and other wastes together with the prior informed consent in writing from the importing	Not Applicable.



	country in respect of wastes specified in Part A of Schedule III and Schedule VI.	
	(2) On receipt of an application under sub-rule (1), the Ministry of Environment, Forest and Climate Change may give permission for the proposed export within a period of sixty days from the date of submission of complete application and may impose such conditions as it may consider necessary.	Not Applicable.
	(3) The Ministry of Environment, Forest and Climate Change shall forward a copy of the permission granted under sub-rule (2) to the State Pollution Control Board of the State where the waste is generated and the Pollution Control Board of the State where the port of export is located and the concerned Port and Customs authorities for ensuring compliance of the conditions of the export permission.	Not Applicable.
	(4) The exporter shall ensure that no consignment is shipped before the prior informed consent is received from the importing country, wherever applicable.	Not Applicable.
	(5) The exporter shall also ensure that the shipment is accompanied with movement document in <b>Form 6</b> .	Not Applicable.
	(6) The exporter of the hazardous and other wastes shall maintain the records of the hazardous or other waste exported by him in <b>Form 3</b> and the record so maintained shall be available for inspection.	Not Applicable.
15.	<b>Illegal traffic.-</b>	Not Applicable since the unit is not involved in import or export of any hazardous or other wastes generated in the unit.
	(1) The export and import of hazardous or other wastes from and into India, respectively shall be deemed illegal, if,- (i) it is without permission of the Central Government in accordance with these rules; or (ii) the permission has been obtained through falsification, mis-representation or fraud; or (iii) it does not conform to the shipping details provided in the movement documents; or (iv) it results in deliberate disposal (i.e., dumping) of hazardous or other waste in contravention of the Basel Convention and of general principles of international or domestic law.	Not Applicable.

	(2) In case of illegal import of the hazardous or other waste, the importer shall re-export the waste in question at his cost within a period of ninety days from the date of its arrival into India and its implementation will be ensured by the concerned Port and the Custom authority. In case of disposal of such waste by the Port and Custom authorities, they shall do so in accordance with these rules with the permission of the Pollution Control Board of the State where the Port exists.	Not Applicable.
	(3) In case of illegal import of hazardous or other waste, where the importer is not traceable then the waste either can be sold by the Customs authority to any user having authorisation under these rules from the concerned State Pollution Control Board or can be sent to authorised treatment, storage and disposal facility.	Not Applicable.
<b>CHAPTER IV - TREATMENT, STORAGE AND DISPOSAL FACILITY FOR HAZARDOUS AND OTHER WASTES</b>		
16.	<b>Treatment, storage and disposal facility for hazardous and other wastes.-</b>	
	<p>(1) The State Government, occupier, operator of a facility or any association of occupiers shall individually or jointly or severally be responsible for identification of sites for establishing the facility for treatment, storage and disposal of the hazardous and other waste in the State.</p> <p>(2) The operator of common facility or occupier of a captive facility, shall design and set up the treatment, storage and disposal facility as per technical guidelines issued by the Central Pollution Control Board in this regard from time to time and shall obtain approval from the State Pollution Control Board for design and layout in this regard.</p>	<p>The Ankleshwar GIDC area is facilitated by Common Hazardous Waste Treatment &amp; Disposal Facility Operated by Bharuch Enviro Infrastructure Limited (BEIL). The unit has obtained membership of Bharuch Enviro Infrastructure Ltd. (BEIL) Ankleshwar, an authorised Common Hazardous Treatment, Storage and Disposal Facility for disposal of hazardous and other wastes. The copy of membership is attached as <b>Annexure – 5</b>.</p> <p>The unit has obtained membership of Bharuch Enviro Infrastructure Ltd. (BEIL) Ankleshwar, an authorised Common Hazardous Treatment, Storage and Disposal Facility for disposal of hazardous and other wastes. The copy of membership is attached as <b>Annexure – 5</b>.</p>



	<p>(3) The State Pollution Control Board shall monitor the setting up and operation of the common or captive treatment, storage and disposal facility, regularly.</p> <p>(4) The operator of common facility or occupier of a captive facility shall be responsible for safe and environmentally sound operation of the facility and its closure and post closure phase, as per guidelines or standard operating procedures issued by the Central Pollution Control Board from time to time.</p> <p>(5) The operator of common facility or occupier of a captive facility shall maintain records of hazardous and other wastes handled by him in <b>Form 3</b>.</p> <p>(6) The operator of common facility or occupier of a captive facility shall file an annual return in <b>Form 4</b> to the State Pollution Control Board on or before the 30<sup>th</sup> day of June following the financial year to which that return relates.</p>	<p>Noted.</p> <p>Noted.</p> <p>Not Applicable.</p> <p>Not Applicable.</p>
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#### **CHAPTER V - PACKAGING, LABELLING, AND TRANSPORT OF HAZARDOUS AND OTHER WASTES.**

17.	<b>Packaging and Labelling.-</b>	
	<p>(1) Any occupier handling hazardous or other wastes and operator of the treatment, storage and disposal facility shall ensure that the hazardous and other wastes are packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time. The labelling shall be done as per <b>Form 8</b>.</p> <p>(2) The label shall be of non-washable material, weather proof and easily visible.</p>	<p>Complied.</p> <p>The hazardous or other wastes are packaged in a manner suitable for safe handling, storage and transport to authorised actual user or authorised TSDF BEIL, Ankleshwar. The labelling of package is also done as per Form-8.</p> <p>The Form 8 for labelling the hazardous waste and other wastes containers is attached as <b>Annexure 6</b>.</p>
18.	<b>Transportation of hazardous and other wastes.-</b>	
	<p>(1) The transport of the hazardous and other waste shall be in accordance with the provisions of these rules and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.</p> <p>(2) The occupier shall provide the transporter with the relevant information in <b>Form 9</b>, regarding the hazardous</p>	<p>Complied.</p> <p>The unit transports hazardous and other wastes in accordance with the provisions of these rules and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the CPCB.</p> <p>The unit also provides information in Form 9 to the transporter regarding nature of the wastes and measures to</p>

	<p>nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per <b>Form 8</b>.</p> <p>(3) In case of transportation of hazardous and other waste for final disposal to a facility existing in a State other than the State where the waste is generated, the sender shall obtain 'No Objection Certificate' from the State Pollution Control Board of both the States.</p> <p>(4) In case of transportation of hazardous and other waste for recycling or utilisation including coprocessing, the sender shall intimate both the State Pollution Control Boards before handing over the waste to the transporter.</p> <p>(5) In case of transit of hazardous and other waste for recycling, utilisation including coprocessing or disposal through a State other than the States of origin and destination, the sender shall give prior intimation to the concerned State Pollution Control Board of the States of transit before handing over the wastes to the transporter.</p> <p>(6) In case of transportation of hazardous and other waste, the responsibility of safe transport shall be either of the sender or the receiver whosoever arranges the transport and has the necessary authorisation for transport from the concerned State Pollution Control Board. This responsibility should be clearly indicated in the manifest.</p> <p>(7) The authorisation for transport shall be obtained either by the sender or the receiver on whose behalf the transport is being arranged.</p>	<p>be taken in case of emergency. The Form 9 is attached as <b>Annexure 7</b>. The hazardous and other wastes containers are also labelled with Form 8. The copy of Form 8 is attached as <b>Annexure 6</b>.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p>
19.	<b>Manifest system (Movement Document) for hazardous and other waste to be used within the country only.-</b>	
	(1) The sender of the waste shall prepare seven copies of the manifest in <b>Form 10</b> comprising of colour code indicated below and all seven copies shall be signed by the sender:	<p>Complied.</p> <p>The copies of manifest are prepared in Form 10 as per colour code.</p>



	<p>(2) The sender shall forward copy 1 (white) to the State Pollution Control Board, and in case the hazardous or other wastes is likely to be transported through any transit State, the sender shall intimate State Pollution Control Boards of transit States about the movement of the waste.</p> <p>(3) No transporter shall accept waste from the sender for transport unless it is accompanied by signed copies 3 to 7 of the manifest.</p> <p>(4) The transporter shall submit copies 3 to 7 of the manifest duly signed with date to the receiver along with the waste consignment.</p> <p>(5) The receiver after acceptance of the waste shall hand over copy 4 (orange) to the transporter and send copy 5 (green) to his State Pollution Control Board and send copy 6 (blue) to the sender and the copy 3 (pink) shall be retained by the receiver.</p> <p>(6) The copy 7 (grey) shall only be sent to the State Pollution Control Board of the sender, if the sender is in another State.</p>	<p>The unit forwards Copy 1 (White) to the GPCB monthly. The Form 10 is attached as <b>Annexure 8</b>.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p> <p>Not Applicable.</p>
<b>CHAPTER VI - MISCELLANIOUS</b>		
20.	<b>Records and returns.-</b>	
	<p>(1) The occupier handling hazardous or other wastes and operator of disposal facility shall maintain records of such operations in <b>Form 3</b>.</p> <p>(2) The occupier handling hazardous and other wastes and operator of disposal facility shall send annual returns to the State Pollution Control Board in <b>Form 4</b>.</p> <p>(3) The State Pollution Control Board based on the annual returns received from the occupiers and the operators of the facilities for disposal of hazardous and other wastes shall prepare an annual inventory of the waste generated; waste recycled, recovered, utilised including co-processed; waste re-exported, and waste disposed and submit</p>	<p>The unit maintains Hazardous waste generation details in Form 3 &amp; submits monthly hazardous waste generation, collection, storage &amp; disposal details with manifest copies to GPCB. The copy of monthly submission to GPCB is attached as <b>Annexure 3A</b>. &amp; The copy of annual return (Form 4) submitted to GPCB is attached as <b>Annexure 3B</b>.</p> <p>Noted.</p>

	<p>to the Central Pollution Control Board by the 30<sup>th</sup> day of September every year. The State Pollution Control Board shall also prepare the inventory of hazardous waste generators, actual users, and common and captive disposal facilities and shall submit the information to Central Pollution Control Board every two years.</p> <p>(4) The Central Pollution Control Board shall prepare the consolidated review report on management of hazardous and other wastes and forward it to the Ministry of Environment, Forest and Climate Change, along with its recommendations before the 30<sup>th</sup> day of December once in every year.</p>	Noted.
21.	<p><b>Responsibility of authorities. –</b> The authority specified in column (2) of Schedule VII shall perform the duties as specified in column (3) of the said Schedule subject to the provisions of these rules.</p>	Noted.
22.	<p><b>Accident reporting. –</b> Where an accident occurs at the facility of the occupier handling hazardous or other wastes and operator of the disposal facility or during transportation, the occupier or the operator or the transporter shall immediately intimate the State Pollution Control Board through telephone, e-mail about the accident and subsequently send a report in <b>Form 11</b>.</p>	Noted.
23.	<p><b>Liability of occupier, importer or exporter and operator of a disposal facility.-</b></p>	
	<p>(1) The occupier, importer or exporter and operator of the disposal facility shall be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.</p> <p>(2) The occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.</p>	Noted.
24.	<p><b>Appeal. -</b></p>	
	<p>(1) Any person aggrieved by an order of suspension or cancellation or refusal of authorisation or its renewal passed by the State Pollution Control Board may, within</p>	Noted



	<p>a period of thirty days from the date on which the order is communicated to him, prefer an appeal in <b>Form 12</b> to the Appellate Authority, namely, the Environment Secretary of the State.</p> <p>(2) The Appellate Authority may entertain the appeal after expiry of the said period of thirty days, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.</p> <p>(3) Every appeal filed under this rule shall be disposed of within a period of sixty days from the date of its filing.</p>	<p>Noted.</p> <p>Noted.</p>
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UPL Limited

Training Attendance Sheet



Topic

Multiple Effect Evaporator

Faculty

B. BALA Praveen

Time

2:00 to 5:30

Date

23/09/19

Reference

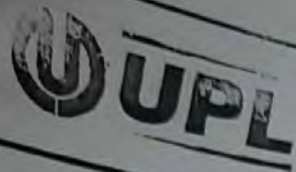
Venue

Training Hall - A

Sr. No.	Employee Code (8 Digit SAP Code)	Name	Designation	Department	Mfg. Unit/ Location	Signature
1	CW6604	A. Gauri Shankar	ETP Operator	ETP	UPL-5	AG
2	CW6605	B. SAI YESHWANTH	ETP Operator	ETP	UPL-5	B. Sai
3	1206920	Selvaraj Mahalingam	Officer	Prod <sup>m</sup>	UPL-2	Selvaraj Mahalingam
4	1204683	Pavan Jadme	Officer	WDM MEE	UPL-05	PJ
5	1206896	Sajan Ranpariya	Officer	Prod <sup>m</sup>	UPL-02	Sajan
6	3200150	Vallabhbhai Rohit	Operator	Prod	UPL-02	Vallabh
7	1206783	Krishna Pandey	Officer	Q.A.	UPL-05	Krishna
8	1207570	Kirit Patel	Executive	Prod.	UPL-01	Kirit Patel
9	1206376	Yash Ashil	Executive	Prod	UPL-01	Yash



[illegible]



UPL Limited  
Training Attendance Sheet



Topic

Water & Waste Water treatment plant operations

Faculty

B. Bala Praveen

Date 13/09/19

Time

9:30 to 1:00

Venue

Training Hall - A

Reference

Sr. No.	Employee Code (8 Digit SAP Code)	Name	Designation	Department	Mfg. Unit/ Location	Signature
01	1204809	Arun D Thanvi	Sr executive	Ulab Fr	UPL1	
02	1207551	Jankar. T. Patel	Jr. officer	SE-367 Unit-5	Unit-5	
03	1207582	Manoj Kumar	OFFICER	SE-367	Unit-5	M.K
04	1206682	YOGESHWAR Patel	Jr. officer	QF-02	Unit-5	Y. D Patel
05	1200957	Hasmukh Patel	Asst-manager	UPH-50W	Unit-5	
06	3200150	Vallabhbhai T. Rohit	Operator	Clomazone <del>QF-02</del>	Unit-2	
07	1200151	Ashish. Chaturvedi	Executive	QA Lab	UPL-02	
08	1207160	Aashish M. Tiwari	QA officer	QA Lab	UPL-05	
09	1100172	Vinay D. Patil	Sr. executive	CLP	UPL-05	



	SAP Code)	Name	Designation	Department	Mfg. Unit/ Location	Signature
10	1201435	Vijay Pratap Singh	Prod <sup>n</sup> Officer	C.C.P	UPL-5	<u>Singh</u>
11	1205519	Sandip M Chavhan	ETP	ETP	UPL-5	<u>Singh</u>
12	CW 0007126	Parth Makwana	ETP	ETP	UPL-5	<u>Singh</u>
13	<del>3005130</del>	A. Gouri Chakori	ETP	ETP	UPL-5	<u>AG</u>
14		B. SAI YESHNANTH	ETP	ETP	UPL-5	<u>B. Sai</u>
15	3005130	S. S. Patil	Plant	PH-5000	UPL-2	<u>SSP</u>
16	3005160	K. R. Patil	ETP	ETP	UPL-2	<u>SRID</u>
17	1203737	Balveer Singh	Manager ETP	ETP	UPL	<u>Balveer</u>
18	1202113	Shinath Diche	Executive	ETP	UPL	





Ref.: UPL/JHG/ENV/10/2019/03

11<sup>th</sup> April 2019

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

GPCB XGN ID No.# 25353

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of March-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of **March-2019**. Total 596 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	6914.19
2	Incineration	594.3

Hope you find the same in order.  
Thanking You.

Yours faithfully,  
For, UPL Limited

*Subhat Kumar Jindal*  
Subhat Kumar Jindal  
Sr. General Manager- Manufacturing

Encl: a/a

Received  
Gujarat Pollution Control Board  
RO Ankleshwar  
15.4.19





ACK

11<sup>th</sup> May 2019

Ref.: UPL/JHG/ENV/10/2019/04

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

GPCB XGN ID No.# 25353

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of April-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

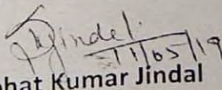
Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of **April-2019**. Total 386 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	5103.22
2	Incineration	453.88

Hope you find the same in order.  
Thanking You.

Yours faithfully,  
For, UPL Limited

  
Subhat Kumar Jindal  
Sr. General Manager- Manufacturing

Encl: a/a

Received  
Gujarat Pollution Control Board  
R.O. Ankleshwar

13/5/19





Ref.: UPL/JHG/ENV/10/2019/05

18<sup>th</sup> June 2019

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

GPCB XGN ID No.# 25353

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of May-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of May-2019. Total 399 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	5011.8
2	Incineration	582.77

Hope you find the same in order.  
Thanking You.

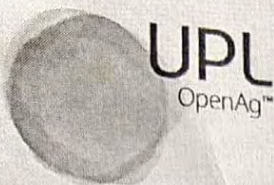
Yours faithfully,  
For, UPL Limited

Anil C Mundada  
Sr. General Manager- Manufacturing

Encl: a/a

Received  
Gujarat Pollution Control Board  
R.O. Ankleshwar  
25/8/19





UPL Limited, Unit - 5  
Plot No.746 & 750, P.B. No.9  
GIDC, Dist. Bharuch  
Jhagadia 393 110 Gujarat, India

w: upl-ltd.com  
t: +91 2645 226013  
f: +91 2645 226017

Ref.: UPL/JHG/ENV/10/2019/06

26<sup>th</sup> July 2019

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

GPCB XGN ID No.# 25353

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of June-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of **June-2019**. Total 286 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	3604.88
2	Incineration	445.77

Hope you find the same in order.  
Thanking You.

Yours faithfully,  
For, UPL Limited

Anil C. Mundada  
Sr. General Manager- Manufacturing

Encl: a/a

Received  
Gujarat Pollution Control Board  
RO Ankleshwar

26-7-19





UPL Limited, Unit - 5  
Plot No.746 & 750, P.B. No.9  
GIDC, Dist. Bharuch  
Jhagadia 393 110 Gujarat, India

w: upl-ltd.com  
t: +91 2645 226013  
f: +91 2645 226017

Ref.: UPL/JHG/ENV/10/2019/07

02<sup>nd</sup> August 2019

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

GPCB XGN ID No.# 25353

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of July-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of **July-2019**. Total 428 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	5273.145
2	Incineration	659.73

Hope you find the same in order.  
Thanking You.

Yours faithfully,  
For, UPL Limited

Ajit C. Mundada  
Sr. General Manager- Manufacturing

Encl: a/a

**Received**  
Gujarat Pollution Control Board  
RO Ankleshwar

4-1-90





UPL Limited, Unit - 5  
Plot No. 746 & 750, P.B. No. 9  
GIDC, Dist. Bharuch  
Jhagadia 393 110 Gujarat, India

w: upl-ltd.com  
t: +91 2645 226013  
f: +91 2645 226017

16<sup>th</sup> Sept 2019

Ref.: UPL/JHG/ENV/10/2019/08

GPCB XGN ID No. # 25353

To  
The Regional Officer,  
Gujarat Pollution Control Board,  
GIDC – Ankleshwar.

Sub : Manifest copies for Solid Waste/ Incineration Waste Disposal during the month of Augt-2019

Ref. : Consolidated Consent & Authorization No. AWH 94827 issued on 09.07.2018

Dear Sir;

With reference to the above subject, please find enclosed herewith Manifest copies for the Solid / Incineration Wastes, sent to BEIL during the month of Augt-2019. Total 260 Nos. of manifest are enclosed. The total quantities of waste sent to BEIL are as follows:

Sr. No.	Type of Waste	Quantity (MT)
1	Landfilling	3490.48
2	Incineration	421.92

Hope you find the same in order.

Thanking You.

Yours faithfully,  
For, UPL Limited

Anil C. Mundada  
Sr. General Manager- Manufacturing

received  
Gujarat Pollution Control Board  
RO Ankleshwar  
17-9-19

Encl: a/a



# ANNEXURE –3B

Ack



Ref: UPL/ENV/JHG/23/2019/01

11<sup>th</sup> May, 2019

GPCB XGN ID # 25353

To,  
The Member Secretary  
Gujarat Pollution Control Board  
Paryavaran Bhavan ,  
Sector – 10/A,  
Gandhinagar – 382 010.

Dear Sir,

Sub: Hazardous Waste Return for the period April 2018 to March 2019

Ref: The Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2016

We are forwarding herewith Hazardous Waste Return with respect to our UPL Limited Unit #5 located at Plot # 746 & 750, GIDC, Jhagadia for the period of April -2018 to March- 2019 in Form-3 and Form-4.

We hope that the above is in order.

Thanking you

Yours faithfully,

For, **UPL Limited**

*Subhat Kumar Jindal*  
11/05/19

**Subhat Kumar Jindal**  
**Sr. General Manager- Manufacturing**

CC: Regional Officer  
Gujarat Pollution Control Board  
Plot # 1501, GIDC Estate  
Ankleshwar – 393 002  
Dist – Bharuch.

Encl: a/a

Received  
Gujarat Pollution Control Board  
R.O. Ankleshwar

13/5/19





11<sup>th</sup> May, 2019

Ref: UPL/ENV/JHG/23/2019/01

GPCB XGN ID # 25353

To,  
The Member Secretary  
Gujarat Pollution Control Board  
Paryavaran Bhavan ,  
Sector - 10/A,  
**Gandhinagar - 382 010.**

Dear Sir,

Sub: Hazardous Waste Return for the period April 2018 to March 2019

Ref: The Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2016

We are forwarding herewith Hazardous Waste Return with respect to our UPL Limited Unit #5 located at Plot # 746 & 750, GIDC, Jhagadia for the period of April -2018 to March- 2019 in Form-3 and Form-4.

We hope that the above is in order.

Thanking you

Yours faithfully,

For, UPL Limited

*[Signature]*  
11/5/19  
Subhat Kumar Jindal

**Sr. General Manager- Manufacturing**

CC: Regional Officer  
Gujarat Pollution Control Board  
Plot # 1501, GIDC Estate  
Ankleshwar - 393 002  
Dist - Bharuch.

Encl: a/a

*[Signature]*  
15/05/19  
Gujarat Pollution Control Board  
Head Office  
Sector No. 10-A,  
Gandhinagar-382010

**FORM- 3***[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]***FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS & OTHER WASTES  
BY THE OCCUPIER OR OPERATOR OF A FACILITY**

1. Name and address of the occupier or operator of the facility :	Mr. Anil C. Mundada UPL Limited, Unit No 5, Plot No. 750 & 746, GIDC, Jhagadia, Dist. Bharuch-393 110					
2. Date of issuance of authorization and its reference number :	CC&A AWH #102834 dated 17.10.19 Valid up to 19.11.24.					
3. Description of hazardous and other wastes handled (Generated OR Received):						
Sr No.	Type of waste with category as per Schedules I, II and III of these rules	Type of Waste & Chemical form	Total Quantity of Waste Generated	Method of storage	Destined to or received from	Date wise description of Management of Hazardous and other waste
1	Z32	Brine Sludge from Chloro - Alkali Plant (chemical waste)	4672 MT	Stored in impervious storage area with roofing	To M/s. BEIL for land filling	April 2019 to September 2019.  Please refer Annexure –I For month wise disposal & Management of Hazardous Waste
2	35.3	Sludge from old ETP and New ETP (chemical sludge from Wastewater Treatment Plant)	3283MT	Stored in impervious storage area with roofing	To M/s. BEIL for land filling	
3	B40	White and Red Phosphorus Plant Phosphorus Residue	584 MT	Stored in impervious storage area with roofing	To M/s. BEIL for land filling	
4	5.1	Used Oil	10600 Liters	Stored in drums in H.W. storage area (shed & impervious area)	Sold to approved recycler	
5	33.1	Discarded containers / Barrels/ Liners (Empty barrels / containers / liners contaminated with hazardous chemicals / wastes)	511 MT	Stored in covered Shed with RCC flooring	Decontamination, detoxification and sold to GPCB approved vendors OR Contaminated discarded containers / barrels / liners to BEIL Dahej	
6	29.1	Process Distillation Residue [Organic] (Process waste or residue)	13813 MT	Stored in drums / Tanks in separate	To M/s. BEIL for incineration	



				place (shed & impervious area)		
7	B35	Inorganic Solid Waste (Phosphate compounds except Phosphates of Aluminium, Calcium and Iron)	750 MT	Stored in impervious storage area with roofing on the top	To M/s. BEIL for land filling	
8	A5	Batteries [Lead / Acid]	210 Nos.	Stored in earmarked storage area	Send to approved recycler	
9	36.2	Filter Aids (spent carbon or filter medium)	2.5 MT	Stored in earmarked storage area	To M/s. BEIL for incineration	
10	33.2	Contaminated Cotton Waste (contaminated cotton rags or other Cleaning materials)	14.5 MT	Stored in separate incineration waste storage area (shed & imperious area)	To M/s. BEIL for land filling/incineration	
11	B1	Waste Insulation Material	28 MT	Stored in earmarked storage area	To M/s. BEIL for land filling	
12	Z46	Used Contaminated Personal Protective Equipments [PVC/Plastic Waste]	4 MT	Stored in earmarked storage area	To M/s. BEIL for land filling	
13	33.1	Nonrecyclable Plastic waste Gaskets (empty barrels / containers / liners contaminated with Hazardous chemicals / wastes)	21 MT	Stored in earmarked storage area	To M/s. BEIL for land filling	
14	B1	Asbestos (Rope, gland, PPE etc.) (Asbestos)	5 MT	Stored in earmarked storage area	To M/s. BEIL for land filling	
15	29.3	Date expired/Off Specification product (Date expired and off Specification pesticides)	19 MT	Stored in separate incineration waste storage area (shed & impervious area)	To M/s. BEIL for incineration	
16	35.3	Solid Waste From Neutralization of	21321 MT	Stored in impervious	To M/s. BEIL for land filling	

		Spent Acid (chemical sludge from waste water treatment)		storage area with roofing on the top		
17	29.1	Aqueous waste (process waste or residue)	7832 MT	Stored in separate incineration waste storage area (shed & impervious area)	To M/s. BEIL for incineration	
18	35.3	Solid/Salt from MEE /Evaporation Plant (chemical sludge from wastewater treatment)	50944 MT	Stored in impervious storage area with roofing on the top	To M/s. BEIL for Land filling	
19	29.5	Spent Catalyst	10 MT	--	To M/s. BEIL for incineration	
20	37.2	Incineration/Furnace Ash (ash from incineration and flue gas cleaning residue)	22 MT	--	To M/s. BEIL for land filling	
21	Z14	FlyAsh from coal fired power plant (Fire Ash)	94540 MT	Stored in earmarked storage area	To bricks manufactures /end users /BEIL, Ankleshwar	

<b>04</b>	Date wise description of Management of Hazardous and other wastes sent and to whom in case of Recyclers or Pre-processors or Utilizers	<b>19736 MT</b> of decontaminated /detoxified Drums are being sold to only GPCB approved vendors. <b>0</b> Liters Used oil is sold to MOEF approved recyclers <b>170</b> Nos batteries are sold to approved recyclers Please refer Annexure-1.
<b>05</b>	Date of Environmental Monitoring (as per Authorization or guidelines of Central Pollution Control Board)	We do Environmental monitoring twice in a month through third party (Bharuch Enviro Infrastructure Limited).

Date : 20<sup>th</sup> November, 2019  
Place : Jhagadia  
Head of the Facility:

Name and Signature of  
**Mr. Anil C. Mundada**  
**(Sr. General Manager- Manufacturing)**



**FORM- 4**

[See rules 6(5), 13(8), 16(6) and 20 (2)]

**FORM FOR FILING ANNUAL RETURNS**

[To be submitted to State Pollution Control Board by 30<sup>th</sup> day of June of every year for the preceding period April to March]

1. Name and address of the Generator / Operator of Facility : M/s UPL Limited, Unit No. 5,  
750 & 746, GIDC, P. B. No. 9,  
Jhagadia - 393 110.
2. Date of issuance of authorization and its reference number : CC&A AWH #102834 dated 17.10.19 Valid up to 19.11.24.
3. Name of Authorized Person and full address with telephone and fax number: Mr. Subhat Kumar Jindal  
UPL Limited, Unit No 5,  
750 & 746, GIDC, Jhagadia,  
Dist. Bharuch-393 110.  
Tel no – 02645-226011 to 15 & Fax #226017/18
4. Production during the year (product wise) wherever applicable:

Production Details in MT											
Period	NaOH	Liq. CL2	H2 (MT)	Total HCL	NaOCL	H2SO4	PCL3	POCL3	Pendimethylene	MNZ	TPPI
2019	17197	17859	409	2903	407	404.8	14947	1369	1356	13263	839

Production Details in MT											
Period	Power Generation (MWH)	TTDP	TDP	CS2	Antracol	Glufosinate	DMPAT	MO	UPDT	Acrolein	
2019	131449	136	0	13590	3161	2394	2285	621	712	1141	

Part A: To be filled by Hazardous Waste Generator

Point No. 1 to 4: Details of Hazardous Waste:

Date of Issuance of authorization for the disposal of hazardous waste and its reference number of	Description of Hazardous Waste			Closing stock of Hazardous Waste as on 31.09.2019	Mode of packing/ Transportation to the site of disposal	To disposal facility, recycler or co-processors or pre-processor, others & in house use/ Brief description of the method of treatment / disposal	Description of the storage	Date of disposal	Category No.
	Physical form and contents	Chemical form	Total quantity of hazardous waste disposed						
CC&A No. 102834 issued on 17.10.19 valid up to 19.11.2024	Brine Sludge-solid non-hazardous with 35 % moisture	NaCl	1636 MT	61.53 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar	Stored in imperious storage area with roofing	April-2019 to September-2019	Z32
	ETP Sludge-Solid with 20 % moisture	CaSO <sub>4</sub> , CaCO <sub>3</sub> , Ca (PO <sub>4</sub> ) <sub>2</sub>	1110 MT	143.76 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar	Stored in imperious storage area with roofing		35.3



						.			
	White Phosphorus Plant-Phosphorus Distillation Waste	Fine dust, rock phosphate	253 MT	30.47 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructu re Ltd., a centralized secured landfill facility at GIDC, Ankleshwar	Stored in imperious storage area with roofing		B40
	Waste insulation material - Solid	Insulation	2.32 MT	0.78	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructu re Ltd., a centralized secured landfill facility at GIDC, Ankleshwar	Stored in earmarked storage area		B1
	Used Personal Protective Equipment - Solid	Plastic / Rubber	0.56 MT	0.02	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructu re Ltd., a centralized secured landfill facility at GIDC, Ankleshwar	Stored in earmarked storage area		Z46
	Non-recyclable plastic waste -Solid	Plastic	1.07 MT	1.02	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at	Bharuch Enviro Infrastructu re Ltd., a centralized	Stored in earmarked storage area		33.1

					Ankleshwar	secured landfill facility at GIDC, Ankleshwar .			
	Asbestos (rope, gland etc.) -Solid	-	0.1 MT	0.75	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar .	Stored in earmarked storage area		B1
	Inorganic Solid Waste	CaSO <sub>4</sub> , NaCl, KCl	0 MT	9 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar .	Stored in imperious storage area with roofing		B35
	Solid Waste from Neutralization of Spent Acid	Inorganic	4274 MT	167.79 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar .	Stored in imperious storage area with roofing		35.3



	Salt/ Solid Waste from MEE	Inorganic	12228 MT	1501.09 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, secured landfill at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a centralized secured landfill facility at GIDC, Ankleshwar .	Stored in imperious storage area with roofing		35.3
	Spent Resins from DM Plant-Solid	Resins	0MT	0.04	Authorized BEIL approved dumpers for transportation upto BEIL site, common Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a common Incineration facility at GIDC, Ankleshwar .	Stored in separate incineration waste storage area (shed & imperious area)		35.2
	Process Distillation Residue - Semi solid/ Liquid	Organic / Solvent	2638 MT	151.91 MT	In 200 liter drums /Authorized BEIL approved tankers for transportation up to BEIL site, common Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a common Incineration facility at GIDC, Ankleshwar .	Stored in separate incineration waste storage area (shed & impervious area)		29.1
	Aqueous waste - Liquid	Water with Organics	837 MT	114.27MT	Authorized BEIL approved tankers for transportation up to BEIL site, common Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a common Incineration facility at GIDC, Ankleshwar	Stored in separate incineration waste storage area (shed & imperious		29.1

						.	area)		
	Filter Aids-Solid	Organic/Cloths	0.32 MT	0.088 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, common Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a common Incineration facility at GIDC, Ankleshwar	Stored in earmarked storage area		36.2
	Date expired / off specification product - Semi Solid/ Solid/ Liquid	Pesticides	0.9	0.1 MT	Authorized BEIL approved dumpers for transportation upto BEIL site, common Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd., a common Incineration facility at GIDC, Ankleshwar	Stored in earmarked storage area		29.3
	Contaminated Cotton Waste-Solid	Contaminated Cotton	0.8 MT	7.5	Authorized BEIL approved dumpers for transportation upto BEIL site, common landfilling/Incineration at Ankleshwar	Bharuch Enviro Infrastructure Ltd, a common Incineration facility at GIDC, Ankleshwar	Incineration		33.2
	Used Oil-Liquid	Waste Oil	0 Liters	52 Liters	In drums- By trucks/Recyclers	To the registered recycler	Stored in drums in H.W. storage area (shed & impervious area)		5.1



	Used Batteries-Solid	Lead/ Acid	170	5 Nos.	By trucks	To the registered recycler	Stored in earmarked storage area	A5
	Discarded Containers/ Barrels/ Liners [Metal, wooden, plastic, liners, HDPE]-Solid	Metal, wooden, plastic, liners, HDPE	22099Nos.	41 Nos.	By Trucks	To the registered recycler/ Scrap processors	Stored in earmarked storage area	33.1
	FlyAsh from Coal fired power plant-Non-Hazardous	FlyAsh	14390MT	8413 MT	By dumper	To bricks manufacturers /End Users	Stored in earmarked storage area	Z14

Date : 20<sup>th</sup> November, 2019  
Place : Jhagadia

Name & Signature of Head of the Facility  
**Mr. Anil C. Mundada**  
**(Sr. General Manager- Manufacturing)**

### **ANNEXURE-1**

#### **SOLID WASTE GENERATION & DISPOSAL DETAILS:**

##### **BRINE SLUDGE GENERATION / DISPOSAL RECORD**

(NON -HAZARDOUS – GENERATED FROM CHLOR-ALKALI PLANT OF MEMBRANE CELL TECHNOLOGY

(CONTAINS< 2% Ba) – Land filling

(PERIOD: APRIL-2019 to SEPTEMBER-2019)

<b>MONTH</b>	<b>OPENING</b>	<b>GENERATION</b>	<b>DISPOSAL TO BEIL</b>	<b>CLOSING</b>
<b>All Qty in MT</b>				
Apr'19	9.53	388	388	9.53
May'19	9.53	360	358	11.53
Jun'19	11.53	230	190	51.53
July'19	51.53	370	340	81.53
Aug'19	81.53	240	290	31.53
Sep'19	31.53	100	70	61.53
<b>TOTAL</b>	<b>---</b>	<b>1688</b>	<b>1636</b>	<b>---</b>

##### **HAZARDOUS WASTE GENERATION / DISPOSAL RECORD**

##### **FOR ETP OPERATIONS (ETP SLUDGE) - LAND FILLING**

(PERIOD: APRIL-2019 to SEPTEMBER-2019)

<b>MONTH</b>	<b>OPENING</b>	<b>GENERATION</b>	<b>DISPOSAL TO BEIL</b>	<b>CLOSING</b>
<b>All Qty in MT</b>				
Apr'19	13.76	231	230	14.76
May'19	14.76	210	220	4.76
Jun'19	4.76	200	190	14.76
July'19	14.76	189	180	23.76
Aug'19	23.76	200	190	33.76
Sep'19	33.76	210	100	143.76
<b>TOTAL</b>	<b>---</b>	<b>1240</b>	<b>1110</b>	<b>---</b>



SLUDGE GENERATION / DISPOSAL RECORD FOR DISTILLATION PROCESS OF WHITE PHOSPHORUS PLANT –  
 LAND FILLING  
 (PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
All Qty in MT				
Apr'19	5.47	48	47	6.47
May'19	6.47	46	42	10.47
Jun'19	10.47	45	46	9.47
July'19	9.47	47	41	15.47
Aug'19	15.47	48	43	20.47
Sep'19	20.47	44	34	30.47
<b>TOTAL</b>	---	<b>278</b>	<b>253</b>	---

SOLID WASTE FROM NEUTRALIZATION OF SPENT ACID – LAND FILLING  
 (PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
All Qty in MT				
Apr'19	23.79	800	799	24.79
May'19	24.79	790	800	14.79
Jun'19	14.79	798	690	122.79
July'19	122.79	760	740	142.79
Aug'19	142.79	770	765	147.79
Sep'19	147.79	500	480	167.79
<b>TOTAL</b>	---	<b>4418</b>	<b>4274</b>	---

DISPOSAL RECORD FOR INORGANIC SOLID WASTE – LAND FILLING  
 (PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
All Qty in MT				
Apr'19	2	5	0	7
May'19	7	2	0	9
Jun'19	9	0	0	9
July'19	9	0	0	9
Aug'19	9	0	0	9
Sep'19	9	0	0	9
<b>TOTAL</b>	---	<b>7</b>	<b>0</b>	---

WASTE INSULATION MATERIAL – LAND FILLING  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	1	1	1.02	0.98
May'19	0.98	0.7	0.6	1.08
Jun'19	1.08	0.4	0.7	0.78
July'19	0.78	0	0	0.78
Aug'19	0.78	0	0	0.78
Sep'19	0.78	0	0	0.78
<b>TOTAL</b>	---	<b>2.1</b>	<b>2.32</b>	---

USED PPE's– LAND FILLING  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	0.05	0.23	0.18	0.1
May'19	0.1	0.1	0.2	0
Jun'19	0	0.2	0.18	0.02
July'19	0.02	0	0	0.02
Aug'19	0.02	0	0	0.02
Sep'19	0.02	0	0	0.02
<b>TOTAL</b>		<b>0.53</b>	<b>0.56</b>	



**NON RECYCLABLE PLASTIC WASTE, GASKETS ETC. – LAND FILLING**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

<b>MONTH</b>	<b>OPENING</b>	<b>GENERATION</b>	<b>DISPOSAL TO BEIL</b>	<b>CLOSING</b>
<b>All Qty in MT</b>				
Apr'19	0.29	0.1	0.02	0.37
May'19	0.37	0.8	0.9	0.27
Jun'19	0.27	0	0	0.27
July'19	0.27	0.9	0.15	1.02
Aug'19	1.02	0	0	1.02
Sep'19	1.02	0	0	1.02
<b>TOTAL</b>		<b>1.8</b>	<b>1.07</b>	

**ASBESTOS (ROPE, GLAND etc.) – LAND FILLING**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

<b>MONTH</b>	<b>OPENING</b>	<b>GENERATION</b>	<b>DISPOSAL TO BEIL</b>	<b>CLOSING</b>
<b>All Qty in MT</b>				
Apr'19	0.1	0.3	0	0.4
May'19	0.4	0.25	0.1	0.55
Jun'19	0.55	0.2	0	0.75
July'19	0.75	0	0	0.75
Aug'19	0.75	0	0	0.75
Sep'19	0.75	0	0	0.75
<b>TOTAL</b>		<b>0.75</b>	<b>0.1</b>	

SOLID/SALT FROM MEE PLANT – LAND FILLING  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	179.09	2500	2420	259.09
May'19	259.09	2300	2350	209.09
Jun'19	209.09	2100	2008	301.09
July'19	301.09	2400	2600	101.09
Aug'19	101.09	2250	2200	151.09
Sep'19	151.09	2000	650	1501.09
<b>TOTAL</b>		<b>13550</b>	<b>12228</b>	

**INCINERATION WASTE GENERATION & DISPOSAL DETAILS:**

SPENT RESIN FROM DM PLANT - INCINERATION  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	0	0.04	0	0.04
May'19	0.04	0	0	0.04
Jun'19	0.04	0	0	0.04
July'19	0.04	0	0	0.04
Aug'19	0.04	0	0	0.04
Sep'19	0.04	0	0	0.04
<b>TOTAL</b>		<b>0.04</b>	<b>0</b>	



DISTILLATION RESIDUE RECORD - INCINERATION  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	59.91	270	303	26.91
May'19	26.91	500	430	96.91
Jun'19	96.91	310	295	111.91
July'19	111.91	500	520	91.91
Aug'19	91.91	350	300	141.91
Sep'19	141.91	800	790	151.91
<b>TOTAL</b>		<b>2730</b>	<b>2638</b>	

AQUEOUS WASTE - INCINERATION  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	156.27	100	150	106.27
May'19	106.27	100	152	54.27
Jun'19	54.27	145	150	49.27
July'19	49.27	150	139	60.27
Aug'19	60.27	150	141	69.27
Sep'19	69.27	150	105	114.27
<b>TOTAL</b>		<b>795</b>	<b>837</b>	

DATE EXPIRED/OFF SPECIFICATION PRODUCT - INCINERATION  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	1	0	0	1
May'19	1	0	0.3	0.7
Jun'19	0.7	0	0.3	0.4
July'19	0.4	0	0.3	0.1
Aug'19	0.1	0	0	0.1
Sep'19	0.1	0	0	0.1
<b>TOTAL</b>		<b>0</b>	<b>0.9</b>	

SPENT FILTER - INCINERATION  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	0.008	0.1	0.08	0.028
May'19	0.028	0.1	0.07	0.058
Jun'19	0.058	0.1	0.07	0.088
July'19	0.088	0	0.03	0.058
Aug'19	0.058	0.1	0.07	0.088
Sep'19	0.088	0	0	0.088
<b>TOTAL</b>		<b>0.4</b>	<b>0.32</b>	



**CONTAMINATED COTTON WASTE - INCINERATION**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in MT</b>				
Apr'19	8.3	0	0.8	7.5
May'19	7.5	0	0	7.5
Jun'19	7.5	0	0	7.5
July'19	7.5	0	0	7.5
Aug'19	7.5	0	0	7.5
Sep'19	7.5	0	0	7.5
<b>TOTAL</b>		<b>0</b>	<b>0.8</b>	

**USED OIL – REGISTER RECYCLER (LITERS)**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	DISPOSAL TO BEIL	CLOSING
<b>All Qty in Liters</b>				
Apr'19	52	0	0	52
May'19	52	0	0	52
Jun'19	52	0	0	52
July'19	52	0	0	52
Aug'19	52	0	0	52
Sep'19	52	0	0	52
<b>TOTAL</b>		<b>0</b>	<b>0</b>	

**DISCARDED DECONTAMINATION/DETOXIFICATION CONTAINERS/BARRELS/LINERS – APPROVED SCRAP  
VENDOR**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	SALE TO APPROVED SCRAP PROCESSORES	CLOSING
<b>All Qty in Nos.</b>				
Apr'19	200	4340	3800	740
May'19	740	3200	3731	209
Jun'19	209	3600	3765	44
July'19	44	3000	2852	192
Aug'19	192	3100	2903	389
Sep'19	389	2400	2685	104
<b>TOTAL</b>		<b>19640</b>	<b>19736</b>	

**BATTERIES : APPROVED RECYCLER**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	SALE TO APPROVED RECYCLER	CLOSING
<b>All Qty in Nos.</b>				
Apr'19	45	30	0	75
May'19	75	35	108	2
Jun'19	2	40	36	6
July'19	6	25	26	5
Aug'19	5	0	0	5
Sep'19	5	0	0	5
<b>TOTAL</b>		<b>130</b>	<b>170</b>	

**FLY ASH : BRICK MANUFACTURER/ END USERS**  
(PERIOD: APRIL-2019 to SEPTEMBER-2019)

MONTH	OPENING	GENERATION	Stabilisation of Sludge & sent to BEIL for Disposal (MT)	TO BRICK MANUFACTURER/ END USERS	CLOSING
<b>All Qty in MT</b>					
Apr'19	416.80	2345	1218.00	1037.2	1543.80
May'19	1543.80	2051	1240.00	717.00	2354.80
Jun'19	2354.80	1713	480.00	1167.00	3587.80
July'19	3587.80	2170	1372.00	1231.00	4385.80
Aug'19	4385.80	2250	1569.00	425.00	5066.80
Sep'19	5066.80	1880	514.00	652.00	6432.80
<b>TOTAL</b>		<b>14390</b>	<b>6393</b>	<b>3475</b>	

**Detail of Registered Battery Recycler:**

M/s Metex Battery Corporation  
Vendor Code: 101265  
GIDC, Ankleshwar, Gujarat.

**Detail of Registered Used Oil Recycler:**

M/s Suraj Barrel Supply  
CC&A # AWH 84277 dated 17.02.2017 valid up to 15.02.2022  
Address: Opposite P.W.D. Store Nr Good Luck Market, Chandola lake,  
Narol Highway, Ahmedabad-380028.



ANNEXURE –4:  
Photograph Showing Hazardous Waste Storage Area





BHARUCH ENVIRO INFRASTRUCTURE LIMITED

Ref. BEIL/ANK/2015

11<sup>th</sup> December, 2015

UPL Ltd.  
Plot No.750,  
GIDC, Jhagadia.

Sub: NOC for receiving Landfilling and Incinerable waste.

Dear Sir,

We are in receipt of your letter dt.09-12-2015. You are planning to expand capacity. Due to this, **additional Landfill Waste Qty.1,76,827 MT / Year and additional Incinerable waste Qty.50,310 MT/Year** generates.

We would like to inform you that we have no objection in accepting additional quantity. We shall be accepting your **Landfill Waste and Incinerable** waste subject to verification of quality and it should be as per GPCB authorisation.


Thanking you,

Yours faithfully,  
For BHARUCH ENVIRO INFRASTRUCTURE LTD.


AUTHORISED SIGNATORY



## FORM 8 LABELLING OF HAZARDOUS WASTE

FORM NO. - 8 [See Rule 17(1) and 18(2)] Labeling of Containers of HAZARDOUS AND OTHER WASTE	
 <b>HAZARDOUS WASTE</b> Handle With Care	
Waste Category and characteristics as per Part C of Schedules II & III : 29.1	Incompatible Wastes and Substance : —
Total Quantity (Kg.) : 15000 kg	Date of Storage : 24/05/19
Physical State of the Waste : Low Boiler	
Sender's Name & Address : UPL Limited (Formerly known as United Phosphorus Ltd) 750, G.I.D.C., P. B. No. 9, Jhagadia - 393 110, Dist. : Bharuch, Gujarat. Tel. : (02645) 226011-15 Contact Person : PRITESH DESAI : 9909994003	Receiver's Name & Address : BHARUCH ENVIRO INFRASTRUCTURE LIMITED Plot No. : 9701 to 9716, GIDC Estate, Ankleshwar - 393 002, Dist. Bharuch Phone No. : 02646 225228 / 253135 Fax No. : 02646 222849 Contact Person : B. D. Dalwadi : 9909994959
In Case of emergency please contact as above	
Manifest No. :	Waste Identification No. : U- GF-3000
UN Classification No. : 3	Type of Waste :
AQUEOUS    ORGANIC    TARRY    SEMI-SOLID    SOLID	

FORM NO. - 8 [See Rule 17(1) and 18(2)] Labeling of Containers of HAZARDOUS AND OTHER WASTE	
 <b>HAZARDOUS WASTE</b> Handle With Care	
Waste Category and characteristics as per Part C of Schedules II & III : 29.1	Incompatible Wastes and Substance : —
Total Quantity (Kg.) : 200 kg	Date of Storage : 24/05/19
Physical State of the Waste : R-103 cleaning water	
Sender's Name & Address : UPL Limited (Formerly known as United Phosphorus Ltd) 750, G.I.D.C., P. B. No. 9, Jhagadia - 393 110, Dist. : Bharuch, Gujarat. Tel. : (02645) 226011-15 Contact Person : PRITESH DESAI : 9909994003	Receiver's Name & Address : BHARUCH ENVIRO INFRASTRUCTURE LIMITED Plot No. : 9701 to 9716, GIDC Estate, Ankleshwar - 393 002, Dist. Bharuch Phone No. : 02646 225228 / 253135 Fax No. : 02646 222849 Contact Person : B. D. Dalwadi : 9909994959
In Case of emergency please contact as above	
Manifest No. :	Waste Identification No. : U- GF-3000
UN Classification No. : 3	Type of Waste :
AQUEOUS    ORGANIC    TARRY    SEMI-SOLID    SOLID	



FORM NO. - 8  
[See Rule 17(1) and 18(2)] Labeling of Containers of HAZARDOUS AND OTHER WASTE



# HAZARDOUS WASTE

Handle With Care

Waste Category and characteristics  
as per Part C of Schedules II & III :

29.1

Total Quantity (Kg.) :

15000 kg

Physical State of the Waste :

Aqueous

Incompatible Wastes and Substance :

Date of Storage :

22-05-19

Sender's Name & Address :

UPL Limited

(Formerly known as United Phosphorus Ltd)

750, G.I.D.C., P. B. No. 9,

Jhagadia - 393 110,

Dist. : Bharuch, Gujarat.

Tel. : (02645) 226011-15

Contact Person :

PRITESH DESAI : 9909994003

Receiver's Name & Address :

BHARUCH ENVIRO INFRASTRUCTURE LIMITED

Plot No. : 9701 to 9716, GIDC Estate,

Ankleshwar - 393 002, Dist. Bharuch

Phone No. : 02646 225228 / 253135

Fax No. : 02646 222849

Contact Person :

B. D. Dalwadi 9909994959

In Case of emergency please contact as above

Manifest No. :

Waste Identification No. : U- GF-3000

UN Classification No. : 3

Type of Waste :

☒ AQUEOUS

☐ ORGANIC

☐ TARRY

☐ SEMI-SOLID

☐ SOLID

FORM NO. - 8  
[See Rule 17(1) and 18(2)] Labeling of Containers of HAZARDOUS AND OTHER WASTE



# HAZARDOUS WASTE

Handle With Care

Waste Category and characteristics  
as per Part C of Schedules II & III :

29.1

Total Quantity (Kg.) :

200 kg approx

Physical State of the Waste :

Residue from C-101

Incompatible Wastes and Substance :

Date of Storage :

22-05-19

Sender's Name & Address :

UPL Limited

(Formerly known as United Phosphorus Ltd)

750, G.I.D.C., P. B. No. 9,

Jhagadia - 393 110,

Dist. : Bharuch, Gujarat.

Tel. : (02645) 226011-15

Contact Person :

PRITESH DESAI : 9909994003

Receiver's Name & Address :

BHARUCH ENVIRO INFRASTRUCTURE LIMITED

Plot No. : 9701 to 9716, GIDC Estate,

Ankleshwar - 393 002, Dist. Bharuch

Phone No. : 02646 225228 / 253135

Fax No. : 02646 222849

Contact Person :

B. D. Dalwadi 9909994959

In Case of emergency please contact as above

Manifest No. : - - - -

Waste Identification No. : U- MP 205

UN Classification No. : 3

Type of Waste : Liquid

☐ AQUEOUS

☐ ORGANIC

☐ TARRY

☐ SEMI-SOLID

☐ SOLID



FORM NO. - 8

[See Rule 17(1) and 18(2)] Labeling of Containers of HAZARDOUS AND OTHER WASTE



# HAZARDOUS WASTE

Handle With Care

Waste Category and characteristics  
as per Part C of Schedules II & III :

27.1

Total Quantity (Kg.) :

200 kg approx

Physical State of the Waste :

Residue from C-101

Incompatible Wastes and Substance :

Date of Storage :

22-05-19

Sender's Name & Address :

UPL Limited

(Formerly known as United Phosphorus Ltd)

750, G.I.D.C., P. B. No. 9,

Jhagadia - 393 110,

Dist. : Bharuch, Gujarat.

Tel. : (02645) 226011-15

Contact Person :

PRITESH DESAI : 9909994003

Receiver's Name & Address :

BHARUCH ENVIRO INFRASTRUCTURE LIMITED

Plot No. : 9701 to 9716, GIDC Estate,

Ankleshwar - 393 002, Dist. Bharuch

Phone No. : 02646 225228 / 253135

Fax No. : 02646 222849

Contact Person :

B. D. Dalwadi 9909994959

In Case of emergency please contact as above

Manifest No. : - - - -

UN Classification No. :

3

Waste Identification No. : U-

MR 205

Type of Waste :

Liquid

AQUEOUS

ORGANIC

TARRY

SEMI-SOLID

SOLID

## FORM 9 TRANSPORT EMERGENCY CARD

FORM 9  
[See rule 18 (2)]

## TRANSPORT EMERGENCY (TREM) CARD

[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]

## 1. Characteristics of hazardous and other wastes:

S.No	Type of waste	Physical properties	Chemical Constituents	Exposure Hazards	First Aid Requirements
1	Incenerable Waste	Liquid	Mix Organic	Irritation to Eyes & headache	Wash with Plenty of water & Soap

## 2. Procedure to be followed in case of fire :

(Fire to be Extinguished By Foam/DCP )

## 3. Procedure to be followed in case of spillage/accident/explosion:

(Containment with Sand)

## 4. For expert services, please contact:

(i) Name and Address: (UPL- Unit -5 ) 746/750 GIDC Jhagadia ,Dist :Bharuch

(ii) Telephone No. :(02645) 226011-15

*(Name, contact number and signature of sender)*

Date.....

Place...Jhagadia .....



**FORM 9**  
**[See rule 18 (2)]**

**TRANSPORT EMERGENCY (TREM) CARD**

**[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]**

**1. Characteristics of hazardous and other wastes:**

<b>S.No</b>	<b>Type of waste</b>	<b>Physical properties</b>	<b>Chemical Constituents</b>	<b>Exposure Hazards</b>	<b>First Aid Requirements</b>
<b>1</b>	<b>Incenerable Waste</b>	<b>Liquid</b>	<b>Mix and Organic Low Boiler</b>	<b>Irritation to Eyes &amp; headache</b>	<b>Wash with Plenty of water &amp; Soap</b>

**2. Procedure to be followed in case of fire :**

**(Fire to be Extinguished By Foam/DCP )**

**3. Procedure to be followed in case of spillage/accident/explosion:**

**(Containment with Send)**

**4. For expert services, please contact:**

**(i) Name and Address: (UPL- Unit -5 ) 746/750 GIDC Jhagadia ,Dist :Bharuch**

**(ii) Telephone No. :(02645) 226011-15**

***(Name, contact number and signature of sender)***

**Date.....**

**Place...Jhagadia .....**

**FORM 9**  
**[See rule 18 (2)]**

**TRANSPORT EMERGENCY (TREM) CARD**

**[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]**

**1. Characteristics of hazardous and other wastes:**

<b>S.No</b>	<b>Type of waste</b>	<b>Physical properties</b>	<b>Chemical Constituents</b>	<b>Exposure Hazards</b>	<b>First Aid Requirements</b>
<b>1</b>	<b>Incenerable Waste</b>	<b>Liquid</b>	<b>Organic Containt No Moisture</b>	<b>-----</b>	<b>Acidic Use Send For Spillage Wash with Plenty of water</b>

**2. Procedure to be followed in case of fire :**

**(Containment with Send)**

**3. Procedure to be followed in case of spillage/accident/explosion :**

**(Containment with Send)**

**4. For expert services, please contact:**

**(i) Name and Address: (UPL- Unit -5 ) 746/750 GIDC Jhagadia ,Dist :Bharuch**

**(ii) Telephone No. :(02645) 226011-15**

***(Name, contact number and signature of sender)***

**Date.....**

**Place...Jhagadia .....**



**FORM 9**  
**[See rule 18 (2)]**

**TRANSPORT EMERGENCY (TREM) CARD**

**[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]**

**1. Characteristics of hazardous and other wastes:**

S.No	Type of waste	Physical properties	Chemical Constituents	Exposure Hazards	First Aid Requirements
1	Incenerable Waste	Liquid	90-95% Water	-----	Corrosive PH Acidic Wash with Plenty of water & Soap

**2. Procedure to be followed in case of fire :**

**(NA)**

**3. Procedure to be followed in case of spillage/accident/explosion:**

**(Containment with Send)**

**4. For expert services, please contact:**

**(i) Name and Address: (UPL- Unit -5 ) 746/750 GIDC Jhagadia ,Dist :Bharuch**

**(ii) Telephone No. :(02645) 226011-15**

***(Name, contact number and signature of sender)***

**Date.....**

**Place...Jhagadia .....**

# ANNEXURE-8

## FORM 10 MANIFEST OF HAZARDOUS & OTHER WASTES


**BHARUCH ENVIRO INFRASTRUCTURE LTD.**  
 Site: Plot No. 9701-9716, GIDC, Ankleshwar. Dist. Bharuch.  
**PCB ID : 14983**  
**GATE PASS FOR HAZARDOUS WASTE**

  
 Incl. No. **1223**

1.	Sender's name and mailing address (including Phone No. and e-mail) :	<b>UPL LIMITED (UNIT-5)</b> 750, G.I.D.C., Post Box No. 9, Jhagadia-393 110, Dist. Bharuch
2.	Sender's authorisation No. :	1339109107
3.	XGN Document No. :	1223
4.	Transporter's name and address (including Phone No. and e-mail) :	V.K. Cargo Movers
5.	Type of vehicle :	(Truck / Bumper / Special Vehicle)
6.	Transporter's registration No. :	BEIL (Auk 1)
7.	Vehicle registration No. :	GT-12-X-3110
8.	Receiver's Name and mailing address (including Phone No. and e-mail) :	<b>BHARUCH ENVIRO INFRASTRUCTURE LTD.</b> Site: Plot No. 9701-9716, GIDC, Ankleshwar. Dist. Bharuch. Ph.: 02646 - 225228 / 253135
9.	Waste Generator's PCB ID :	
10.	Waste description :	Incombustible waste
11.	Total quantity :	8240.99 m <sup>3</sup> or MT
	No. of Containers :	Nos.
12.	Physical form :	(Solid / Semi-Solid / Sludge / Oily / Tarry / Slurry / Liquid)
13.	Special handling instructions and additional information :	
14.	Sender's Certificate :	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp : <b>UPL LIMITED (UNIT-5)</b> 750, G.I.D.C., Post Box No. 9, Jhagadia-393 110, Dist. Bharuch		Signature _____ Day Month Year 22 05 2019
15.	Transporter acknowledgment of receipt of Wastes	
Name and stamp : _____		Signature _____ Day Month Year 22 05 2019
16.	Receiver's certification for receipt of hazardous waste	
Name and stamp : <b>BHARUCH ENVIRO INFRASTRUCTURE LTD.</b> Phone No. : (02646) 225228, 253135 Fax No. : (02646) 222849 <div style="border: 1px solid red; padding: 2px; color: red; display: inline-block;">Gate Pass Valid for 3 Months From the Date of Issue</div>		Signature _____ Day Month Year _____

**6 APR 2019**

**WHITE COPY**





**B.E.L.L. Ankleshwar [14983]**  
( Hazardous Waste Manifest )

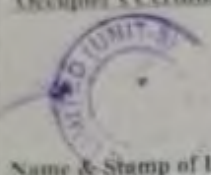
**Manifest No:**  
890369  
22/05/2019

**Copy 1**

To be forwarded by the recipient to the State Pollution Control Board at Commission

1	Occupier's Name & Mailing Address: Registration No: 14983	25353 - UPL LIMITED (UNIT NO. 5) PLOT NO: 750, 746, , Bhagadia - 397110 DIST - Ankleshwar, TAL - Bhagadia , GIDC - Bhagadia Maruti Roadlines, ANKLESHWAR Ph: 9426717111	
2	Transporter's Name & Address :		
3	Transporter's Registration No :	BEIL/ANK/MRL 019	
4	Vehicle No & Type :	GH2X3110 - TRUCK	
5	Designated Facility Name & Site Add:	B.E.L.L. Ankleshwar [14983]	
6	Facility's Reg No with PCB :	[14983]	
7	Waste Type :	Incinerable Waste	
8	Waste Description & Codes :	29.1	
9	Total Quantity :	10.000 Metric Tonne	
10	Consistency :	Liquid	
11	Waste Description :	Incinerable waste	

12 Occupier's Certificate : I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labeled, and are in all respects in proper condition for transport by road according to applicable national government regulations.



Name & Stamp of Industry

Date: 22/05/2019

*Signature*  
Signature

13 Transporter Acknowledgement of Receipt of Wastes

Stamp of: Maruti Roadlines

Date : 22/05/2019 0:00

Signature

14 Discrepancy Note Space

15 Facility Owner or Operator's Certification of Receipt of Hazardous Waste

Stamp of: B.E.L.L., Ankleshwar [14983]

Date :

Signature

Sr	Quantity	Hazardous Waste Type
1	10.000	29.1 - Process wastes or residues

22/05/2019

1 ( Through NGN )

**N I C**

## Annexure-6

UPL Unit 5				
Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL 5 Compliance
1	1	1	These rules may be called the Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.	Noted.
2	1	2	They shall come into force on the date of their publication in the Official Gazette.	Noted.
3	2		DEFINITIONS	
		--	In the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (hereinafter referred to as the said rules), in rule 2,-	
4		a)	"Act" means the Environment (Protection) Act, 1986 (29 of 1986);	Noted.
5		b)	"Authority" means an authority mentioned in Column 2 of Schedule 5	Noted.
6		c)	"export" with its grammatical variations and cognate expression, means taking out of India to a place outside India;	Noted.
7		d)	"exporter" means any person under the jurisdiction of the exporting country and includes the exporting country, who exports hazardous chemical;	Noted.
8		e)	"Hazardous Chemical" means	Noted.
9		(i)	any chemical which satisfies any of the criteria laid down in Part I of 1 [Schedule 1 or] listed in Column 2 of Part II of this Schedule ;	Noted.
10		(ii)	any chemical listed in Column 2 of Schedule 2;	Noted.
11		(iii)	any chemical listed in Column 2 of Schedule 3;	Noted.
12		f)	"import" with its grammatical variations and cognate expression, means bringing into India from a place outside India;	Noted.
13		g)	"importer" means an occupier or any person who imports hazardous chemicals;	Noted.
14		h)	industrial activity means-	Noted.
15		i)	an operation or process carried out in an industrial installation referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be;	Noted.
16		ii)	isolated storage; or	Noted.
17		iii)	pipeline ;	Noted.
18		(i)	"isolated storage" means storage of a hazardous chemical, other than storage associated with an installation on the same site specified in Schedule 4 where that storage involves atleast the quantities of that chemical set out in Schedule 2;	Noted.
19		j)	"major accident" means - an incident involving loss of life inside or outside the installation, or ten or more injuries inside and/or one or more injuries outside or release of toxic chemicals or explosion or fire or spillage of hazardous chemicals resulting in on-site or off-site emergencies or damage to equipment leading to stoppage of process or adverse affects to the environment ;	Noted.
20		Ja)	"major accident hazards (MAH) installations" means - isolated storage and industrial activity at a site handling (including transport through carrier or pipeline) of hazardous chemicals equal to or, in excess of the threshold quantities specified in, Column 3 of schedule 2 and 3 respectively; ]	Noted.



21		K)	"pipeline" means a pipe (together with any apparatus and works associated therewith) or system of pipes (together with any apparatus and work associated therewith) for the conveyance of a hazardous chemical other than a flammable gas as set out in Column 2 of Part II of Schedule 3 at a pressure of less than 8 bars absolute; the pipeline also includes inter-state pipelines;	Noted.
22		l)	"Schedule" means Schedule appended to these rules;	Noted.
23		m)	"site" means any location where hazardous chemicals are manufactured or processed, stored, handled, used, disposed of and includes the whole of an area under the control of an occupier and includes pier, jetty or similar structure whether floating or not;	Noted.
UPL Unit 5				
<b>Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.</b>				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
24		n)	"Threshold quantity" means, -	Noted.
25		(i)	in the case of a hazardous chemical specified in Column 2 of Schedule 2, the quantity of that chemical specified in the corresponding entry in Columns 3 and 4 ;	Noted.
26		(ii)	in the case of a hazardous chemical specified in Column 2 of Part I of Schedule 3, the quantity of that chemical specified in the corresponding entry in Columns 3 & 4 of that part;	Noted.
27		(III)	in the case of substances of a class specified in Column 2 of Part II of Schedule 3, the total quantity of all substances of that class specified in the corresponding entry in Columns 3 and 4 of that part.	Noted.
28			DUTIES OF AUTHORITIES – The concerned authority shall, -	
29	3	(a)	inspect the industrial activity at least once in a calendar year;	Noted.
30		(b)	except where such authority is the Ministry of Environment and Forests, annually report on the compliance of the rules by the occupiers to the Ministry of Environment and Forests through appropriate channel ;	Noted.
31		(c)	subject to the other provisions of these rules, perform the duties specified in column 3 of Schedule 5.]	Noted.
32			GENERAL RESPONSIBILITY OF THE OCCUPIER DURING INDUSTRIAL ACTIVITY -	
33		1)	These rules shall apply to, -	
		a)	An industrial activity in which a hazardous chemical, which satisfies any of the criteria laid down in Part I of Schedule 11 [or listed] in Column 2 of Part II of this Schedule is, or may be, involved; and	Complied. The Rules are applicable to different Hazardous Chemicals Storages within existing premises. The list of Hazardous Chemicals Storage with capacities are given in Annexure 4 of Annexure A - On Site Emergency Plan.
34		[b]	isolated storage of a hazardous chemical listed in Schedule 2 in a quantity equal to or more than the threshold quantity specified in Column 3, thereof.]	Complied. The Unit has obtained necessary license for storage of applicable hazardous chemicals as per Petroleum and Explosives Safety Organization legislations.  The storage quantities are well within permission as well as well within threshold values given in column 3. The storage capacities of all hazardous chemicals is given as Annexure 4 of On site emergency plan attached as Annexure A.
35		2)	An occupier who has control of an industrial activity in terms of sub-rule (1) shall provide evidence to show that he has, -	

36	4	(a)	identified the major accident hazards; and	Complied. Yes, Industry has identified Major Hazards are given in Annexure A - On site emergency plan
37		(b)	taken adequate steps to -	
38		(i)	Prevent such major accidents and to limit their consequences to persons and the environment;	Complied. Yes, Industry has provided all applicable safety measures for prevention of accidents and minimized consequences.
39		(ii)	provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety.	Complied. The regular in-house trainings are organized for persons working or newly joined to organization. The copy of latest training schedule is attached as Annexure B.
40		(III)	An occupier shall notify to the concerned Authority, steps taken to avoid any repetition of such occurrence on a site.	Noted.
41		(IV)	The concerned Authority shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment & Forests through appropriate channel.	Noted.
42		(V)	The concerned Authority shall in writing inform the occupier, of any lacunae which in its opinion needs to be rectified to avoid major accidents.]	Noted.
UPL Unit 5				
Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
43	4		NOTIFICATION OF MAJOR ACCIDENT -	
44		1	Where a major accident occurs on a site or in a pipe line, the occupier shall 3[within 48 hours notify] the concerned authority as identified in Schedule 5 of that accident, and furnish thereafter to the concerned authority a report relating to the accidents in installments, if necessary, in Schedule 6.	Complied. The industry is having mechanism for reporting of any major accident occurrences to concerned Authority.
45		2	The concerned authority shall on receipt of the report in accordance with sub-rule 1 of this rule, shall undertake a full analysis of the major accident and sent the [requisite information within 90 days to the Ministry] of Environment and Forests through appropriate channel.	Noted.
46		3	An occupier shall notify to the concerned Authority, steps taken to avoid any repetition of such occurrence on a site.	Complied. The industry reports steps taken reports based on applicability.
47		4	The concerned Authority shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment & Forests through appropriate channel	Noted.
48		5	The concerned Authority shall in writing inform the occupier, of any lacunae which in its opinion needs to be rectified to avoid major accidents	Noted.
49				INDUSTRIAL ACTIVITY TO WHICH RULES 7 TO 15 APPLY -
50		1	Rules 7 to 15 shall apply to, -	
51		(a)	an industrial activity in which there is involved a quantity of hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3 & 4 (Rules 10-12 only for Column 4); and	Complied. As per applicability of rules, the company has identified hazardous chemicals stored at site. The details of storages of different hazardous chemicals are given in Annexure 4 of Annexure A - Onsite Emergency Plan.
		(b)	isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 3 [3 & 4 (rules 10-12 only for column 4).]	Complied. As per applicability of rules, the company has identified hazardous chemicals stored at site. The details of storages of different hazardous chemicals are given in Annexure 4 of Annexure A



52				- Onsite Emergency Plan.
53		2	For the purpose of rules 7 to 15,	
54		(A)	"new industrial activity" means an industrial activity which, –	
55		(i)	commences after the date of coming into operation of these rules;	Noted.
56	6	(ii)	or if commenced before that date, is an industrial activity in which a modification has been made which is likely to cover major accident hazards, and that activity shall be deemed to have commenced on the date on which the modification was made;	Noted.
57		(B)	an "existing industrial activity" means an industrial activity which is not a new industrial activity.	Noted.
58			[APPROVAL AND] NOTIFICATION OF SITES -	
59		(i)	An occupier shall not undertake any industrial activity 2[unless he has been granted an approval for undertakings such an activity and has submitted] a written report to the concerned authority containing the particulars specified in Schedule 7 at least 3 months before commencing that activity or before such shorter time as the concerned authority may agree and for the purpose of this paragraph, an activity in which subsequently there is or is liable to be a threshold quantity or more of an additional hazardous chemical shall be deemed to be a different activity and shall be notified accordingly.	Complied. The copy of schedule 7 is attached as Annexure B. The UPL Unit 5 has taken necessary approval from Chief Factory Inspector and concerned authority for storage of identified Hazardous Chemicals based on applicability of Rules. The Industrial activities are carried out after approval from concerned authority. The list of approvals obtained with validity are enclosed as Annexure C.
60	7	(II)	The concerned Authority within 60 days from the date of receipt of the report shall approve the report submitted and on consideration of the report if it is of the opinion that contravention of the provisions of the Act or the rules made thereunder has taken place, it shall issue notice under rule 19].	Noted.
61			UPDATING OF THE SITE NOTIFICATION FOLLOWING CHANGES IN THE THRESHOLD QUANTITY -	
UPL Unit 5				
<b>Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.</b>				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
62	8		Where an activity has been reported in accordance with rule 7(1) and the occupier makes a change in it (including an increase or decrease in the maximum threshold quantity of a hazardous chemical to which this rule applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity) which affects the particulars specified in that report or any subsequent report made under this rule, the occupier shall forthwith furnish a further report to the concerned authority.	Complied. The UPL 5 Reports any changes made in Hazardous Chemicals Storage based on Applicability of rules.
63			TRANSITIONAL PROVISIONS	
64			Where. –	
65		(a)	at the date of coming into operation of these rules, an occupier is in control of an existing industrial activity which is required to be reported under rule 7(1); or	Complied. The UPL Reports activities as per Rule 7.
66		(b)	within 6 months after that date, an occupier commence any such new industrial activity;	Complied. The UPL Reports activities as per Rule 7.
67	9		it shall be a sufficient compliance with that rule if he reports to the concerned authority as per the particulars in Schedule 7 within 3 months after the date of coming into operation of these rules or within such longer time as the concerned authority may agree in	Noted.

		writing.	
68			
69	10	SAFETY REPORTS 1[AND SAFETY AUDIT REPORTS] -	
70		1 Subjects to the following paragraphs of this rule, an occupier shall not undertake any industrial activity to which this rule applies, unless he has prepared a safety report on that industrial activity containing the information specified in Schedule 8 and has sent a copy of that report to the concerned authority at least ninety days before commencing that activity.	Complied. UPL 5 Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.
71		2 In the case of a new industrial activity which an occupier commences, or by virtue of sub-rule (2) (a) (ii) of rule 6 is deemed to commence, within 6 months after coming into operation of these rules, it shall be a sufficient compliance with sub-rule (1) of this rule if the occupier sends to the concerned authority a copy of the report required in accordance with that sub-rule within ninety days after the date of coming into operation of these rules.	Noted.
72		3 In case of an existing industrial activity, the occupier shall prepare a safety report in consultation with the concerned authority and submit the same within one year from the date of commencement of the Manufacture, Storage and Import of Hazardous Chemicals (Amendment) Rules, 1994 to the concerned Authority.	Complied. UPL 5 Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.
73		4 After the commencement of the Manufacture, Storage and Import of Hazardous Chemicals (Amendment) Rules, 1994, the occupier of both the new and the existing industrial activities shall carry out an independent safety audit of the respective industrial activities with the help of an expert, not associated with such industrial activities.	Complied. UPL Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.
74		5 The occupier shall forward a copy of the auditor's report along with his comments to the concerned Authority within 30 days after the completion of such Audit.]	Complied. UPL 5 Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.
75		6 The occupier shall update the safety audit report once a year by conducting a fresh safety audit and forward a copy of it with his comments thereon within 30 days to the concerned Authority.	Complied. UPL 5 Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.



UPL Unit 5				
Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
76		7	The concerned Authority may if it deems fit, issue improvement notice under rule 19 within 45 days of the submission of the said report.]	Complied.  The Unit 5 has not received any Improvement Notice under rules. However Unit is ISO 45001 Certified Unit and regular internal and external safety audits are conducted to ensure best and safe practices in work place. The audit observations are followed and closure of observation is ensured. The copy of ISO 45001 Certificate is attached as Annexure F.
77	11		UPDATING OF REPORTS UNDER RULE 10-	
78		1	Where an occupier has made a safety report in accordance with sub-rule (1) of rule 10 he shall not make any modification to the industrial activity to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that report to the concerned authority at least 90 days before making those modifications.	Complied. UPL 5 has not made any changes without approval from concerned authority.
79		2	Where an occupier has made a report in accordance with rule 10 and sub - rule (1) of this rule and that industrial activity is continuing the occupier shall within three years of the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall within 30 days 2[***] send a copy of the report to the concerned authority.	Noted.
80	12		REQUIREMENT FOR FURTHER INFORMATION TO BE SENT TO THE AUTHORITY -	
81			Where, in accordance with rule 10, an occupier has sent a safety report and the safety audit report relating to an industrial activity to the concerned Authority, the concerned Authority may, by a notice served on the occupier, require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the concerned Authority within 90 days	Complied. UPL 5 Prepares Safety Audit Report and submits to Concerned Authority once in a Year. The Copy of Safety Audit Report Submission Acknowledgement is given in Annexure D.
82	13		PREPARATION TO ON-SITE EMERGENCY PLAN BY THE OCCUPIER -	
83		1	An occupier shall prepare and keep up-to-date 4[an on-site emergency plan containing details specified in Schedule II and detailing] how major accidents will be dealt with on the site on which the industrial activity is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorized to take action in accordance with the plan in case of an emergency.	Complied. UPL 5 Prepares Onsite Emergency Plan and submits to Concerned Authority once in a Year. The Copy of Onsite Emergency Plan Submission Acknowledgement is given in Annexure E.
84		2	The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) takes into account any modification made in the industrial activity and that every person on the site who is affected by the plan is informed of its relevant provisions.	Complied. UPL 5 Prepares Onsite Emergency Plan and submits to Concerned Authority once in a Year. The Copy of Onsite Emergency Plan Submission Acknowledgement is given in Annexure E.
85		3	The occupier shall prepare the emergency plan required under sub- rule (1)	Complied. UPL 5 Prepares Onsite Emergency Plan and submits to Concerned Authority once in a Year. The Copy of Onsite Emergency Plan Submission Acknowledgement is given in Annexure E.
86		a	in the case of a new industrial activity, before that activity is commenced;	Noted.

87		b	in the case of an existing industrial activity within 90 days of commencing into operation of these rules.	Complied. UPL 5 Prepares Onsite Emergency Plan and submits to Concerned Authority once in a Year. The Copy of Onsite Emergency Plan Submission Acknowledgement is given in Annexure E.
88		4	The occupier shall ensure that a mock drill of the on-site emergency plan is conducted every six months;	Complied. The UPL conducts regular mock drills as per onsite emergency plan. The detailed report is submitted to concerned authority. The copy of onsite emergency report submission acknowledgement is given as Annexure E
UPL Unit 5				
Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
89		5	A detailed report of the mock drill conducted under sub-rule (4) shall be made immediately available to the concerned Authority.	Complied. UPL conducts regular mock drills as per onsite emergency plan. The detailed report is submitted to concerned authority. The copy of onsite emergency report submission acknowledgement is given as Annexure E.
90	14		PREPARATION OF OFF-SITE EMERGENCY PLAN BY THE AUTHORITY -	
91		1	(1) It shall be the duty of the concerned authority as identified in Column 2 of Schedule 5 to prepare and keep up-to-date 2[an adequate off-site emergency plan containing particulars specified in Schedule 12 and detailing] how emergencies relating to a possible major accident on that site will be dealt with and in preparing that plan the concerned authority shall consult the occupier, and such other persons as it may deem necessary.	Noted. The cooperation is extended to concerned authority for preparation of offsite emergency plan as well as unit is a member of JIA , Mutual Aid with near by industries , Disaster Control Centre, Ankleshwar.& hospitals at Jhagadia & Ankleshwar
92		2	For the purpose of enabling the concerned authority to prepare the emergency plan required under sub-rule (1), the occupier shall provide the concerned authority with such information relating to the industrial activity under his control as the concerned authority may require, including the nature, extent and likely effects off-site of possible major accidents and the authority shall provide the occupier with any information from the off-site emergency plan which relates to his duties under rule 13.	Noted. The cooperation is extended to concerned authority for preparation of off site emergency plan as well as unit is a member of JIA , Mutual Aid with near by industries , Disaster Control Centre, Ankleshwar.& hospitals at Jhagadia & Ankleshwar
93		3	The concerned authority shall prepare its emergency plan required under sub-rule (1),-	Noted. The cooperation is extended to concerned authority for preparation of off site emergency plan as well as unit is a member JIA , Mutual Aid with near by industries , Disaster Control Centre, Ankleshwar.& hospitals at Jhagadia & Ankleshwar
94		( A )	In the case of a new industrial activity, before that activity is commenced;	Noted
95		( B )	In the case of an existing industrial activity, within six months of coming into operation to these rules.	Noted. The cooperation is extended to concerned authority for preparation of off site emergency plan as well as unit is a member of . JIA , Mutual Aid with near by industries , Disaster Control Centre, Ankleshwar.& hospitals at Jhagadia & Ankleshwar
96		4	The concerned authority shall ensure that a rehearsal of the off-site emergency plan is conducted at least once in a calendar year.]	Noted.
97	15		INFORMATION TO BE GIVEN TO PERSONS LIABLE TO BE AFFECTED BY A MAJOR ACCIDENT -	
98		1	The occupier shall take appropriate steps to inform persons outside the site either directly or through District Emergency Authority who are likely to be in an area which may be affected by a major accident	



			about, -	
99		(a)	the nature of the major accident hazard; and	The Unit has mechanism to report major accident to concern authority.
100		(b)	the safety measures and the "Do's" and "Don'ts" which should be adopted in the event of a major accident.	The Unit has mechanism to report major accident to concern authority.
101		2	The occupier shall take steps required under sub-rule (1) to inform persons about an industrial activity, before that activity is commenced, except, in the case of an existing industrial activity in which case the occupier shall comply with the requirements of sub-rule (1) within 90 days of coming into operation of these rule.	Complied. The UPL Unit 5 is existing unit and has displayed storage details of hazardous chemicals at outside of factory gate for information to Public.
102	16		DISCLOSURES OF INFORMATION	
103			Where for the purpose of evaluating information notified under rule 5 or 7 to 15, the concerned authority discloses that information to some other person, that other person shall not use that information for any purpose except for the purpose of the concerned authority disclosing it, and before disclosing the information the concerned authority shall inform that other person of his obligations under this paragraph.	Noted.
104	17		COLLECTION, DEVELOPMENT AND DISSEMINATION OF INFORMATION	
UPL Unit 5				
<b>Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.</b>				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
105		1	This rule shall apply to an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in part I of Schedule 1 1[or listed] in Column 2 of Part II of this Schedule is or may be involved.	Noted. UPL has identified hazardous chemicals stored at site as per Schedule 1. The list of Hazardous Chemicals with storage capacities are given in Annexure 4 of Annexure A (On site emergency plan).
106		2	An occupier, who has control of an industrial activity in term of sub- rule 1 of this rule, shall arrange to obtain or develop information in the form of safety data sheet as specified in Schedule 9. The information shall be accessible upon request for reference.	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored. The sample copy of MSDS is enclosed as Annexure G.
107		3	The occupier while obtaining or developing a safety data sheet as specified in Schedule 9 in respect of a hazardous chemical handled by him shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination. In case, any significant information regarding hazard of a chemical is available, it shall be added to the material safety data sheet as specified in Schedule 9 as soon as practicable.	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored. The sample copy of MSDS is enclosed as Annexure G.
108		4	Every container of a hazardous chemical shall be clearly labelled or marked to identify-	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored & labeled on every container.
109		a	the contents of the container ;	
110		b	the name and address of manufacturer or importer of the hazardous chemical ;	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored & labeled on every container.
111		c	the physical, chemical and toxicological data as per the criteria given at Part I of Schedule 1.	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored & labeled on every container.

112		5	In terms of sub rule 4 of this rule where it is impracticable to label a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means like tagging or accompanying documents	Complied. The Unit has developed Material Safety Data Sheet for all Hazardous Chemicals Manufactured or Stored & labeled on every container.
113	18		IMPORT OF HAZARDOUS CHEMICALS	
114		1	This rule shall apply to a chemical which satisfies any of the criteria laid down in Part I of Schedule 12 [or listed] in Column 2 of Part II of this Schedule.	Not Applicable
115		2	Any person responsible for importing hazardous chemicals in India shall provide 1[before 30 days or as reasonably possible but not later than] the date of import to the concerned authorities as identified in Column 2 of Schedule 5 the information pertaining to, -	Not Applicable
116		(i)	the name and address of the person receiving the consignment in India;	Not Applicable
117		(II)	the port of entry in India;	Not Applicable
118		(III)	mode of transport from the exporting country to India;	Not Applicable
119		(iv)	the quantity of chemical (s) being imported; and	Not Applicable
120		(v)	complete product safety information	Not Applicable
121		3	If the Concerned Authority of the State is satisfied that the chemical being imported is likely to cause major accidents, it may direct the importer to take such safety measures as the concerned Authority of the State may deem appropriate.]	Noted
122		3A	3[(3A) In case the concerned Authority of the State is of the opinion that the chemical should not be imported on safety or on environmental considerations, such Authority may direct stoppage of such import.]	Noted
123		4	The concerned Authority at the State shall simultaneously inform the concerned Port Authority to take appropriate steps regarding safe handling and storage of hazardous chemicals while off-loading the consignment within the port premises.	Noted
UPL Unit 5				
Compliance to Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000.				
Sr. No	Rule No	Sub Rule No	Rule Detail	UPL Compliance
124		5	Any person importing hazardous chemicals shall maintain the records of the hazardous chemicals imported as specified in Schedule 10 and the records so maintained shall be open for inspection by the concerned authority at the State or the Ministry of Environment and Forests or any officer appointed by them in this behalf.	Noted
125		6	The importer of the hazardous chemical or a person working on his behalf shall ensure that transport of hazardous chemicals from port of entry to the ultimate destination is in accordance with the Central Motor Vehicles Rules, 1989 framed under the provisions of the Motor Vehicles Act, 1988.	Noted
126	19		IMPROVEMENT NOTICES -	
127		1	if the concerned authority is of the opinion that a person has contravened the provisions of these rules, the concerned authority shall serve on him a notice ( in this para referred to as " an improvement notice") requiring that person to remedy the contravention or, as the case may be, 1[the matter occasioning it within 45 days.]	Noted
128		2	A notice served under sub-rule (1) shall clearly specify the measures to be taken by the occupier in remedying said contraventions.	Noted
129	20		POWER OF THE CENTRAL GOVERNMENT TO MODIFY THE SCHEDULES -	Noted



130		The Central Government may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.	Noted
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Annexure A

ON SITE EMERGENCY PLAN – UNIT 5



# ON-SITE EMERGENCY PLAN

[Prepared as required by Schedule 8-A, Rule 68 – J (12) (1) of The GFR 1963]

**PART-1**

**OF**

**M/s UPL LTD., UNIT - 5**  
**Jhagadia**

**SEPTEMBER 2017**

**Address:**

**Plot No- 746 & 750  
GIDC Industrial Estate,  
P.B.No.09,  
Jhagadia, Dist: Bharuch-  
393110**





UPL LIMITED (Unit-5)

Annexure B

**Annexure B**

**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

Particulars to be included in a notification of a site

1	The name and address of the employer making the notification.	Mr Subhat Kumar Jindal UPL Limited 716/750 G.I.D.C. Jhagadia – 393110, Bharuch Gujarat.
2	The full postal address of the site where the notifiable industrial activity will be carried on.	UPL Limited 716/750 G.I.D.C. Jhagadia – 393110, Bharuch Gujarat.
3	The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of b(ii) of schedule 2 and 3.	Area of adjacent site: North side : Road – DCM Shriram South side : Road – S Kumar East side : Road – BEC Fertilisers West side : Road – Gulshan Ltd
4	The date on which it is anticipated that the notifiable industrial activity will commence, or if it has already commenced a statement to that effect.	The activity commenced from Year 1996, after receiving necessary licenses /approvals from various authorities.
5	The name and maximum quantity liable to be on the site of each dangerous substance for which notification is being made.	Annexure -1
6	Organization structure namely organization diagram for the proposed industrial activity and setup for ensuring safety and health.	Annexure -2
7	Information relating to the potential for major accidents, namely-	Annexure -3
8	Information relating to the site namely-	Annexure -4
	(a) a map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the site,-  1. area likely to be affected by the major accident. 2. Population distribution in the vicinity.	Annexure -5

**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

	(b) a scale plan of the site showing the location and quantities of all significant inventories of the hazardous chemicals;	Annexure -5
	(c) a description of the process or storage involving the hazardous chemicals and an indication of the conditions under which it is normally held;	
	(d) the maximum number of persons likely to be present on site.	
9.	The arrangement for training of workers and equipment necessary to ensure safety of such workers.	

LIST OF ANNEXURES;

ANNEXURE -1	DETAILS OF HAZARDOUS CHEMICALS
ANNEXURE -2	EHS ORGANOGRAM
ANNEXURE-3	POTENTIAL FOR MAJOR ACCIDENT
ANNEXURE -4	INFORMATION RELATING TO SITE
ANNEXURE -5	TRAINING OF WORKERS AND EQUIPMENTS NECESSARY TO ENSURE SAFETY OF SUCH WORKERS
ANNEXURE -6	KEY MAP OF GIDC
ANNEXURE -7	APPROVED LAY OUT OF SITE







UPL LIMITED (Unit-5)

Annexure B

" Day 1st "

**UPL** **UPL Limited ANKLESHWAR** F/HRD/002

**UNIT-1 ANKLESHWAR**

**INTERNAL/IN-HOUSE/INDUCTION TRAINING ATTENDANCE SHEET**

TOPIC : Level 021 Safety Training for New Joiners

FACULTY : A. Banerjee DATE : 21/05/19

TIME : 9:00 VENUE : UPL-1 Auditorium

REFERENCE : Batch no: 156

Sr.No.	NAME OF PARTICIPANT	DEPT.	EMP. NO	SIGN
01	Divyang Khokhani	Production		D.B. Khokhani
02	JAISWINT VHAS	HR		Jaiswint
03	Pankaj K. Prajapati	Instrumental		Pankaj
04	MOHAMAD SALIM	Production		Salim
05	Chetern Meherjee	Electrical		Chetern
06	Babun Singh	Power Plant		Babun
07	BHAVAR B. PARAPATE	MEP		Bhavar
08	Avinash B. Marathe	production		Avinash
09	PRAMAR DHARMANRASHI M.	UTTER OFFICE		Pramar
10	Rahul Yogesh Modi	Maintenance		Rahul
11	Mayur Anilbhai Modi	Production		Mayur
12	Jaydeep C. Patel	Maintenance		Jaydeep
13	Patel Neel Kumar Bhupendra/Bhai	ANP		Neel
14	CHAUHAN SACHINKUMAR RAMESHBHAI	HR/ADMIN		Sachin
15	Thakur Nilesh Arvind	R & D		Nilesh
16	More Avinash Rameshbhai	R & D		Avinash
17	Pradeep Shamrao Sapkar	R & D		Pradeep
18	Gaurav Kishor Bhangre	med. maint.		Gaurav
19	Rohan Yadav	Computer		Rohan
20	SHAHNAWAZ ALAM	Civil		Shahnawaz
21	AJAY. K. PARMAR	FITTER		Ajay
22	AJINK KUMAR	Engg.		Ajink
23	Sachin Kumar Mandav	Ideal etc		Sachin
24	Bhargav Adil	ELECT		Bhargav
25	Dhruv V. A. Modi	Inst		Dhruv
26	Vijay V. Chauhan	Trainer		Vijay

Anurag Banerjee  
21/05/19  
P. Anurag Banerjee





UPL LIMITED (Unit-5)

Annexure B

Day - 2nd.

UPL		UPL Limited ANKLESHWAR		FH/RI/002	
UNIT-1 ANKLESHWAR					
INTERNAL/IN-HOUSE/INDUCTION TRAINING ATTENDANCE SHEET					
TOPIC :		Level 0 & 1 Safety Trg for new joiner			
FACULTY :		A. Banerjee		DATE : 22/05/19	
TIME :		9.00 to 5.00 PM		VENUE : UPL-1 Auditorium	
REFERENCE :		Auditorium-1 UPL- UNIT-1 Batch no: 156			
Sr.No.	NAME OF PARTICIPANT	DEPT.	EMP. NO	SIGN	
1	Divyanshu B. Khokhari	Production		Divyanshu	
2	AJAY K. PARMAR	ENCO		Ajay	
3	Adil M. Bhutia	ELECT.		Adil	
4	Bhaskar A. Modi	Inst.		Bhaskar	
5	DHARMANDRASIM. M. PARMAR (Unit 3)	MAINTENANCE		Dharmendra	
6	Jaydeep C. Patel	Maintenance		Jaydeep	
7	Pankaj K. Prajapati (Unit 3)	Inst.		Pankaj	
8	Mukesh Anilbhai Modi	Production		Mukesh	
09	Gaurav Kishor Bhangre	Mechanical		Gaurav	
10	SHAHNAWAZ ALAM	Safety (Civil)		Shahnawaz	
11	Chetan Mohanlal	Electrical		Chetan	
12	BHAVIN B. PATAJAPATI	MEE		Bhavin	
13	Neel Patel	ANCP		Neel	
14	Chandun Sachin	Personale		Chandun	
15	Rohan Yadav	Personale		Rohan	
16	Badam Singh	Power Plant		Badam	
17	Rahul Yogesh Mali	Maintenance		Rahul	
18	AJINK KUMAR	Engg.		Ajink	
19	Pradeep Shamrao Sapare	R&D		Pradeep	
20	Sachin Kumar	Ideal elec		Sachin	
21	More Avinash Anand	R & D		Avinash	
22	Thakur Nilesh Devidas	R & D		Nilesh	
23	Avinash B. Masathe	Production		Avinash	
24	Mohammad Salim	Production		Salim	
25	JAISWANT VHAS	HR		Jaiswant	
26	Vijay Chaudhary	Trainer		Vijay	

ABhinav  
22/5/19  
CA Banerjee

**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I****ANNEXURE – 1****DETAILS OF HAZARDOUS CHEMICALS**

Sr.	Name of hazardous substances	Quantity	
		Maximum that can be stored	Actually stored
1.	Chlorine	207 Ton(in Tank)	200 Ton
		205 Ton(in Toner)CCP Plant	200 Ton
2.	Hydrogen	3064 Nm3 CCP Plant	2900 Nm3
		150 Nm3	130 Nm3
3.	Hydro-Chloric Acid	306 Ton CCP Plant	280 Ton
4.	White Phosphorus	100 Ton+100 Ton	80 Ton+80 Ton
5.	Phosphorus Trichloride	250 Ton	200 Ton
6.	POCL3	30 Ton	20 Ton
7.	HSD	98 KL	60 KL
8.	Acetone	15 TON	15 TON
9.	DEK	15 TON	10 TON
10.	PCI5	50 TON	35 TON
11.	EDA	200 KL	180 KL
12.	CS2	300 KL	200 KL
13.	UPC-40 CS2	1358 M3	1258 M3
14.	Tri Methyl Phosphite	20 KL	20 KL
15.	N Butanol	25 KL	20 KL
16.	Iso Butanol	25 KL	20 KL
17.	UPF-60 PDA	100 KI	80 KL
18.	Tetrahydrofuran	20 KL	20 KL
19.	Acrolein	20 KL	20 KL
20.	Methanol	70 KL X 2	140 KL
21.	Ethanol	15 KL X 2 Nos	15 KL
22.	Recovered Ethanol	12 KL	12 KL
23.	Sodium Cyanide	20 ton	20 ton
24.	Coal	5000 Tons	5000 Tons
25.	Propylene	100 X 2 Nos =200 MT	100 MT
26.	Toluene	30 KL	NIL
27.	Chloro Acetyle chloride	40 kl	NIL
28.	Heptane	15 KL X 2 Tanks	30 KL





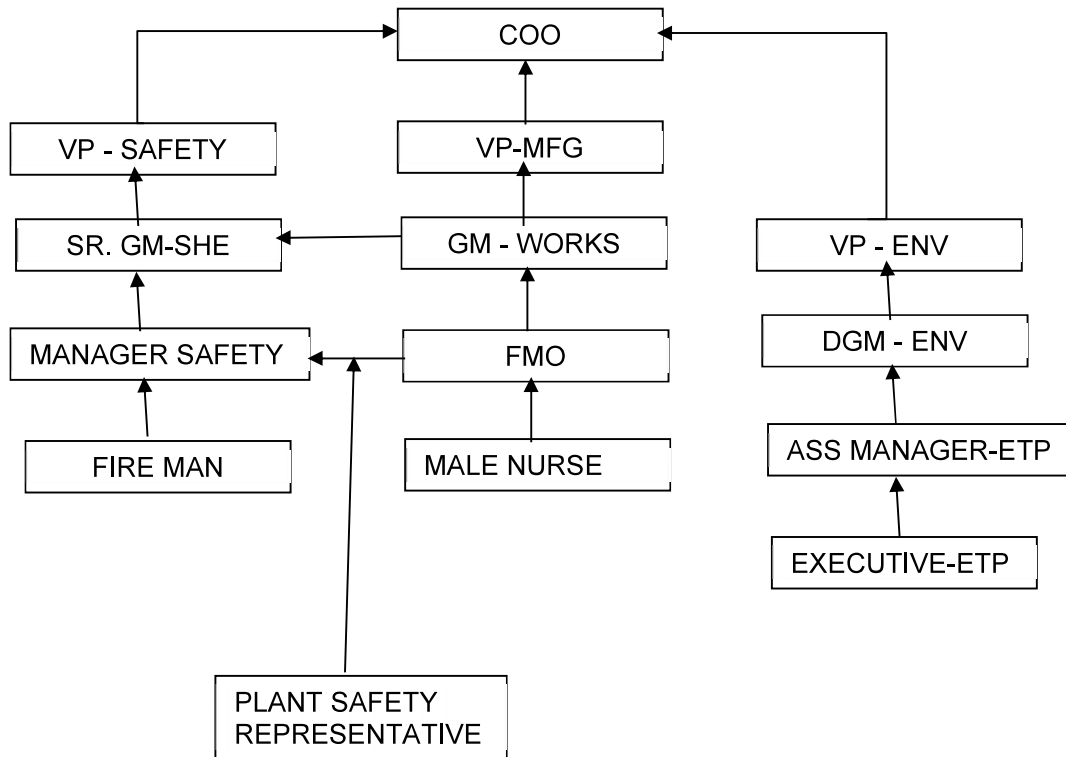
**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

ANNEXURE -2

**EHS ORGANOGRAM**



**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**ANNEXURE – 3

## POTENTIAL FOR MAJOR ACCIDENT

FOLLOWINGS ARE THE POTENTIAL FOR MAJOR ACCIDENT

## a. Identification of major accident hazards :

Fire Hazards, Toxicity Hazard , Reactivity Hazard.

Fire Hazard1. The condition of events which could be significant in one about leads to fire :

Equipment failures, presence of open flame or spark in the area, static charge accumulation, open live cables and reaction between incompatible chemicals are some of the reasons which lead to the occurrence of fire.

2. A brief description of the measures taken to prevent fire.

- Proper earthing connections for the all the equipment are given.
- All the electrical connections are done with flame proof fittings.
- Temp indicators are placed at the reactors and the operators note the readings at regular intervals. Shift officers supervise them.
- Fire extinguisher and fire hydrant system have been provided in the plant.

Toxicity Hazard1. The condition of events which could be significant in one about leads to Toxicity Hazard

In case of failure of bottom valve or overflow of the blending vessel, the hazardous chemical will splash /fall on the employees working on the ground floor.

In case of failure of valve, pipe lines or pop up of safety valve of Anhydrous Ammonia storage tank or failure of valve, leakage of chlorine cylinder.

2. A brief description of the measures taken to prevent fire.

The spillage will be confined to the dyke area underneath the vessel. The resultant splash of the above chemicals will result in exposure of Organo Phosphorus compounds to employees.



**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

There are two nos. decontamination facilities (Safety shower & eye wash fountains) provided in the plant area, which can be used to decontaminate the affected employees. The employees are supposed to remove their contaminated clothing's & have a through wash with plain water under these facilities.

In case of Ammonia Storage tank, following precautions are taken,

- ❖ Preventive maintenance schedule is prepared and implemented.
- ❖ Skilled employees are deputed for the operations.
- ❖ All employees are trained for operations.
- ❖ Sprinkler system is provided,
- ❖ Double safety valve/Ammonia sensors arrangements are provided.
- ❖ Level indicator is installed on each tank and level is closely and regularly monitored.
- ❖ Storage facility is approved from Chief controller of explosive.

In case of Chlorine toner, following precautions are taken,

- ❖ Emergency Chlorine kit/Chlorine sensors provided.
- ❖ Skilled employees are deputed for the operations.
- ❖ All employees are trained for operations.
- ❖ Regular training is arranged for safe handling of chlorine toner and methods to use chlorine kit in case of leakage of chlorine
- ❖ Scrubbers are installed to scrub the leak chlorine.
- ❖ Storage facility is approved from Chief controller of explosive.
- ❖ Electrical crane is used for shifting the cylinders.

Reactivity Hazard

1. The condition of events which could be significant in one about leads to Reactivity Hazard :

During perckow reaction in MCP plant there may be chance of run away reaction which is control by controlled TMP addition and various safety interlocks.

2. A brief description of the measures taken to prevent Run Away Reaction

- ❖ All the parameter are controlled by controllers.
- ❖ Alarm is given on temperature to inform the operator about the high temperature of reaction and the feed cut of was provided at High High (safe temperature). At high high temperature , the all feed stops at thus reaction stops.
- ❖ The reactor is jacketed , and cooling is continues all the time. The alarms are provided to indicate the failure of cooling system to reactor.



**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

ANNEXURE – 4

INFORMATION RELATING TO SITE

a. A map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the sites :

I ) area likely to be affected by the major accident .: 219 acres.

MAP is enclosed herewith showing all the details Annexure 6.

ii) Population distribution in the vicinity.

b. A scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals : MAP

showing as Annexure 7.

c. A description of the processes or storages involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and indication of the conditions under which it is normally held ;

- Solvents are stored at the ambient condition.
- Dyke walls are provided to the tanks
- They are kept at room temperatures.
- Fire extinguishers and fire hydrant system has been provided. The fire pumps starts in Auto mode.
- Total 9600 KL fire hydrant water capacity.
- Separate shed is provided for storing Hazardous waste.
- Safety notice board displayed at chemical storage area and it is restricted entry area and remains closed.
- Hazardous material storage area being monitored by Plant /facility area supervisor on daily basis for the Fire & Safety and quantity level measurement.
- Unloading and loading also carried out under area Supervisor and Followed Safety system like earthing and bonding.
- We have dedicated plant safety representative responsible for inspection of all type of safety equipment.



**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

- Separate area is provided for Anhydrous ammonia storage.
- Regular training is arranged for safe handling of chlorine toner and methods to use chlorine kit in case of leakage of chlorine
- Scrubbers are installed to scrub the leak chlorine.
- Storage facility is approved from Chief controller of explosive.
- Electrical crane is used for shifting the cylinders.
- The maximum number of persons likely to be present on site ∴ 700 persons at a time.

**ANNEXURE - 5****TRAINING OF WORKERS AND EQUIPMENTS NECESSARY TO ENSURE SAFETY OF SUCH WORKERS****5.1 Training and Education**

Regular training would be provided to all personnel who have a role in planning and operational response to an emergency. The main goal of training for emergencies is to enable the participants to understand their roles in the response organization, the tasks associated with each position and the procedures for maintaining effective communications with other response functions and individuals.

The training objectives are :

- To familiarize personnel with the contents and manner of implementation of the ERP and its procedures.
- To train personnel in the performance of the specific duties assigned to them in the ERP and in the applicable implementing procedures.
- To keep personnel informed of any changes in the ERP and the implementing procedures.
- To maintain a high degree of preparedness at all levels of the Emergency Response Organisation
- Train new personnel who may have moved within the facility organization.
- Test the validity, effectiveness, timing and content of ERP.

**5.2 Drills and Exercises**

Emergency drills and integrated exercises have the following objectives. These constitute another important component of emergency preparedness. They refer to the re-enactment, under the assumption of a mock scenario, of the implementation of response actions to be taken during an emergency.

1. To test the adequacy of the effectiveness, timing, and content of the ERP and implementing procedures.
2. To ensure that the emergency organization personnel are familiar with their duties and responsibilities by demonstration.
3. Provide hands-on experience with the procedures to be implemented during emergency.
4. Maintain emergency preparedness.

The frequency of the drills would vary depending on the severity of the hazard. However, drills would be conducted once in a month for each plant and once in a quarter for the whole site.. Scenarios may be developed in such a manner as to accomplish more than one event objective.

**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

Drills and exercises will be conducted as realistically as is reasonably practicable.

Planning for drills and exercises would include :

- i. The basic objectives
- ii. The dates, times and places.
- iii. The participating organizations
- iv. The events to be simulated
- v. An approximate schedule of events
- vi. Arrangements for qualified observers
- vii. An appropriate critique of drills/exercises with participants

We are also providing all required personnel protective equipments to employees/Contract workers, list is as given below,

*Training Module: -*

1. Safety Induction training
2. Audio visual training on workshop safety for contractors
3. Video module for work permit for contractors
4. Know your chemical
5. Use of PPE
6. Process safety, HAZOP study, QRA

SR. NO.	TYPE OF PPE	NAME OF PPE
1	HAND PROTECTION	Supported hand gloves
		Unsupported hand gloves
		Nitrile hand gloves
		Shock proof hand gloves
		High temperature hand gloves
2	HEAD PROTECTION	Helmet
		Helmet ring
		Helmet with welding face shield
3	FACE PROTECTION	Face shield
4	EYE PROTECTION	Safety goggles-Ploy carbonate
		Safety goggles - mesh type
		Safety goggles - cutting operation
5	EAR PROTECTION	Ear muff
		Ear plug
6	BODY PROTECTION	Chemical resistance apron-PVC apron
		PVC suit, coat + pent + hood
		Boiler suit - Blue color
7.	RESPIRATORY PROTECTION	Countifit mask-ISI mark
		Cloth mask (cotton mask)
		Fume mask- cartridge type (organic vap.)



**SCHEDULE -7**

[ See Rule 7(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES PART –I**

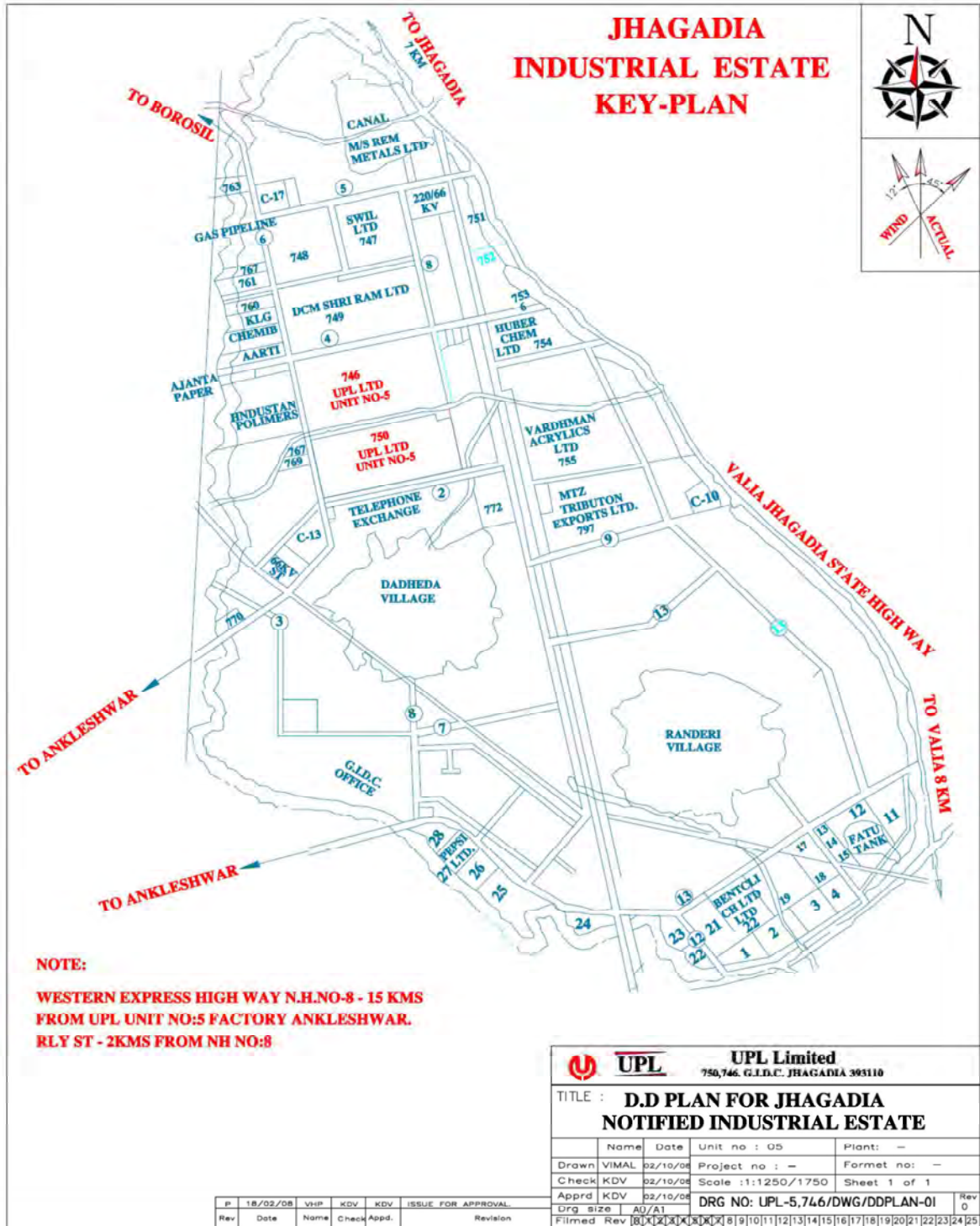
		Fume mask- cartridge type (inorganic vap.)
		Fume mask with H2S cartridge
		Fume Mask with Ammonia cartridge
		SCBA
		Bubble hood
		Dust mask
8	FALL PROTECTION	Safety harness belt
		General Purpose safety belt
		Rope ladder
9	INDUSTRIAL HAZARD PROTECTION	Wind socks - 5ft
		Folding stretcher
		First aid box
		Rubber mat
		Spark arrestor
		Barricaded tape ( red color )
10	FOOT PROTECTION	Electrical safety shoes
		Safety shoes
		Half gum boot



UPL LIMITED (Unit-5)

Annexure B

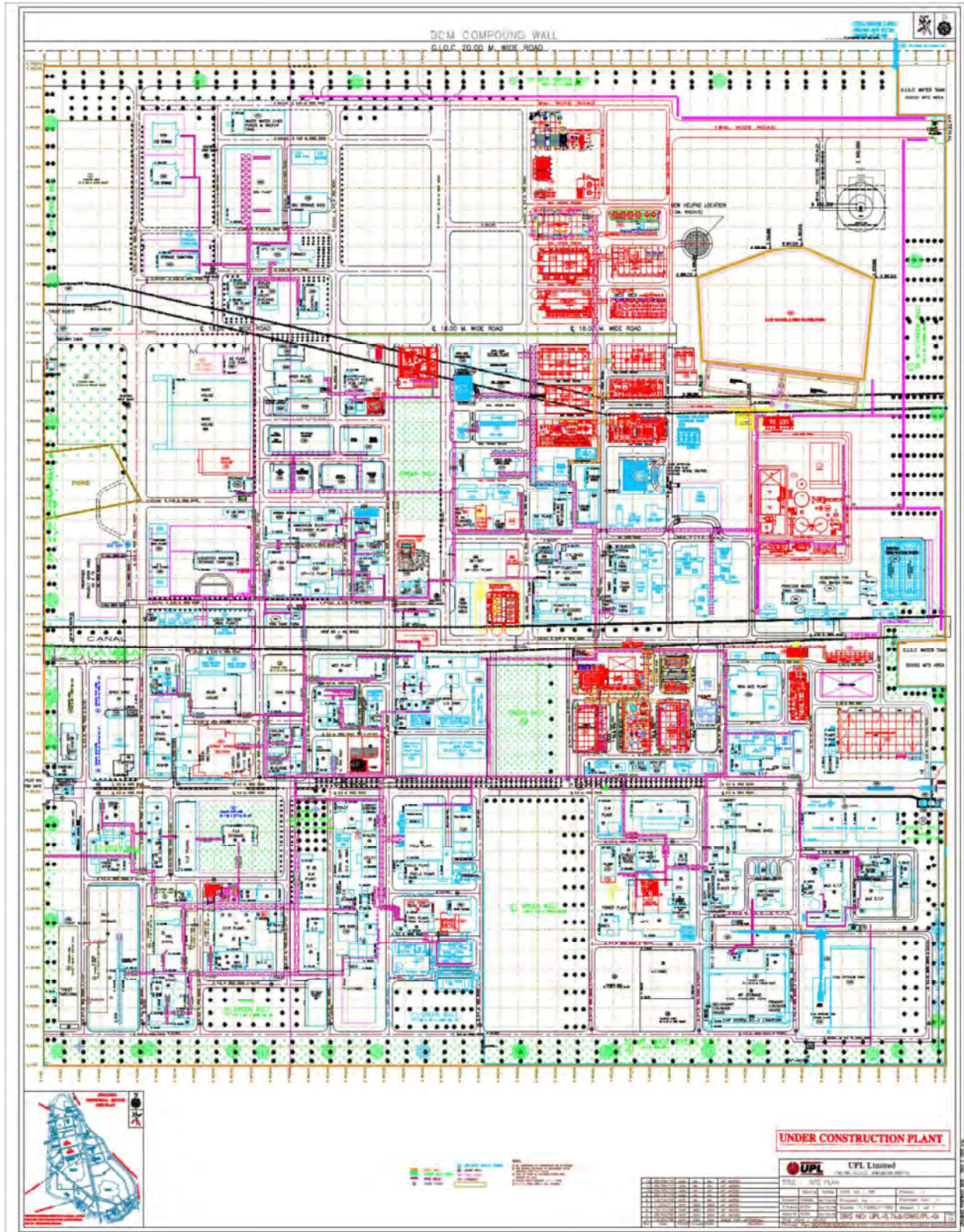
Annexure-6 Key Map Of GIDC







Annexure-7 APPROVED LAY OUT OF SITE



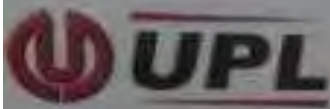
**Annexure-C**  
**List of approval obtained with validity**

SrNo	Licence Name	Licence No. & date	Date of Expiry	Name of the product	Class of Licence / Issued by
1	Petroleum Class B & Class C ( Diesel & FO)	P/HQ/GJ/15/ 5408(P197418)	31.12.2020	Used in DG set & Boiler	Class B & C PESO,Nagpur
2	Petroleum ClassA- Toluene	P/WC/GJ/15/ 2621 (P391630)	31.12.2020	MR-205	Class A, PESO,Nagpur
3	Petroleum Class A ( Ethanol, Methanol, Heptane )	P/WC/GJ/15/ 2532 (P263561)	31.12.2022	GF 331	Class A, PESO,Nagpur
4	Gas cylinder ( Chlorine filling )	G/HO/GJ/05/489 (G1129)	30.09.2021	Chlorine filling, storage & hydrotesting	Gas cylinder storage, PESO, Mumbai
5	Gas cylinder ( Chlorine Storage )	G/HO/GJ/06/466 (G1129)	30.09.2021		Gas cylinder storage, PESO, Mumbai
6	Hydrotesting Chlorine tonner	G/HO/GJ/05/489 (G1129)	Life time		Gas cylinder rule
7	Gas cylinder ( Hydrogen filling )	G/HO/GJ/05/463( G16865)	30.09.2022	Hydrogen	Gas cylinder storage, PESO, Mumbai
8	Gas cylinder ( Hydrogen storage )	G/HO/GJ/06/440 (G16865)	30.09.2022	Hydrogen	Gas cylinder storage, PESO, Mumbai
8	Gas cylinder ( Hydrogen storage )	G/HO/GJ/06/440 (G16865)	30.09.2022	Hydrogen	Gas cylinder storage, PESO, Mumbai
9	Gas cylinder ( Ammonia & Methyl chloride )	G/WC/GJ/06/1835(G 34680)	30.09.2023	Methyl chloride	Gas cylinder storage, PESO, Mumbai
10	Gas Cylinder Ammonia - MeCl - GF 3000	G/WC/GJ/06/1997(G 39308)	30.09.2024	GF 331 - Ammonia - MeCl	Gas cylinder storage, PESO, Vadodara
11	SMPV ( Propylene )	S/HO/GJ/03/1666(S66581)	30.09.2022	Propylene	Storage of Propylene
12	SMPV ( Liq oxygen )	S/HO/GJ/03/950(S31779)	31.09.2020	Liq.O2	Storage of Liq O2



13	SMPV ( Anh. Ammonia )	S/HO/GJ/03/1906 (S88839)	30.09.2021	ANH AMMONIA	Storage
14	SMPV ( Chlorine )	S/HO/GJ/03/862 (S1457)	30.09.2023	CHLORINE	Storage
15	SMPV ( Nitrogen )	S/HO/GJ/03/1586(S65842)	30.09.2021	Liquid Nitrogen	Storage
16	SMPV ( Nitrogen )	S/HO/GJ/03/1900/(S87764)	30.09.2020	Liquid Nitrogen	Storage
17	SMPV ( Nitrogen )	S/HO/GJ/03/1431(S53117)	30.09.2021	Liquid Nitrogen	Storage
18	SMPV( Methyl Chloride) )	S/HO/GJ/03/1896(S68863)	30.09.2020	Methyl Chloride	Storage
19	Factory Licence	Regst No-135/24219/1916 , Lic.No-5514	30.12.2020	--	--
20	Biomedical waste membership- GLOBE Bio Care	Membership code -IN0062	09.07.2022	OHC Biomedical waste	--

Annexure-D



Ref: UPL / Jng/ SAF/S/2019/02

Date :- 17.05.2019

To,

Dy. Director – Industrial Health & Safety  
Office of the Dy. Director – (I.S. & H)  
2<sup>nd</sup> Floor, Multi Story Building  
Opp- Gayatri Nagar  
Bharuch

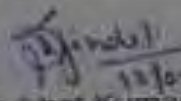
Sub - Mock drill reports

Dear Sir,

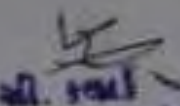
This is in reference above subject we are submitting herewith Mock drill report & 3<sup>rd</sup> party safety audit report for your ref & records

Regards,

For UPL Limited (Unit – 5)

  
18/05/19  
Subhat Kumar Jindal  
Unit Head

Enclosed – Mock drill reports of Dec -2018 & March -2019.  
3<sup>rd</sup> party safety Audit Report 2018

  
Subhat Kumar Jindal  
Unit Head  
23-5-19





Ref: UPL/Jhg/SAF/5/01/2017/09

29.01.2018

To

Dy. Director- Industrial Safety & Health,  
Office of the Dy. Directorate - (I.S. & H.),  
2<sup>nd</sup> Floor, Multi Story Building,  
Kanbiyaga, Opp:- Gayatri Nagar,  
Bharuch.

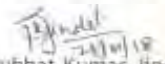
Dear Sir,

Sub. : Mock drill reports. & on site plan-2017

Here with we are forwarding the Mock drill report conducted on 27.12.2017 for your ref & record.


Kindly acknowledge the same.

For, UPL Limited

  
Subhat Kumar Jindal

(Unit Head)

Enc. Copy of Mock drill report  
on site plan 2017

 24-1-18  
મુદત દરમિયાન  
સહાયક નિરીક્ષક  
સુરક્ષા

Thir



Ref: UPL/Jhg/SAF/5/01/2017/09

29.01.2018

To:

Dy. Director- Industrial Safety & Health,  
Office of the Dy. Directorate - (I.S. & H.),  
2<sup>nd</sup> Floor, Multi Story Building,  
Kanbivaga, Opp.- Gayatri Nagar,  
Bhanuchi.


Dear Sir,

Sub.: Mock drill reports. 4- on site plan-2017


Here with we are forwarding the Mock drill report conducted on 27.12.2017 for your ref & record.

Kindly acknowledge the same.

For, UPL Limited

  
Subhat Kumar Jindal  
(Unit Head)

Enc. Copy of Mock-drill report  
on site plan 2017

 24-1-18  
महानिरीक्षण विभाग  
जयपुर

Thir



**BUREAU VERITAS**  
Certification



**UPL LIMITED**



746 - 750, GIDC INDUSTRIAL ESTATE, P.B. NO. 9, JHAGADIA, BHARUCH - 393 110,  
GUJARAT, INDIA.

*Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System standards detailed below.*

*Standards*

**ISO 14001:2015 & ISO 45001:2018**

*Scope of certification*

- 1) MANUFACTURE & DISPATCH OF INDUSTRIAL & SPECIALITY CHEMICALS, AND TECHNICAL GRADE PESTICIDES AND THEIR FORMULATIONS
- 2) EXAMINATION AND TESTING OF CHLORINE GAS CYLINDERS

Original cycle start date For EMS: 22 February 2007

Original cycle start date For OHSMS: 20 February 2019

Expiry date of previous cycle For EMS: 21 February 2019

Expiry date of previous cycle For OHSMS: Not Applicable

Recertification Audit date: 11 February 2019

Recertification cycle start date: 20 February 2019

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 19 February 2022

Certificate No. IND.19.12046U/E/HS Version : 1 Revision date: 20 February 2019

*Jagdheesh N. Manian*

Signed on behalf of BVCH SAS - UK Branch  
Jagdheesh N. MANIAN  
Head - CERTIFICATION, South Asia  
Commodities, Industry & Facilities Division



0006

Certification body address: 8th Floor, 66 Prescott Street, London, E1 6HG, United Kingdom.

Local office: Bureau Veritas (India) Private Limited (Certification Business)  
72 Business Park, Marol Industrial Area, MIDC Cross Road "C",  
Andheri (East), Mumbai - 400 093, India.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.  
To check this certificate validity please call +91 22 6274 2000.



**MATERIAL SAFETY DATA SHEET**  
**CARBON DISULPHIDE**  
**(According to Regulation (EC) No. 1907/2006)**

**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name : Carbon DiSulphide  
 Application : Chemical intermediate, solvent  
 Name of Manufacturer : UPL, Unit No. 5

746 & 750, GIDC, Jhagadia – 393 110.  
 District – Bharuch, Gujarat, India  
 Phone No.: +91-2645-226011 - 15  
 In Emergency: +91-2645 – 226011 - 15  
 Fax No.: +91-2645 – 226017/18

**SECTION 2. HAZARDS IDENTIFICATION**

Highly flammable.  
 Toxic: danger of serious damage to health by prolonged exposure through inhalation.  
 Irritating to eyes and skin.  
 Product is absorbed readily through the skin and may cause toxic effects.  
 Possible risk of impaired fertility.  
 Possible risk of harm to the unborn child.

**SECTION 3: COMPOSITION, INFORMATION OR INGREDIENTS**

This product is to be considered as a substance in conformance to EC directives  
 Information on hazardous ingredients

**Chemical description**

Carbon disulfide, CS<sub>2</sub>

**Composition / information on ingredients**

Number	% w/w	CAS-number	Chemical name
1	100	000075-15-0	Carbon disulfide

Index-No.	EC-number	Symbol(s)(EU classification)	Risk-phrase(s)
006-003-00-3	200-843-6	F T	R11 R36/38 R48/23 R62 R63

**SECTION 4. FIRST AID MEASURES****Symptoms and effects**

Vapors/mist may irritate the respiratory tract. Inhalation of carbon disulfide vapor may cause headache, nausea, drop in blood pressure, dizziness, unconsciousness and, possibly, death. This product is absorbed through the skin. Degreases and damages the skin. Eye contact causes irritation and pain, possibly resulting in permanent injury and/or loss of vision.

**First aid****General**

Obtain medical attention immediately (show this Safety Data Sheet). Do not delay treatment of exposed individuals, death may result. In case of insensibility bring into stable lateral position. If breathing is irregular or stopped, administer artificial respiration. Apply external cardiac massage in case of cardiac arrest.

**Inhalation**

Move to fresh air, rest, half upright position, loosen clothing. Oxygen or artificial respiration if there is difficulty in breathing. Avoid inhaling of expired air.

**Skin**

Remove all contaminated clothing immediately. Wash off with plenty of soap and water. Seek medical advice if irritation develops. Launder clothes before reuse.  
 In case of frostbite: DO NOT remove clothing, but first thaw frosted parts with water (never use warm water!). Remove contaminated clothing.

**Eye**

Shower for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing.

**Ingestion**



Only when conscious, rinse mouth, give plenty of water to drink. DO NOT induce vomiting. Seek medical advice.

**Advice to physician**

May cause delayed pulmonary oedema.

**SECTION 5: FIRE FIGHTING MEASURES**

**Extinguishing media**

waterspray, foam. Do not extinguish a leaking gas flame unless absolutely necessary.

**Unsuitable extinguishing media**

Carbon dioxide, fire-extinguishing powder

**Hazardous decomposition / combustion products**

Sulfur dioxide, carbon monoxide (CO), COS.

**Protective equipment**

Use self-contained or supplied-air respiratory equipment.

**Other information**

Vapors are heavier than air and may spread along floors, Fire and explosion hazard.

**Fire and explosion hazard**

Forms explosive mixtures with air, oxygen, chlorine.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

For personal protection see Section 8. Evacuate personnel to safe area. Stop leakage if possible. Eliminate

all sources of ignition, and do not generate flames or sparks.

**Environmental precautions**

Do not allow to escape into sewage system or water courses. Isolate spill area. Prevent liquid entering sewers, basement and work pits. Absorb with suitable material. Consult an expert. If the substance entered

a water course or sewer advise the authorities.

**Methods for cleaning up**

If appropriate, collect under water or nitrogen. For small quantities and outdoors: Secure area and let evaporate.

**SECTION 7. HANDLING AND STORAGE**

**Handling**

Do not breathe vapor. Avoid contact with skin and eyes.

Pregnant women should avoid inhalation or skin contact under all circumstances.

**Fire and explosion prevention**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

**Storage requirements**

Keep container tightly closed and in a well-ventilated place. In case of insufficient ventilation, wear suitable respiratory equipment.

**SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION**

**Engineering controls**

Ensure good ventilation and local exhaustion of the working area. Use only in closed system. It is recommended to use equipment of temperature group T6. Equipment group IIC (EN 50014).

**Personal protection**

**Respiratory**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use self-contained or supplied-air respiratory equipment. (respirator with Filter B, grey).

**Hand:** Wear suitable gloves with thermal insulation effect. For full contact use, 100% Viton gloves conforming to

EN 374, e.g. KCL Vitoject 890 are recommended.

**Eye:** A face shield is preferred over goggles.

**Skin and body:** Wear suitable protective clothing.

**Other information**

Pregnant women should avoid inhalation or skin contact under all circumstances.

(30 mg/m<sup>3</sup> = 10 ppm)

Skin	: Potential for cutaneous absorption
Short Term Exposure Limit (STEL)	: 30 ppm
Short Term Exposure Limit (STEL)	: 96 mg/m <sup>3</sup>
Time Weighted Average (TWA)	: 10 ppm

Time Weighted Average (TWA) : 32 mg/m<sup>3</sup>

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid  
Color : clear  
Odor : characteristic, unpleasant (odor threshold < 1 ppm)  
Boiling point/range : 46.2 °C  
Melting point/range : -111.6 °C  
Flash point : -30 °C  
Flammability : Highly flammable  
Explosive properties : Forms explosive mixtures with air, oxygen, chlorine  
Vapor pressure : 39.7 kPa (20 °C)(397 mBar (20 °C))  
Density : 1.262 kg/dm<sup>3</sup> (20 °C);  
Solubility in water : 0.2 % (2 g/l at 20 °C)  
Solubility in other solvents : Miscible with: organic solvents.  
pH value : Not applicable  
Partition coefficient n-octanol/water: 1.9  
Relative vapor density (air=1): 2.64  
Viscosity : 0.36 mPa.s (20 °C)  
Auto ignition temperature : 90-95 °C  
Explosion limits:  
LEL : 19 mg/l (0.6 Vol %),  
UEL : 1900 mg/l (60 Vol %).

## **SECTION 10: STABILITY AND REACTIVITY**

Conditions to avoid : Avoid elevated temperatures.  
Stability : Stable under recommended storage and handling conditions (see section 7).  
Incompatibles : Halogens, nitrous gases (NO<sub>x</sub>), metals (Zn, Na, K), oxidants.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **Acute toxicity**

Oral LD50 : rat: > 2000 mg/kg.  
Inhalation LC50 : rat; 2 hours: 25 mg/l.

### **Irritation**

Skin : Moderately irritating.  
Eye : Highly irritating.  
Respiratory : Moderately irritating.  
Genotoxicity : Ames test: Not mutagenic. Micronucleus test: Not mutagenic.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **Ecotoxicity**

Fish : *Poecilia reticulata*, 96h-LC50: 3 mg/l  
Danio rerio, No Observed Effect Concentration (NOEC): 1 mg/l  
Daphnia : *Daphnia magna*, 48h-EC50: 2 mg/l  
Fate  
Degradation Biotic: Readily biodegradable (80%, 28 days)

## **SECTION 13: DISPOSAL CONSIDERATION**

**Product** : Please refer to your specific industry in the European Waste Catalogue.  
According to local regulations (most probably controlled incineration).

**Contaminated packaging** : Drain drums as good as possible, then flush with nitrogen and warm up with steam.

## **SECTION 14: TRANSPORT INFORMATION**

### **Land transport**

Class: 3  
RID class: 3  
Packing group: I  
Hazard Identification No.: 336  
Substance Identification No.: 1131  
UN number: 1131  
Proper Shipping Name: Carbon disulphide  
Other information: TOXIC risk label required additionally.  
Tunnel code: C/E

### **Sea transport (IMO / IMDG-code)**

Class: 3



Packing group: I  
UN number: 1131  
EMS: F-E, S-D  
Marine pollutant: no  
Proper Shipping Name: Carbon disulphide  
**Air transport (ICAO-TI / IATA-DGR)**  
UN number: 1131  
Class: Forbidden  
Packing group: not relevant  
Proper Shipping Name: not relevant

## SECTION 15: REGULATORY INFORMATION

Product label name: Carbon disulfide  
Labelling according to EC directives  
EC-number: See section 3  
Classification based on  
Annex-VI to regulation EC No. 1272/2008. The mandatory EU labelling has been followed.

### **R(isk) phrase(s) (EU classification)**

#### **Code Description**

R11 Highly flammable  
R36/38 Irritating to eyes and skin  
R48/23 Toxic: danger of serious damage to health by prolonged exposure through Inhalation  
R62 Possible risk of impaired fertility  
R63 Possible risk of harm to the unborn child

### **S(afety) phrase(s) (EU classification)**

#### **Code Description**

S16 Keep away from sources of ignition - No smoking  
S33 Take precautionary measures against static discharges  
S36/37 Wear suitable protective clothing and gloves  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

### **Symbol(s) (EU classification)**

HIGHLY FLAMMABLE  
TOXIC

#### **Other information**

To be displayed on the label: "EC label".  
Substance and/or product listed in Directive 96/82/EC.

### **German Water Hazard Class (WGK)**

2 (VwVwS Anhang 2, Kenn-Nr 183)

## SECTION 16. OTHER INFORMATION

R-phrase information

Chemical name

Carbon disulfide

### **R(isk) phrase(s)(EU classification)**

R11,R36/38,R48/23,R62, R63

Highly flammable Irritating to eyes and skin Toxic: danger of serious damage to health by prolonged exposure through inhalation Possible risk of impaired fertility Possible risk of harm to the unborn child.

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

## MATERIAL SAFETY DATA SHEET

### SODIUM HYDROXIDE

---

#### SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Supplier : UPL –Unit -5  
746 & 750, GIDC., P.B. No-9, Jhagadia-393110,  
Dist- Bharuch, Gujarat. India  
Phone No: (+91-2645)226011-15  
Fax No: (+91-2645)226017, 226018

Substance : Sodium Hydroxide  
Trade Name/Synonyms : Caustic soda; Soda lye; Sodium hydrated Lye.  
Application : Chemicals Products

#### SECTION 2: HAZARDS IDENTIFICATION

Appearance: white, Danger Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Routes of Entry : Inhalation, ingestion, eyes and skin

Inhalation : Irritation may lead to chemical pneumonitis and pulmonary edema.

Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract.

Skin Contact : May causes irritation and uncertain  
Eye Contact : May causes irritation ,burns and conjunctivitis  
Ingestion : May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. May cause systemic effects

Fire  
Flammability : NO  
Lower Explosive Limit : Not pertinent  
Upper Explosive Limit : Not pertinent  
Flash Point : Not pertinent  
Corrosive : Yes  
Oxidizing Properties : Yes

#### SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Component Substance : Sodium hydroxide - Lye  
Component Percent : 48 %  
CAS Registry Number : 1310-73-2



## SECTION 4: FIRST AID MEASURES

**Inhalation** : Remove from exposure immediately. Administer oxygen if breathing is difficult. Get medical attention if the victim is unwell.

**Skin Contact** : Remove contaminated clothing, jewelry and shoes immediately wash the effected area with plenty water, Get medical attention, if needed.

**Eye Contact** : Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately, preferably ophthalmologist.

**Ingestion** : If the victim is concious, give 2-3 glass full of water to drink. Do not induce vomiting, Get medical attention if needed.

## SECTION 5: FIRE FIGHTING MEASURES

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. Contact with metals may evolve flammable hydrogen gas.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do not get water inside containers.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8.  
**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not get water on spilled substances or inside containers.

## SECTION 7: HANDLING AND STORAGE

**Handling:** Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Avoid ingestion and inhalation. Discard contaminated shoes. Use only with adequate ventilation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals. Corrosives area. Keep away from acids. Store protected from moisture. Containers must be tightly closed to prevent the conversion of NaOH to sodium carbonate by the CO<sub>2</sub> in air.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV: 2 ppm                      STEL: Not listed

Do not breathe fumes. Avoid contact with skin and eyes.

**Ventilation:** Provide local exhaust ventilation system.

**Eye protection:** Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Clothing:** Wear appropriate chemical resistant clothing.

**Gloves:** Wear appropriate chemical resistant gloves.

**Respirator:** Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties

before use. A facemask with suitable filter or powdered respirator is advised.

Wear safety footwear and industrial safety helmet.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Liquid
Appearance	:	Colorless
Odour	:	Odorless
Molecular Weight	:	40
Molecular Formula	:	NaOH
Boiling Point	:	1390 Deg C
Melting Point	:	318.4 Deg C
Specific Gravity	:	2.12 at 24 Deg C
Vapour Density	:	Not pertinent
Solubility in water	:	Soluble

## SECTION 10: STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Moisture, contact with water, exposure to moist air or water, prolonged exposure to air.

**Incompatibilities with Other Materials:** Acids, water, flammable liquids, organic halogens, metals, aluminum, zinc, tin, leather, wool, nitro methane.

**Hazardous Decomposition Products:** Toxic fumes of sodium oxide.

**Hazardous Polymerization:** Will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data : LD 50 – Not listed  
TLV (ACGIH) : 2 ppm (cc)  
STEL : Not listed

## SECTION 12: ECOLOGICAL INFORMATION

Ecological Overview

Toxicity to fishes : Not listed  
Toxicity to bacteria : Not listed

Harmful to aquatic animals, so do not discharge into drains.

## SECTION 13: DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: TRANSPORT INFORMATION

Shipping Name : Sodium Hydroxide  
UN No. : 1823  
Hazard Class : Corrosive class 8  
Hazardous waste Id No : 16  
Hazchem Code : 2 R  
NFPA : Health-3, Flammability-0, Reactivity-1, Special-Not pertinent

## SECTION 15: REGULATORY INFORMATION

Symbol: Corrosive



**Risk Phrases:**

R 35 Causes severe burns.

**Safety Phrases:**

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**SECTION 16: OTHER INFORMATION**

*Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, United Phosphorus Ltd makes no representations as to be completeness or accuracy thereof.* The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall United Phosphorus Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if United Phosphorus Limited has been advised of the possibility of such damages.