

## गेल (इंडिया) लिमिटेड

(भारत सरकार का उपक्रम - महारत्न कंपनी)

## GAIL (India) Limited

(A Government of India Undertaking - A Maharatna Company)

No. GAIL/USAR/PDHPP/MOEFCC/HY/2024/02

To, Addl. Principal Chief Conservator of Forests (C), Ministry of Env., Forest and Climate Change Regional Office (WCZ), Ground Floor East Wing, New Secretariat Building, Civil Lines, Nagpur-440001

Ref.: F.No. J-11011/464/2017-IA-II(I) dated 13.10.2020

Subject: Submission of compliance status to the conditions of Environmental Clearance accorded for setting up of 500 KTA Propane dehydrogenation unit integrated with Polypropylene unit by M/s. GAIL (India) Limited at Usar Industrial Area, Village-Usar, Tehsil- Alibag, District- Raigad (Maharashtra)

Dear Sir,

Please find enclosed herewith compliance status to the conditions of Environmental Clearance accorded for setting up of 500 KTA Propane Dehydrogenation unit integrated with Polypropylene Unit to M/s. GAIL (India) Limited, Usar.

This project is under construction stage and the compliance is for the period of April 2024 to September 2024.

Thanking You,

Yours Truly,

Anup Gupta

Chief General Manager (PDH-PP Projects)

Enclosure: Half Yearly EC compliance (April 2024 – September 2024)

पंजीकृत कार्यालय :

गेल भवन, 16 भीकाएजी कामा प्लेस नई दिल्ली - 110 066, इंडिया REGD. OFFICE : GAIL BHAWAN, 16 BHIKAIJI CAMA PLACE NEW DELHI - 110 066, INDIA.

सीआईएन/CIN L402200DL1984GOI018976 www.gailonline.co.in

पेट्रकेमिकल कॉम्पलेक्स, मृ.उसर, पोस्ट-मल्याण,

महाराष्ट्र - 402 203

**Petrochemical Complex** 

At - Usar, Post - Malvan.

Maharashtra - 402 203. GSTN: 27AAACG1209J3ZU

Tal - Alibag, Dist - Raigad,

01.10.2024

तालुका - अलिबाग, जिला रायगड,

	Project	impliance of Environmental Clearance conditions for the period 1st April t: Setting up of 500 KTA Propane Dehydrogenation unit integrated with Polypropyl	2024 to Suth September 2024
	z rojeci	Reference No.: F. No. J-11011/464/2017-IA-II(I) dated 13th Octobe	r 2020
Co	mplia	nces of terms and conditions (A. Specific Conditions):	1, 2020
		The company shall comply with all the environmental protection measures and	
	5	safeguards proposed in the documents submitted to the Ministry. All the	
		recommendations made in the EIA/EMP in respect of environmental	Shall be complied with.
	Г	management, and risk mitigation measures relating to the project shall be	
		mplemented.	E 61 11
		As already committed by the Project proponent, Zero Liquid Discharge shall be	Supplied and a suppli
1 (		ensured and no waste/treated water shall be discharged outside the premises. All	ZLD is included in design and shall b
	t	he waste water to be collected and to be reused after treatment	implemented
	7	To control source and the fugitive emissions, suitable pollution control devices	
		shall be installed with different stacks to meet the prescribed norms as notified by	Shall be complied with.
South	luchoo P	MOEFCC 2012 for new refineries.	
	1	Total fresh water requirement shall not exceed 480 m3/hour to be met from	A = 2 = 3 = 0
(		MIDC water supply. Necessary permission in this regard shall be obtained from	Noted and shall be complied with.
		he concerned regulatory authority.	
		Process effluent/any waste water shall not be allowed to mix with storm water.	Shall be complied with,
$\vdash$		Storm water drain shall be passed through guard pond. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame	
1 6		arresters shall be provided on tank farm, and solvent transfer to be done through	Shall be complied with.
1		numps.	Shan be computed with.
11		Process organic residue and spent carbon, if any, shall be sent to cement industries.	
6	I F	ETP sludge, process inorganic & evaporation salt shall be disposed off to the	0
1 0	rii) [	ISDF. The ash from boiler shall be sold to brick manufacturers/cement	Shall be complied with.
		ndustry	<u> </u>
()		Regular VOC monitoring shall be done at vulnerable points.	Shall be complied with.
		The oily sludge shall be subjected to melting pit for oil recovery and the residue	Shall be complied with during the
,		chall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper eachate collection system.	operation phase of the Plant.
	_	Comprehensive water audit to be conducted on annual basis and report to the	
		concerned Regional Office of MEF&CC. Outcome from the report to be	Shall be complied with during the
		mplemented for conservation scheme.	operation phase of the Plant.
1 6		Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water	Shall be complied with.
	. 0	Irainage system inside the factory premises.	Ditail De Compiler William
()	kii) [7	The company shall undertake waste minimization measures as below: -	
	(	a) Metering and control of quantities of active ingredients to minimize waste.	
	- (	b) Reuse of by-products from the process as raw materials or as raw material	
		substitutes in other processes.	
1 1 1 1	(	c)Use of automated filling to minimize spillage.	Noted and shall be complied with as
	(	d) Use of Close Feed system into batch reactors.	applicable.
_		e) Venting equipment through vapour recovery system.	
		f) Use of high pressure hoses for equipment cleaning etc. to reduce wastewater	
-		cneration.  The green belt of 5-10 m width shall be developed in more than 33% of the total	
		project area, mainly along the plant periphery, in downward wind direction, and	1 11 11 11
()		long road sides etc. Selection of plant species shall be as per the CPCB guidelines	Noted and Shall be complied with.
		n consultation with the State Forest Department.	
		TO THE STATE OF TH	In line with the directions of District
		As committed Rs. 20.77 crores shall be allocated for Corporate Environment	Administration, Agreements with
(2	สพา	Responsibility (CER) shall be utilized for meeting the commitment of the issues of	respective Group Grampanchayat o
,	F	public hearing. The CER plan shall be completed before commissioning of the	villages in vicinity of the plant premis
	e	expansion of the project.	is being executed for implementation
-		A separate Environmental Management Cell (having qualified person with	CER Projects.
		Environmental Science/Environmental Engineering/specialization in the project area)	
(:	CV a	equipped with full-fledged laboratory facilities shall be set up to carry out the	Shall be complied with.
		Environmental Management and Monitoring functions.	
	7	The unit shall make the arrangement for protection of possible fire hazards during	
()		nanufacturing process in material handling. Firefighting system shall be as per the	Shall be complied with.
_	_	norms.	
		Continuous online (24x7) monitoring system for stack emissions shall be installed	
١,		or measurement of flue gas discharge and the pollutants concentration, and the	
(x	- 1	data to be transmitted to the CPCB and SPCB server. In case of the treated effluent	Shall be complied with.
		o be utilized for irrigation/gardening, real time monitoring system shall be	
$\vdash$		nstalled at the ETP outlet.  PP to set up occupational health Centre for surveillance of the worker's health	
	· ·	within and outside the plant on a regular basis. The health data shall be used in	
(x		deploying the duties of the workers. All workers & employees shall be provided	Shall be complied with.
		with required safety kits/mask for personal protection.	W P \

	The state of the s	
(xix)	The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.	Shall be complied with.
(xx)	Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted for worst case scenarios using latest techniques.	Shall be complied with.
Complia	nces of terms and conditions (B. General Conditions):	
(i)	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. 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/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted and shall be complied with.
(ii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Noted and shall be complied with.
(iii)	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 the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Noted and shall be complied with.
(iv)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	In line with the directions of District Administration, Agreements with respective Group Grampanchayat of villages in vicinity of the plant premises is being executed for implementation of CER Projects.
(v)	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.	Noted and shall be complied with.
(vi)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied.
(vii)	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.	Complied and will be further ensured
(viii)	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.	The proposed Project is under various stage of Design and tendering and submission of Enviornment Statement (Form-V) will be undertaken after Plant commercial operation.
(ix)	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 and at https://parivesh.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.	Complied. Has been advertised on 20th October, 2020. A copy of same has been sent to MoEFCC Regional Office at Nagpur,
(x)	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.	Noted and shall be complied with.
(xi)	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted.
		Disease



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-07/01

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED.
PETROCHEMICAL COMPLEX,
At- USAR, POST- MALYAN,
TAL-ALIBAG, DIST-RAIGAD,
MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR ADMINISTRATIVE BUILDING

DATE & TIME OF START

01-07-2024 @ 10:00 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

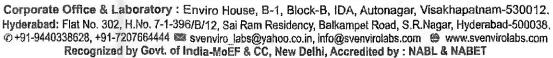
S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	60.2	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m³	21.9	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m³	13.5	IS 5182- P2	80
4	Oxides of Nitrogen - (NO <sub>2</sub> )	μg/m³	12.4	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m³	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m³	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	13.1	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m³	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.21	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05 (Annual)
12	Benzo (a) pyrene as (BaP)	ng/m³	BDL	IS: 5182-P12	01

Instrument Used	Make	Model/SI No	Calibrated on	Calibration Due Date
PM10 / PM2.5 Sample	Lata Envirotech	APM - 154/ 313-DTA-2020	21.08.2023	20.08.2024

CHECKED BY



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-07/02

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED.
PETROCHEMICAL COMPLEX,
At- USAR, POST- MALYAN,
TAL-ALIBAG, DIST-RAIGAD,
MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR FIRE & SAFETY CR

DATE & TIME OF START

01-07-2024 @ 10:00 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	58.4	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m <sup>3</sup>	20.7	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μ <b>g/m</b> <sup>3</sup>	12.3	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	$\mu g/m^3$	11.9	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m <sup>3</sup>	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m³	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	$\mu g/m^3$	8.63	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m <sup>3</sup>	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m³	0.18	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05
12	Benzo (a) pyrene as (BaP)	ng/m <sup>3</sup>	BDL	IS: 5182-P12	(Annual) 01

Instrument	Make	Model/SI.Number	Calibration on	Calibration Due Date
Respirable Dust Sampler	Lata Envirotech	APM-860/ 392-DTA-2020	22.08.2023	21.08.2024
Fine Particulate Sampler	Eco Tech	AAS – 127/ 18-D-822	21.08.2023	20.08.2024

CHECKED BY





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-07/03

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED.
PETROCHEMICAL COMPLEX,
At- USAR, POST- MALYAN,
TAL-ALIBAG, DIST-RAIGAD,
MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR SUBSTATION

DATE & TIME OF START

01-07-2024 @ 10:00 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	63.2	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m <sup>3</sup>	25.6	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m³	14.3	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	μg/m <sup>3</sup>	15.1	IS 5182- P6	80
5	Lead as (Pb)	μg/m³	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m <sup>3</sup>	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m <sup>3</sup>	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	14.9	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m³	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.25	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05 (Annual)
12	Benzo (a) pyrene as (BaP)	ng/m <sup>3</sup>	BDL	IS: 5182-P12	01

Instrument	Make	Model/SI.Number	Calibration on	Calibration Due Date
Respirable Dust Sampler	Lata Envirotech	APM-860/ 348-DTJ-2018	22.08.2023	21.08.2024
Fine Particulate Sampler	Eco Tech	AAS – 127/ 18-D-809	21.08.2023	20.08.2024

CHECKED BY





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Corporate Office & Laboratory: Enviro House, B-1, Block-B, IDA, Autonagar, Visakhapatnam-530012. Hyderabad: Flat No. 302, H.No. 7-1-396/B/12, Sai Ram Residency, Balkampet Road, S.R.Nagar, Hyderabad-500038. Recognized by Govt. of India-MoEF & CC, New Delhi, Accredited by : NABL & NABET



Ref: SVELC/GIL-M//24-07/04

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

**NEAR LABORATORY BUILDING (OLD)** 

DATE & TIME OF START

01-07-2024 @ 10:00 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	59.3	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m <sup>3</sup>	21.8	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m <sup>3</sup>	11.7	IS 5182- P2	80
4	Oxides of Nitrogen - (NO <sub>2</sub> )	$\mu g/m^3$	10.4	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	$\mu g/m^3$	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m³	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	10.2	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m³	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m³	0.16	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05 (Annual)
12	Benzo (a) pyrene as (BaP)	ng/m <sup>3</sup>	BDL	IS: 5182-P12	01

Instrument Used	Make	Model/SI No	Calibrated on	Calibration Due Date
PM10 / PM2.5 Sampler	Lata Envirotech	APM – 154/ 286-DTF-2018	21.08.2023	20.08.2024

ABAKHAPATA



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-07/05

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At-USAR, POST-MALYAN, TAL-ALIBAG, DIST-RAIGAD, MAHARASHTRA-402203.

SAMPLE PARTICULARS

.

NOISE LEVELS

DATE & TIME OF START

01-07-2024

## TEST REPORT

S.No	Source of Collection	Noise Levels meas	ured in dB(A)
		Day	Night
	Near Fire & Safety Cr	65.9	60.4
	Near Substation	68.1	62.7
3	Near Laboratory Building (Old)	63.7	583
4	Near Administrative Building	67.4	61.9
	CPCB STANDARDS	75.0	70.0



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Corporate Office & Laboratory: Enviro House, B-1, Block-B, IDA, Autonagar, Visakhapatnam-530012. Hyderabad: Flat No. 302, H.No. 7-1-396/B/12, Sai Ram Residency, Balkampet Road, S.R.Nagar, Hyderabad-500038. 

∅ +91-9440338628, +91-7207664444 selection selection selection in the selection selection selection in the selection selection



Ref: SVELC/GIL-M//24-07/07

NAME AND ADDRESS

Date: 12-07-2024

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

:

GROUND WATER

SOURCE OF COLLECTION

NEAR CONSTRUCTION WATER RESERVOIR

DATE OF COLLECTION

.

DATE OF RECEIPT

05-07-2024

01-07-2024

### TEST REPORT

S. NO	PARAMETER	UNIT	RESULT	METHOD
1.	Color	Hazen	<1.0	APHA, 2120-C, 24th Edition 2023
2,	Temperature	°C	29.2	IS 3025 Part 9:1984(Reaff.2017)
3.	рН	166	6.93	APHA, 4500-H+B, 24th Ed 2023
4.	Total Suspended Solids	mg/l	<1.0	APHA 2540-D, 24th Ed 2023
5.	Total Dissolved Solids	mg/l	698	APHA, 2540-C, 24th Ed 2023
6.	Total Hardness as CaCO3	mg/l	429	APHA, 2340-C, 24th Ed 2023
7.	Chlorides as Cl <sup>-</sup>	mg/l	161	APHA, 4500-Cl B, 24th Ed 2023
8.	Cadmium as Cd	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023
9.	Arsenic as As	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023
10.	Lead as Pb	mg/l	<0.01	APHA, 3120-B, 24th Ed 2023
11.	Fluoride as F	mg/l	0.52	APHA, 4500-FD, 24th Edition 2023
12.	Zinc as Zn	mg/l	0.03	APHA, 3120-B, 24th Ed 2023
13.	Copper as Cu	mg/l	<0.01	APHA, 3120-B, 24th Ed 2023
14.	Sulphate as SO <sub>4</sub> <sup>2-</sup>	mg/l	21.8	APHA, 4500-SO <sub>4</sub> <sup>2-</sup> E, 24 <sup>th</sup> Ed
15.	Chemical Oxygen Demand -COD	mg/l	<10.0	APHA 5220-B, 24th Ed 2023
16.	Bio-chemical oxygen demand –BOD (3 days Incubation at 27°C)	mg/l	<3.0	IS -3025 P-44
17.	Total Chromium as Cr	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023
18.	Cyanide as CN	mg/l	<0.02	APHA, 4500-CN E, 24th Edition 2023
19	Nickel as Ni	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023
20	Mercury as Hg	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023
21	Percent Sodium	%	21.3	Calculation Method
22	Copper as Cu	mg/l	<0.01	APHA, 3120-B, 24th Edition 2023



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





23	Boron as B	mg/l	< 0.01	APHA, 3120-B, 24th Edition 2023
24	Selenium as Se	mg/l	< 0.01	APHA, 3120-B, 24th Edition 2023
25	Chromium Hexavalent (Cr <sup>+6</sup> )	nıg/l	<0.1	APHA, 3500, Cr-B, 24th Edition 2023
26	Ammonical Nitrogen as N	mg/l	< 0.01	IS 3025 Part 34 - 1988(Reaff.2019)
27	Oil & Grease	mg/l	<1,0	APHA, 5520-D, 24th Edition, 2023
28	Phenolic Compounds (C <sub>6</sub> H <sub>5</sub> OH)	mg/l	< 0.001	APHA, 5530-C, 24th Edition 2023
29	Sulphide as S	mg/1	<0.01	APHA, 4500S <sup>2</sup> D, 24 <sup>th</sup> Edition 2023
30	Insecticides/ Pesticides	mg/l	Nil	SVELC/LAB/WAT/GC-MSMS/01:2022

CHECKED BY





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Corporate Office & Laboratory: Enviro House, B-1, Block-B, IDA, Autonagar, Visakhapatnam-530012. 

\*



Ref: SVELC/GIL-M//24-07/08

Date: 12-07-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX. At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

STORM WATER

SOURCE OF COLLECTION

**NEAR BSNL ROOM** 

DATE OF COLLECTION

01-07-2024

DATE OF RECEIPT

05-07-2024

### TEST REPORT

S. NO	PARAMETER	UNIT	RESULT	METHOD
1.	рН		7.31	APHA, 4500-H+B, 24th Ed 2023
2.	Total Dissolved Solids	mg/l	512	APHA 2540-C, 24th Ed 2023
3.	Total Suspended Solids	mg/l	43.0	APHA, 2540-D, 24th Ed 2023
4,	Chemical Oxygen Demand -COD	mg/l	36.0	APHA 5220-B, 24th Ed 2023
5.	Oil & Grease	mg/l	2.0	APHA, 5520-D, 24th Edition, 2023



CONSULTANTS



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-08/01

Date: 10-09-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED.

PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR ADMINISTRATIVE BUILDING

DATE & TIME OF START

31-08-2024 @ 10:30 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

	1	7 220 2 3			Varing Assessed Asses
S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m <sup>3</sup>	58.3	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	$\mu g/m^3$	21.5	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m <sup>3</sup>	14.7	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	μg/m <sup>3</sup>	13.2	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	$\mu g/m^3$	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m <sup>3</sup>	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	12.4	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m <sup>3</sup>	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.18	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	µg/m³	BDL	IS: 5182-P 11	05 (Annual)
12	Benzo (a) pyrene as (BaP)	ng/m <sup>3</sup>	BDL	IS: 5182-P12	01

Instrument Used	Make	Model/SI No	Calibrated on	Calibration Due Date
PM10 / PM2.5 Sample	Lata Envirotech	APM 154/ 478-DTE-2024	09.05.2024	08.05.2025

CHECKED BY





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)



Ref: SVELC/GIL-M//24-08/02

Date: 10-09-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR FIRE & SAFETY CR

DATE & TIME OF START

31-08-2024 @ 11:00 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

TEST REPORT

		A A-/h/ L	ARECA CARA		
S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	54.9	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m³	19.7	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m³	13.2	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	μg/m <sup>3</sup>	12.6	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m <sup>3</sup>	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m³	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	9.51	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m³	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.15	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05
12	Benzo (a) pyrene as (BaP)	ng/m³	BDL	IS: 5182-P12	(Annual) 01

Instrument	Make	Model/SI.Number	Calibration on	Calibration Due Date
PM10 / PM2.5 Sample	Lata Envirotech	APM – 154/ 480-DTE-2024	09.05.2024	08.05.2025
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(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Date: 10-09-2024

Ref: SVELC/GIL-M//24-08/03

NAME AND ADDRESS

: M/s. GAIL (INDIA) LIMITED.

PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR SUBSTATION

DATE & TIME OF START

31-08-2024 @ 11:30 hr

**DURATION OF SAMPLING** 

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m <sup>3</sup>	60.7	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m <sup>3</sup>	22.5	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m <sup>3</sup>	15.2	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	μg/m <sup>3</sup>	16.4	IS 5182- P6	80
5	Lead as (Pb)	μg/m <sup>3</sup>	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m <sup>3</sup>	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m <sup>3</sup>	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	13.8	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m <sup>3</sup>	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.21	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05 (Annual)
12	Benzo (a) pyrene as (BaP)	ng/m³	BDL	IS: 5182-P12	01

Instrument	Make	Model/SI.Number	Calibration on	Calibration Due Date
PM10 / PM2.5 Sample	Lata Envirotech	APM – 154/ 481-DTE-2024	09.05.2024	08.05.2025

CHECKED BY





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Corporate Office & Laboratory: Enviro House, B-1, Block-B, IDA, Autonagar, Visakhapatnam-530012. Hyderabad: Flat No. 302, H.No. 7-1-396/B/12, Sai Ram Residency, Balkampet Road, S.R.Nagar, Hyderabad-500038. Ø+91-9440338628, +91-7207664444 svenviro\_labs@yahoo.co.in, Info@svenvirolabs.com ※ www.svenvirolabs.com Recognized by Govt. of India-MoEF & CC, New Dethi, Accredited by : NABL & NABET



Ref: SVELC/GIL-M//24-08/04

Date: 10-09-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD, MAHARASHTRA-402203.

SAMPLE PARTICULARS

AMBIENT AIR QUALITY

SOURCE OF COLLECTION

NEAR LABORATORY BUILDING (OLD)

DATE & TIME OF START

31-08-2024 @ 12:00 hr

DURATION OF SAMPLING

24 hours

ATMOSPHERE CONDITION

Cloudy

### TEST REPORT

S.No	PARAMETER	UNIT	RESULT	METHOD	NAAQS
1	Particulate Matter – (PM <sub>10</sub> )	μg/m³	56.2	IS 5182- P23	100
2	Particulate Matter – (PM <sub>2.5</sub> )	μg/m <sup>3</sup>	19.8	IS 5182- P24	60
3	Sulphur Dioxide – (SO <sub>2</sub> )	μg/m <sup>3</sup>	12.3	IS 5182- P2	80
4	Oxides of Nitrogen – (NO <sub>2</sub> )	μg/m <sup>3</sup>	11.5	IS 5182- P6	80
5	Lead as (Pb)	$\mu g/m^3$	BDL	IS:5182 -P22	1.0
6	Ammonia as (NH <sub>3</sub> )	μg/m <sup>3</sup>	<20	IS 5182- P25	400
7	Arsenic as (As)	ng/m <sup>3</sup>	BDL	APHA-302	06
8	Ozone as (O <sub>3</sub> )	μg/m <sup>3</sup>	11.2	IS:5182 P 9	100
9	Nickel as (Ni)	ng/m³	BDL	IS 5182- P26	20
10	Carbon Monoxide as (CO)	mg/m <sup>3</sup>	0.14	IS:5182- P 10	02
11	Benzene as (C <sub>6</sub> H <sub>6</sub> )	μg/m³	BDL	IS: 5182-P 11	05
			יוחם	13. J102-P 11	(Annual)
12	Benzo (a) pyrene as (BaP)	ng/m³	BDL	IS: 5182-P12	01

Instrument Used	Make	Model/SI No	Calibrated on	Calibration Due Date
PM10 / PM2.5 Sampler	Lata Envirotech	APM – 154/ 477-DTE-2024	09.05.2024	08.05.2025

CHECKED B





(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Corporate Office & Laboratory: Enviro House, B-1, Block-B, IDA, Autonagar, Visakhapatnam-530012.

Hyderabad: Flat No. 302, H.No. 7-1-396/B/12, Sai Ram Residency, Balkampet Road, S.R.Nagar, Hyderabad-500038.

P+91-9440338628, +91-7207664444 sevenviro\_labs@yahoo.co.in, info@svenvirolabs.com www.svenvirolabs.com

Recognized by Govt. of India-MoEF & CC, New Delhi, Accredited by: NABL & NABET



Ref: SVELC/GIL-M/24-08/05

Date: 10-09-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD, MAHARASHTRA-402203.

SAMPLE PARTICULARS

NOISE LEVELS

DATE & TIME OF START

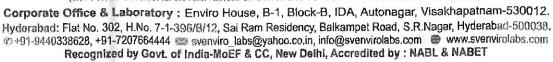
31-08-2024

### TEST REPORT

S.No	Source of Collection	Noise Levels m	easured in dB(A)
2.110		Day	Night
1	Near Fire & Safety Cr	63.7	58.4
2	Near Substation	66.9	60.8
3	Near Laboratory Building (Old)	62.5	57.2
4	Near Administrative Building	65.8	60.5
William Co.	CPCB STANDARDS	75.0	70.0



(ENVIRONMENTAL ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)





Ref: SVELC/GIL-M//24-08/07

Date: 10-09-2024

NAME AND ADDRESS

M/s. GAIL (INDIA) LIMITED. PETROCHEMICAL COMPLEX, At- USAR, POST- MALYAN, TAL-ALIBAG, DIST-RAIGAD,

MAHARASHTRA-402203.

SAMPLE PARTICULARS

STORM WATER

SOURCE OF COLLECTION

NEAR BSNL ROOM

DATE OF COLLECTION

31-08-2024

DATE OF RECEIPT

04-09-2024

## TEST REPORT

S.NO	PARAMETER	UNIT	RESULT	METHOD
1.	pH	445	7.95	APHA, 4500-H+B, 24th Ed 2023
2.	Total Dissolved Solids	mg/l	184	APHA 2540-C, 24 <sup>th</sup> Ed 2023
3.	Total Suspended Solids	mg/l	8.0	APHA, 2540-D, 24th Ed 2023
4.	Chemical Oxygen Demand -COD	mg/l	20.0	APHA 5220-B, 24th Ed 2023
5,	Oil & Grease	mg/l	<1.0	APHA, 5520-D, 24th Edition, 2023

CHECKED BY