

Ref No. APSEZL/EnvCell/2024-25/053

Date: 02.09.2024

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar – 382010

Dear Sir,

Sub: Environmental Statement for the financial year ending 31st March, 2024 for **M/s Mundra LPG Terminal Pvt. Ltd. (MLTPL)**.

Ref: Consent Order AWH – 134895 issue dated 12.06.2024 Valid till 27.06.2029 (PCB ID: - 53331)

With reference to the above mentioned subject and reference, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for **M/s Mundra LPG Terminal Pvt. Ltd. (MLTPL), Plot No. 169/P, Navinal Island, Mundra, Tal. Mundra, Dist. Kutch – 370421** for the financial year ending 31st March 2024.

Thank you,

Yours faithfully,
For **Mundra LPG Terminal Pvt. Ltd. (MLTPL)**



Authorized Signatory

Encl: As above.

Copy to: **The Regional Officer, Gujarat Pollution Control Board (East-Kutch), Gandhidham.**

5/9/24
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

Mundra LPG Terminal Pvt Ltd
Adani House,
PO Box No. 1
Mundra, Kutch 370 421
Gujarat, India
CIN: U40106GJ2015PTC084303

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FORM V
(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2024

PART - A

(i)	Name and address of the Owner/ Occupier of the Industry Operation or Process	:	Mr. Sujalkumar Shah CEO – Mundra & Tuna Port Mundra LPG Terminal Pvt. Ltd. (MLTPL) , Plot No. 169/P, Navinal Island, Mundra, Tal. Mundra, Dist. Kutch – 370421 Ph No. (02838) 255000
(ii)	Industry Category Primary (STC Code) Secondary (STC Code)	:	Red-Large NA NA
(iii)	Production Capacity	:	Handling, Storage & Distribution of LPG @ 3.56 MMTPA
(iv)	Year of Establishment	:	2017
(v)	Date of last Environment Statement submitted	:	11/09/2023

PART - B

Water and Raw Material Consumption

(i) Water Consumption in m³/day: -

Process	:	Nil
Cooling (Boiler feed/Cooling/Others)	:	146.12 KLD
Domestic	:	6.96 KLD

Name of product	Process water consumption per unit of product output	
	During the current financial year 2022-2023	During the current financial year 2023-2024
Handling, Storage & Distribution of LPG	0.097 KL/MT for LPG Handling, Storage & Distribution	0.077 KL/MT for LPG Handling, Storage & Distribution

The water does not consumed in handling, storage, distribution and manufacturing process of LPG. The water consumed for industrial purpose mainly in firefighting equipment testing, cooling tower operation the utility operation.

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Environment Statement for 2023-24 for Mundra LPG Terminal Pvt. Ltd. (MLTPL).**(PCB ID: 53331)****(ii) Raw Material Consumption**

Name of raw Materials	Name of Product	Consumption of Raw Material Per unit of Output	
		During the current financial year 2022-2023	During the current financial year 2023-2024
Propene	Handling, Storage & Distribution of LPG	0.495 MT / MT	0.549 MT / MT
Butane		0.480 MT / MT	0.451 MT / MT
Merkepton		0.007 MT / MT	0.001 MT / MT

PART - C**Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)**

Pollutants	Quantity of pollutants discharged (Mass/day)		Concentrations of pollutants in discharges (mass/volume)		Percentage of variation from prescribed standards with reasons
	Parameters	Avg. Mass Kg/Day	Parameters	Avg. Mass	
(a) Water	pH	-	pH	7.33	The industrial wastewater is neutralized in pH correction tank.
(b) Air	Particulate Matter (PM)	0.094	Particulate Matter (PM) (mg/Nm ³)	26.83	No variation in prescribed standards. The parameters are well within the prescribed limit.
	Sulphur Dioxide (SO ₂)	0.111	Sulphur Dioxide (SO ₂) (PPM)	11.77	
	Nitrogen Oxide (NO _x)	0.155	Nitrogen Oxide (NO _x) (PPM)	23.12	1. DG sets having capacities 2000 KVA is provided as a standby power source and used during power failure. Analysis reports of stack monitoring are enclosed as Annexure - 1.

Environment Statement for 2023-24 for Mundra LPG Terminal Pvt. Ltd. (MLTPL).

(PCB ID: 53331)

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 1989)

Hazardous Waste	Total Quantity (Kg)	
	During the current financial year 2022-2023	During the current financial year 2023-2024
From Process		
Used/Spent Oil	Nil*	Nil*
Discarded drum / Containers		
Oily cotton rags		
Sludge and filters contaminated with oil		
From Pollution Control facility	Not Applicable	Not Applicable

*Due to very minimum hazardous waste generation quantity considering clean operational activity the waste did not disposed during last years. Whenever sizable quantity of the hazardous waste will be accumulated it will be disposed as per HW rules and regulation.

PART - E

Solid Waste

Waste	Total Quantity (MT)		
	During the current financial year 2022-2023	During the current financial year 2023-2024	
a. From Process			
Dry Waste**	Refer Annexure - 2*		
Wet Waste**			
RDF**			
b. From pollution control facilities			
(C-1) Quantity recycled or reutilized within the unit			
(C-2) Sold			
(C-3) Disposed			

** The solid waste details are of entire APSEZ area including MLTPL. The solid waste of MLTPL is also being managed in APSEZ waste management system. The solid waste (glass, paper, plastic, metal scrap and food waste) categorized in Recyclable Waste, Wet Waste and Refused Derived Fuel (RDF) and managed in common waste management facility of APSEZ.

Environment Statement for 2023-24 for Mundra LPG Terminal Pvt. Ltd. (MLTPL).

(PCB ID: 53331)

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

Details of Hazardous Waste Management

Hazardous waste	Quantity (MT) disposed During the current financial year 2023-2024	Disposal Practice
Used/Spent Oil	Nil	Collection, Storage, Transportation & Disposal by reuse within premises and / or selling out to registered recycler/ reprocessor.
Discarded drum / Containers	Nil	Collection, Storage, Transportation & Disposal by reuse within premises and / or selling out to registered recycler/ reprocessor
Oily cotton rags	Nil	Collection, Storage, Transportation & Disposal by Co-processing at Cement Industries.
Sludge and filters contaminated with oil	Nil	Collection, Storage, Transportation & Disposal by selling out to registered recycler/ reprocessor.

Details of Solid Waste Management*

Solid Waste	Quantity (MT) disposed during the current financial year 2023-2024	Disposal method
Dry Waste	3312.775	After recovery sent/sold for recycling or reuse within premises
Wet Waste	959.35	Food waste Converted to Manure for horticultural use and biogas generation for cooking purpose.
RDF	451.28	Sending to cement industry for co processing

* Above mentioned solid waste details are of entire APSEZ area including MLTPL. The solid waste of MLTPL is also being managed in APSEZ waste management system. The solid waste (glass, paper, plastic, metal scrap and food waste) categorized in Recyclable Waste, Wet Waste and Refused Derived Fuel (RDF) and managed in common waste management facility of APSEZ.

- APSEZ has awarded with Zero Waste to Landfill Management System (ZWTL MS 2020) from TÜV Rheinland India Pvt. Ltd

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- ✓ Improving the water quality of cooling tower by Auto dosing of chemicals, with this implementation the RO water consumption in cooling tower is reduced, except the blowdown as per the system requirement.

Environment Statement for 2023-24 for Mundra LPG Terminal Pvt. Ltd. (MLTPL).

(PCB ID: 53331)

- ✓ Optimization of TLF loading operation by use of single boiler for heating of cargo which confines to the Fuel consumption as well as the pollution control up to some extent.
- ✓ MLTPL has conducted Energy audit in FY 2020-2021 through the accredited third party auditor. The suggestions and recommendations are implemented.
- ✓ As a pollution abatement measures flue gas emission utilities such as steam boiler and DG set Adequate stack height maintained.
- ✓ Green fuel such as LPG is used in steam boiler to reduce emission.
- ✓ There is no any process wastewater generation from LPG terminal. Wastewater generated from Boiler blow down, cooling blow down and RO reject from water treatment plant as industrial wastewater and it is being treated in neutralization tank for pH correction.
- ✓ Treated water from LPG plant is being sent to 1500 KL of APSEZ fire water tank, which is utilized for gardening and horticulture within APSEZ premises to conserve the fresh water consumption.
- ✓ Domestic sewage is being sent to Effluent Treatment Plant of APSEZ and treated water is being utilized on land for gardening and horticulture within APSEZ premises.
- ✓ Following safeguard measures are taken for abatement of dust and noise emissions:
 - Regular cleaning of roads
 - D.G. Set having acoustic enclosures
 - Continuous monitoring system installed for steam boiler stack gas emission.

PART – H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

MLTPL has developed green belt area @ 0.11 Ha with 1215 nos. of saplings within the LPG terminal premises in available space considering safety aspect due to handling of hazardous flammable material. However MLTPL is co-developer of Adani Ports and SEZ Limited (APSEZ), Mundra and located inside the APSEZ. So far APSEZ has developed more than 457.99 ha. area as greenbelt with plantation of more than 9.06Lacs trees within the entire APSEZ, Mundra area as part of environmental protection.

PART – I

Any other particulars for improving the quality of environment:

- Monitoring of environmental parameters such as Air, Noise, and wastewater quality being done regular basis through MoEF & NABL recognized laboratory (M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi).
- Awareness program and training on waste management, water conservation, energy conservation for employees & their families, contractors, local community is being conducted on regular basis.
- APSEZ has set up separate Environment Cell which is also looking the environmental management and environmental performance monitoring of MLTPL.

Date: 31-08-2024



(Signature of a person carrying out an industry, operation or process)

Designation: **Head – Environment**

Environment Statement for 2023-24 for Mundra LPG Terminal Pvt. Ltd. (MLTPL).

(PCB ID: 53331)

Address: **Mundra LPG Terminal Pvt. Ltd.
(MLTPL), Mundra, Kutch - 370421.**

**ANNEXURE - 2
Details of Waste Management of APSEZ, Mundra**

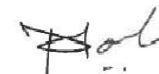
Sr. No.	Waste Description	Disposal Method	Unit	Quantity 2022-23	Quantity 2023-24
Non-Hazardous:					
1.	Dry Waste (Recyclable waste-Metal, Wood, paper, plastic etc.)	Recycle (send to reg. recycler)/ Reuse (Used by Org.)	MT	3779.70	3312.775
2.	RDF (Non-Recyclable)	Co-processing at cement plant	MT	544.17	451.28
3.	STP Sludge	Reprocess (Manure)	MT	11.8	3
4.	Organic Waste (included food waste)	Reprocess & Recovery Manure/biogas	MT	897.82	959.35
5.	E-Waste	Recycle (send to reg. recycler)	MT	89.86	44.83
6.	Battery Waste	Recycle (send to reg. recycler)	MT	17.83	19.89
Hazardous:					
1.	Used/Spent Oil	Recycle (send to recycler)	MT	NIL	NIL
2.	Discarded drum / Containers	Recycle (send to recycler)	MT	NIL	NIL
3.	Oily cotton rags	Co-processing/Incineration	MT	NIL	NIL
4.	Sludge and filters contaminated with oil	Recycle (send to recycler)	MT	NIL	NIL

RESULTS OF LPG Terminal N –PIT WATER

SR.NO.	TEST PARAMETERS	UNIT	Liquid Terminal						TEST METHOD
			Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	
			09-10-2023	08-11-2023	08-12-2023	25-01-2024	27-02-2024	23-03-2024	
1.	Colour	Pt. Co. Scale	50	50	50	40	50	50	IS 3025(Part 4)
2.	pH @ 27 ° C	--	7.38	7.49	7.34	7.22	7.34	7.42	APHA 23 rd Ed.,2017,4500-H+B
3.	Temperature	°C	30.5	30	29.5	29	29.5	30	IS 3025(Part 9)1984
4.	Total Suspended Solids	mg/L	24	26	26	22	24	22	APHA 23 rd Ed.,2017,2540 –D
5.	Total Dissolved Solids	mg/L	1590	1548	1522	1528	1538	1520	APHA 23 rd Ed.,2017,2540- C
6.	COD	mg/L	113.4	128.4	112.2	105.4	110.2	124.1	IS 3025(Part 58)2006
7.	BOD (3 days at 27 °C)	mg/L	31	35	33	32	33	37	IS 3025(Part 44)1993Amd.01
8.	Chloride (as Cl) ⁻	mg/L	386.8	408.2	424.8	409.2	432.4	415.2	IS 3025(PART 32) 1988
9.	Oil & Grease	mg/L	2.8	2.8	2.6	2.7	2.8	2.7	IS 3025(Part39)1991, Amd. 2
10.	Ammonical Nitrogen	mg/L	12.2	13.4	13.5	15.4	15	14.4	IS 3025(Part 34)1988,



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
1.	02-10-2023	78.43	36.85	25.69	30.35	1.04	--	NOT DETECTED
2.	05-10-2023	85.29	38.94	27.42	33.1	1.10	5.14	NOT DETECTED
3.	09-10-2023	82.57	36.15	25.73	30.64	1.05	4.85	NOT DETECTED
4.	12-10-2023	85.67	40.75	29.46	34.58	1.17	5.59	NOT DETECTED
5.	16-10-2023	81.87	37.33	26.63	31.26	1.10	5.23	NOT DETECTED
6.	19-10-2023	83.81	39.15	30.19	34.85	1.15	5.49	NOT DETECTED
7.	23-10-2023	78.65	35.69	28.62	33.69	1.10	5.26	NOT DETECTED
8.	26-10-2023	73.35	38.59	26.89	30.84	1.18	5.53	NOT DETECTED
9.	30-10-2023	76.95	38.95	29.36	34.97	1.06	4.76	NOT DETECTED
10.	02-11-2023	75.82	34.90	27.31	32.52	1.08	5.36	NOT DETECTED
11.	06-11-2023	78.69	36.43	28.68	34.02	1.12	5.52	NOT DETECTED
12.	09-11-2023	80.10	38.19	30.76	35.67	1.15	5.79	NOT DETECTED
13.	13-11-2023	83.69	39.51	31.52	36.16	1.20	5.95	NOT DETECTED
14.	16-11-2023	81.46	38.59	29.83	34.79	1.15	5.76	NOT DETECTED
15.	20-11-2023	77.62	35.76	27.4	32.22	1.10	5.41	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
16.	23-11-2023	79.17	37.32	28.96	34.61	1.13	5.65	NOT DETECTED
17.	27-11-2023	71.21	32.92	26.54	30.89	1.05	5.25	NOT DETECTED
18.	30-11-2023	74.58	34.66	28.42	32.73	1.08	5.50	NOT DETECTED
19.	04-12-2023	74.19	36.84	29.31	32.68	1.04	5.21	NOT DETECTED
20.	07-12-2023	71.95	33.69	25.85	30.59	1.00	4.95	NOT DETECTED
21.	11-12-2023	76.63	35.92	27.27	32.48	1.07	5.38	NOT DETECTED
22.	14-12-2023	80.86	39.1	30.74	35.97	1.10	5.74	NOT DETECTED
23.	18-12-2023	78.93	38.64	28.39	32.48	1.08	5.62	NOT DETECTED
24.	21-12-2023	80.12	40.05	30.42	34.86	1.12	5.8	NOT DETECTED
25.	25-12-2023	76.42	35.93	27.64	32.47	1.10	5.57	NOT DETECTED
26.	28-12-2023	73.69	33.87	25.97	30.63	1.06	5.45	NOT DETECTED
27.	01-01-2024	75.37	34.56	26.42	29.87	1.06	--	NOT DETECTED
28.	04-01-2024	77.49	36.16	27.89	32.63	1.10	5.36	NOT DETECTED
29.	08-01-2024	80.34	38.13	30.08	34.21	1.14	5.56	NOT DETECTED
30.	11-01-2024	75.17	34.11	26.92	30.43	1.05	5.27	NOT DETECTED
31.	15-01-2024	72.29	32.54	25.74	29.86	1.00	4.95	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
32.	18-01-2024	76.42	34.68	27.53	31.27	1.06	5.19	NOT DETECTED
33.	22-01-2024	79.61	37.96	29.88	33.49	1.10	5.46	NOT DETECTED
34.	25-01-2024	75.72	33.46	26.73	30.39	1.05	5.31	NOT DETECTED
35.	29-01-2024	70.83	31.98	25.26	28.99	1.00	4.86	NOT DETECTED
36.	01-02-2024	73.65	35.32	27.62	31.28	1.10	5.48	NOT DETECTED
37.	05-02-2024	80.24	38.51	29.91	33.64	1.16	5.82	NOT DETECTED
38.	08-02-2024	77.36	36.91	28.87	32.49	1.13	5.69	NOT DETECTED
39.	12-02-2024	72.92	35.13	25.84	29.18	1.10	5.43	NOT DETECTED
40.	15-02-2024	75.83	37.46	27.83	32.47	1.12	5.62	NOT DETECTED
41.	19-02-2024	70.46	33.97	25.32	29.63	1.10	5.31	NOT DETECTED
42.	22-02-2024	73.55	35.71	26.79	29.88	1.13	5.5	NOT DETECTED
43.	26-02-2024	71.18	32.96	24.98	28.41	1.11	5.42	NOT DETECTED
44.	29-02-2024	77.84	36.42	28.46	32.61	1.15	5.76	NOT DETECTED
45.	04-03-2024	76.12	33.79	27.96	30.53	1.06	5.38	NOT DETECTED
46.	07-03-2024	79.42	34.11	28.54	32.18	1.10	5.85	NOT DETECTED
47.	11-03-2024	73.75	30.42	26.43	29.76	1.08	5.27	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
48.	14-03-2024	70.21	28.75	24.83	27.56	1.13	5.38	NOT DETECTED
49.	18-03-2024	76.83	32.57	25.61	29.11	1.09	5.13	NOT DETECTED
50.	21-03-2024	67.49	31.84	23.92	26.63	1.00	4.97	NOT DETECTED
51.	25-03-2024	65.92	29.18	24.11	28.48	1.05	5.36	NOT DETECTED
52.	28-03-2024	70.64	32.55	26.47	30.58	1.12	5.51	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part-23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	Mar - 2024	GPCB LIMIT	Method of Test
			D.G. Set-1 (2000 KVA)		
			28-03-2024		
1	Particulate Matter	mg/Nm ³	27.43	150	IS 11255 (Part - 1)
2	Sulphur Dioxide	ppm	12.71	100	IS 11255 (Part - 2)
3	Oxide of Nitrogen	ppm	25.10	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm ³	1.87	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Minimum Detection Limit

Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	0.01 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
14	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Suspended particulate matter	mg/Nm ³	2 mg/Nm ³
2	Sulphur Dioxide SOX	mg/Nm ³	4 mg/Nm ³
3	Oxides of Nitrogen NOX	mg/Nm ³	5 mg/Nm ³

LPG Terminal N –PIT

Sr. No.	Test Parameter	Unit	MDL
1	Colour	Pt. Co. Scale	5
2	pH @ 27 ° C	--	2
3	Temperature	0c	5
4	Total Suspended Solids	mg/L	4
5	Total Dissolved Solids	mg/L	4
6	COD	mg/L	2
7	BOD (3 days at 27 °C)	mg/L	1
8	Chloride (as Cl) -	mg/L	1
9	Oil & Grease	mg/L	2



“Half Yearly Environmental Monitoring Reports “

For,

adani

Ports and
Logistics

M/S. Mundra LPG Terminal Pvt. Ltd.

PLOT NO. 169/P, AT - NAVINAL ISLAND, Village - MUNDRA, Tal. – Mundra, DIST. - KUTCH - 370421.

Monitoring Period: April - 2023 to September - 2023

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195

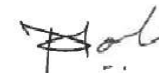


RESULTS OF LPG Terminal N –PIT WATER

SR.NO.	TEST PARAMETERS	UNIT	Liquid Terminal						TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	
			26-04-2023	29-05-2023	29-06-2023	25-07-2023	26-08-2023	15-09-2023	
1.	Colour	Pt. Co. Scale	40	50	50	40	50	40	IS 3025(Part 4)
2.	pH @ 27 ° C	--	7.31	7.18	7.24	7.31	7.44	7.25	APHA 23 rd Ed.,2017,4500-H+B
3.	Temperature	°C	30	31	30.5	30	30	30.2	IS 3025(Part 9)1984
4.	Total Suspended Solids	mg/L	32	38	22	18	16	18	APHA 23 rd Ed.,2017,2540 –D
5.	Total Dissolved Solids	mg/L	1540	1550	1524	1518	1560	1506	APHA 23 rd Ed.,2017,2540- C
6.	COD	mg/L	144.6	159.8	130.2	96.8	137.5	119.4	IS 3025(Part 58)2006
7.	BOD (3 days at 27 °C)	mg/L	35	38	36	29	41	36	IS 3025(Part 44)1993Amd.01
8.	Chloride (as Cl) ⁻	mg/L	402.4	479.7	415.2	421.3	456.5	370.5	IS 3025(PART 32) 1988
9.	Oil & Grease	mg/L	3	4	2	2	2	2	IS 3025(Part39)1991, Amd. 2
10.	Ammonical Nitrogen	mg/L	10.4	13.9	12.2	15.4	12.1	14.1	IS 3025(Part 34)1988,



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
1.	03-04-2023	87.86	41.73	29.17	34.84	0.78	--	NOT DETECTED
2.	06-04-2023	79.28	35.17	27.46	32.58	0.63	2.59	NOT DETECTED
3.	10-04-2023	89.64	29.58	24.19	28.88	0.97	4.15	NOT DETECTED
4.	13-04-2023	85.49	37.27	28.35	33.05	0.84	3.98	NOT DETECTED
5.	17-04-2023	89.27	40.63	32.55	37.63	1.12	5.13	NOT DETECTED
6.	20-04-2023	71.42	36.92	28.73	31.18	0.74	1.98	NOT DETECTED
7.	24-04-2023	83.06	46.17	35.95	38.67	1.14	3.65	NOT DETECTED
8.	27-04-2023	87.35	34.18	26.63	31.28	0.88	4.17	NOT DETECTED
9.	01-05-2023	78.53	41.53	29.27	35.61	1.14	5.14	NOT DETECTED
10.	04-05-2023	86.41	38.76	26.89	31.47	1.00	4.62	NOT DETECTED
11.	08-05-2023	87.52	31.96	22.84	28.62	0.95	2.48	NOT DETECTED
12.	11-05-2023	77.09	35.21	28.46	34.89	0.98	3.86	NOT DETECTED
13.	15-05-2023	89.68	39.17	32.87	37.14	1.15	5.53	NOT DETECTED
14.	18-05-2023	81.38	34.26	29.81	35.1	1.12	3.54	NOT DETECTED
15.	22-05-2023	85.87	31.49	26.57	31.26	0.92	2.84	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
16.	25-05-2023	76.46	28.38	21.75	26.51	0.84	3.15	NOT DETECTED
17.	29-05-2023	88.97	34.69	24.33	29.84	1	2.92	NOT DETECTED
18.	01-06-2023	87.52	39.26	27.53	32.81	1.15	5.9	NOT DETECTED
19.	05-06-2023	89.42	35.81	24.70	28.47	0.98	4.25	NOT DETECTED
20.	08-06-2023	84.68	37.95	26.88	29.96	1.13	5.38	NOT DETECTED
21.	12-06-2023	85.98	33.17	22.56	27.29	1.00	4.75	NOT DETECTED
22.	15-06-2023	76.23	25.1	18.12	22.14	0.05	3.28	NOT DETECTED
23.	19-06-2023	65.25	21.98	15.35	18.14	0.02	3.67	NOT DETECTED
24.	22-06-2023	62.15	20.45	14.2	18.25	0.10	4.12	NOT DETECTED
25.	26-06-2023	56.98	18.52	12.15	15.35	0.10	3.47	NOT DETECTED
26.	29-06-2023	52.12	17.15	10.25	14.12	0.20	3.87	NOT DETECTED
27.	03-07-2023	46.48	19.15	12.64	15.87	0.05	--	NOT DETECTED
28.	06-07-2023	57.92	22.54	13.96	17.42	0.1	3.27	NOT DETECTED
29.	10-07-2023	61.28	23.71	15.53	20.03	0.14	3.58	NOT DETECTED
30.	13-07-2023	57.53	20.77	12.65	15.47	0.1	3.41	NOT DETECTED
31.	17-07-2023	66.85	23.52	14.48	18.35	0.15	3.1	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
32.	20-07-2023	75.31	25.69	17.53	21.47	0.21	4.15	NOT DETECTED
33.	24-07-2023	68.4	23.11	15.91	20.65	0.15	3.96	NOT DETECTED
34.	27-07-2023	77.63	26.54	18.54	23.2	0.28	4.38	NOT DETECTED
35.	31-07-2023	84.51	29.65	21.43	24.64	0.32	4.81	NOT DETECTED
36.	03-08-2023	77.63	31.25	22.76	26.92	1	3.86	NOT DETECTED
37.	07-08-2023	83.67	35.81	24.63	29.15	1.10	4.26	NOT DETECTED
38.	10-08-2023	89.11	37.63	25.96	31.63	1.13	4.79	NOT DETECTED
39.	14-08-2023	83.59	40.11	28.46	32.99	1.15	5.74	NOT DETECTED
40.	17-08-2023	75.48	42.76	31.57	36.83	1.2	6.17	NOT DETECTED
41.	21-08-2023	81.27	45.83	34.79	39.15	1.24	7.43	NOT DETECTED
42.	24-08-2023	89.41	41.67	30.42	34.57	1.17	6.83	NOT DETECTED
43.	28-08-2023	87.51	36.17	26.5	31.11	1.10	5.42	NOT DETECTED
44.	31-08-2023	83.46	39.36	29.42	34.84	1.15	5.59	NOT DETECTED
45.	04-09-2023	73.48	33.91	24.47	29.13	1.05	4.38	NOT DETECTED
46.	07-09-2023	77.32	36.83	27.12	32.63	1.20	4.75	NOT DETECTED
47.	11-09-2023	74.91	34.49	26.76	30.94	1.10	4.52	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
48.	14-09-2023	79.83	37.11	29.82	34.69	1.23	5.19	NOT DETECTED
49.	18-09-2023	64.29	29.68	21.57	26.42	0.96	3.27	NOT DETECTED
50.	21-09-2023	70.73	33.36	24.67	29.71	1	3.6	NOT DETECTED
51.	25-09-2023	66.92	31.28	23.1	28.53	0.95	3.46	NOT DETECTED
52.	28-09-2023	75.39	35.74	25.27	30.58	1.05	4.13	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part-23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	Sep - 2023	GPCB LIMIT	Method of Test
			D.G. Set-1 (2000 KVA)		
			22-09-2023		
1	Particulate Matter	mg/Nm ³	26.24	150	IS 11255 (Part - 1)
2	Sulphur Dioxide	ppm	11.97	100	IS 11255 (Part - 2)
3	Oxide of Nitrogen	ppm	23.17	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm ³	4.38	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



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