

RIL-DMD/HSEF/ENV/2024/29

Date: 27th May, 2024

To,
The Regional Officer,
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A Wing – 407 & 409, Aranya Bhawan,
Near CH - 3 Circle, Sector - 10A,
Gandhinagar, Gujarat – 382 010

Subject: Submission of Compliance Status Report of EC's received by RIL – Dahej manufacturing Division for the period October 2023 to March 2024.

Reference:

1. EC Order no. J-11011/27/90-IA-II dated 14th March 1991
2. EC Order no. J-16011/45/96-IA-III dated 26th December 1996
3. EC Order no. J-11012/11/97-IA-II dated 21st May 1998
4. EC Order no. J-11011/482/2006-IA-II (I) dated 11th June 2007
5. EC Order no. J-11011/402/2007- IA II (I) dated 20th March 2008
6. EC Order no. SEIAA /GUJ/EC/5(e)&1(d)/124/2011 dated 23rd June 2011
7. Amendments in EC No. SEIAA / GUJ/ EC/ 5(e) & 1(d)/160/2011, dated 09th August 2011 and No. SEIAA / GUJ/ EC/ 7(e)/278/2011, dated 13th September 2012
8. EC Order no. SEIAA/GUJ/EC/1(d)&7(e)/96/2015 dated 02nd March 2015
9. Amendment in EC No. SEIAA/GUJ/EC/1(d) & 7(e)/583/2016, dated 28th September 2016
10. EC Order no. J-11011/39/2016-IA-II (I) dated 3rd April 2017
11. EC Order no J-11011/39/2016-IA-II (I) dated 19th August 2021

Dear Sir,

Please find attached herewith the point wise compliance to the Environment Clearances granted to Reliance Industries Limited – Dahej Manufacturing Division (earlier known as IPCL - Gandhar Petrochemical Complex) by MoEF&CC and SEIAA, Gujarat (referenced above).

Please refer to the annexures number mentioned against the compliances from the common annexure file.

We hope that the above is in line with your requirements and request to kindly acknowledge the receipt.

Thanking you,
For **RELIANCE INDUSTRIES LIMITED**


Raja Raman Chaudhary
Head Environment

Encl.: As above

Cc,
The Member of Secretary,
State Environment Impact Assessment Authority (SEIAA), Gandhinagar

**Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)**

Acknowledgment

Proposal Name	Gandhar Petrochemical Complex of Indian Petrochemicals Corporation Limited - Environmental Clearance		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	J-11011/27/90-IA-II	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-11011/27/90-IA-II	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
3	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
4	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
5	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
6	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
7	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
8	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
13	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
14	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
15	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
16	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
17	HCl	Tons per Annum (TPA)	N/A	15,000	9,282	
18	EO	Tons per Annum (TPA)	N/A	1,50,000	62,371	
19	EG	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
20	Di Ethylene Glycol	Tons per Annum (TPA)	N/A	30,550	14,864	
21	Tri Ethylene	Tons per	N/A	1,270	663	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	Any expansion of the plant, either with the existing product mix or new product can be taken up only with the prior approval of this Ministry.
<p>PPs Submission: Complied</p> <p>All expansions of the plant, either with the existing product mix or new product at RIL - DMD have been carried out with prior environmental clearance from MoEF&CC / SEIAA. Complied.</p>		Date: 30/05/2024
2	AIR QUALITY MONITORING AND PRESERVATION	Adequate number (a minimum of six) of air quality monitoring stations should be set up in the downwind direction as well as where maximum ground level concentration is anticipated. Also stack emission should be monitored by setting up of automatic stack monitoring unit. VCM emission particular should be regularly monitored and reported. The emissions and ambient air quality monitoring should be analyzed statistically and reported every six months.
<p>PPs Submission: Complied</p> <p>Adequate number of air quality monitoring stations are set up. The site has established 7 ambient air quality monitoring stations within and outside of the petrochemical complex based on the mathematical modelling studies carried out considering wind directions and the maximum Ground Level Concentration in downwind direction. Mathematical modelling report along with AAQM location map can be seen in Annexure V. Ambient air monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. all results are conforming to the standards prescribed by GPCB norms. Details of AAQ Monitoring data can be referred as Annexure VI. Complied. Online analyzers for Stack emission monitoring are provided. VCM emissions are being monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the monitoring report is submitted to GPCB on monthly basis. VCM emission's summary for the period Oct'23 – Mar'24 is given in condition no 4. Pl. refer Annexure III of Stack monitoring reports for detailed monitoring results of VCM. Complied. The emissions and AAQ are being monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the monitoring results are analyzed statistically in terms of percentile of 10, 25, 50, 75 & 98. The report of the stack emission and AAQ reports are submitted every month to GPCB and six monthly to Regional Office of MoEF&CC. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. All results are conforming to the standards prescribed by GPCB norms. Pl. refer detailed Stack Emission Monitoring Report enclosed as Annexure III. Detailed Ambient Air Quality Monitoring Report including other locations is available as Annexure VI. Compiled.</p>		Date: 30/05/2024
3	AIR QUALITY MONITORING AND PRESERVATION	There should be no change in the stack design without the approval of Pollution Control Board. Alternate Pollution Control System and proper design (Steam injection system) in the stack should be provided to take care of excess emission due to failure in any system of the plant.
<p>PPs Submission: Complied</p> <p>No change in the stack design is carried out during Oct'23 – Mar'24. Further no change will be carried out without the approval of Pollution Control Board. Complied. Sufficient buffer capacity is inbuilt in the installed pollution control system with proper design to take care of excess emission due to failure in any system of the plant. Steam injection system is provided in the flare stacks as well in Gas turbines for reducing NOx generation. Complied.</p>		Date: 30/05/2024

4	MISCELLANEOUS	The incinerator should have a stand-by system for unforeseen circumstances.
PPs Submission: Complied There are three incinerators in VCM plant, of which one is on standby and can be used during any unforeseen circumstances. Complied.		Date: 30/05/2024
5	WASTE MANAGEMENT	The project authorities should recycle the waste to the maximum extent and liquid effluent coming out of the plants should meet the stipulated standards. There should be only minimum discharge.
PPs Submission: Complied Recycling of wastes is practiced to maximum extent both internally and by selling to authorized recyclers as per CCA order no AWH-121992 dated 25th November 2022, granted by GPCB and valid till 3rd November, 2026. Complied. The treated effluent is being monitored every month through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the same is conforming to the GPCB standards for the period Oct'23 – Mar'24. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Effluent quality is conforming to the standard stipulated by GPCB. The detailed treated effluent monitoring report is enclosed as Annexure VII. Complied. Treated effluent is being recycled within the complex as Cooling tower make up, green belt development. The Effluent recycling is done to maximum extent for minimizing discharge from the complex. Complied.		Date: 30/05/2024
6	Statutory compliance	The project authority must strictly adhere to the stipulations made by the State Pollution Control Board and the State Govt.
PPs Submission: Complied Stipulations made by the Gujarat Pollution Control Board vide CTO (Consent to Operate) / CCA (Consolidated Consent & Authorisation) order no AWH-121992 dated 25th November 2022 which is valid up to 3rd November, 2026 are strictly adhered to. The detailed compliance status report of Consolidated Consents & Authorization (CCA) granted by GPCB is enclosed as Annexure I. Complied.		Date: 30/05/2024
7	WATER QUALITY MONITORING AND PRESERVATION	The liquid effluent to be discharged into the sea should maintain a temperature difference of not more than 50C as compared to sea water temperature
PPs Submission: Complied The liquid effluent discharged into the sea maintains temperature difference of less than 5 oC as compared to sea water temperature. Guard pond is provided to store the treated effluent to attain atmospheric temperature before discharging into the sea. Complied.		Date: 30/05/2024
8	MISCELLANEOUS	The project authority must submit comprehensive EIA report for the proposed activity along with the future activity proposed/approved by this Ministry, before July 1991
PPs Submission: Complied Comprehensive EIA study for the proposed activity along with the future activity proposed / approved by MoEF&CC, have been carried out and completed in September 1991 and the report was duly submitted to MoEF&CC by erstwhile IPCL. Complied.		Date: 30/05/2024
9	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions from various process units should conform to the standard prescribed by the concerned authorities from time to time. At no time the emission level should go beyond the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be put out of operation immediately and should not be restarted until the control measures are rectified to achieve the desired efficiency.

	<p>PPs Submission: Complied The gaseous emissions from various process units are monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results given below indicated the conformance to the GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. All results are conforming to the standards prescribed by GPCB norms. Pl. refer detailed Stack Emission Monitoring Report enclosed as Annexure III. Complied. At no time the emission level has gone beyond the stipulated standards prescribed by GPCB during Oct'23 – Mar'24. Please refer detailed Stack emission monitoring report enclosed as Annexure III. Complied. Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger / alarm is raised in the DCS system which prevents the plant from restarting. During the period Oct'23 – Mar'24, no such failure of pollution control equipment has been observed. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.</p>	<p>Date: 30/05/2024</p>
10	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>Only sea water should be used for cooling purposes. The project authorities should not draw more than 22 MGD through the jack-up-well in Narmada. In case the flow in Narmada falls below the 2000 cusecs at any point of time alternate arrangements will be made by RIL for obtaining the required quantity of water which may include sea water for cooling purposes and for which plans will be submitted along with comprehensive EIA.</p>
	<p>PPs Submission: Complied Ministry has amended this condition after our representation to them and allowed us to use fresh water for cooling purposes, which is complied. Average Fresh water drawl from the jack well in the Narmada river for the reporting period Oct'23 – Mar'24 was 14.55 MGD, which is not exceeding the permissible limit for water drawl of 22 MGD. Complied. In case of water shortage in Narmada river water, RIL-DMD complex has contingency plan to cater the water requirements e.g. 1. If required, shutting down some of the process units which consumes more water. 2. Maximize the recycling of treated effluent including sewage. 3. Water requirement for the plants / green cover will be minimized by considering seasonal requirements during water shortage period. Complied.</p>	<p>Date: 30/05/2024</p>
11	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>Adequate number of effluent quality monitoring stations must be set up in consultation with the State Pollution Control Board and the effluents monitored should be statistically analysed and the report sent to the Ministry every six month</p>
	<p>PPs Submission: Complied Effluent quality monitoring station provided at the inlet and outlet of ETP in consultation with the Gujarat Pollution Control Board. The effluent monitoring reports are submitted to GPCB on a monthly basis and to the ministry on six monthly bases. The details of quality of treated effluent is furnished in condition no. 8. Complied.</p>	<p>Date: 30/05/2024</p>
12	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>A study should be conducted with the help of National Institute of Oceanography with regard to breeding and spawning habits of fishes and accordingly the marine out fall should be designed</p>
	<p>PPs Submission: Complied Study related to breeding and spawning habits of fishes was carried out through National Institute of Oceanography by Erstwhile IPCL and accordingly the marine out fall was designed. Complied.</p>	<p>Date: 30/05/2024</p>
13	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The treated effluent conforming to the prescribed standards should be utilised for green belt development to the maximum extent possible.</p>
	<p>PPs Submission: Complied The treated effluent conforming to GPCB standard is utilized for green belt development and also for cooling tower make up to the maximum extent possible. Complied.</p>	<p>Date: 30/05/2024</p>

14	GREENBELT	The green belt design should be finalised and got approved from this Ministry within a period of one year
PPs Submission: Complied The green belt was designed by NEERI and it was developed as per guidelines given by NEERI. Complied.		Date: 30/05/2024
15	WASTE MANAGEMENT	The project authority should prepare a well-designed scheme for solid waste disposal generated during various processes operation or in treatment plant. The plan for disposal should be submitted to the Ministry within two years.
PPs Submission: Complied Hazardous and other solid wastes generated at site is being managed in accordance with the amended Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016. Authorisation (AWH-121992) from GPCB for collection / treatment / storage / disposal of hazardous wastes is available which is valid up to 3rd November, 2026. M/s. National Productivity Council (NPC), New Delhi was retained by Erstwhile IPCL for providing the design of the solid waste management system and the solid waste disposal plan was submitted to the Ministry. Hazardous and solid wastes collected, stored and disposed during reporting period Oct'23 – Mar'24 is given in Annexure VIII. Please refer Form - 4 submitted to GPCB for the year 2022-23 enclosed as Annexure IX. Complied.		Date: 30/05/2024
16	Risk Mitigation and Disaster Management	A detailed risk analysis based on Maximum Credible Accident Analysis should be done once the process design and lay-out is frozen. Based on this a disaster management plan has to be prepared and after approval by the concerned nodal agency, should be submitted to this Ministry
PPs Submission: Complied Detailed Risk Analysis considering Maximum Credible Accident Analysis scenario is carried out for the site based on which the Disaster Management Plan (i.e. On-site Emergency Plan and Off-site Emergency Plan) is prepared for the complex. The DMP is approved by the DISH. The DMP is reviewed periodically. Complied.		Date: 30/05/2024
17	MISCELLANEOUS	The funds earmarked for the environmental protection, measures should not be diverted for other purposes and year-wise expenditure should be reported to this Ministry.
PPs Submission: Complied Dedicated Environment management funds are allocated each year and it is not diverted for any other activities at the plant. The recurring environmental expenditure for the reporting period Oct'23 – Mar'24 was around INR 108.3 Crores. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied.		Date: 30/05/2024
18	MISCELLANEOUS	The Ministry may revoke clearance if implementation of the stipulated conditions is not satisfactory.
PPs Submission: Complied This condition is not applicable to us.		Date: 30/05/2024
19	MISCELLANEOUS	The above conditions will be enforced interalia under the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act 1981, and Environment (Protection) Act 1986, along with their amendments.

PPs Submission: Complied Noted.		Date: 30/05/2024
20	WATER QUALITY MONITORING AND PRESERVATION	Routine toxicity bioassay based on the effluent with sea-fish and fish-food organism must be carried out at least once in a year
PPs Submission: Complied Bioassay test for monitoring toxicity is conducted in the laboratory with the test containers for the treated effluent. The local fishes are taken as the Testing animal for this experiment and the test is carried out in the laboratory as per the IS 6582. Result of 96% survival of fish after 96 hours in 100% effluent is achieved for the review period of Oct'23 – Mar'24. The analysis results of Bioassay test is provided in condition no. 8 Complied.		Date: 30/05/2024
21	MISCELLANEOUS	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.
PPs Submission: Complied A separate Environment Cell, headed by Environment Head with environment qualification and 17 plus year experience. The cell is supported by 2 qualified Environment professionals (Env. Engg). Environment Head report to site president. Complied.		Date: 30/05/2024
22	MISCELLANEOUS	The project authority must set up a laboratory facility for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the Chief Executive.
PPs Submission: Complied RIL-DMD has a full-fledged Quality Assurance (Laboratory) dept., manned with qualified Lab-technicians under the supervision of competent & well-experienced managers who also carry out the sample analysis. The Laboratory Head directly reports to the Technical Head of the complex. For the glimpse of Quality Assurance Department, please refer Annexure XII. Complied.		Date: 30/05/2024
23	MISCELLANEOUS	The villagers who are likely to be displaced due to setting up of the project should be rehabilitated as per Govt. of India Guidelines, or State Govt. guidelines whichever is acceptable to local population. Rehabilitation Master Plan should be submitted and got approved within 6 months of this approval
PPs Submission: Complied Rehabilitation plan submitted and approved in the EIA of the complex. Complied.		Date: 30/05/2024
24	WATER QUALITY MONITORING AND PRESERVATION	Ground water near the solid waste disposal site as well as around the plant should be regularly monitored.
PPs Submission: Complied Ground water quality is being monitored near the solid waste disposal site as well as around the plant using 8 bore wells. The detailed monitoring results are available as Annexure X. Complied.		Date: 30/05/2024
25	Risk Mitigation and Disaster Management	The storage tanks and spheres must conform to the stipulations made by the Chief Inspector of Factories, Controller of Explosives etc. Wherever required, it should be supplemented by OISD codes.
PPs Submission: Complied Storage tanks and spheres conform to the stipulations made by Legal authorities like the Chief Inspector of Factories, Controller of Explosives and meet the requirements of OISD. Controller of		Date: 30/05/2024

Explosives, Nagpur has issued license for petroleum storage and gaseous storage. Storage of chemicals is carried out as per the approved quantity from PESO. Details of the same is enclosed as Annexure XI. Complied.

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MISCELLANEOUS

The Ministry or any other competent authority may stipulate any further condition after reviewing the comprehensive impact assessment report or any other reports prepared by project authorities

PPs Submission: Complied

The Ministry or any other competent authority has not added any conditions to this EC. However, the expansion of plants was carried out after obtaining Environmental Clearance from MoEF&CC / SEIAA as detailed in condition no. 2. Complied.

Date:
30/05/2024

Visit Remarks

Last Site Visit Report Date:

N/A

Additional Remarks:

All Annexures are uploaded as Additional Attachment

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment**

Proposal Name	Environmental Clearance for setting up of a captive jetty on River Narmada for the Gandhar Petrochemicals Complex (GPC) by Indian Petrochemicals Limited (IPCL)		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	J-16011/45/96-IA-III	Category	INFRA-1
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-16011/45/96-IA-III	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED	
	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
3	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
4	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
5	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
6	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
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9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
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14	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
15	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
16	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
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20	Di Ethylene Glycol	Tons per Annum (TPA)	N/A	30,550	14,864	
21	Tri Ethylene	Tons per	N/A	1,270	663	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	Adequate Financial provisions must be made in the project to implement the aforesaid safeguards.
PPs Submission: Complied Adequate Financial provisions were made in the project to implement environment safeguards. Complied.		Date: 01/06/2024
2	GREENBELT	For development of green buffer, including mangroves wherever feasible, the authorities should start growing large number of multipurpose species such as Eucalyptus, Caserme, Dalbelgia, Termalia, etc. The norm of about 2000-2500 trees per ha. may be adopted for raising of green belt.
PPs Submission: Complied Mangroves plantation, along the river bank (near Erstwhile IPCL jetty) for a stretch of about 1 km from east (u/s of river) toward the estuary (west) where Narmada merge in to the Gulf of Cambay, was done in the year 1997-98. 3500 saplings were planted. However, the survival rate of this first plantation is very low due to many factors. Erstwhile IPCL had retained Gujarat Ecological Society (GES), Baroda to carry out the experimental plantation of mangroves in 2000-01. GES study found more sand than clay in the soil around jetty and that is why it is not conducive for the mangrove growth. Afresh attempt was again made by planting 2500 sapling of mangrove in association with local Forest Dept. in Dec'2005 at jetty. However growth of mangroves were reported poor as the soil was not conducive for the mangrove growth. During the year 2018, 2000 saplings of mangrove were planted. The growth is under care / observation. Photographs of Mangrove plantation carried out at Jetty can be seen in Annexure XIII.		Date: 01/06/2024
3	MISCELLANEOUS	Full support should be extended to the officers of this Ministry's Regional office at Bhopal and officers of the Central and state pollution control boards by project proponents during inspection of the project for monitoring purposes by furnishing full details and action plans including action taken reports in respect of mitigative measures and other environmental protection activities.
PPs Submission: Complied Full support is being extended to the officers of the Ministry's Regional office at Bhopal and officers of the Central and State Pollution Control Boards by RIL DMD during any inspection of the project for monitoring purposes, whenever required.		Date: 01/06/2024
4	Statutory compliance	All the conditions as stipulated by the GPCB vide their letter No. NOC/BRCH-1253/3193, dated 21st February, 1994 and the conditions stipulated by the GMB vide their letter No. GMB/N/GMP/182(8)/9330, dated February 24/25, 1994 and the conditions stipulated by the Chief Controller of Explosives, Department of Explosives, and Govt. of India vide their letter No. PN (8) IMP-IP, dated 19th December, 1994 must be strictly complied with,
PPs Submission: Complied All the conditions as stipulated by the GPCB, GMB, and CCoE are complied with.		Date: 01/06/2024
5	Risk Mitigation and Disaster Management	The project proponent shall also prepare off-site emergency plan along with on-site emergency plan and submit the same to the ministry before commissioning of the project and also conduct

		regular mock drills to ensure the facilities in working conditions.
<p>PPs Submission: Complied Emergency Management plan is prepared and submitted to Ministry by Erstwhile IPCL vide letter dated 09.02.1998. Regular Mock drills are conducted to ensure the facilities in working conditions. One such mock drill report is enclosed as Annexure XV. Complied.</p>		<p>Date: 01/06/2024</p>
6	MISCELLANEOUS	All the Constructions designs/drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments/Agencies. Ground Water should not be tapped for construction work. Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation, etc. must be provided for all the laborers during construction period in order to avoid damage to the environment.
<p>PPs Submission: Complied All the construction designs / drawings related to the proposed construction activities have approvals of the concerned State Government Departments / Agencies. Complied. No ground water was tapped for construction work. Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation, etc. were provided for all the laborers during the construction phase. Complied.</p>		<p>Date: 01/06/2024</p>
7	Risk Mitigation and Disaster Management	To Meet any emergency situation adequate floating booms and dispersants for containment of oil and hydrocarbons should be provided with supporting firefighting system and water pipeline in addition to adequate number of fire and foam extinguishers in the fire prone areas. The firefighting system at site should be augmented by gas leak detection with early warning systems at strategic locations for meeting the emergencies and contingencies arising out of any accident. The details of these facilities to be provided by the proponent should be submitted to the Ministry by 31st January 1997. The personnel handling these devices must be properly trained for their operation by conducting regular fire drills to keep these facilities in working condition.
<p>PPs Submission: Complied To Meet any emergency situation adequate floating booms and dispersants for containment of oil and hydrocarbons are maintained & other OSRP equipment's requirements are being maintained by external agency. For firefighting one 18" fire water line having monitors at different places and having capacity to discharge 3500 lpm water, foam generators, jumbo curtain, nozzle, fire tender equipped with all type of firefighting equipment and firefighting crew are provided at jetty. Sufficient numbers of leak detectors are provided near flange joints, etc. to detect any leak and give alarm in control room. One sailor make VHF communications system which is provided to communicate from jetty to plant and from jetty to ship. Beside this, other communication facility available at jetty is telephone and public address system. The details of these facilities were already provided by Erstwhile IPCL to the Ministry. The personnel handling the devices are properly trained for their operation, regular fire drills were conducted to keep these facilities in working condition. Complied.</p>		<p>Date: 01/06/2024</p>
8	Statutory compliance	To Prevent discharge of Sewage and other liquid wastes, adequate system for collection and treatment of liquid wastes must be provided. The quality of treated effluents, emissions and solid wastes must conform to the standards laid down by the state competent authority including Central/State Pollution Control Boards.
<p>PPs Submission: Complied No waste is generated during loading / unloading operations. Drain vessels are provided to collect the material drained from loading arm after discharging of ship. The material will again be pumped back by main transfer line by means of submersible pump. Also, collecting trays have been kept underneath flange and drain points at jetty to collect any liquid coming out. Sanitary wastewater is diverted to septic tank-cum-soak-pit system. Complied.</p>		<p>Date: 01/06/2024</p>

9	MISCELLANEOUS	An Environmental Management Cell, with suitably qualified staff to carry out various environment protection activities/measures must be setup to implement and monitor the programs.
<p>PPs Submission: Complied A separate Environment Cell, headed by Environment Head with environment qualification and 15 plus year experience. The cell is supported by 2 qualified Environment professionals (Env. Engg). Environment Head reports to the Site President. Complied.</p>		Date: 01/06/2024
10	Human Health Environment	Provisions of Dock Safety Act and guidelines issued by the DG, FASLI/CLI, Bombay for the safety and health of the workers should be followed.
<p>PPs Submission: Complied RIL is following strict safety & health regulations for employees & workers at all the complexes as per mentioned requirements. Complied.</p>		Date: 01/06/2024
11	MISCELLANEOUS	Standby DG sets must be provided to ensure uninterrupted power supply to the environmental protection equipment's and continuous water supply for the firefighting system.
<p>PPs Submission: Complied Uninterrupted power supply for emergency lighting and instrument control panel is provided at jetty. Continuous water supply for firefighting system is also available. Complied.</p>		Date: 01/06/2024
12	MISCELLANEOUS	Third Party inspection should be ensured during construction and operational phases with adequate insurance cover. The authorities should confirm regular intervals of 6 (Six) months to the ministry endorsing a copy to the Regional office at Bhopal of this Ministry and offices of the Central and State Pollution Control Boards about the implementation of the suggested safeguard measures and the data/report should be made available for inspection by a team which would be constituted by the Ministry, if found necessary
<p>PPs Submission: Complied It may please be noted that Engineers India Ltd (EIL), New Delhi, was our consultant for erecting jetty & supervised jetty construction. All our installation are adequately insured. Erstwhile IPCL had submitted the data / report about the implementation of the suggested safeguard measures to the Regional Office of Ministry at Bhopal and offices of the Central and State Pollution Control Board and the same is made available for inspection. Complied.</p>		Date: 01/06/2024
13	MISCELLANEOUS	This ministry or any other competent authority may stipulate any other conditions for environment safeguards, subsequently if deemed necessary, which should be complied with.
<p>PPs Submission: Complied All the conditions for environment safeguards as stipulated by the Ministry or any other competent authority are being complied with. No additional condition has been imposed by the Ministry, during review period.</p>		Date: 01/06/2024
14	MISCELLANEOUS	In case of deviations or alterations in the project including the implementing agency, a fresh reference should be made to the Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project proponents would be responsible for implementing the suggested safeguards measures.
<p>PPs Submission: Complied Noted and will be complied with. No changes / deviations have taken place at the jetty during the review period.</p>		Date: 01/06/2024

15	MISCELLANEOUS	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the ministry
PPs Submission: Complied This condition is not applicable to us.		Date: 01/06/2024
16	Statutory compliance	The Project Proponent shall undertake environmental monitoring regularly to monitor ambient air quality, noise and water quality of the river Narmada where the proposal is located and send six monthly reports to the regional office of this Ministry in Bhopal.
PPs Submission: Complied RIL has undertaken regular environmental monitoring to monitor ambient air quality, noise and water quality of the river Narmada. The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex based on the mathematical modeling studies considering wind directions and the maximum Ground Level Concentration in downwind direction. Ambient air monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. All results are conforming to the standards prescribed by GPCB. Detailed AAQ Monitoring data can be referred as Annexure VI. Noise level at the site is monitored on monthly basis through MoEF&CC & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. Ambient noise levels conform to the standard prescribed under EPA Rules, 1989 viz. 75 dBA (Day Times) and 70 dBA (Night time). Ambient noise levels during the reporting period Oct'23 – Mar'24 has not exceeded the prescribed limit. Detailed noise monitoring report is enclosed as Annexure XIV. Complied.		Date: 01/06/2024
17	MISCELLANEOUS	The proposed terminal building near the jetty shall be used exclusively for operational requirements of the jetty as proposed by project proponents.
PPs Submission: Complied The terminal building near the jetty is used exclusively for operational requirement of the jetty. Complied.		Date: 01/06/2024
18	Risk Mitigation and Disaster Management	The proposed construction of security walls on both sides of the pipelines carrying hazardous chemicals should be restricted to meet the safety needs. Additional paths across the pipeline shall be provided by the proponent to facilitate easy access to the local population
PPs Submission: Complied Security walls / Boundary walls on both sides of the pipelines carrying hazardous chemicals were restricted to meet the safety requirements. An over-bridge above the pipeline (outside jetty gate) has been constructed to facilitate easy passage for the local population. Complied.		Date: 01/06/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		All annexures are combined and attached as Additional Attachment.

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment**

Proposal Name	Change in product slate of Gandhar Petrochemical Complex (GPC) of IPCL and addition of Acrylonitrile (ACN) plant of GPC - Environmental Clearance regarding		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	11012/II/97-IA II	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	11012/II/97-IA II	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
3	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
4	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
5	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
6	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
7	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
8	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
13	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
14	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
15	HCl	Tons per Annum (TPA)	N/A	15,000	9,282	
16	Ethylene Oxide	Tons per Annum (TPA)	N/A	1,50,000	62,371	
17	Ethylene Glycol	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
18	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
19	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
20	HDPE-I/II	Tons per Annum (TPA)	N/A	2,40,000	1,73,070	
21	Di Ethylene	Tons per	N/A	30,550	14,864	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	GREENBELT	It is noted that 250 ha. Of Land has been earmarked for green belt development. The type of trees to be planted on this Land. This should be finalized in consultation with BSI/experts. Preference should be given to species which help the eco-system in the region.
<p>PPs Submission: Complied</p> <p>This condition has been revised in subsequent EC order no. J-11011/39/2016-IA-II (I) dated 19th August 2021 granted by MoEF&CC. Site has developed around 203 ha of green cover as per the CPCB guidelines at Dahej Petrochemical Complex. Trees have been planted throughout the periphery of the complex as well as wherever open spaces are available. Landscaping (through lawns and shrubs) have been done. Every year plantation drive is being done to strengthen the green cover in the complex. During the reporting period Oct'23 – Mar'24: Around 8,080 trees have been planted in the complex, at open areas of GIDC near site and at road dividers outside of complex. Complied.</p>		Date: 30/05/2024
2	WASTE MANAGEMENT	IPCL has submitted that M/s National Productivity Council is preparing the landfill design for storage of hazardous waste at the site identified. The facility for a minimum of 15 years storage must be provided and report submitted within 3 months
<p>PPs Submission: Complied</p> <p>M/s. National Productivity Council (NPC), New Delhi was retained by Erstwhile IPCL for providing the design of the landfill site for storage of Hazardous / solid waste. Design of landfill Site facility was for a storage period of minimum 15 years and the proposal plan was submitted to the Ministry by Erstwhile IPCL. Complied</p>		Date: 30/05/2024
3	AIR QUALITY MONITORING AND PRESERVATION	Comprehensive facilities must be made to monitor the SPM and gaseous emissions and effluent parameters from the Complex as prescribed by GPCB in their detailed NOC granted to the projects including strict treatment and monitoring of cyanide toxic streams
<p>PPs Submission: Complied</p> <p>Comprehensive facilities are provided to monitor the SPM, gaseous emissions and effluent parameters from the Complex on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai as prescribed by GPCB. MoEF&CC recognition letter and NABL certificate is enclosed as Annexure II. It can be seen from the above table that all results are conforming to the standards prescribed by GPCB norms. Pl. refer detailed Stack Emission Monitoring Report enclosed as Annexure III. Effluent quality is conforming to the standard stipulated by GPCB. The detailed treated effluent monitoring report is enclosed as Annexure VII. No ACN Plant is constructed / commissioned. Therefore, monitoring of cyanide toxic was not carried out. Complied</p>		Date: 30/05/2024
4	Statutory compliance	A time bound action plan for Implementing the above condition should be submitted to the Ministry for review within six months.
<p>PPs Submission: Complied</p> <p>Time bound action plan for implementation of the above conditions were submitted by Erstwhile IPCL to the Ministry. Complied.</p>		Date: 30/05/2024
5	Statutory compliance	The conditions Stipulated vide MOEF's O.M. No. J-11011/27/90-A.11(1) dated 14th March. 1991 while granting clearance to the Gandhar Petrochemical Complex must be implemented effectively. Further, the raw water requirement to be met from Narmada river must not exceed 22 MGD even after addition of ACN Plant.

<p>PPs Submission: Complied Conditions stipulated by MOEF vide O.M. No. J-11011/27/90-A.11(1) dated 14th March, 1991 are being complied with. Raw water requirement is being met from Narmada river. The average fresh water requirement for the period Oct'23 – Mar'24 was 89,332 KLD which is not exceeding the permissible limit of 1,86,315 KLD prescribed under the latest EC accorded vide letter No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. ACN Plant was not established. Complied.</p>		<p>Date: 30/05/2024</p>
6	Statutory compliance	<p>The Ministry may stipulate any further condition(S) on receiving reports from the project Authorities. The above conditions will be monitored by the Regional Office, Bhopal of this Ministry. The project proponent must submit a six monthly compliance report to the Ministry (Regional Office, Bhopal).</p>
<p>PPs Submission: Complied Six monthly compliance report is submitted to the Integrated Regional Office of the Ministry at Gandhinagar. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis. Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.</p>		<p>Date: 30/05/2024</p>
7	Marine/Coastal	<p>To stop land erosion near the mouth of Narmada Estuary, a special programme for cultivation of mangroves along the banks of the river (1000X250 mts stretch) in the region should be initiated on a priority basis in consultation with NIO/experts.</p>
<p>PPs Submission: Complied Mangroves plantation, along the river bank (near Erstwhile IPCL jetty) for a stretch of about 1 km from east (u/s of river) toward the estuary (west) where Narmada merge in to the Gulf of Cambay, was done in the year 1997-98. 3500 saplings were planted. However, the survival rate of this first plantation is very low due to many factors. Erstwhile IPCL had retained Gujarat Ecological Society (GES), Baroda to carry out the experimental plantation of mangroves in 2000-01. GES study found more sand then clay in the soil around jetty and that is why it is not conducive for the mangrove growth. Afresh attempt was again made by planting 2500 sapling of mangrove in association with local Forest Dept. in Dec'2005 at jetty. However, growth of mangroves was reported poor as the soil was not conducive for the mangrove growth. During the year 2018, 2000 saplings of mangrove were planted. The growth is under care / observation. Photographs of the mangrove plantation carried out at jetty can be seen in Annexure XIII.</p>		<p>Date: 30/05/2024</p>
8	GREENBELT	<p>The 19 ha. Of wasteland available close to the project site should be taken up for afforestation in cooperation with the local villagers. The type of vegetation to be grown should be finalized in consultation with the experts. The proposed wasteland development should benefit the ecosystem and the villagers.</p>
<p>PPs Submission: Complied Adequate area available close to the site was taken up for afforestation in cooperation with the local villagers by Erstwhile IPCL. Complied.</p>		<p>Date: 30/05/2024</p>
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		All annexures are combined and attached as Additional Attachment.

**Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)**

Acknowledgment

Proposal Name	Environmental Clearance regarding CAPEX project at Gandhar Petrochemicals Complex IPCL, P. O. Dahej in Gujarat - reg Environmental Clearance		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	J-11011/482/2006-IA II (I)	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-11011/482/2006-IA II (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
2	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
3	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,5130	
4	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
5	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
6	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
7	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
8	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
9	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
10	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
11	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
12	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
13	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
14	Ethylene Glycol (EG)	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
15	UHMW-PE	Tons per Annum (TPA)	N/A	2,500	0	
16	Purified Terephthalic Acid (PTA)	Tons per Annum (TPA)	N/A	65,00,000	25,66,340	
17	Ethane Storage Tank	Others:Capacity in Tons	N/A	90,000	90,000	
18	Gas Based Power	MW	N/A	195	--	
19	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
20	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	For Control of fugitive emission, the company shall provide for a main flare system and an auxiliary flare system and route all unsaturated hydrocarbons to the flare system. All the pump and other equipment's where there is like hood of HC leakage shall be provided with LEL indicators and also provide for immediate isolation to such equipment, in case of a leakage. The company shall adopt leak detection and repair (LDAR) programme for quantification and control of fugitive emissions.
<p>PPs Submission: Complied</p> <p>All plant vents containing unsaturated hydrocarbons are routed to the main flare and auxiliary flare (LP flare) system for controlling of fugitive emissions. An auxiliary flare system (LP flare) is provided for routing the discharge from the dump valve on cryogenic tanks. Whereas the main flare system is provided for all process units and non-cryogenic storage area. Photograph of Flare installed is enclosed as Annexure XXII. Complied. 1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like main pumps, compressors, storage tanks yards, etc. List of detectors installed is enclosed as Annexure XXI. Complied. Isolation of leaking equipment is immediately done based on the LEL detector alarm. Complied. LDAR program has been implemented in all plants for quantification and control of fugitive emissions. LDAR is carried out in each plant on quarterly basis. During the review period (Oct'23 – Mar'24) the same were carried out at all the plants. Typical LDAR Report of one the plant is enclosed as Annexure XIX. Complied.</p>		Date: 30/05/2024
2	AIR QUALITY MONITORING AND PRESERVATION	Ambient air quality monitoring stations (SPM, SO ₂ , NO _x and NMHC) shall be set up in the petrochemical complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down wind direction of wind. The monitoring network must be decided based on modelling exercise to represent short term GLCs. Continuous online stack monitoring equipment should be installed for measurement of SO ₂ and NO _x . Data on VOC shall be monitored and submitted to the SPCB/Ministry. The CPCB shall independently monitor the air quality of the project.
<p>PPs Submission: Complied</p> <p>The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex considering wind directions and the maximum Ground Level Concentration in downwind direction. Mathematical Modelling report submitted to GPCB along with AAQM location map can be seen in Annexure XVII. Ambient air monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. It can be seen from the above table that all results are conforming to the standards prescribed by GPCB. Detailed AAQ Monitoring data can be referred as Annexure VI. Complied. AAQ monitoring network is decided based on the mathematical modeling carried out by NEERI / ERM for short term maximum GLCs. Report of mathematical modelling carried out by M/s. ERM is enclosed as Annexure XVII. Complied. Continuous online stack monitoring analysers have been provided for monitoring of SO₂ and NO_x and other parameters as per requirement in all stacks. One such trend of CEMS of one of the plant is enclosed as Annexure XVIII. Complied. VOCs (Benzene) monitoring in ambient air is being done regularly through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the results are being submitted to the GPCB / MoEF&CC. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. VOCs at the process areas are also being monitored in every plant under the Leak detection and Repair Program (LDAR). Typical LDAR Report of one the plant is enclosed as Annexure XIX. Complied. This condition is not applicable to us.</p>		Date: 30/05/2024
3	AIR QUALITY	Fugitive emissions of HC from product storage tank yards etc. must

	MONITORING AND PRESERVATION	be regularly monitored. Sensors for detecting HC leakage shall also be provided at strategic locations. The company shall use low sulphur fuel to minimize SO2 Emission.
<p>PPs Submission: Complied</p> <p>Fugitive emissions of HC from product storage tanks are monitored on weekly basis by LEL meters and on monthly basis by PID meters under the Leak Detection and Repair Program. Around 56 LEL detectors are installed in Tank Farm area i.e. Product Transfer Department (PTD). Typical LDAR Report of Product Transfer Department (PTD) plant is enclosed as Annexure XX. Complied. 1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like near the pumps, compressors, storage tanks, yards, etc. List of detectors installed is enclosed as Annexure XXI. Complied. The Low Sulfur fuels are used in the plant to minimize SO2 emissions. Ethane / NG usage is maximized in the plant having sulphur content <1 ppm. Complied.</p>		Date: 30/05/2024
4	AIR QUALITY MONITORING AND PRESERVATION	The company shall ensure that no halogenated organic is sent to the flares. If any of the halogenated organic are present then the respective streams may be incinerated, if there are no technically feasible or economically viable reduction/recovery options. Any stream containing organic carbon, other than halogenated shall be connected to proper flaring system, if not to a recovery device or an incinerator
<p>PPs Submission: Complied</p> <p>No halogenated organics are sent to flares. It is always sent to incinerator unit. Complied. Halogenated organics from VCM plant are incinerated in the incinerator provided at the plant as recovery is not techno-economically feasible. Complied. Emission streams containing organic carbon i.e unsaturated hydrocarbons, are connected to the existing flares. Halogenated compounds are not sent to flare. Complied.</p>		Date: 30/05/2024
5	AIR QUALITY MONITORING AND PRESERVATION	The company shall install online O2 monitor in the furnaces. Boilers shall be operated with minimum excess air for optimal fuel consumption and to minimize NOx emission. Flare stack burners and steam injection system shall be designed for smokeless operation to minimize NOx emission.
<p>PPs Submission: Complied</p> <p>20 online O2 monitors are installed in the furnaces to keep the track of combustion efficiency. Complied. Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed stack emission monitoring report is enclosed as Annexure III. The results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24. Complied. Steam injection system is provided in flare stacks for reducing NOx generation and have smokeless operation. Complied.</p>		Date: 30/05/2024
6	AIR QUALITY MONITORING AND PRESERVATION	The product-loading gantry shall be connected to the product sphere in closed circuit through the vapour arm connected to the tanker. Data on fugitive emissions shall be regularly monitored and records maintained.
<p>PPs Submission: Complied</p> <p>The product loading gantry is connected with the respective product tanks with vapor arm connected to the tanker. The vapors are recovered through vapor recovery system which consists of RARFS scrubber, membrane unit & activated carbon filters and then recovered material is sent back to the tank. This system is installed at Product loading gantry. Photographs of vapour recovery system is enclosed as Annexure XXIII. Complied. Data on Fugitive emissions are being regularly monitored through LDAR program and records maintained. Typical LDAR Report of one the plant is enclosed as Annexure XIX. Complied.</p>		Date: 30/05/2024
7	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions (SO2, NOx, CO, NMHC, Cl2 and HCl) from the various process units should conform to the standards

	PRESERVATION	prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time the emission level shall go beyond the stipulated standards. In the event of failure of Pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.
	<p>PPs Submission: Complied</p> <p>Gaseous emissions of SO₂, NO_x, HC, Cl₂ and HCl from process units are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Emissions from the process stack is conforming to the standard stipulated by GPCB. Details of the above results can be seen as Annexure III. Complied. During Oct'23 – Mar'24, emission levels have not exceeded the prescribed / stipulated standards. Details of the same can be seen in Annexure III. Complied. Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger/alarm is raised in the DCS system which prevents the plant from restarting and pollution control system is rectified immediately. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has happened. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.</p>	Date: 30/05/2024
8	AIR QUALITY MONITORING AND PRESERVATION	All new standards/norms that are being proposed by the CPCB for petrochemical plants shall be applicable for the proposed expansion unit. The company shall conform to the process vent standards for organic chemical including non-VOCs and all possible VOCs i.e. TOCs standard and process vent standards for top priority chemicals. The company shall install online monitors for VOC measurements. Action on above should be taken during the detailed design stage of NCC and intimate to this ministry
	<p>PPs Submission: Complied</p> <p>The site is conforming to the standards / norms prescribed by CPCB / GPCB whichever is stringent, for petrochemical plants. The process vents of various plants are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standard which is more stringent. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed monitoring report is enclosed as Annexure III. It can be seen that all results are conforming to the standards prescribed. Complied. Online detectors (1182 LEL type) for VOC measurements have been installed at appropriate locations in the plants based on the properties of chemicals being handled at the particular location. List of detectors installed is enclosed as Annexure XXI. Complied.</p>	Date: 30/05/2024
9	GREENBELT	Green belt shall be raised in an area of 300 ha to mitigate the fugitive emissions from the plant. Selection of plant species shall be as per the central pollution control board guidelines.
	<p>PPs Submission: Complied</p> <p>This condition has been revised in subsequent EC order no. J-11011/39/2016-IA-II (I) dated 19th August 2021 granted by MoEF&CC. However, the site has developed around 203 ha of Green cover within Dahej Petrochemical Complex to mitigate the fugitive emissions and additional greenbelt area is developed outside the plant area . Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied. Selection of plant species is done as per CPCB guidelines; mainly native plant species are selected for the green belt development as per the guidelines of CPCB. Few of the plant species existing at the site are: Casuarina equisetifolia (Suru), Azadirachta indica (Neem), Millettia pinnata (Karanj), Cassia siamea (Kashid), Albizia procera (Shirish), Delonix regia (Gulmohar), Peltophorum pterocarpum etc. Complied.</p>	Date: 30/05/2024
10	WATER QUALITY MONITORING AND PRESERVATION	M/s RIL shall undertake rainwater harvesting measures, to recharge the ground water and also to minimize the water drawl from the weir.

	<p>PPs Submission: Complied RIL has undertaken rainwater harvesting measures to recharge the ground water such as a rain water harvesting pond is established for collecting and storing the rain water. The collected water is used inside the plant to supplement fresh water supply thereby hence minimizing water drawl from the weir to that extent. It also helps in recharging of the ground water. Apart from these, various efforts are taken to minimize the water withdrawal e.g. reduction in fresh water requirement for utilization as make up water in cooling towers by recycling treated water in cooling towers etc. Photograph of Rain water harvesting pond is enclosed as Annexure XXVII. Complied.</p>	<p>Date: 30/05/2024</p>
11	Human Health Environment	Occupation Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
	<p>PPs Submission: Complied RIL–DMD has its own NABH accredited Occupational Health Center with NABL accredited pathology lab. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment Medical Examination) and on annual basis for all employees. Photograph of Occupational Health Centre is enclosed as Annexure XXX and typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied.</p>	<p>Date: 30/05/2024</p>
12	AIR QUALITY MONITORING AND PRESERVATION	The company shall install bag filters to control flue gas emission. Process emission shall be controlled by Scrubbers. Flue gas emission from the various stacks attached to the boiler, furnace/heaters shall conform to the prescribed standards.
	<p>PPs Submission: Complied Suitable air pollution control equipment like Bag filters, absorbers, scrubbers, cyclone separator etc are installed as per process requirement of respective plant to control process emissions. Details of Air pollution control equipments installed in plants is enclosed as Annexure XXIV. Complied. Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed stack emission monitoring report is enclosed as Annexure III. The results are conforming to the norms specified by GPCB during review period of Oct’23 – Mar’24. Complied.</p>	<p>Date: 30/05/2024</p>
13	WATER QUALITY MONITORING AND PRESERVATION	The additional effluent generation shall not exceed 39,020 m3/d. The wastewater generated shall be treated in comprehensive wastewater treatment plant. As reflected in the EIA/EMP report, the company shall maximize the recycling of treated effluent and treated effluent after conforming to the prescribed standards shall be discharged through the existing marine disposal system. A holding pond for treated effluent for bio test shall be constructed before discharging the effluent into the sea. The domestic effluent after treatment and conforming to the prescribed standards shall be used for green belt development
	<p>PPs Submission: Complied The additional effluent generation from the proposed plant does not exceed 36,435 m3/day. However, the total effluent generation quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 51,002 m3/d. The current effluent generation quantity from the complex for the review period of Oct’23 – Mar’24 is given below: Description, Permissible Limit (KLD), Avg, Min, Max: Effluent Generation; 51,002 ; 36,435; 32,890; 39,316. It can be seen that the average effluent generation rate from the complex for the period Oct’23 – Mar’24 is well below the permissible limit of 51,002 m3/d. Complied. Wastewater generated from the individual process units is being treated in the comprehensive effluent treatment facility consisting of Primary, Secondary and Tertiary</p>	<p>Date: 30/05/2024</p>

treatment units. Some of the photographs of Effluent treatment plant can be seen in Annexure XXV. Complied. All points mentioned in the EIA / EMP report regarding maximizing the recycling of treated effluent is complied with such as Advanced Anaerobic UASB system and Membrane based Aeration system i.e., Membrane Bioreactor (MBR), Ultrafiltration and Reverse Osmosis (RO) systems have been commissioned in the plant for achieving the maximum recycling of treated water. Photographs of UASB, MBR & RO plant installed for maximizing the recycling of treated effluent can be seen in Annexure XXVI. Treated effluent is being recycled within the complex as Cooling tower make up, DM water production, green belt development. The Percentage of treated effluent recycled is maximized against the limit. Complied. Treated effluent is being monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the quality of effluent is maintained well within the norm prescribed by the GPCB and the same is discharged through the marine disposal system after conforming to the standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. The treated effluent quality is well within the prescribed norms. Detailed treated effluent monitoring report is enclosed as Annexure VII. Complied. Bioassay test for monitoring toxicity is conducted in the laboratory with the test containers for the treated effluent. The local fishes are taken as the Testing animal for this experiment and the test is carried out in the laboratory as per the IS 6582. Result of 96% survival of fish after 96 hours in 100% effluent is achieved for the review period of Oct'23 – Mar'24. The analysis results of Bioassay test are provided in the above condition. Complied. The domestic effluent generated within the site is treated in the biological section of the effluent treatment plant with the prior approval from GPCB and it conforms to the prescribed standards. As mentioned above, about 18,097 KLD of treated effluent is being reused as CW make up, DM water production and for green belt development. The Percentage of treated effluent recycled is maximized against the limit. Complied.

14 WATER QUALITY MONITORING AND PRESERVATION

The company shall obtain necessary approval from the state Irrigation Department to meet the additional water requirement.

PPs Submission: Complied

Company has obtained approval to meet the water requirement. The sanction / approval for 22 MGD of water drawl from Narmada River has been obtained from the Vadodara Irrigation Division and additional 8 MGD from G.I.D.C. Please refer the copy of water drawl approval from Irrigation Department for 22 MGD and 8 MGD from G.I.D.C as Annexure XXVII. Complied.

Date: 30/05/2024

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	At no time, the emissions 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 immediately put out of operation and should not be restarted unit the desired efficiency has been achieved
		<p>PPs Submission: Complied</p> <p>At no time, emissions have exceeded the stipulated standards during the reporting period of Oct'23 – Mar'24. The emissions from various stacks are well within the prescribed standards. Detailed emission results from various stacks can be seen in Annexure III. Complied. Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger / alarm is raised in the DCS system which prevents the plant from restarting. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has been observed. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.</p>
2	Noise Monitoring & Prevention	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1986 viz. 75 dBA (Day

		Times) and 70 dBA (Night time)	
		<p>PPs Submission: Complied Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it is observed to be well within the prescribed workplace noise level of 85 dBA. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed noise monitoring report is enclosed as Annexure XXXII. Complied. Provision of noise control measures including acoustic hoods, silencers, enclosures etc. has been made for all sources of high noise generation. Photographs of the same is enclosed as Annexure XXXIII. Complied. Ambient noise levels conforms to the standard prescribed under EPA Rules, 1986 viz. 75 dBA (Day Times) and 70 dBA (Night time). Detailed noise monitoring report is enclosed as Annexure XIV. Complied.</p>	Date: 30/05/2024
3	Statutory compliance	The project authorities must 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 etc. Necessary approvals from Chief Control of Explosives must be provided before commission of the project.	
		<p>PPs Submission: Complied Provisions of the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended in 2000 are being complied by ensuring the following activities : • Preparation of safety audit report (submitted to DISH regularly) enclosed as Annexure XXXIV. • Preparation of emergency response plan. Copy of one such plan is enclosed as Annexure XXXV. • Conducting mock drills on regular basis. One such mock drill report is enclosed as Annexure XXXVI. • Provision of emergency alert system like sirens, announcement etc and ensuring their healthiness. Details of siren submitted to DISH is enclosed as Annexure XXXVII. • Mutual aid arrangement with neighboring industries. Agreement copy is enclosed as Annexure XXXVIII. Complied. The approvals required for storage of HC from Chief Control of Explosives are in place and they were obtained before commissioning of the project. Approval details of the same is enclosed as Annexure XI. Complied.</p>	Date: 30/05/2024
4	WASTE MANAGEMENT	The project authorities must strictly comply with the rules and regulations with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collection/treatment/ Storage/ disposal of hazardous wastes.	
		<p>PPs Submission: Complied RIL DMD strictly complies with the rules and regulations of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its subsequent amendments thereof. Handling and Disposal of Hazardous wastes generated at site is being done in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its subsequent amendments thereof. Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX. Complied. Hazardous waste Authorization has been obtained from GPCB for collection / treatment / storage / disposal of hazardous wastes. Authorization (AWH-121992) from GPCB for collection / treatment / storage / disposal of hazardous wastes is available which is valid up to 03.11.2026. Hazardous wastes collected, stored and disposed during reporting period Oct'23 – Mar'24 is given in Annexure VIII. Please refer Form - 4 submitted to GPCB for the year 2022-23 as Annexure IX. Complied.</p>	Date: 30/05/2024
5	Statutory compliance	The stipulated conditions will be monitored by the Regional of this Ministry at Bhopal/ Central Pollution Control Board/ State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly.	
		<p>PPs Submission: Complied This condition is not applicable to us. Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control</p>	Date: 30/05/2024

Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis. Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.		
6	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Gujarat State Pollution Control Board and the state Government
<p>PPs Submission: Complied</p> <p>As seen in the above conditions and the summary table of environmental monitoring results, we are complying with all the standards and stipulations made by the Gujarat State Pollution Control Board and the State Government. Stipulations made by the Gujarat Pollution Control Board vide CTO (Consent to Operate) / CCA (Consolidated Consent & Authorisation) order no AWH-121992 dated 25th November 2022 which is valid up to 3rd November, 2026 are strictly adhered to. Complied.</p>		Date: 30/05/2024
7	MISCELLANEOUS	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment and Forests
<p>PPs Submission: Complied</p> <p>All expansion or modernization of petrochemical plants at RIL-DMD have been carried out with prior approval of MoEF&CC / SEIAA. Complied.</p>		Date: 30/05/2024
8	MISCELLANEOUS	The project authorities will provide adequate funds both recurring and non-recurring 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. The funds so provided should not be diverted for any other purpose.
<p>PPs Submission: Complied</p> <p>Adequate funds have been allocated for implementing the conditions stipulated by the statutory authorities. The Environmental Funds expenditure during the reporting period Oct'23 – Mar'24 was around INR. 108.3 Crores. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied. The funds provided for Environmental improvement activities are used only for the said purpose. They are not diverted for other activities at site. Complied.</p>		Date: 30/05/2024
9	MISCELLANEOUS	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 State Pollution Control Board/ Committee and may also be seen at website of the Ministry of Environment and Forests at http://www.envfor.nic.in This should be advertised within seven days form the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same should be forwarded to the Regional office.
<p>PPs Submission: Complied</p> <p>The public has been informed about the Environment Clearance accorded to this project through Newspaper in English and Gujarati language. The copy of the newspaper publication has been submitted to the MoEF&CC along with the first compliance report of this EC. Newspaper cutting is enclosed as Annexure XL. Complied.</p>		Date: 30/05/2024
10	MISCELLANEOUS	The project Authorities shall inform the Regional Office as well as

		the Ministry, the date of financial closures and the date of the commencing the land development work.
PPs Submission: Complied The project is completed and commissioned. The necessary information about the project's financial closure and project commencement was provided along with the first compliance report of this EC. Complied.		Date: 30/05/2024
11	MISCELLANEOUS	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory
PPs Submission: Complied This condition is not applicable to us.		Date: 30/05/2024
12	MISCELLANEOUS	The ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner will implement these conditions
PPs Submission: Complied This condition is not applicable to us. Company has implemented all the conditions prescribed by the Ministry in this EC. Complied.		Date: 30/05/2024
13	MISCELLANEOUS	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, Hazardous Wastes (Management And Handling) Rules 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules
PPs Submission: Complied Noted.		Date: 30/05/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment**

Proposal Name	Environmental Clearance for Expansion Project of M/s Reliance Industries Limited, Dahej Manufacturing Division, Dahej, Taluka: Vagra, District - Bharuch, Gujarat		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	J-11011/402/2007-IA II (I)	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-11011/402/2007-IA II (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
3	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
4	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
5	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
6	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
7	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
8	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
13	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
14	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
15	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
16	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
17	HCl	Tons per Annum (TPA)	N/A	15,000	9,282	
18	Ethylene Oxide (EO)	Tons per Annum (TPA)	N/A	1,50,000	62,371	
19	Ethylene Glycol (EG)	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
20	Di Ethylene Glycol	Tons per Annum (TPA)	N/A	30,550	14,864	
21	Tri Ethylene	Tons per	N/A	1,270	663	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The company shall comply with all the condition stipulated by the Ministry for the CAPEX project at Gandhar Petrochemical Complex vide Ministry letter No. J11011/482/2006IA.II(i) dated June 11, 2007
<p>PPs Submission: Complied</p> <p>RIL complies with the conditions laid down in the EC granted by the Ministry Letter No. J11011/482/2006 IA II (I) dated June 11, 2007. Compliance status for the same is enclosed as Annexure XLI. Complied.</p>		Date: 01/06/2024
2	Statutory compliance	M/s. RIL shall comply with proposed Effluent and Emission Standards for Petrochemical Plants of CPCB / MoEF for the proposed expansion
<p>PPs Submission: Complied</p> <p>Effluent discharge and Gaseous emissions from the complex are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the MoEF&CC and GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Details of the above Treated Effluent Monitoring Results is enclosed as Annexure VII. effluent discharge quality and gaseous emissions released from the complex are conforming to the stipulated standards. Details of the above Stack Monitoring Results is enclosed as Annexure III. Complied.</p>		Date: 01/06/2024
3	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions (SO ₂ , NO _x , CO, NMHC, Cl ₂ and HCl) from the various process units should conform to the standards prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time the emission level shall go beyond the stipulated standards. In the event of failure of Pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.
<p>PPs Submission: Complied</p> <p>Gaseous emissions of SO₂, NO_x, HC, Cl₂ and HCl from process units are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. the results are conforming to the standard stipulated by GPCB. Details of the above results can be seen as Annexure III. Complied. During Oct'23 – Mar'24, emission levels have not exceeded the prescribed standards. Details of the same can be seen in Annexure III. Complied. Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger/alarm is raised in the DCS system which prevents the plant from restarting and pollution control system is rectified immediately. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has happened. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.</p>		Date: 01/06/2024
4	AIR QUALITY MONITORING AND PRESERVATION	The company shall install online O ₂ monitor in the furnaces. Boilers shall be operated with minimum excess air for optimal fuel consumption and to minimize NO _x emission. Flare stack burners and steam injection system shall be designed for smokeless operation to minimize NO _x emission.
<p>PPs Submission: Complied</p> <p>20 online O₂ monitors are installed in the furnaces to keep the track of combustion efficiency.</p>		Date:

	<p>Complied. Boilers are operated at minimum excess air and the online O2 monitors in furnaces are used for optimization of the air/fuel ratio for minimizing excess air, thereby NOx generation is minimized. Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. The results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24. Detailed stack emission monitoring report is enclosed as Annexure III. Complied. Steam injection system is provided in flare stacks for reducing NOx generation and have smokeless operation. Complied.</p>	01/06/2024
5	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>For Control of fugitive emission, the company shall provide for a main flare system and an auxiliary flare system and route all unsaturated hydrocarbons to the flare system. All the pump and other equipment's where there is like hood of HC leakage shall be provided with LEL indicators. also provide for immediate isolation to such equipment, in case of a leakage. The company shall adopt leak detection and repair (LDAR) programme for quantification and control of fugitive emissions.</p>
<p>PPs Submission: Complied All plant vents containing unsaturated hydrocarbons are routed to the main flare and auxiliary flare (LP flare) system for controlling of fugitive emissions. An auxiliary flare system (LP flare) is provided for routing the discharge from the dump valve on cryogenic tanks. Whereas the main flare system is provided for all process units and non-cryogenic storage area. Photograph of Flare installed is enclosed as Annexure XXII. Complied. 1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like main pumps, compressors, storage tanks yards, etc. List of detectors installed is enclosed as Annexure XXI. Complied. Isolation of leaking equipment is immediately done based on the LEL detector alarm. Complied. LDAR program has been implemented in all plants for quantification and control of fugitive emissions. LDAR is carried out in each plant on quarterly basis. During the review period (Oct'23 – Mar'24) the same were carried out at all the plants. Typical LDAR Report of one the plant is enclosed as Annexure XIX. Complied.</p>		<p>Date: 01/06/2024</p>
6	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>Ambient air quality monitoring stations (SPM, SO2, NOx and NMHC) shall be set up in the petrochemical complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down wind direction of wind. The monitoring network must be decided based on modelling exercise to represent short term GLCs. Continuous online stack monitoring equipment should be installed for measurement of SO2 and NOx. Data on VOC shall be monitored and submitted to the SPCB/Ministry. The CPCB shall independently monitor the air quality of the project.</p>
<p>PPs Submission: Complied The site has established 7 Ambient Air Quality monitoring stations within and outside the petrochemical complex considering wind directions and the maximum Ground Level Concentration in downwind direction. Mathematical Modelling report submitted to GPCB along with AAQM location map can be seen in Annexure XVII. Ambient air quality monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. It can be seen from the above table that all results are conforming to the standards prescribed by GPCB. Detailed AAQ Monitoring data can be referred as Annexure VI. Complied. AAQ monitoring network is decided based on the mathematical modeling carried out by NEERI / ERM for short term maximum GLCs. Report of mathematical modelling carried out by M/s. ERM is enclosed as Annexure V. Complied. Continuous online stack monitoring analysers have been provided for monitoring of SO2 and NOx in all stacks. One such trend of CEMS of one of the plant is enclosed as Annexure XVIII. Complied. VOCs (Benzene) monitoring in ambient air is being done regularly through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the results are being submitted to the GPCB / MoEF&CC. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. VOCs at the process areas are also being monitored in every plant under the Leak detection and Repair Program (LDAR). Typical LDAR Report of one the plant is enclosed</p>		<p>Date: 01/06/2024</p>

as Annexure XIX. Complied. This condition is not applicable to us.		
7	AIR QUALITY MONITORING AND PRESERVATION	Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall also be provided at strategic locations. The company shall use low sulphur fuel to minimize SO2 Emission.
<p>PPs Submission: Complied</p> <p>Fugitive emissions of HC from product storage tanks are monitored on weekly basis by LEL meters and on monthly basis by PID meters under the Leak Detection and Repair Program. Around 56 LEL detectors are installed in Tank Farm area i.e. Product Transfer Department (PTD). Typical LDAR Report of PTD plant is enclosed as Annexure XX. Complied. 1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like near the pumps, compressors, storage tanks yards, etc. List of detectors installed is enclosed as Annexure XXI. Complied. The Low Sulfur fuels are used in the plant to minimize SO2 emissions. Ethane / NG usage is maximized in the plant having sulphur content <1 ppm Complied.</p>		Date: 01/06/2024
8	AIR QUALITY MONITORING AND PRESERVATION	The product-loading gantry shall be connected to the product sphere in closed circuit through the vapour arm connected to the tanker. Data on fugitive emissions shall be regularly monitored and records maintained.
<p>PPs Submission: Complied</p> <p>The product loading gantry is connected with the respective product tanks with vapor arm connected to the tanker. The vapors are recovered through vapor recovery system which consists of RARFS scrubber, membrane unit & activated carbon filters and then recovered material is sent back to the tank. This system is installed at Product loading gantry. Schematic diagram of vapour recovery system is enclosed as Annexure XXIII. Complied. Data on fugitive emissions are being regularly monitored through LDAR program and records maintained. Typical LDAR Report of one the plant is enclosed as Annexure XIX. Complied.</p>		Date: 01/06/2024
9	AIR QUALITY MONITORING AND PRESERVATION	The company shall ensure that no halogenated organic is sent to the flares. If any of the halogenated organic are present then the respective streams may be incinerated, if there are no technically feasible or economically viable reduction/recovery options. Any stream containing organic carbon, other than halogenated shall be connected to proper flaring system, if not to a recovery device or an incinerator.
<p>PPs Submission: Complied</p> <p>No halogenated organics are sent to flares. It is always sent to incinerator unit. Complied. Halogenated organics from VCM plant are incinerated in the incinerator provided at the plant as recovery is not techno-economically feasible. Complied. Emission streams containing organic carbon i.e unsaturated hydrocarbons, are connected to the existing flares. Halogenated compounds are not sent to flare. Complied.</p>		Date: 01/06/2024
10	AIR QUALITY MONITORING AND PRESERVATION	The company shall conform to the process vent standards for organic chemical including non-VOCs and all possible VOCs i.e. TOCs standard and process vent standards for top priority chemicals.
<p>PPs Submission: Complied</p> <p>The process vents of various plants are monthly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the prescribed standard. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. All results are conforming to the standards prescribed. Detailed stack monitoring report is enclosed as Annexure III. Complied.</p>		Date: 01/06/2024
11	Human Health Environment	Occupation Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

	<p>PPs Submission: Complied</p> <p>RIL–DMD has its own NABH accredited Occupational Health Center with NABL accredited pathology lab. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL–DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment medical Examination) and on annual basis for all employees. Photograph of Occupational Health Centre is enclosed as Annexure XXX and typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied.</p>	<p>Date: 01/06/2024</p>
12	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>The company shall install bag filters to control flue gas emission. Process emission shall be controlled by Scrubbers. Flue gas emission from the various stacks attached to the boiler, furnace/heaters shall conform to the prescribed standards.</p>
	<p>PPs Submission: Complied</p> <p>Suitable air pollution control equipment like Bag filters, absorbers, scrubbers, cyclone separator etc. are installed as per process requirement of respective plant to control process emissions. Details of Air pollution control equipments installed in plants is enclosed as Annexure XXIV. Complied. Flue gas emissions from the stacks attached to the boiler, furnaces/heaters are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Results are conforming to the norms specified by GPCB during review period of Oct’23 – Mar’24. Detailed stack emission monitoring report is enclosed as Annexure III. Complied.</p>	<p>Date: 01/06/2024</p>
13	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The additional effluent generation shall not exceed 16,100 m3/d. The wastewater generated shall be treated in comprehensive wastewater treatment plant. As reflected in the EIA/EMP report, the company shall maximize the recycling of treated effluent and treated effluent after conforming to the prescribed standards shall be discharged through the existing marine disposal system. A holding pond for treated effluent for bio test shall be constructed before discharging the effluent into the sea. The domestic effluent after treatment and conforming to the prescribed standards shall be used for green belt development.</p>
	<p>PPs Submission: Complied</p> <p>The additional effluent generation from the proposed plant does not exceed 36,435 m3/day. However, the total effluent generation quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 51,002 m3/d. Average effluent generation rate from the complex for the period Oct’23 – Mar’24 is well below the permissible limit of 51,002 m3/d. Complied. Wastewater generated from the individual process units is being treated in the comprehensive effluent treatment facility consisting of Primary, Secondary and Tertiary treatment units. Some of the photographs of Effluent treatment plant can be seen in Annexure XXV. Complied. Advanced Anaerobic UASB system and Membrane based Aeration system i.e., Membrane Bioreactor (MBR), Ultrafiltration and Reverse Osmosis (RO) systems have been commissioned in the plant for achieving the maximum recycling of treated water. Photographs of UASB, MBR & RO plant installed for maximizing the recycling of treated effluent can be seen in Annexure XXVI. Treated effluent is being recycled within the complex as Cooling tower make up, DM water production, green belt development. The Percentage of treated effluent recycled is maximized against the limit. Complied. Treated effluent is being monitored on monthly basis through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the quality of effluent is maintained well within the norm prescribed by the MoEF&CC and the same is discharged through the marine disposal system after conforming to the standards. Detailed treated effluent monitoring report is enclosed as Annexure VII. Complied. Bioassay test for monitoring toxicity is conducted in the laboratory with the test containers for the treated effluent. The local fishes are taken as the Testing animal for this experiment and the test is carried out in the laboratory as per the IS 6582. Result of 96% survival of fish after 96 hours in 100% effluent is achieved for the review period of Oct’23 – Mar’24, The</p>	<p>Date: 01/06/2024</p>

analysis results of Bioassay test is provided in the above condition. k Complied. The domestic effluent generated within the site is treated in the biological section of the effluent treatment plant with the prior approval from GPCB and it conforms to the prescribed standards. As mentioned above, about 18,097 KLD of treated effluent is being reused as CW make up, DM water production and for green belt development. The Percentage of treated effluent recycled is maximized against the limit. Complied.		
14	WATER QUALITY MONITORING AND PRESERVATION	The company shall obtain necessary approval from the state Irrigation Department to meet the additional water requirement.
PPs Submission: Complied Company has obtained approval to meet the water requirement. The sanction / approval for 22 MGD of water drawl from Narmada River has been obtained from the Vadodara Irrigation Division and additional 8 MGD from G.I.D.C. Please refer the copy of water drawl approval from Irrigation Department for 22 MGD and 8 MGD from G.I.D.C. as Annexure XXVII. Complied.		Date: 01/06/2024
15	WATER QUALITY MONITORING AND PRESERVATION	M/s RIL shall undertake rainwater harvesting measures, to recharge the ground water and also to minimize the water drawl from the weir.
PPs Submission: Complied RIL has undertaken rainwater harvesting measures to recharge the ground water such as a rain water harvesting pond is established for collecting and storing the rain water. The collected water is used inside the plant to supplement fresh water supply thereby minimizing water drawl from the weir to that extent. It also helps in recharging of the ground water. Apart from these, various efforts are taken to minimize the water withdrawal e.g. reduction in fresh water requirement for utilization as make up water in cooling towers by recycling treated water in cooling towers etc. Photograph of Rain water harvesting pond is enclosed as Annexure XXVIII. Complied.		Date: 01/06/2024
16	GREENBELT	Green belt shall be raised in an area of 43 ha to mitigate the fugitive emissions from the plant. Selection of plant species shall be as per the central pollution control board guidelines
PPs Submission: Complied This condition has been revised in subsequent EC order no. J-11011/39/2016-IA-II (I) dated 19th August 2021 granted by MoEF&CC. The site has developed around 203 ha of Green cover within Dahej Petrochemical Complex to mitigate the fugitive emissions. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied. Native plant species are selected for the green belt development as per the guidelines of CPCB. Few of the plant species existing at the site are: Casuarina equisetifolia (Suru), Azadirachta indica (Neem), Millettia pinnata (Karanj), Cassia siamea (Kashid), Albizia procera (Shirish), Delonix regia (Gulmohar), Peltophorum pterocarpum etc. Complied.		Date: 01/06/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	The project authorities will provide adequate funds both recurring and non-recurring 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. The funds so provided should not be diverted for any other purpose.
PPs Submission: Complied Adequate funds have been allocated for implementing the conditions stipulated by the statutory authorities. The Environmental Funds expenditure for the reporting period Oct'23 – Mar'24 was around INR 108.3 Crores. Some of the major areas where environment expenditure incurred during		Date: 01/06/2024

<p>Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied. The funds provided for Environmental improvement activities are used only for the said purpose. They are not diverted for other activities at site. Complied.</p>		
2	MISCELLANEOUS	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment and Forests
<p>PPs Submission: Complied All expansion or modernization of petrochemical plants at RIL-DMD have been carried out with prior approval of MoEF&CC / SEIAA. Complied.</p>		Date: 01/06/2024
3	MISCELLANEOUS	At no time, the emissions 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 immediately put out of operation and should not be restarted unit the desired efficiency has been achieved
<p>PPs Submission: Complied At no time, emissions have exceeded the stipulated standards during the reporting period of Oct'23 – Mar'24. The emissions from various stacks are well within the prescribed standards. Detailed emission results from various stacks can be seen in Annexure III. Complied. Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger / alarm is raised in the DCS system which prevents the plant from restarting. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has been observed. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.</p>		Date: 01/06/2024
4	Statutory compliance	The project authorities must 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 etc. Necessary approvals from Chief Control of Explosives must be provided before commission of the project.
<p>PPs Submission: Complied Provisions of the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended in 2000 are being complied by ensuring the following activities: • Preparation of safety audit report (submitted to DISH regularly) enclosed as Annexure XXXIV. • Preparation of emergency response plan. Copy of one such plan is enclosed as Annexure XXXV. • Conducting mock drills on regular basis. One such mock drill report is enclosed as Annexure XXXVI. • Provision of emergency alert system like sirens, announcement etc. and ensuring their healthiness. Details of siren submitted to DISH is enclosed as Annexure XXXVII. • Mutual aid arrangement with neighboring industries. Agreement copy is enclosed as Annexure XXXVIII. Complied. The approvals required for storage of HC from Chief Control of Explosives are in place and they were obtained before commissioning of the project. Approval details of the same is enclosed as Annexure XI. Complied.</p>		Date: 01/06/2024
5	Statutory compliance	The project authorities must strictly comply with the rules and regulations with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collection/treatment/ Storage/ disposal of hazardous wastes.
<p>PPs Submission: Complied RIL DMD strictly complies with the rules and regulations of Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 and its subsequent amendments thereof. Handling and Disposal of Hazardous wastes generated at site is being done in accordance with the</p>		Date: 01/06/2024

<p>Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 and its subsequent amendments thereof. Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX. Copy of TREM Card is enclosed as Annexure XLII and Manifest is enclosed as Annexure XLIII for reference. Complied. Hazardous waste Authorization has been obtained from GPCB for collection / treatment / storage / disposal of hazardous wastes. Authorization (AWH-121992) from GPCB for collection / treatment / storage / disposal of hazardous wastes is available which is valid up to 03.11.2026. Hazardous wastes collected, stored and disposed during reporting period Oct'23 – Mar'24 is given in Annexure VIII. Please refer Form - 4 submitted to GPCB for the year 2023-24 as Annexure IX. Complied.</p>		
6	MISCELLANEOUS	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner will implement these conditions.
<p>PPs Submission: Complied This condition is not applicable to us.</p>		Date: 01/06/2024
7	Statutory compliance	The stipulated conditions will be monitored by the Regional of this Ministry at Bhopal/ Central Pollution Control Board/ State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly.
<p>PPs Submission: Complied This condition is not applicable to us. Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis. Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.</p>		Date: 01/06/2024
8	MISCELLANEOUS	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, Hazardous Wastes (Management And Handling) Rules 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules
<p>PPs Submission: Complied Noted.</p>		Date: 01/06/2024
9	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Gujarat State Pollution Control Board and the state Government
<p>PPs Submission: Complied As seen in the above conditions and the summary table of environmental monitoring results, we are complying with all the standards and stipulations made by the Gujarat State Pollution Control Board and the State Government. Stipulations made by the Gujarat Pollution Control Board vide CTO (Consent to Operate) / CCA (Consolidated Consent & Authorisation) order no AWH-121992 dated 25th November 2022 which is valid up to 3rd November, 2026 are strictly adhered to. Complied.</p>		Date: 01/06/2024
10	Noise Monitoring & Prevention	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA). By providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1986 viz. 75 dBA (Day Times) and 70 dBA (Night time)

<p>PPs Submission: Complied</p> <p>Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it is observed to be well within the prescribed occupational noise level of 85 dBA. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed noise monitoring report is enclosed as Annexure XXXII. Complied. Provision of noise control measures including acoustic hoods, silencers, enclosures etc. has been made for all sources of high noise generation. Photographs of the same is enclosed as Annexure XXXIII. Complied. Ambient noise levels conforms to the standard prescribed under EPA Rules, 1986 viz. 75 dBA (Day Times) and 70 dBA (Night time). Detailed noise monitoring report is enclosed as Annexure XIV. Complied.</p>		<p>Date: 01/06/2024</p>
11	MISCELLANEOUS	<p>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 State Pollution Control Board/ Committee and may also be seen at website of the Ministry of Environment and Forests at http://www.envfor.nic.in This should be advertised within seven days form the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same should be forwarded to the Regional office.</p>
<p>PPs Submission: Complied</p> <p>The public has been informed about the Environment Clearance accorded to this project through Newspaper in English and Gujarati language. The copy of the newspaper publication has been submitted to the MoEF&CC along with the first compliance report of this EC. Newspaper cutting is enclosed as Annexure XL. Complied.</p>		<p>Date: 01/06/2024</p>
12	MISCELLANEOUS	<p>The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and the date of the commencing the land development work.</p>
<p>PPs Submission: Complied</p> <p>The project is completed and commissioned. The necessary information about the project's financial closure and project commencement was provided along with the first compliance report of this EC. Complied.</p>		<p>Date: 01/06/2024</p>
13	MISCELLANEOUS	<p>The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.</p>
<p>PPs Submission: Complied</p> <p>This condition is not applicable to us.</p>		<p>Date: 01/06/2024</p>
<p>Visit Remarks</p>		
<p>Last Site Visit Report Date:</p>		<p>N/A</p>
<p>Additional Remarks:</p>		<p>DMD Annexures are attached as Additional Attachment.</p>

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment**

Proposal Name	Environment Clearance for setting up of EODs, Acrylic Acid & Esters, Phenol, PTA, PET Plants and 200 MW CCPP in the existing petrochemical unit at Dahej Manufacturing Division, P. O. Dahej, Taluka - Vagra, District - Bharuch by M/s Reliance Industries Limited in Category 5(e) & 1(d) of schedule annexed with EIA Notification dated 14/09/2006		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	SEIAA/GUJ/EC/5(e)&1(d)/124/2011	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	SEIAA/GUJ/EC/5(e)&1(d)/124/2011	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
3	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
4	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
5	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
6	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
7	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
8	HCl	Tons per Annum (TPA)	N/A	15,000	9,282	
9	Tri Ethylene Glycol	Tons per Annum (TPA)	N/A	1,270	663	
10	PEG	Tons per Annum (TPA)	N/A	19,850	0	
11	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
12	Di Ethylene Glycol	Tons per Annum (TPA)	N/A	30,550	14,864	
13	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
14	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
15	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
16	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
17	Ethylene Glycol (EG)	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
18	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
19	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
20	Ethylene Oxide (EO)	Tons per Annum (TPA)	N/A	1,50,000	62,371	
21	TEG Bottom	Tons per	N/A	2,880	416	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Risk Mitigation and Disaster Management	First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
PPs Submission: Complied First Aid Box is available at strategic locations in each plant and antidotes for chemicals are readily available at OHC in adequate quantity. Photograph of First Aid box located at plant control room can be seen in Annexure LVIII. Complied.		Date: 31/05/2024
2	Human Health Environment	Handling and charging of the chemicals shall be done in such a manner that minimal human exposure occurs.
PPs Submission: Complied Raw materials from the storage tanks are transferred to the reactors in an automated manner with a closed loop system to avoid any human exposure. Complied.		Date: 31/05/2024
3	AIR QUALITY MONITORING AND PRESERVATION	Only natural gas shall be used as a fuel in the proposed expansion.
PPs Submission: Complied Only PTA and PET plants have been commissioned out of proposed plants of this EC. Natural gas is being used as a fuel in the PET plant during review period of Oct'23 – Mar'24. Whereas PTA plant does not require any fuel as it has no furnace, boilers, heaters or vaporizers. Complied.		Date: 30/05/2024
4	Noise Monitoring & Prevention	Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact
PPs Submission: Complied Regular & preventive maintenance of machinery and vehicles is undertaken. Complied.		Date: 31/05/2024
5	Noise Monitoring & Prevention	Noise suppression measures such as enclosures, buffers and /or protective measures shall be provided.
PPs Submission: Complied Noise suppression measures like acoustic chambers are provided wherever required. Complied.		Date: 31/05/2024
6	WASTE MANAGEMENT	Authorization from the GPCB must be obtained for collection / treatment / storage/ disposal of hazardous wastes.
PPs Submission: Complied Authorization for Hazardous wastes management is obtained from GPCB vide Authorization Order No. AWH-121992 dated 25th November 2022, for collection / treatment / storage / disposal of hazardous wastes from the complex. The hazardous waste is being disposed as per methods prescribed in the Authorization. Please refer Form-4 submitted to GPCB for year 2022-23 as Annexure IX. Complied.		Date: 31/05/2024
7	WASTE MANAGEMENT	The hazardous wastes shall be stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility before its disposal.
PPs Submission: Complied		Date:

<p>Hazardous wastes from respective plants are stored at designated area having impervious bottom with peripheral drain for collection of leachate / spill as interim storage. This waste is shifted at regular interval to Central Hazardous waste storage facility which is developed as per CPCB guidelines with impervious flooring, leachate collection facility and rain protection shelter. Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX. Complied.</p>		31/05/2024
8	WASTE MANAGEMENT	ETP sludge, incinerator ash etc. shall be disposed in the secured landfill site
<p>PPs Submission: Complied ETP sludge is being disposed in common TSDF site. Incinerator is not installed for PTA and PET plants hence there is no generation of Incinerator ash. Record of ETP sludge disposal in common TSDF is enclosed as Annexure LV. Complied.</p>		Date: 31/05/2024
9	WASTE MANAGEMENT	The wastes like spent resins from phenol plant, spent oxide filter cartridges, spent charcoal, adsorbents, oil cotton rags etc. shall be disposed by incineration.
<p>PPs Submission: Complied Phenol plant is not established hence spent resin from it is not generated. Other wastes are handled as per the Hazardous Waste authorization granted by GPCB. Details of waste disposal is enclosed as Annexure VIII. Complied.</p>		Date: 31/05/2024
10	Noise Monitoring & Prevention	Employees shall be provided with ear protection measures like earplugs and earmuffs.
<p>PPs Submission: Complied PPEs like ear muffs and ear plugs are mandatory for use by everyone working in high noise areas. Complied.</p>		Date: 31/05/2024
11	Noise Monitoring & Prevention	Construction equipment generating minimum noise and vibration shall be chosen
<p>PPs Submission: Complied Construction equipment generating low noise and vibration was chosen during the erection of the plant. Complied.</p>		Date: 31/05/2024
12	Noise Monitoring & Prevention	Ear plugs and/muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment.
<p>PPs Submission: Complied Use of PPEs like ear plugs / ear muffs are made compulsory at site. It is being ensured and supervised through work permit procedure, Contractor Field Round and Daily Field round by Plant Safety Representative at plants. Complied.</p>		Date: 31/05/2024
13	Noise Monitoring & Prevention	Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.
<p>PPs Submission: Complied Construction equipment meeting the norms specified by EP Act, 1986 were used during the construction phase of the plants. Complied.</p>		Date: 31/05/2024
14	WATER QUALITY MONITORING AND PRESERVATION	The industrial wastewater generation shall not exceed 44,600 KLD after the proposed expansion
<p>PPs Submission: Complied</p>		Date:

<p>The average industrial effluent generation after commissioning of the PTA and PET plant, is 36,435 KLD for the period of Oct'23 – Mar'24 which is less than the permissible limit of 51,002 KLD prescribed under Consolidated Consent & Authorisation (CCA) Order No. No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026. Data for effluent generation quantity for the period Oct'23 – Mar'24 is as below which is also being submitted to GPCB on monthly basis. Effluent Generation (KLD) Permissible Limit; Avg Min; Max: 51,002; 36,435; 32,890; 39,316. Complied.</p>		30/05/2024
15	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The company shall provide ETP consisting of primary, secondary and tertiary treatment facilities for treatment of the effluents from the proposed plants</p>
<p>PPs Submission: Complied The wastewater generated at the plant is treated in Effluent treatment plant consisting of Primary, Secondary and Tertiary effluent treatment units. Photographs of the same can be seen in Annexure XXV. Complied.</p>		<p>Date: 30/05/2024</p>
16	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The ETP shall be operated regularly and efficiently so as to achieve the GPCB norms at the outlet.</p>
<p>PPs Submission: Complied The ETP is operated regularly and efficiently and has achieved the GPCB discharge norms during review period of Oct'23 – Mar'24. Effluent discharge from the complex are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate is enclosed as Annexure II. It can be seen that the ETP is operating regularly and efficiently and all the results are complying with the GPCB norms. Detailed treated effluent monitoring report is enclosed as Annexure VII. Complied.</p>		<p>Date: 30/05/2024</p>
17	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>Fresh water requirement shall not exceed 1,15,420 KLD after the proposed expansion. This Condition has been amended vide EC amendment order no SEIAA/GUJ/EC/7 (e)278/2011 dated 13th Sep 2012 & SEIAA/ GUJ/EC/1(d)&7(e)/96/2015 dated 02nd March 2015. The amended condition is given below: “fresh water requirement after the proposed expansion for the RIL-DMD complex shall not exceed 1,27,382 KL/day” This Condition has been amended vide latest EC amendment order no J-11011/39/2016-IA-II (I) dated 03rd April 2017. The amended condition is given below: “Total water requirement from Govt. of Gujarat, Vadodara Irrigation Division (VID) and from GIDC shall not exceed 1,86,315 m3/day” It shall be met from river Narmada through Jackwells at Angareshwar No ground water shall be used for the project</p>
<p>PPs Submission: Complied The average fresh water consumption in plant has always been less than 1,15,420 KLD. The average fresh water requirement for the period Oct'23 – Mar'24 was 89,332 KLD which is also not exceeding the permissible limit of 1,86,315 KLD prescribed under the latest EC accorded vide letter No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. However, the fresh water consumption quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 1,38,700 m3/d. The summary of fresh water consumption during reporting period of Oct'23 – Mar'24 is presented as below Fresh Water Consumption (KLD) Prescribed Limit; Avg; Min ;Max :1,38,700; 89,332; 82,008 ;94,667. Complied. Fresh Water requirement is met from river Narmada through Jack wells at Angareshwar with prior approval from Irrigation department for water drawl. Copy of letter is enclosed as Annexure XXVII. Complied. No ground water is used at site. The water requirement for the complex is met through Narmada water as mentioned in the compliance of condition above. Complied.</p>		<p>Date: 30/05/2024</p>
18	<p>WATER QUALITY</p>	<p>Out of 44,600 KLD of treated effluent 14,080 KLD shall be</p>

	MONITORING AND PRESERVATION	reused/recycled in cooling tower, green belt development/ horticulture etc. Whereas rest of 30,520 KLD shall be discharged into the deep sea (Gulf of Cambay) through the existing effluent disposal pipeline equipped with multiport diffuser.
<p>PPs Submission: Complied During the review period Oct'23 – Mar'24., out of the 36,435 KLD effluent generated from complex, 18,338 KLD of treated effluent was recycled. The average of effluent generation and recycle quantities during reporting period of Oct'23 – Mar'24 is presented below as against the Permissible limits prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026. Description; Permissible Limit (KLD); Average (KLD): Effluent Generation; 51,002; 36,435: Effluent Recycle; 14,710; 18,338: Percentage of Recycle; 30 %; 50%. Complied. Average quantity of 18,097 KLD of treated effluent discharged from RIL-DMD into Gulf of Cambay in the deep sea area through existing effluent disposal pipeline during this period of Oct'23 – Mar'24. A multiport diffuser is provided at the end of treated effluent discharge line for proper dispersion of effluent. The total effluent discharge quantity prescribed under the EC accorded vide letter No. J-11011/39/2016-IA-II (I) dated 03rd April 2017 is 39,686 KLD. However, the total effluent discharge quantity for the existing plant prescribed Consolidated Consent & Authorization (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 36,292 m³/d. The average effluent discharge during Oct'23 – Mar'24 is presented below: Description; Permissible Limit (KLD); Average (KLD): Quantity of Effluent Discharge; 36,292; 18,097. It can be seen from above results that the, the average effluent discharge from the complex has not exceeded the permissible limit of 36,292 KLD during reporting period. Complied.</p>		Date: 30/05/2024
19	WATER QUALITY MONITORING AND PRESERVATION	The unit shall provide metering facility at the inlet and outlet of the ETP and maintain the records of the same. Also provide online monitoring system for pH, TDS, & TOC parameters at the outlet of the ETP
<p>PPs Submission: Complied Metering facility i.e. Flow meters have been provided at the inlet and outlet of ETP and records are maintained. Photographs of flow meters at the inlet and outlet of the ETP can be seen in Annexure XLIV. Complied. Online pH, BOD, COD & TSS analyzers are provided at the outlet of the ETP. Photograph of online monitoring system and analyzer room can be seen in Annexure XLV. Complied.</p>		Date: 30/05/2024
20	WATER QUALITY MONITORING AND PRESERVATION	A proper logbook of ETP operation and so showing the quantity of effluent generated, utilized for plantation/gardening etc. shall be maintained and furnished to the GPCB from time to time
<p>PPs Submission: Complied Logbook of ETP operation is maintained and it includes quantity of effluent generation and recycled within the complex for plantation / gardening, etc. The same has been furnished to GPCB from time to time as and when asked. The details of quantity of effluent generation & recycle is given in condition no. 5. Photograph of Typical logbook is enclosed as Annexure XLVI. Complied.</p>		Date: 30/05/2024
21	WATER QUALITY MONITORING AND PRESERVATION	The effluent disposal pipeline shall be monitored regularly by the company. It shall be ensured that there is no leakage from the pipeline. In case of any such eventualities, the company shall immediately stop disposal through pipeline and take the corrective measures in consultation with the GPCB and the District Collector
<p>PPs Submission: Complied Effluent disposal pipeline is being regularly checked by site maintenance department for leakages through walkthrough surveys. During Oct'23 – Mar'24, no leakage was observed. Complied. During Oct'23 – Mar'24, no such eventualities have arisen. Complied.</p>		Date: 30/05/2024
22	Marine/Coastal	The post project environmental monitoring through the reputed institutes / organizations shall be carried out in order to assess the changes if any in coastal environment due to disposal of effluent

<p>PPs Submission: Complied The post project environment monitoring of coastal environment has been carried out by NIO while carrying out EIA of subsequent projects to assess the changes. There was no adverse impact observed on the coastal environment due to RIL DMD. The last monitoring report carried out by M/s Indomer is enclosed as Annexure XLVIII. Complied.</p>		<p>Date: 30/05/2024</p>
23	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>All fuel combustion units shall be operated with min. excess air so that fuel combustion is optimized and emission of NOx is minimized. Tangential / low NOx burners in all combustion units with online analyser shall be implemented in the proposed plants.</p>
<p>PPs Submission: Complied All fuel combustion units are operated at minimum excess air to optimize fuel combustion and minimize the emission of NOX. The online O2 monitors in furnaces are used for optimizing the air/fuel ratio. By controlling the flow of air, NOx generation is minimized. Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure III. Results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24. NOx emission from boilers / furnaces can be seen in detailed stack emission monitoring data enclosed as Annexure III. Complied. Low NOX burners have been provided in the combustion units with online analyzers in the plants. Complied.</p>		<p>Date: 30/05/2024</p>
24	<p>Risk Mitigation and Disaster Management</p>	<p>Storage and use of hazardous chemicals shall be minimized to the extent possible and All necessary precautions shall be taken to mitigate the risk generated out of it. Storage of hazardous chemicals shall be in multiple small capacity tanks/containers instead of one single large capacity tank for safety purpose.</p>
<p>PPs Submission: Complied Hazardous chemicals are stored only as per the requirement matching with the production capacities and permission granted by PESO. Complied. Necessary precautions are taken for safe storage / handling of hazardous / toxic chemicals as detailed in point no. 30. Complied. Hazardous chemical storage quantities are maintained only in minimum quantity as per requirement. The chemicals are stored in tanks of optimum size instead of small quantity capacity tanks for safety purpose. Complied.</p>		<p>Date: 31/05/2024</p>
25	<p>Risk Mitigation and Disaster Management</p>	<p>During material transfer, spillages shall be avoided and Garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water</p>
<p>PPs Submission: Complied Adequate control measures are taken to avoid spillage during material transfer job. Dedicated Garland / drainage network has been established in PTA and PET plants to avoid mixing of accidental spillages with domestic wastewater or storm water. Photograph of the same is enclosed as Annexure LVI. Complied.</p>		<p>Date: 31/05/2024</p>
26	<p>Risk Mitigation and Disaster Management</p>	<p>Tie up shall be done with nearby health care unit for seeking immediate medical attention in the case of emergency, regular medical check-up of the workers and keeping its record etc.</p>
<p>PPs Submission: Complied RIL–DMD has its own NABH accredited Occupational Health Center (OHC) with NABL accredited pathology lab. OHC is established at the petrochemical complex for providing immediate medical help in case of emergencies. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Photograph of Occupational Health Centre is enclosed as Annexure XXX and typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied.</p>		<p>Date: 31/05/2024</p>

27	Risk Mitigation and Disaster Management	Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.
PPs Submission: Complied Personal Protective Equipment (PPEs) are provided to employees and contractors and are made compulsory to wear before entering the plant. This is being ensured regularly. Complied.		Date: 31/05/2024
28	Human Health Environment	Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
PPs Submission: Complied Occupational health surveillance of the workers is done and its records are maintained. Typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment Medical Examination) and on annual basis for all employees. Typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied.		Date: 31/05/2024
29	WATER QUALITY MONITORING AND PRESERVATION	Regular performance evaluation of the ETP shall be undertaken every year to check its adequacy through credible institutes like LD college of Engineering, NPC or such other institutes of similar repute. Its records shall be maintained.
PPs Submission: Complied Performance evaluation of ETP by external agencies is being carried out regularly through environmental auditor appointed by GPCB and the records are maintained. M/s. Sophisticated Instrumentation Centre for applied Research and Testing (SICART) Parul Institute of Technology, Vallabh Vidyanagar -388 120, appointed by GPCB has done annual environmental audit which includes performance evaluation of ETP for the year 2022-23. The report is being submitted regularly to GPCB. Environment Adequacy certificate is enclosed as Annexure XLVII. Complied.		Date: 30/05/2024
30	MISCELLANEOUS	The unit shall join and participate financially and technically for any common environmental facility infrastructure as and when the same is taken up either by GIDC or GPCB or any such authority created for this purpose by the Govt/GIDC
PPs Submission: Complied During the review period of Oct'23 – Mar'24, no such proposal came from GIDC / GPCB. RIL will participate financially and technically in any such project proposed or being taken up by Govt / GIDC / GPCB. Complied.		Date: 30/05/2024
31	AIR QUALITY MONITORING AND PRESERVATION	The fugitive emission in the work zone environment shall be monitored. The emissions shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directorate of Industrial Safety & Health) Following steps shall be taken to reduce the fugitive emission of VOCs: >Provision of internal floating roof tanks with flexible double seal for storage tanks > Provision of mechanical seals in pumps >Regular inspection of floating roof seals and proper maintenance of floating roof seals for existing tanks >Preventive maintenance of valves and other equipment >Regular skimming of oil from separators /equalization basin in the ETP > Fugitive emission monitoring at regular intervals > Strengthening /maintaining existing green belt > Use of high grade gasket material for packing and Provision of motor operated valves for critical services such as high vapour pressure components and chemicals > Implementation of Leak Detection and Repair (LDAR) programme

		using a portable VOC detection instrument >Monitoring of dioxin and furan from the stacks of incinerators at a regular interval to keep close vigil on such emissions due to burning organo-chlorine compounds, if any	
		<p>PPs Submission: Complied</p> <p>The fugitive emission in the work zone environment (i.e. Work place environmental monitoring) is monitored periodically for existing facilities including PTA and PET plant. Occupational exposure is compared against standards prescribed by the concerned authorities periodically (e.g Directorate of Industrial Safety & Health & ACGIH (American Conference of Governmental Industrial Hygienist). LDAR Report of PTA / PET plant is enclosed as Annexure LI. Complied. Storage Tanks are designed as per API standard in the PTA and PET plants and it is provided with internal floating roof with flexible double seal. Photographs of the same is enclosed as Annexure LII. Complied. Mechanical seals are provided in the pumps / compressors of the PTA and PET plants. Complied. Regular inspection and proper preventive maintenance of floating roof seals is being carried out. Complied. Preventive maintenance of valves and other equipment is being done regularly in the plants as per schedule. Complied. Regular skimming of oil from oil separators / equalization tank is carried out in the ETP. The collected oil is then transferred to Slop Oil Tank. Photograph of Oil separator and slop oil tank is enclosed as Annexure LIII. Complied. Fugitive emission monitoring is done in all plants at regular intervals through the Leak Detection and Repair Program. LDAR Report of the plant is enclosed as Annexure LI. Complied. Strengthening of green cover through gap plantation and maintenance of the existing green cover spread over the area of 231 ha is being done. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied. High grade gasket material for packing is used and motor operated valves for critical services such as high vapour pressure components and chemicals are provided. Complied. Leak Detection and Repair Program (LDAR) is implemented throughout the complex including PTA and PET plants and monitoring is being done by using portable VOC detection instruments. LDAR Report of the plant is enclosed as Annexure LI. Complied. Not applicable as no incinerator is installed in PTA and PET plants.</p>	Date: 31/05/2024
32	AIR QUALITY MONITORING AND PRESERVATION	Regular performance evaluation of the air pollution control systems shall be undertaken every year to check its adequacy , through credible institutes like LD college of Engineering, NPC or other such other institutes of similar repute, and its records shall be maintained and furnished to the GPCB from time to time	
		<p>PPs Submission: Complied</p> <p>Performance evaluation of air pollution control systems by external agencies is being regularly carried out through environmental auditor appointed by GPCB. M/s. Sophisticated Instrumentation Centre for applied Research and Testing (SICART), Vallabh Vidyanagar -388 120, has done Annual audit which includes performance evaluation of APCE for the year 2022-23. The report is submitted regularly to GPCB. Environment Adequacy certificate is enclosed as Annexure XLVII. Complied.</p>	Date: 31/05/2024
33	AIR QUALITY MONITORING AND PRESERVATION	The company shall install and operate continuous ambient air quality monitoring station within the premises. The monitoring station shall be fixed in consultation with the GPCB	
		<p>PPs Submission: Complied</p> <p>Continuous Ambient Air Quality Monitoring Station (CAAQMS) is installed and operational within the premises. Photograph of CAAQMS can be seen in Annexure LIV. Complied. Location of CAAQMS is fixed by consulting GPCB officials during their visit and after getting their concurrence. Complied.</p>	Date: 31/05/2024
34	WASTE MANAGEMENT	The company must strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 as may be amended from time to time	
		<p>PPs Submission: Complied</p>	Date:

<p>RIL DMD strictly complies with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 and its subsequent amendments thereof. Hazardous wastes generated from PTA and PET plants is being managed in accordance with the amended Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. The authorization obtained from GPCB under these rules vide Authorization Order No. AWH-121992 dated 25th November 2022, valid upto 3rd November, 2026. Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX. Typical TREM Card is enclosed as Annexure XLII and manifest copy as Annexure XLIII. Complied.</p>		31/05/2024
35	WASTE MANAGEMENT	Spent catalysts, alumina desiccant, spent lead acid batteries, degraded Dowtherm, spent molecular sieve etc., and shall be sold only to the registered reprocessors / recyclers.
<p>PPs Submission: Complied Spent catalysts, alumina desiccant, spent lead acid batteries, degraded Dowtherm, spent molecular sieve, etc., are sold only to the registered reprocessors / recyclers. Details of waste disposal is enclosed as Annexure VIII. Complied.</p>		Date: 31/05/2024
36	WASTE MANAGEMENT	Discarded containers/ barrels/ bags/liners shall be either reused or sold only to the authorised recyclers after decontamination.
<p>PPs Submission: Complied Discarded containers / barrels / bags generated from respective plants get decontaminated, labelled as Decontaminated and then sold to the authorized recyclers as per GPCB directives. Dedicated drum decontamination facility has been provided for all plants including PTA and PET plants. Details of waste disposal is enclosed as Annexure VIII. Complied.</p>		Date: 31/05/2024
37	WASTE MANAGEMENT	Used oil shall be sold only to the registered recycler
<p>PPs Submission: Complied Used oil is sold to the registered recyclers / re-processors. Details of waste disposal is enclosed as Annexure VIII. Complied.</p>		Date: 31/05/2024
38	Risk Mitigation and Disaster Management	Provisions of the Manufacture, Storage & Import of Hazardous Chemical Rules, 1989 & Factories Act, 1948 shall be strictly complied with.
<p>PPs Submission: Complied Provisions of the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended in 2000 and Factories Act, 1948 are being complied by ensuring the following activities: • Preparation of safety audit report (submitted to DISH regularly) enclosed as Annexure XXXIV. • Preparation of emergency response plan. Copy of one such plan is enclosed as Annexure XXXV. • Conducting mock drills on regular basis. One such mock drill report is enclosed as Annexure XXXVI. • Provision of emergency alert system like sirens, announcement etc and ensuring their healthiness. Details of siren submitted to DISH is enclosed as Annexure XXXVII. • Mutual aid arrangement with neighboring industries. Agreement copy is enclosed as Annexure XXXVIII. Complied.</p>		Date: 31/05/2024
39	Risk Mitigation and Disaster Management	Recommendations made in the Risk Assessment Study Report submitted by the project proponent shall be implemented
<p>PPs Submission: Complied Recommendations made in the risk assessment study report are implemented and complied with for existing units including PTA and PET plants. e.g. • Control rooms are constructed having blast proof & shock proof walls. • Storage area is separated from process areas and flammable materials. • Provided proper dyke for storage tanks with fire protection measures. Complied.</p>		Date: 31/05/2024
40	Risk Mitigation and Disaster Management	All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of: Toxic chemicals or

		Hazardous chemicals.	
		<p>PPs Submission: Complied</p> <p>Following safety measures have been adopted to avoid accidents at the site during storage and handling of toxic / hazardous chemicals: • Separate dyke area provided for the different products and storage areas. • Storage areas are separated from building process areas and flammable materials. • Level indicators, trips & alarm systems. • Adequate Fire protection systems are provided. Complied.</p>	<p>Date: 31/05/2024</p>
41	Risk Mitigation and Disaster Management	All the materials shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained (if required) before commencing the expansion activities.	
		<p>PPs Submission: Complied</p> <p>All materials are stored only in required quantities matching with the production capacities and permission from PESO, Nagpur has been obtained for the same. PESO approval for one of the material is enclosed as Annexure XI. Complied.</p>	<p>Date: 31/05/2024</p>
42	Risk Mitigation and Disaster Management	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.	
		<p>PPs Submission: Complied</p> <p>Transportation of hazardous chemical is carried out as per the Motor Vehicle Act & Rules like: • Emergency information panel on Carrier • The product name, UN number, and CTU (Container carrier unit) identification number on the shipping document. • Training imparted to drivers by RIL Driver Safety Training Center and it is valid for one year for liquid / gas carrier drivers and two year for carrier driver. • Refresher training also shall be given by Driver Safety Training Center. • TREM Card. • Instruction to drivers on emergency situations. Complied.</p>	<p>Date: 31/05/2024</p>
43	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented.	
		<p>PPs Submission: Complied</p> <p>These measures are ensured in the PTA and PET plants by addressing the requirements during the design phase itself. Complied.</p>	<p>Date: 31/05/2024</p>
44	Noise Monitoring & Prevention	Selection of any new plant equipment shall be made with specification of low noise levels	
		<p>PPs Submission: Complied</p> <p>Low noise generating equipment have been selected in the design stage itself. Complied.</p>	<p>Date: 31/05/2024</p>
45	Risk Mitigation and Disaster Management	Training shall be imparted to all the workers on safety and health aspects of chemicals handling.	
		<p>PPs Submission: Complied</p> <p>Training is imparted to all the workers on safety and health aspects of chemicals handling. The chemical handling related, safety and health training is imparted to all workers on RIL role and all contractor workers as well. The level-1 and level-2 training is provided to the contract workers which includes the safe work practices related to safe chemical handling and use of PPEs. At RIL-Dahej, employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPE. Sample record of various trainings imparted is enclosed as Annexure LIX. Complied.</p>	<p>Date: 31/05/2024</p>
46	Noise Monitoring & Prevention	Proper oiling, lubrication and preventive maintenance shall be carried out of the machineries and equipment to reduce noise generation	
		<p>PPs Submission: Complied</p> <p>Proper oiling, lubrication and preventive and regular maintenance of machineries and equipment is</p>	<p>Date:</p>

	done to reduce noise generation. Complied.	31/05/2024
47	Noise Monitoring & Prevention	Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate.
	PPs Submission: Complied Vehicles and construction equipment with internal combustion engines without proper silencer were not allowed to operate during the erection of the plant. Complied.	Date: 31/05/2024
48	Noise Monitoring & Prevention	Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas.
	PPs Submission: Complied Low Noise generating DG sets are being used at the site. The site is with in industrial zone. No residential or sensitive zone nearby. Complied.	Date: 31/05/2024
49	Noise Monitoring & Prevention	Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment.
	PPs Submission: Complied Noise mufflers for motorized equipment have been provided on all the motorized equipment Complied.	Date: 31/05/2024
50	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Provision of day light roof to utilize maximum natural light in the production plant instead of electrical lighting
	PPs Submission: Complied Day light roofs are provided at our store and warehouse areas. Photographs of the same is enclosed as Annexure LXII. Complied.	Date: 31/05/2024
51	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Automatic switching system for lighting and water tank pumping shall be used.
	PPs Submission: Complied Automatic switching system for lighting are provided at various areas of plants. Automatic switching system for water tank pumping is also provided. Complied.	Date: 31/05/2024
52	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Gravity flow shall be preferred wherever possible to save pumping energy..
	PPs Submission: Complied Gravity flow is being preferred wherever it is possible. Complied.	Date: 31/05/2024
53	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Use of electronic ballast to save energy
	PPs Submission: Complied Electronic ballast / relevant systems are provided in lighting equipments. Complied	Date: 31/05/2024
54	MISCELLANEOUS	CLEANER PRODUCTION AND WASTE MINIMISATION: The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB

<p>PPs Submission: Complied Site has adopted the best available technology for achieving resource reduction and waste minimization. RIL has already submitted an application to Gujarat Cleaner Production Council for assessment. Complied.</p>		<p>Date: 31/05/2024</p>
55	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: a. Metering and control of quantities of active ingredients to minimize waste
<p>PPs Submission: Complied All active ingredients are metered at all the plant. Metering and control is provided for active ingredients to ensure waste minimization. Complied.</p>		<p>Date: 31/05/2024</p>
56	AIR QUALITY MONITORING AND PRESERVATION	Process emission like SO ₂ , NO _x , PM, etc. shall be controlled with the adequate air pollution control equipment (APCEs). These APCEs shall be operated efficiently and effectively to achieve the norms prescribed by the GPCB at stack/vent outlets.
<p>PPs Submission: Complied Adequate Air Pollution Control Equipment (APCEs) for controlling process emissions such as SO₂, NO_x, PM, etc. have been provided in the stacks to meet the prescribed norms. Details of Air pollution control equipments installed in plants is enclosed as Annexure XXIV. Process emissions like SO₂, NO_x, PM from PTA & PET plants are monthly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standards. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. The results are well within the norms prescribed by GPCB. Detailed stack emission monitoring report is enclosed as Annexure III. Complied. The above results are complying with the norms prescribed by GPCB which indicate that APCE provided at PTA and PET plants are operating efficiently and effectively. Complied.</p>		<p>Date: 30/05/2024</p>
57	AIR QUALITY MONITORING AND PRESERVATION	Stacks and vents of adequate height as per the prevailing norms along with port holes and sampling facilities shall be provided.
<p>PPs Submission: Complied Stacks and vents of PTA & PET plant are having adequate height as per the prevailing norms along with port holes and sampling facilities. Photograph of one such stack is enclosed as Annexure XLIX. 6 process vents of PTA plant (2 Units) are of 51.7, 53.2 and 44.9 meter heights and 4 flue gas stack of PET plant with 60-meter height has been provided with port holes and sampling facility. It complies with prevailing norms of stack height. The results are well within the norms prescribed by GPCB. Detailed stack emission monitoring report is enclosed as Annexure III. Complied.</p>		<p>Date: 30/05/2024</p>
58	AIR QUALITY MONITORING AND PRESERVATION	The company shall install online monitoring system in the proposed plants with an arrangement to reflect the monitored data on the company's server, which can be accessed by the GPCB on real time basis
<p>PPs Submission: Complied Continuous online monitoring equipments have been installed for all stacks and connected to CPCB / GPCB. One such trend of CEMS of PTA plant is enclosed as Annexure L. Complied.</p>		<p>Date: 31/05/2024</p>
59	Risk Mitigation and Disaster Management	All the storage tanks shall be fitted with appropriate controls to avoid any leakages, bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals. Close handling system for chemicals shall be provided
<p>PPs Submission: Complied All storage tanks have proper safety mechanisms including level indicators, level alarms, bund /</p>		<p>Date: 31/05/2024</p>

dyke walls are provided to avoid leakages / spillages of hazardous chemicals. Refer Annexure LVII for photograph. Complied. Chemicals from the storage tanks are transferred to the reactors in an automated manner with a closed loop system to avoid any manual exposure. Complied.		
60	Noise Monitoring & Prevention	Manufacturers / suppliers of major noise generating machines / equipments like air compressors, feeder pumps, turbine generators, etc. shall be instructed to make required design modifications wherever possible before supply and installation to mitigate the noise generation and to comply with the national / international regulatory norms with respect to noise generation for individual units
PPs Submission: Complied Low noise generating equipment have been selected in the design stage itself. Equipment meet the national regulatory norms. Complied.		Date: 31/05/2024
61	Noise Monitoring & Prevention	The overall noise level in and around the plant areas shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration dampers etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under the Environment (Protection) Act and Rules. Workplace noise levels for workers shall be as per the Factories Act and Rules.
PPs Submission: Complied Noise control measures such as acoustic hoods, silencers etc. are provided at high noise generating source with-in the plant. Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it is observed to be well within the prescribed workplace noise level of 85 dBA. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. The noise level in & around the plant are well within the prescribed limit of 85 dB(A). The detailed noise monitoring report for Oct'23 – Mar'24 is enclosed as Annexure XXXII. Complied. prescribed under EPA Rules, 1989 viz. 75 dBA (Day Times) and 70 dBA (Night time). The ambient noise level monitoring has been carried out on monthly basis in existing complex including PTA & PET plants at 7 locations during day time and night time. The summary of report is given in this condition. Results indicate that the ambient noise levels during the reporting period Oct'23 – Mar'24 has not been exceeded the prescribed limit. Detailed noise monitoring report is enclosed as Annexure XIV. Complied. Workplace noise levels for workers is maintained well below the limit of 85 dB(A) as per the Factories Act and Rules. The results of work place noise level are given in the condition no. 43 Complied.		Date: 31/05/2024
62	ENERGY PRESERVATION MEASURES	The project proponent shall install energy efficient devices and appliances conforming to the Bureau of Energy Efficiency norms
PPs Submission: Complied Energy efficient devices have been provided in the plant like variable frequency drives etc. Complied.		Date: 31/05/2024
63	ENERGY PRESERVATION MEASURES	The energy audit shall be conducted at regular intervals and the recommendations of the audit report shall be implemented.
PPs Submission: Complied Electrical Energy Audit is being carried out once in two years by third party. Recommendations of the audit report are implemented. Complied.		Date: 31/05/2024
64	ENERGY PRESERVATION MEASURES	The project proponent shall implement the application of solar energy which shall be utilized as solar lighting for illumination of common areas, lighting of internal roads and passages in addition to utilization of solar water heating systems.

<p>PPs Submission: Complied Use of Solar energy is already explored, currently under evaluation and approval stage.</p>		<p>Date: 31/05/2024</p>
65	ENERGY PRESERVATION MEASURES	The transformers and motors shall have minimum efficiency of 85%.
<p>PPs Submission: Complied Transformers and motors of efficiency higher than 85% are selected at design stage itself. Complied.</p>		<p>Date: 31/05/2024</p>
66	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Proper load factor shall be maintained by the unit.
<p>PPs Submission: Complied Adequate load factor is maintained.</p>		<p>Date: 31/05/2024</p>
67	ENERGY PRESERVATION MEASURES	Variable frequency drives shall be installed
<p>PPs Submission: Complied Variable Frequency Drives installed at PTA and PET plants. Complied.</p>		<p>Date: 31/05/2024</p>
68	ENERGY PRESERVATION MEASURES	Energy conservation measures shall include use of electronic lighting system, use of CFL tubes to minimize energy use, use of programmable timers for pumping system and lighting, water level controllers for water pumps, centralized cooling etc
<p>PPs Submission: Complied Energy conservation methods like use of LED lighting for office, street lighting and plant peripheral lighting, programmable timers for lighting in non-plant areas are being implemented. Photographs are enclosed in Annexure LX. Complied.</p>		<p>Date: 31/05/2024</p>
69	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: f. Use of high pressure hoses for cleaning to reduce wastewater generation.
<p>PPs Submission: Complied High pressure hoses are used for cleaning which ensures reduction in wastewater generation. Complied.</p>		<p>Date: 31/05/2024</p>
70	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: g. Regular preventive maintenance for avoiding leakage, spillage etc.
<p>PPs Submission: Complied At plant level regular preventive maintenance of equipment is carried out and maintained in the SAP system. Complied.</p>		<p>Date: 31/05/2024</p>
71	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Constant monitoring of energy consumption and defining targets for energy conservation
<p>PPs Submission: Complied Department level targets have been fixed and energy consumption is monitored against those targets. Constant Monitoring of energy consumption is done by Energy cell with BEE Qualified energy manager, energy auditor. Complied.</p>		<p>Date: 31/05/2024</p>
72	ENERGY PRESERVATION	Energy saving practices as follows shall be practiced: Adjusting the

	MEASURES	settings and illumination levels to ensure minimum energy used for desired comfort level
PPs Submission: Complied Illumination level audit is being carried out once in two years as a Part of Electrical audit. Sensors have been provided in few office rooms to automatically switch off lighting in case of no movement in the room. Complied.		Date: 31/05/2024
73	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Use of solar cells for lighting
PPs Submission: Complied Solar cells for traffic lights are installed. Photograph of the same is enclosed as Annexure LXI. Complied.		Date: 31/05/2024
74	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Use of solar water heater for canteen & washing area.
PPs Submission: Complied Use of Solar energy for water heating is already explored and Solar water heater project is under evaluation.		Date: 31/05/2024
75	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: To the maximum extent possible and technically feasible, energy efficient equipment like motors, pumps, air conditioning systems shall be selected.
PPs Submission: Complied Energy efficient equipments like motors, pumps, air conditioning systems are selected and installed to the maximum extent possible, wherever feasible. Complied		Date: 31/05/2024
76	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Promoting awareness on energy conservation
PPs Submission: Complied Regular training and awareness campaigns are carried out for all employees on energy conservation. RIL Dahej has 28 BEE certified energy professionals. Complied.		Date: 31/05/2024
77	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: Training to the staff on methods of energy conservation and to be vigilant for this.
PPs Submission: Complied Training is being imparted regularly by our Learning and Development Department.		Date: 31/05/2024
78	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: b. Reuse of by-products from the process as raw materials or raw materials substitutes in other process.
PPs Submission: Complied Reuse of by-products is implemented wherever possible such as Productive management of waste residue streams is done in PTA plant by recovering Suspended solids powder resulting in reuse of solid waste. Complied.		Date: 31/05/2024
79	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: c. Use of automated and enclosed filling to minimize spillages

PPs Submission: Complied Automated and enclosed material transfer system implemented to minimize spillages. Photograph enclosed as Annexure LXIII. Complied.		Date: 31/05/2024
80	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: e. Dry cleaning / mopping of floor washing
PPs Submission: Complied Practiced at all the administrative buildings including plant control rooms. Complied.		Date: 31/05/2024
81	WASTE MANAGEMENT	The company shall undertake the following waste minimization measures: d. Use of closed feed system into batch reactors
PPs Submission: Complied Closed feed system provided in the process units. Complied.		Date: 31/05/2024
82	GREENBELT	The unit shall develop green belt within premises as per the CPCB guidelines. In addition to that, the unit shall take up adequate plantation on road sides and suitable open areas in the GIDC estate, nearby schools, gram panchayat areas and any other open areas in consultation with GIDC / local bodies / GPCB and submit an action plan of plantation for next three years to the GPCB
PPs Submission: Complied Complied. Site has developed around 203 ha of green cover as per the CPCB guidelines at Dahej Petrochemical Complex. Trees have been planted throughout the periphery of the complex as well as wherever open spaces are available. Landscaping (through lawns and shrubs) have also been done. Every year plantation drive is being done to strengthen the green cover in the complex. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Native plant species are selected for planting of the green belt as per the guidelines of CPCB. Few of the plant species existing at the site are: Casuarina equisetifolia (Suru), Azadirachta indica (Neem), Millettia pinnata (Karanj), Cassia siamea (Kashid), Albizia procera (Shirish), Delonix regia (Gulmohar), Peltophorum pterocarpum etc. Complied. Adequate plantation carried out on road sides near the site and open areas of GIDC near site. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied.		Date: 31/05/2024
83	WATER QUALITY MONITORING AND PRESERVATION	Industries shall prepare and implement a scheme for reuse / recycle of effluent by adopting best technologies available
PPs Submission: Complied To maximize recycle and reuse of effluent, we have designed and commissioned effluent treatment unit consisting of Advanced Anaerobic UASB system and Membrane based Aeration system i.e., Membrane Bioreactor (MBR), Ultrafiltration and Reverse Osmosis (RO) systems. Photographs of the same can be seen in Annexure XXV. Complied.		Date: 31/05/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	The company shall strictly follow all the recommendations mentioned in the Chapter on Corporate Responsibility for Environment Protection (CREP) published by the Central Pollution Control Board as may be applicable
PPs Submission: Complied Recommendations mentioned in the CREP are being complied.		Date: 31/05/2024

2	MISCELLANEOUS	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
PPs Submission: Complied Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger / alarm is raised in the DCS system which prevents the plant from restarting. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has been observed. Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV. Complied.		Date: 31/05/2024
3	MISCELLANEOUS	Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
PPs Submission: Complied Pucca flooring has been provided in all work areas, chemical storage areas and chemical handling areas as required. Complied.		Date: 31/05/2024
4	MISCELLANEOUS	Leakages from the pipes, pumps, shall be minimal and if occurs shall be arrested promptly
PPs Submission: Complied All pipes and material transfer systems are visually inspected at regular frequency and leaks are promptly identified and arrested. Complied.		Date: 31/05/2024
5	MISCELLANEOUS	All recommendations made in the EIA, EMP and other documents submitted by the project proponent shall be strictly implemented
PPs Submission: Complied Recommendations of EIA / EMP has been implemented. Complied.		Date: 31/05/2024
6	MISCELLANEOUS	The project proponent shall also comply with any additional condition that may be imposed by The SEAC or SEIAA or any other competent authority for the purpose of the environmental protection and management
PPs Submission: Complied No additional condition has been imposed by SEIAA, Gujarat for this EC during review period Oct'23 – Mar'24. Complied.		Date: 31/05/2024
7	MISCELLANEOUS	No further expansion or modifications in the plant shall be carried out without prior approval of the MoEF / SEIAA, as the case may be. In case of deviations or alterations in the project proposal from those submitted to MoEF/SEIAA/SEAC for clearance, a fresh reference shall be made to the SEIAA / SEAC to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
PPs Submission: Complied Expansion or Modification of the RIL-DMD complex has been carried out only after obtaining the required Environmental Clearance (EC) under the EIA Notification, 2006. No changes / deviations have taken place at the DMD complex during the review period. Complied.		Date: 31/05/2024
8	MISCELLANEOUS	The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.

<p>PPs Submission: Complied Adequate funds have been allocated for implementing the conditions stipulated conditions given by SEIAA and GPCB. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 108.3 Crores. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied. Funds allocated for Environmental Management is used only for that purpose and not diverted for any other use. Complied.</p>		<p>Date: 31/05/2024</p>
9	MISCELLANEOUS	<p>The applicant shall inform the public that the project has been accorded environmental clearance by The SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA / SEAC / GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry</p>
<p>PPs Submission: Complied The public was informed through public notice published in English New Paper in Times of India and Gujarati Newspaper in Naval Sandesh and the information has also been forwarded to the Regional Office of the MoEF&CC, Bhopal. Newspaper cutting is enclosed as Annexure XL. Complied.</p>		<p>Date: 31/05/2024</p>
10	Statutory compliance	<p>It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.</p>
<p>PPs Submission: Complied Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.</p>		<p>Date: 31/05/2024</p>
11	Statutory compliance	<p>The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board</p>
<p>PPs Submission: Complied All the stipulations laid down by GPCB is being complied with.</p>		<p>Date: 31/05/2024</p>
12	MISCELLANEOUS	<p>The project authorities shall inform the GPCB, RO of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.</p>
<p>PPs Submission: Complied The project is already commenced and the necessary information about the project's financial closure and project commencement was provided along with the first compliance report of this EC.</p>		<p>Date: 31/05/2024</p>
13	MISCELLANEOUS	<p>The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found</p>

		satisfactory
PPs Submission: Complied This condition is not applicable to us.		Date: 31/05/2024
14	MISCELLANEOUS	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules
PPs Submission: Complied Noted.		Date: 31/05/2024
15	MISCELLANEOUS	This Environmental Clearance is valid for five years from the date of issue
PPs Submission: Complied Noted.		Date: 31/05/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		DMD Annexures are uploaded as Additional Attachment.

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment****Proposal Name**

Environment and CRZ Clearance for the project - M/s Reliance Industries Limited (RIL) for setting up of a coal based Captive Co-generation Power Plant (CCPP) of 3 x 90 MW (270 MW) within the premises of Dahej Manufacturing Division (RIL-DMD) and proposed modification in existing Reliance Dahej Marine Terminal (RDMT) Jetty by receiving the coal by creating coal handling facility with 2.5 MMTPA capacity in the Narmada Estuary at Dahej, Dist- Bharuch in Category 1(d) & 7(e) respectively of the Schedule annexed with EIA Notification dated 14/09/06.

Name of Entity / Corporate Office

RELIANCE INDUSTRIES LIMITED

Village(s)

N/A

District

BHARUCH

Proposal No.	SEIAA/GUJ/EC/1(d)&7(e)/96/2015
Plot / Survey / Khasra No.	N/A
State	GUJARAT
MoEF File No.	SEIAA/GUJ/EC/1(d)&7(e)/96/2015

Category	Thermal Projects
Sub-District	N/A
Entity's PAN	NA
Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Coal Based Power	MW	N/A	270	--	
2	Gas Based Power	MW	N/A	195	--	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	There shall be no water requirement for jetty operations and there shall be no industrial effluent generation from the proposed jetty operations
<p>PPs Submission: Complied The modification in existing RDMT jetty is yet to be started.</p>		Date: 31/05/2024
2	WATER QUALITY MONITORING AND PRESERVATION	The industrial effluent discharge from the RIL-DMD complex shall not exceed 33,419 KL/day after the proposed expansion.
<p>PPs Submission: Complied Average quantity of 18,097 KLD of treated effluent discharged from RIL-DMD into Gulf of Khambhat in the deep sea area through existing effluent disposal pipeline during this period of Oct'23 – Mar'24. A multiport diffuser is provided at the end of treated effluent discharge line for proper dispersion of effluent. Effluent discharge quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 36,292 m3/d. The average effluent discharge during Oct'23 – Mar'24 is presented below: Description; Permissible Limit (KLD); Average: (KLD) Quantity of Effluent Discharge; 36,292; 18,097. It can be seen from above results that the, the average effluent discharge from the complex has not exceeded the permissible limit of 36,292 KLD during reporting period. Complied.</p>		Date: 31/05/2024
3	WATER QUALITY MONITORING AND PRESERVATION	Boiler blow down-380.0 KL/day from the proposed CCPP shall be recycled back as cooling tower make up water. About 50.0 KL/day of additional effluent from DM plant due to proposed CCPP shall be treated in the existing ETP. Cooling tower blow down shall be mixed with treated effluent of the complex and shall be discharged into the sea through the existing effluent diffuser at Gulf of Khambhat.
<p>PPs Submission: Complied Boiler blow down from the proposed CCPP is being recycled back as cooling tower make up water for Cooling Towers in CCPP. The average Boiler blow down recycled during Oct'23 – Mar'24 is 182 KL/day. Complied. Additional effluent from DM plant is being treated in the existing ETP. Complied. Cooling tower blow down is mixed with treated effluent of the complex and discharged into the sea through the existing effluent diffuser at Gulf of Khambhat. Complied.</p>		Date: 31/05/2024
4	WATER QUALITY MONITORING AND PRESERVATION	The ETP shall be operated regularly and efficiently so as to achieve the GPCB norms at the outlet.
<p>PPs Submission: Complied The ETP is operated regularly and efficiently and has achieved the GPCB discharge norms during review period of Oct'23 – Mar'24. From results, it is seen that the ETP is operating regularly and efficiently and all the results are complying with the GPCB norms. Detailed treated effluent</p>		Date: 31/05/2024

monitoring report is enclosed as Annexure VII. Complied.		
5	WATER QUALITY MONITORING AND PRESERVATION	Guard ponds of adequate storage capacity shall be provided for storage of effluent in case of emergency maintenance of effluent discharge pipeline.
<p>PPs Submission: Complied</p> <p>Guard ponds of adequate storage capacity (2 Guard Ponds of 17,000 m3 each) have been provided at ETP as well as within plants for storage of effluent in case of emergency maintenance of effluent discharge pipeline. Photograph of Guard Pond is enclosed as Annexure LXXI. No emergency maintenance of effluent discharge pipeline carried out during review period Oct'23 – Mar'24. Complied.</p>		Date: 31/05/2024
6	WATER QUALITY MONITORING AND PRESERVATION	The unit shall provide metering facility at the inlet and outlet of the ETP and maintain the records of daily effluent generation and reuse and furnish it to the GPCB from time to time. The unit shall also provide on line monitoring system for pH, TDS & TOC parameters at the outlet of the ETP.
<p>PPs Submission: Complied</p> <p>Guard ponds of adequate storage capacity (2 Guard Ponds of 17,000 m3 each) have been provided at ETP as well as within plants for storage of effluent in case of emergency maintenance of effluent discharge pipeline. Photograph of Guard Pond is enclosed as Annexure LXXI. No emergency maintenance of effluent discharge pipeline carried out during review period Oct'23 – Mar'24. Complied. Metering facility i.e. Flow meters have been provided at the inlet and outlet of ETP and records are maintained and submitted to GPCB from time to time as and when asked. Photographs of flow meters at the inlet and outlet of the ETP can be seen in Annexure XLIV. Complied. Online pH, BOD, COD & TSS analyzers are provided at the outlet of the ETP. Photograph of online monitoring system and analyzer room can be seen in Annexure XLV. Our treated effluent is discharge into Gulf of Khambhat in the deep sea area therefore norms of TDS is not applicable to us. Complied.</p>		Date: 31/05/2024
7	ENERGY PRESERVATION MEASURES	Training to the staff on methods of energy conservation and to be vigilant for this.
<p>PPs Submission: Complied</p> <p>Training is being imparted regularly by our Learning and Development Department. Complied.</p>		Date: 01/06/2024
8	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: Metering and control of quantities of active Ingredients to minimize waste.
<p>PPs Submission: Complied</p> <p>All active ingredients are metered at all the plants. Metering and control is provided for active ingredients to ensure waste minimization. Complied.</p>		Date: 01/06/2024
9	AIR QUALITY MONITORING AND PRESERVATION	Enclosure shall be provided at coal loading and unloading operations.
<p>PPs Submission: Complied</p> <p>Enclosure has been provided at coal loading and unloading operations. Photographs of the same is enclosed as Annexure LXXVII. Complied.</p>		Date: 31/05/2024
10	WASTE MANAGEMENT	The company shall make necessary arrangements for safe disposal of municipal solid wastes as per the provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 as amended from time to time and no waste shall be released to the sea / creek or CRZ area in any case

<p>PPs Submission: Complied Municipal Solid wastes are now being managed as per Solid Waste Rules, 2016. Solid Wastes such as office waste, canteen wastes are being properly collected and disposed as per defined mode of disposal. No waste is released to the sea / creek or CRZ area. Complied.</p>		<p>Date: 31/05/2024</p>
11	WASTE MANAGEMENT	Ash from silos shall be transported through closed tankers for utilization by Cement/ construction agencies.
<p>PPs Submission: Complied Ash from silos is transported through closed tankers / bulkers / covered trucks. Complied.</p>		<p>Date: 31/05/2024</p>
12	Risk Mitigation and Disaster Management	Recommendations made in the Risk Assessment study report submitted by the project proponent shall be implemented
<p>PPs Submission: Complied Recommendations made in the risk assessment study report are implemented and complied with for existing units including CCPP. e.g. • Control rooms are constructed having blast proof & shock proof walls. • Storage area is separated from process areas and flammable materials. • Provided proper dyke for storage tanks with fire protection measures. Complied.</p>		<p>Date: 31/05/2024</p>
13	ENERGY PRESERVATION MEASURES	Use of electronic ballast to save energy
<p>PPs Submission: Complied Electronic ballast / relevant systems are provided in lighting equipment. Complied</p>		<p>Date: 01/06/2024</p>
14	ENERGY PRESERVATION MEASURES	To the maximum extent possible and technically feasible. Energy efficient equipment like motors pumps, air conditioning systems shall be selected.
<p>PPs Submission: Complied Energy efficient equipment like motors pumps, air conditioning systems are selected and installed to the maximum extent possible, wherever feasible. Complied.</p>		<p>Date: 01/06/2024</p>
15	ENERGY PRESERVATION MEASURES	Gravity flow shall be preferred wherever possible to save pumping energy.
<p>PPs Submission: Complied Gravity flow has been utilized wherever possible. Complied.</p>		<p>Date: 01/06/2024</p>
16	Marine/Coastal	The RIL shall strictly implement the measures suggested in the Comprehensive Marine EIA report by the National Institute of Oceanography, Mumbai and suggested in the EIA report by NEERI, Nagpur for mitigation of likely adverse impacts on coastal and marine environment.
<p>PPs Submission: Complied The measures suggested in MEIA and terrestrial EIA studies are included in the design of the plant and implemented. For eg. ESP, covered conveyors, tall chimney, covered storage shed for coal, lime stone injection system, etc. The modification in existing RDMT jetty is not yet started. Photographs of the same is enclosed as Annexure LXVII.</p>		<p>Date: 31/05/2024</p>
17	Statutory compliance	In terms of captive power generation within the RIL-DMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 270 MW. This Condition has been amended vide EC amendment order no SEIAA/GUJ/EC/1(d) & 7(e)/583/2016. The amended condition is

		given below: "In terms of captive power generation within the RIL-DMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 465 MW."
<p>PPs Submission: Complied</p> <p>The total installed capacity of the complex has not exceeded 499 MW and operating power generation capacity of the complex has not exceeded 465 MW during the period of Oct'23 – Mar'24. Complied.</p>		Date: 31/05/2024
18	Statutory compliance	The additional amended condition is given below: "Unit shall comply the emission standards mentioned in the Notification by MoEF&CC vide no. S.O.3305 dated 07/12/2015."
<p>PPs Submission: Complied</p> <p>RIL DMD coal based Captive Cogeneration Power Plant (CCPP) is complying with the Thermal Power Plant emission standards mentioned in the Notification by MoEF&CC vide no. S.O.3305 dated 07/12/2015. Stack emissions parameters like SO₂, NO_x, PM are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the MoEF&CC prescribed standards. MoEF&CC recognition letter and NABL certificate is enclosed as Annexure II. Results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24. Detailed stack emission monitoring report is enclosed as Annexure III. Complied.</p>		Date: 31/05/2024
19	Marine/Coastal	Cargo handling capacity of the RDMT jetty shall be <5 million TPA even after the proposed expansion/modification
<p>PPs Submission: Complied</p> <p>The proposed modification in existing Reliance Dahej Marine Terminal (RDMT) jetty is yet to be started.</p>		Date: 31/05/2024
20	Marine/Coastal	The RIL shall strictly adhere to the provisions of the CRZ Notification, 2011 issued by the Ministry of Environment and Forests, GOI.
<p>PPs Submission: Complied</p> <p>The proposed modification in existing RDMT jetty is yet to be started. The provisions of the CRZ Notification, 2011 issued by the Ministry of Environment and Forests, GOI will be followed as and when it becomes operational.</p>		Date: 31/05/2024
21	MISCELLANEOUS	The RIL shall obtain all necessary clearances permissions from different Government Departments/Agencies before commencing any construction activity related to the proposed project.
<p>PPs Submission: Complied</p> <p>RIL-DMD has obtained all necessary clearances permissions from different Government Departments / Agencies before commencing any construction activity related to the CCPP. Copy of one such permission is enclosed as Annexure LXIV. The proposed modification in existing RDMT jetty is yet to be started. Complied.</p>		Date: 31/05/2024
22	Risk Mitigation and Disaster Management	The RIL shall prepare Safety/fire control plan for coal handling/liquid handling and take all measures and appoint Safety Officer to oversee compliance.
<p>PPs Submission: Complied</p> <p>Safety and Fire control plan has been prepared for coal handling / liquid handling for CCPP and all required measures are taken. We have also appointed Safety officers for the area to oversee compliances. Fire protection systems consists mainly of 7 fire tenders, more than 5500 portable fire extinguishers, 600 fire buckets, 56 foam systems and a network of more than 1100 double head hydrant posts all-round the plant area along with 250 water spray system / fume suppression system /</p>		Date: 31/05/2024

<p>sprinkler system and fire water pipeline network laid around 90 km. Also, more than 9000 automatic fire detection and alarm, manual fire alarm system, adequate capacity fire water storage tanks etc. have been installed. All these fire detection and protection measures are maintained and supported by a competent and experienced team of around 13 crew members / officers in each shift round the clock. Details of Fire control plan is enclosed as Annexure LXV. Complied.</p>		
23	Marine/Coastal	The RIL shall have to obtain necessary permission from the GMB/Government for jetty/port under Maritime Board Act, 1980 and shall submit it to the GCZMA
<p>PPs Submission: Complied Prior to implantation of Jetty modification plan, the necessary permission from the GMB / Government for jetty / port under Maritime Board Act, 1980 shall be obtained and submitted to the GCZMA. The proposed modification in existing RDMT jetty is yet to be started.</p>		Date: 31/05/2024
24	MISCELLANEOUS	The RIL shall abide by the safety and environment protection measures emerges out of study earned out by the WPACOS Limited and DHI India
<p>PPs Submission: Complied The proposed modification in existing RDMT jetty is yet to be started.</p>		Date: 31/05/2024
25	MISCELLANEOUS	The RIL shall participate financially for any common facility that may be established or any common study that may be carried out for the Gulf of Khambhat region for environmental protection and/or management purpose.
<p>PPs Submission: Complied RIL will participate financially for any common facility that may be established or any common study that may be carried out for the Gulf of Khambhat region for environmental protection and / or management purpose, as & when called for.</p>		Date: 31/05/2024
26	MISCELLANEOUS	The RIL shall have to face the consequences whatsoever due to implementation of the Kalpsar Project proposed by the Government of Gujarat and shall have to take all necessary actions as may be desired by the Government.
<p>PPs Submission: Complied RIL will face the consequences whatsoever due to implementation of the Kalpsar Project proposed by the Government of Gujarat and shall take all necessary actions as may be desired by the Government. However, the proposed modification in existing RDMT jetty is yet to be started.</p>		Date: 31/05/2024
27	Marine/Coastal	The RIL shall construct/modify the jetty in such way that there shall not be any impacts on ecology of the area.
<p>PPs Submission: Complied Noted and shall be a part of modification plan of Jetty. However, the proposed modification in existing RDMT jetty is not yet started.</p>		Date: 31/05/2024
28	AIR QUALITY MONITORING AND PRESERVATION	The RIL shall carry out transportation and handling of the coal in such a way that there shall not be any impact of coal dust in nearby area.
<p>PPs Submission: Complied All necessary measures have been implemented to ensure no impact of coal dust in nearby area during transportation and handling of coal e.g. Transportation of coal is done from the nearby Adani port of the project site in covered trucks. Unloading bays of the trucks in coal handling area is covered to prevent dust generation. All transfer points in the conveyor systems is also covered by</p>		Date: 31/05/2024

Dry Fog system. Photographs of covered trucks, unloading bay and storage area is enclosed as Annexure LXVI. Complied.		
29	Marine/Coastal	The dredging material shall be disposed off in such a way that there shall not be any impacts on marine environment. In case of disposal of dredged material in deep sea, it shall be disposed of only after a model study for its disposal locations, influence zone, its impact on marine environment, if any and mitigation measures suggested shall be complied with by the RIL.
PPs Submission: Complied Noted and shall be complied as a part of modification plan of Jetty. The proposed modification in existing RDMT jetty is not yet started.		Date: 31/05/2024
30	MISCELLANEOUS	The RIL shall prepare and furnish the detailed Disaster Management Plan to the concerned offices including the District Authorities and Forest & Environment Department.
PPs Submission: Complied Disaster Management Plan (DMP) already prepared for existing plants and the same is extended for CCPP. The DMP has been submitted to District Authorities – DISH / Factory Inspector. Copy of the same is enclosed as Annexure XXXV. Complied.		Date: 31/05/2024
31	Risk Mitigation and Disaster Management	The RIL shall prepare and regularly update their Local Oil Spill Contingency and Disaster Management Plan in consonance with the National Oil Spill and Disaster Contingency Plan and shall submit the same to the Department of Forest & Environment after having it vetted through the Indian Coast Guard.
PPs Submission: Complied RIL is having Local Oil Spill Contingency and Disaster Management Plan in consonance with the National Oil Spill and Disaster Contingency Plan and it is updated regularly. Copy of the same is enclosed as Annexure LXIX. The same will be updated after modification in Jetty and will be submitted to the Department of Forest & Environment.		Date: 31/05/2024
32	MISCELLANEOUS	The RIL shall bear the cost of the external agency that may be appointed by this Department for supervision/monitoring of proposed activities.
PPs Submission: Complied Noted. RIL will bear the cost of the external agency that may be appointed by this Department for supervision / monitoring of proposed activities. However no such agency has been appointed by the department in the reporting period.		Date: 31/05/2024
33	Statutory compliance	The RIL shall furnish the environmental audit report including the aspects on coastal and marine environment to this Department every year.
PPs Submission: Complied The Environment audit is conducted by GPCB approved Environmental Auditor covering all aspects and report is submitted to GPCB every year. Covering letter of Audit report submission for the year 2022-23 is enclosed as Annexure LXVIII. Marine environment monitoring is carried out by approved agency and the final report is submitted to RIL-DMD. Copy of marine monitoring report is enclosed as Annexure XLVIII. Complied.		Date: 31/05/2024
34	Marine/Coastal	The RIL-DMD shall strictly ensure that no creeks or rivers are blocked due to proposed activities in Tapi Estuary

<p>PPs Submission: Complied RIL-DMD strictly ensures that no creeks or rivers are blocked due to proposed activities in Tapi Estuary. However, till date no activities have been carried out in Tapi Estuary. Complied.</p>		<p>Date: 31/05/2024</p>
35	Marine/Coastal	It shall be ensured that project activities do not lead to any shoreline changes. Periodic monitoring shall be carried out to assess the shoreline changes.
<p>PPs Submission: Complied All necessary measures to ensure that project activities do not lead to any shoreline changes shall be implemented. The proposed modification in existing RDMT jetty is not yet started. Periodic monitoring will be carried out to assess the shoreline changes during construction phase of project. The proposed modification in existing RDMT jetty is not yet started.</p>		<p>Date: 31/05/2024</p>
36	MISCELLANEOUS	It shall be ensured that due to the project activities, there is no adverse Impact on the drainage of the area.
<p>PPs Submission: Complied Proposed project has not impacted the drainage pattern of the area. Complied.</p>		<p>Date: 31/05/2024</p>
37	MISCELLANEOUS	Superstructure shall be constructed with pre-cast /cast in-situ slab so far as possible. Water demand during construction should be reduced by use of curing agents, plasticizers and other best practices.
<p>PPs Submission: Complied Super structure is constructed with pre-cast / cast in-situ slab wherever possible along with steel structure. Construction best practices as mentioned were followed during construction to reduce water demand. Complied.</p>		<p>Date: 31/05/2024</p>
38	MISCELLANEOUS	The construction activities shall be carried out only under the constant supervision and guidelines of the institute of the National repute.
<p>PPs Submission: Complied The construction activities are carried out under the constant supervision of RIL project group and various institutes. Complied.</p>		<p>Date: 31/05/2024</p>
39	Marine/Coastal	The RIL shall carry out simulation study for the proposed area considering the increase in the Ship/barges traffic in the area, accidental shrinking of barges/ships, due to proposed construction, convening the Disaster/safety and environmental aspects and shall abide by the safety and environment protection measures emerges out of this study.
<p>PPs Submission: Complied The proposed modification in existing RDMT jetty is not yet started. Comprehensive Marine EIA had been carried out for this purpose and the recommendation shall be complied with. Simulation study is a part of marine study conducted by NIO. Measures/ recommendation in EMPs shall be complied with.</p>		<p>Date: 31/05/2024</p>
40	Marine/Coastal	The RIL shall have to maintain an up to date records for generation and disposal of the dredging material and it shall be submitted to the GMB and Forest & Environment Department for every generation and disposal.
<p>PPs Submission: Complied The proposed modification in existing RDMT jetty is not yet started. RIL will maintain the records for generation and disposal of the dredging material and it shall be submitted to the GMB and Forest</p>		<p>Date: 31/05/2024</p>

& Environment Department for every generation.		
41	MISCELLANEOUS	Structural design aspects in accordance to the seismic zone shall be strictly adhered to.
PPs Submission: Complied Structural design of the CCPP has been carried out considering seismic zone of the area. Complied.		Date: 31/05/2024
42	WASTE MANAGEMENT	Fly ash should be used as building material in the construction as per provisions of Fly Ash Notification under EPA.
PPs Submission: Complied Fly ash generated from CCPP is utilized / disposed as per the Fly Ash Notification. The fly ash is used as building material in the construction, cement industries, road making and excess material is disposed at landfill site as per provisions of Fly Ash Notification under EPA. Month Fly Ash Disposal Quantity (MT) Oct-23 16631 Nov-23 13056 Dec-23 15376 Jan-24 16098 Feb-24 15318 Mar-24 18463 Complied.		Date: 31/05/2024
43	WASTE MANAGEMENT	The construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and public passages.
PPs Submission: Complied The construction materials and debris from the project plant were properly stored within the complex. Debris to fill low lying areas within the RIL-DMD site and construction materials like steel, wood, plastics, packaging etc. were sold to actual users. Complied.		Date: 31/05/2024
44	WASTE MANAGEMENT	The construction debris and /or any other type of waste shall not be disposed of into the sea, creek or in the CRZ areas The debris shall be removed from the construction site immediately after the construction is over.
PPs Submission: Complied No construction debris and / or any other type of waste have been disposed of into the sea, creek or in the CRZ areas. Complied. The debris have been removed from the construction site on regular basis and after the completion of construction phase. Complied.		Date: 31/05/2024
45	WASTE MANAGEMENT	Disposal of debris including the excavated material during construction phase shall not create adverse effect on neighboring communities and shall be disposed off taking the precautions for general safety and health aspects only at the approved sites with the approval of the competent authority.
PPs Submission: Complied The construction materials and debris were properly stored within premises. Debris has been disposed-off within our premises for filling purpose and construction materials like steel, wood, plastics, packaging etc. has been sold to actual users for recycling. Adverse impact on neighboring community is not envisaged as the existing complex located in notified industrial area. Complied.		Date: 31/05/2024
46	MISCELLANEOUS	Only lead free paints shall be used in the project.
PPs Submission: Complied Only Lead free paints were used in the project. Complied.		Date: 31/05/2024
47	Statutory compliance	Construction of the proposed structures shall be undertaken meticulously conforming to the existing local and central rules and regulations including the Coastal Regulation Zone Notification, 2011 & its amendments All the construction designs/drawings relating to

		the proposed construction activities must have approvals of the concerned Government Departments/Agencies.
<p>PPs Submission: Complied</p> <p>Construction of the structures has been undertaken meticulously conforming to the existing local and central rules and regulations. The Coastal Regulation Zone Notification, 2011 & its amendments are not applicable to construction activities of CCPP as it was within the RIL complex. Complied. All the construction designs / drawings relating to the construction activities have approvals of the concerned Government Departments / Agencies such as Directors of Industrial Safety & Health (DISH) and Factory Inspector. Copy of the same is enclosed as Annexure LXX. Complied.</p>		<p>Date: 31/05/2024</p>
48	MISCELLANEOUS	The construction camps shall be located outside the CRZ area and the construction labor shall be provided with the necessary amenities including sanitation, water supply, fuel, etc. and the construction labor shall be provided with the necessary amenities including sanitation, water supply, fuel, etc. and it shall be ensured that the environmental conditions are not deteriorated by the construction labors
<p>PPs Submission: Complied</p> <p>The construction camps are located within RIL DMD premises which is outside the CRZ area. All the necessary amenities including sanitation, water supply, fuel, etc. are provided to the construction labors. Environmental conditions were not deteriorated by construction labor. Complied.</p>		<p>Date: 31/05/2024</p>
49	AIR QUALITY MONITORING AND PRESERVATION	Vehicles hired for bringing construction material at site should be in good conditions and confirm to applicable air and noise emission standards and should be operated only during non-peak hours
<p>PPs Submission: Complied</p> <p>Vehicles hired for bringing construction material at site were in good conditions and confirming to applicable air and noise emission standards and were operated only during non-peak hours. Complied.</p>		<p>Date: 31/05/2024</p>
50	Noise Monitoring & Prevention	The Diesel Generator Set, if any to be provided during the construction phase shall be of enclosed type and confirming to the EPA Rules for air and noise emission standards.
<p>PPs Submission: Complied</p> <p>The Diesel Generator Set used during construction phase were of enclosed type and confirming to the EPA Rules for air and noise emission standards. Complied.</p>		<p>Date: 31/05/2024</p>
51	WATER QUALITY MONITORING AND PRESERVATION	During construction phase domestic water requirement shall be met through the existing water supply system i.e intake well in the Narmada river at village Angareshwar. No ground water shall be tapped in any case for the project requirements during the construction phase.
<p>PPs Submission: Complied</p> <p>During construction phase domestic water requirement has been met through the existing water supply system i.e. intake well in the Narmada river at village Angareshwar. Complied. No ground water is tapped for the project requirements during the construction phase. Complied.</p>		<p>Date: 31/05/2024</p>
52	Noise Monitoring & Prevention	The overall noise level in and around the Jetty area shall be kept well within the standards by providing noise control measures including engineering controls on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.
<p>PPs Submission: Complied</p> <p>The modification in existing RDMT jetty is yet to be started. Noise level monitoring is being done</p>		<p>Date:</p>

<p>for existing complex through MoEF&CC & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the same is carried out for CCPP areas. Monitoring results are found well within the norms. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed noise monitoring report is enclosed as Annexure XXXII. Complied. Ambient noise levels conforms to the standard prescribed under EPA Rules, 1986 viz. 75 dBA (Day Times) and 70 dBA (Night time). Detailed noise monitoring report is enclosed as Annexure XIV. Complied.</p>		31/05/2024
53	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>No ground water shall be tapped for any purpose for the project requirements.</p>
<p>PPs Submission: Complied No ground water is used for the project. The water requirement for the project is met through existing Narmada water. Complied.</p>		<p>Date: 31/05/2024</p>
54	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The fresh water requirement for the proposed CCPP shall not exceed 28,800 KL/day (9,600 KL/day of DM water + 12,000 KL/day of cooling tower make up water) and fresh water requirement after the proposed expansion for the RIL-DMD complex shall not exceed 1,27,382.0 KL/day, which shall be obtained through the existing water allocation to RIL-DMD from an intake well in Narmada River at Angareshwar village Necessary permission from the concerned authority shall be obtained for drawl of additional water after the proposed Expansion Metering of water shall be done and its records shall be maintained. No ground water shall be tapped in any case for meeting the project requirements.</p>
<p>PPs Submission: Complied The fresh water consumed in CCPP was 19,129 KL/day (9,736KL/day of DM water + 7,359 KL/day of cooling tower make up water + 2,034 KL/day service water) during the review period. The average fresh water requirement of the complex for the period Oct'23 – Mar'24 was 89,332 KLD which is also not exceeding the permissible limit of 1,27,382 KLD. The fresh water requirement for RIL-DMD complex is 1,86,315 KLD as prescribed under the latest EC accorded vide letter No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. However, the fresh water consumption quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 1,38,700 m3/d. The summary of fresh water consumption during reporting period of Oct'23 – Mar'24 is presented as below Fresh Water Consumption (KLD) Prescribed Limit; Avg; Min; Max: 1,38,700; 89,332; 82,008; 94,667. Complied. Fresh Water requirement is met from river Narmada through Jack wells at Angareshwar with prior approval from Irrigation department for water drawl. Copy of letter is enclosed as Annexure XXVII. Metering of water withdrawal is being done and records also maintained. Complied. No ground water is used at site. The water requirement for the complex is met through Narmada water as mentioned in the compliance of condition above. Complied.</p>		<p>Date: 31/05/2024</p>
55	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>A proper logbook of ETP operation and also showing the quantity of effluent generated, reused / recycled, utilized in plantation/gardening etc shall be maintained and furnished to the GPCB from time to time.</p>
<p>PPs Submission: Complied Logbook of ETP operation is maintained and it includes quantity of effluent generated, reused / recycled, utilized in plantation / gardening etc. The same has been furnished to GPCB from time to time as and when asked. Photograph of Typical logbook is enclosed as Annexure XLVI. Complied.</p>		<p>Date: 31/05/2024</p>
56	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The effluent disposal pipeline shall be monitored regularly by the company and it shall be ensured that there is no leakage from the pipeline. In case of any such eventualities, the company shall immediately stop disposal through the pipeline and take the corrective measures.</p>

<p>PPs Submission: Complied Effluent disposal pipeline is being regularly checked by site maintenance department for leakages through walkthrough surveys. During Oct'23 – Mar'24, no leakage was observed. Complied. During Oct'23 – Mar'24, no such eventualities have arisen. Complied.</p>		<p>Date: 31/05/2024</p>
57	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The post project environmental monitoring through the reputed institutes / organizations shall be earned out in order to assess the changes if any in the marine/estuarine environment due to disposal of effluent.</p>
<p>PPs Submission: Complied The post project environment monitoring of coastal environment has been carried out by NIO while carrying out EIA of subsequent projects to assess the changes. There was no adverse impact observed on the coastal environment due to RIL DMD. Complied.</p>		<p>Date: 31/05/2024</p>
58	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>Regular performance evaluation of the ETP shall be undertaken every year to check its adequacy, through credible institutes like L.D. College of Engineering, NPC or such other institutes of similar repute and its records shall be maintained.</p>
<p>PPs Submission: Complied Performance evaluation of ETP by external agencies is being carried out regularly through environmental auditor appointed by GPCB and the records are maintained. Environment Adequacy certificate is enclosed as Annexure XLVII. Parul Institute of Technology, Parul University, Vadodara, appointed by GPCB has done annual environmental audit which includes performance evaluation of ETP for the year 2022-23. The report is being submitted regularly to GPCB. Complied.</p>		<p>Date: 31/05/2024</p>
59	<p>MISCELLANEOUS</p>	<p>The unit shall join and participate financially and technically for any common environmental facility / Infrastructure as and when the same is taken up either by the GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC</p>
<p>PPs Submission: Complied During the review period of Oct'23 – Mar'24, no such proposal came from GIDC / GPCB. RIL will participate financially and technically in any such project proposed or being taken up by Govt / GIDC / GPCB.</p>		<p>Date: 31/05/2024</p>
60	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>The company shall prepare schedule and carry out regular preventive maintenance of mechanical and electrical parts of ESPs and assign responsibility of preventive maintenance to the senior officer of the company.</p>
<p>PPs Submission: Complied Preventive maintenance of mechanical and electrical parts of ESPs has been scheduled in SAP system and the responsibility of preventive maintenance is assigned to mechanical and electrical in charge. Complied.</p>		<p>Date: 31/05/2024</p>
61	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>High efficiency Electro Static Precipitators (ESPs) shall be installed as air pollution control system for the CFBC Boilers and it shall be operated efficiently to achieve the norms prescribed by the GPCB at the stack outlet. There shall be provision of one extra field in each ESP to ensure that even though one field goes out of order the efficiency of the ESP is not affected.</p>
<p>PPs Submission: Complied High efficiency Electro Static Precipitators (ESPs) have been installed as air pollution control system for the CFBC Boilers. Photograph of the same can be seen in Annexure LXXIII. Results indicate that the values are well within the norms prescribed. Detailed stack emission monitoring report is enclosed as Annexure III. Complied.</p>		<p>Date: 31/05/2024</p>

62	AIR QUALITY MONITORING AND PRESERVATION	An arrangement shall be made that in case of total failure of the ESP and if the ESP is not recharged within 10 minutes, the ID fan and consequently the boiler shall be tripped.
PPs Submission: Complied Alarms / Tripping systems are provided so that during tripping of transformers it will lead to tripping of ID fan & consequently unit tripping. Complied.		Date: 31/05/2024
63	WATER QUALITY MONITORING AND PRESERVATION	Surface run off from the jetty shall be adequately managed. To avoid oil, SS and coal dust entering the estuarine environment, dry sweeping shall be adopted at the jetty and washing shall be avoided.
PPs Submission: Complied The proposed modification in existing Reliance Dahej Marine Terminal (RDMT) jetty is yet to be started.		Date: 31/05/2024
64	MISCELLANEOUS	Imported Coal to the tune of 6,850 TPD shall be used as a fuel in the proposed CCPP
PPs Submission: Complied 3,448 TPD of imported coal has been used as fuel in CCPP during Oct'23 – Mar'24 against permissible limit of 6,850 TPD. Complied		Date: 31/05/2024
65	AIR QUALITY MONITORING AND PRESERVATION	There shall be no use of fuel and hence there shall be no flue gas emission from the proposed coal handling jetty.
PPs Submission: Complied The proposed modification in existing Reliance Dahej Marine Terminal (RDMT) jetty is yet to be started.		Date: 31/05/2024
66	AIR QUALITY MONITORING AND PRESERVATION	Height of flue gas stacks attached to the CFBC boilers (4 nos working and 01 no standby) shall be minimum 220 meters as proposed.
PPs Submission: Complied Height of flue gas stacks attached to the CFBC boilers (4 nos working) is 220 meters. Photograph of stacks attached with CFBC boilers is enclosed as Annexure LXXII. Complied.		Date: 31/05/2024
67	AIR QUALITY MONITORING AND PRESERVATION	Online monitoring system shall be installed on the Boiler stacks to monitor PM, SO ₂ , & NO _x concentrations in the flue gas emission. This online monitoring system shall be interlocked with plant DCS system in such a manner that if concentration of particulate matter in flue gas emission exceeds 50 mg/Nm ³ , utilization of boiler capacity shall reduce accordingly in order to bring down the particulate matter concentration below the 50 mg/Nm ³ . An arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB on real time basis.
PPs Submission: Complied Continuous online monitoring equipment have been installed for all Boiler stacks to monitor PM, SO ₂ , & NO _x concentrations in the flue gas emission. Photographs of CEMS installed at CCPP Boilers is enclosed as Annexure LXXIV. Complied. As per Standard Operating Procedure, there is a provision of load reduction if PM emission reaches close to 50 mg/Nm ³ . However, during review period no such event was recorded. Complied The online monitoring results of Boiler stacks is available and connected with CPCB / GPCB servers. Complied.		Date: 31/05/2024
68	AIR QUALITY MONITORING AND PRESERVATION	The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of

		Industrial Safety & Health). Following indicative guidelines shall also be followed to reduce the fugitive emission.
	<p>PPs Submission: Complied</p> <p>The fugitive emission in the work zone environment (i.e. Work place environmental monitoring) is monitored periodically for existing facilities including CCPP. Occupational exposure is compared against standards prescribed by the concerned authorities periodically (e.g Directorate of Industrial Safety & Health & ACGIH (American Conference of Governmental Industrial Hygienist). Fugitive emission report is enclosed as Annexure LXXV. Complied.</p>	Date: 31/05/2024
69	AIR QUALITY MONITORING AND PRESERVATION	All handling & transport of coal shall be exercised through covered coal conveyors only.
	<p>PPs Submission: Complied</p> <p>Covered coal conveyors are installed in CCPP and handling & transportation is being carried out through these covered conveyors. Photographs of the same is enclosed as Annexure LXXVI. Complied.</p>	Date: 31/05/2024
70	AIR QUALITY MONITORING AND PRESERVATION	Water shall be sprinkled on coal stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission.
	<p>PPs Submission: Complied</p> <p>Water sprinkling systems are also installed at coal storage yard. Water is sprinkled on coal stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission. Complied.</p>	Date: 31/05/2024
71	AIR QUALITY MONITORING AND PRESERVATION	All transfer points shall be fully enclosed.
	<p>PPs Submission: Complied</p> <p>Covered coal conveyors are provided in the CCPP including the transfer points. All transfer points are fully enclosed / covered. Complied.</p>	Date: 31/05/2024
72	AIR QUALITY MONITORING AND PRESERVATION	Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
	<p>PPs Submission: Complied</p> <p>Internal roads are either concreted or asphalted properly to reduce the fugitive emission during vehicular movement. Photograph of the same is enclosed as Annexure LXXVIII. Complied.</p>	Date: 31/05/2024
73	AIR QUALITY MONITORING AND PRESERVATION	Coal shall be conveyed by piped conveyor system from jetty to plant. Alternatively coal shall be conveyed through dumpers to the yard from nearby Jetties of M/s Adani or Essar.
	<p>PPs Submission: Complied</p> <p>The coal conveyor system from jetty to plant is not constructed as jetty modification is not yet started. Coal is conveyed through dumpers to the yard from nearby Jetty of M/s Adani. Complied.</p>	Date: 31/05/2024
74	AIR QUALITY MONITORING AND PRESERVATION	Accumulated dust on the ground and other surfaces shall be removed/swept regularly and water the area after sweeping.
	<p>PPs Submission: Complied</p> <p>Regular housekeeping is being done to keep the area dust free. Complied.</p>	Date: 31/05/2024

75	AIR QUALITY MONITORING AND PRESERVATION	Air borne coal dust shall be controlled with water sprinklers at suitable locations in the plant.
PPs Submission: Complied Air borne coal dust is controlled by providing DFSS (Dry Fogging Spray System) at coal unloading area & transfer points. At coal storage shed sprinkling system is provided at suitable locations. Complied.		Date: 31/05/2024
76	AIR QUALITY MONITORING AND PRESERVATION	Regular monitoring of ground level concentrations of SO ₂ , NO _x , PM ₁₀ and PM _{2.5} shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken Immediately.
PPs Submission: Complied The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex based on the mathematical modeling studies considering wind directions and the maximum Ground Level Concentration in downwind direction. AAQM location can be seen in the map enclosed as Annexure XVII. Ambient air quality monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. All results are conforming to the standards prescribed by GPCB. Detailed AAQ Monitoring data can be referred as Annexure VI. Complied.		Date: 31/05/2024
77	AIR QUALITY MONITORING AND PRESERVATION	Fly ash shall be transported through closed/covered trucks only.
PPs Submission: Complied Fly ash is transported through closed / covered trucks and bulkers only. Complied.		Date: 31/05/2024
78	AIR QUALITY MONITORING AND PRESERVATION	All trucks shall be properly covered at top and bottom with perfect sealing of plastic/tarpaulin sheets.
PPs Submission: Complied All trucks are properly covered with tarpaulin sheets. Complied.		Date: 31/05/2024
79	AIR QUALITY MONITORING AND PRESERVATION	Adequate dust suppression/ extraction system at crusher house as well as for the coal stock yard shall be provided to abate dust nuisance
PPs Submission: Complied Adequate dust suppression / extraction system has been provided at crusher house as well as for the coal stock yard to abate dust nuisance. Complied.		Date: 31/05/2024
80	GREENBELT	A green belt shall be developed all around the plant boundary, Jetty area, office and also along the roads to mitigate fugitive & transport dust emission.
PPs Submission: Complied Site has developed around 203 ha of green cover all around the plant boundary, Jetty area, office and also along the roads to mitigate fugitive & transport dust emission. Trees have been planted throughout the periphery of the complex as well as wherever open spaces are available. Landscaping (through lawns and shrubs) have been done in areas where tree plantation is not possible. Every year plantation drive is being done to strengthen the green cover in the complex. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied.		Date: 31/05/2024

81	AIR QUALITY MONITORING AND PRESERVATION	All regularly used roadways around the site must be swept daily with a tank mounted road sweeper and washed by a truck mounted cart.
PPs Submission: Complied Arrangement for sweeping all regularly used roadways around the site has been done using sweeping machine. Photograph of sweeping machine is enclosed as Annexure LXXIX. Complied.		Date: 31/05/2024
82	AIR QUALITY MONITORING AND PRESERVATION	The company shall install and operate continuous ambient air quality monitoring station within the premises. The location of the continuous ambient air quality monitoring station shall be fixed in consultation with the GPCB.
PPs Submission: Complied Continuous Ambient Air Quality Monitoring Station (CAAQMS) is installed and operational within the premises. Photograph of CAAQMS can be seen in Annexure LXXXI. Complied. Location of CAAQMS is fixed by consulting GPCB official in his visit and after getting their concurrence. Complied.		Date: 31/05/2024
83	AIR QUALITY MONITORING AND PRESERVATION	Regular cleaning of roads and removal of the accumulated dust from road sides.
PPs Submission: Complied Regular cleaning of roads and removal of the accumulated dust from road sides is being done. Complied.		Date: 31/05/2024
84	AIR QUALITY MONITORING AND PRESERVATION	The storage yard shall be covered with screens/walls of at least 7 to 8 m height on three sides
PPs Submission: Complied The storage yard is completely covered with walls and roof. Photograph of coal storage area is enclosed as Annexure LXXX. Complied.		Date: 31/05/2024
85	MISCELLANEOUS	Third party performance evaluation of the air pollution control systems including ESP shall be earned out at least once in a year to check its performance and efficiency through a reputed institute / organization like NPC, L D College of Engineering -Ahmedabad or such other institutes of similar repute, and its records shall be maintained
PPs Submission: Complied Performance evaluation by external agencies of air pollution control systems including ESP is being regularly carried out through environmental auditor appointed by GPCB. M/s. Sophisticated Instrumentation Centre for applied Research and Testing (SICART), Vallabh Vidyanagar -388 120 has done Annual audit which includes performance evaluation of APCE for the year 2022-23. The report is submitted regularly to GPCB. Environment Adequacy certificate is enclosed as Annexure XLVII. Complied.		Date: 31/05/2024
86	WASTE MANAGEMENT	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008 as may be amended from time to time. Authorization from the GPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes.
PPs Submission: Complied Hazardous wastes generated from plants is being managed in accordance with the Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016 and amendments thereof.		Date: 31/05/2024

<p>The authorization obtained from GPCB under these rules vide Authorization Order No. AWH-121992 dated 25th November 2022, valid upto 03.11.2026. CCPP is also included in Amended Authorization. Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX. Typical TREM Card is enclosed as Annexure XLII and manifest copy as Annexure XLIII. Complied. Authorization for Hazardous wastes management is obtained from GPCB vide Authorization Order No. AWH-121992 dated 25th November 2022, for collection / treatment / storage / disposal of hazardous wastes from the complex. The hazardous waste is being disposed as per methods prescribed in the Authorization. Please refer Form-4 submitted to GPCB for year 2022-23 as Annexure IX. Complied.</p>		
87	WASTE MANAGEMENT	Hazardous waste shall be packed and stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility before its disposal
<p>PPs Submission: Complied Hazardous waste from CCPP is stored at designated location with impervious bottom as interim storage. This waste is shifted at regular interval to Central Hazardous Waste Storage Area which is developed as per CPCB guideline with impervious flooring, leachate collection facility and rain protection shelter. Complied.</p>		Date: 31/05/2024
88	WASTE MANAGEMENT	The discarded containers /barrels / bags / liners shall be sold only to the registered recycler after decontamination
<p>PPs Submission: Complied The discarded containers / barrels / bags / liners are sold to the registered recycler after decontamination. Complied.</p>		Date: 31/05/2024
89	WASTE MANAGEMENT	For storage of fly ash closed silos of adequate capacity shall be provided. No ash pond shall be constructed in the project.
<p>PPs Submission: Complied For storage of fly ash 3 closed silos of 1600 MT capacity each & for Bed Ash 01 silo of 1600 MT have been provided. Photographs of the same is enclosed as Annexure LXXXII. Complied. No ash pond has been constructed in the DMD complex. Complied.</p>		Date: 31/05/2024
90	WASTE MANAGEMENT	The Unit shall strictly comply with the Fly Ash Notification under the EPA and it shall be ensured that there is 100% utilization of ash to be generated from the unit.
<p>PPs Submission: Complied Fly Ash notification under EPA is being complied at CCPP. Details of Fly Ash disposal is as given below: Month; Fly Ash Disposal Quantity (MT): Oct-23; 16631: Nov-23; 13056: Dec-23; 15376: Jan-24; 16098: Feb-24; 15318: Mar-24; 18463. Complied.</p>		Date: 31/05/2024
91	WASTE MANAGEMENT	Used oil shall be sold only to the registered recyclers / refiners.
<p>PPs Submission: Complied Used oil is sold to the registered recyclers / reprocessors. Complied.</p>		Date: 31/05/2024
92	Risk Mitigation and Disaster Management	The proposed jetty shall be equipped with a comprehensive fire protection system. The firefighting equipments shall be provided as per the requirements of the Gujarat Factories Rules. 1963.
<p>PPs Submission: Complied The proposed jetty modification is not yet started. However, the existing RDMT jetty is equipped with a comprehensive fire protection system. The firefighting equipment are provided as per the requirements of the Gujarat Factories Rules, 1963. Complied.</p>		Date: 31/05/2024
93	MISCELLANEOUS	Training shall be given to all workers on safety and health aspects

		of handling chemicals.	
		<p>PPs Submission: Complied Training is imparted to all the workers on safety and health aspects of chemicals handling. The chemical handling related, safety and health training is imparted to all workers on RIL role and all contractor workers as well. The level-1 and level-2 training is provided to the contract workers which includes the safe work practices related to safe chemical handling and use of PPEs. At RIL-Dahej, employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPE. Records of various trainings imparted to all is enclosed as Annexure LIX. Complied.</p>	<p>Date: 31/05/2024</p>
94	Risk Mitigation and Disaster Management	Necessary emergency lighting system along with emergency power back up system shall be provided.	
		<p>PPs Submission: Complied Necessary emergency lighting system along with emergency power back up system has been provided. Complied.</p>	<p>Date: 31/05/2024</p>
95	Risk Mitigation and Disaster Management	Fire protection system based on National Fire Protection Association (NFPA) approved guidelines shall be provided It shall consist of fire hydrant system all-round the plant area and storage yards. High velocity water spray system for transformers. automatic fire detection and alarm manual fire alarm system, portable fire extinguishers, adequate capacity fire water storage tanks etc.	
		<p>PPs Submission: Complied Fire protection system is provided using National Fire Protection Association (NFPA) / TAC guidelines. Adequate Fire protection systems consists of fire hydrant system all-round the plant area and storage yards, Nitrogen spray system for transformers have been provided. Automatic fire detection and alarm, manual fire alarm system, portable fire extinguishers, adequate capacity fire water storage tanks etc. installed. Complied.</p>	<p>Date: 31/05/2024</p>
96	Risk Mitigation and Disaster Management	Personal Protective Equipment shall be provided to workers and its usage shall be ensured and supervised.	
		<p>PPs Submission: Complied Personal Protective Equipment (PPE) are provided to employees and contractors and are compulsory before entering the plant. This is being ensured regularly. Complied.</p>	<p>Date: 31/05/2024</p>
97	Risk Mitigation and Disaster Management	First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity at all the times.	
		<p>PPs Submission: Complied First Aid box is available at strategic locations in each plant and antidotes for chemicals are readily available at OHC in adequate quantity. Photograph of First Aid box located at plant control room can be seen in Annexure LVIII. Complied.</p>	<p>Date: 31/05/2024</p>
98	Human Health Environment	Tie up shall be done with nearby health care unit for seeking immediate medical attention in case of emergency, regular medical checkup of the workers and keeping its record etc.	
		<p>PPs Submission: Complied Occupational Health Center (OHC) is established at the petrochemical complex for providing immediate medical help in case of emergencies. RIL Dahej has tie up with leading hospitals in Dahej & Bharuch such as Dahej Health and Welfare Society Hospital, Baroda Heart Institute, Sunshine Hospital, Healing Touch Hospital, etc. for immediate medical attention. Photograph of Occupational Health Centre is enclosed as Annexure XXX. Periodical medical checkup done for the RIL employees as well as for contract workers and records are maintained for the same. Complied.</p>	<p>Date: 31/05/2024</p>

99	Risk Mitigation and Disaster Management	The project management shall prepare a comprehensive Disaster Management Plan (DMP) for the project as per the guidelines from Directorate of Industrial Safety and Health. Detailed DMP prepared shall be implemented to bring down risk involved / hazards / accidents as low as reasonably practicable.
PPs Submission: Complied A comprehensive Disaster Management Plan (DMP) has been prepared for existing complex and updated same for CCPP and implemented to bring down risk involved / hazards / accidents as low as reasonably practicable. Complied.		Date: 31/05/2024
100	Human Health Environment	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act and Rules. Pre-employment and periodical medical examination for all workers shall be undertaken as per statutory requirement.
PPs Submission: Complied RIL-DMD has its own NABH accredited Occupational Health Center with NABL accredited pathology lab. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment Medical Examination) and on annual basis for all employees. Occupational health surveillance of the workers is done and its records are maintained. Typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI. Complied. Pre-employment and periodical medical examination is carried out by OHC annually and records are maintained as per the Gujarat Factories Act & Rules. Complied.		Date: 31/05/2024
101	Noise Monitoring & Prevention	Selection of any new plant equipment shall be made with specification of low noise levels
PPs Submission: Complied Low noise generating equipment have been selected in the design stage itself. Complied.		Date: 31/05/2024
102	MISCELLANEOUS	All transporting routes within the premise shall have paved roads.
PPs Submission: Complied All transporting routes within the premise have paved roads. Complied.		Date: 31/05/2024
103	Noise Monitoring & Prevention	Noise suppression measures such as enclosures, buffers and/or protective measures shall be provided
PPs Submission: Complied Noise suppression measures like acoustic chambers are provided wherever required. Photographs of the same is enclosed as Annexure XXXIII. Complied.		Date: 31/05/2024
104	Noise Monitoring & Prevention	Manufacturers/suppliers of major noise generating machines/equipments like air compressors, feeder pumps, turbine generators, etc. shall be instructed to make required design modifications wherever possible before supply and Installation to mitigate the noise generation and to comply with the national/international regulatory norms with respect to noise generation for individual units.
PPs Submission: Complied Low noise generating equipment have been selected in the design stage itself. Necessary confirmation taken from suppliers for steam turbine generator, pumps, and compressors etc. for noise level of equipment. Equipment meet the national regulatory norms. Complied.		Date: 31/05/2024
105	Noise Monitoring & Prevention	Regular maintenance of machinery and vehicles shall be undertaken

		to reduce the noise impact
<p>PPs Submission: Complied Regular & preventive maintenance of machinery and vehicles is undertaken. Complied.</p>		<p>Date: 31/05/2024</p>
106	Human Health Environment	Ear plugs and/muffs shall be made compulsory for the construction workers working near the noise generating activities/machines/equipment.
<p>PPs Submission: Complied Use of PPEs like ear plugs / ear muffs are made compulsory at site. It is being ensured and supervised through work permit procedure, Contractor Field Round and Daily Field round by Plant Safety Representative at plants. Complied.</p>		<p>Date: 31/05/2024</p>
107	Noise Monitoring & Prevention	Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment.
<p>PPs Submission: Complied Noise mufflers for motorized equipment have been provided on all the motorized equipment Complied.</p>		<p>Date: 31/05/2024</p>
108	Noise Monitoring & Prevention	The overall noise level in and around the plant area shall be kept well within the prescribed standards by providing noise control measures Including acoustic insulation, hoods, silencers, enclosures vibration dampers etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act and Rules Workplace noise levels for workers shall be as per the Factories Act and Rules.
<p>PPs Submission: Complied The overall noise level in and around the plant area shall be kept well within the prescribed standards. Noise control measures such as acoustic hoods, silencers etc. are provided at high noise generating source with-in the plant. Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it is observed to be well within the prescribed workplace noise level of 85 dBA. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. The noise level in & around the plant are well within the prescribed limit of 85 dB(A). The detailed noise monitoring report for the period Oct'23 – Mar'24 is enclosed as Annexure XXXII. Complied. Ambient noise levels conform to the standard prescribed under EPA Rules, 1989 viz. 75 dBA (Day Times) and 70 dBA (Night time). The summary of the ambient noise levels or Oct'23 – Mar'24 is presented. Results indicate that the ambient noise levels during the reporting period Oct'23 – Mar'24 has not been exceeded the prescribed limit. Detailed noise monitoring report is enclosed as Annexure XIV. Complied. Workplace noise levels for workers is maintained well below the limit of 85 dB(A) as per the Factories Act and Rules. The results of work place noise level is given in the above condition. Complied.</p>		<p>Date: 31/05/2024</p>
109	Noise Monitoring & Prevention	Employees shall be provided with ear protection measures like ear plugs or ear muffs.
<p>PPs Submission: Complied PPEs like ear muffs and ear plugs are mandatory for use by everyone working in high noise areas. Complied.</p>		<p>Date: 31/05/2024</p>
110	Noise Monitoring & Prevention	Proper oiling, lubrication and preventive maintenance shall be carried out of the machineries and equipments to reduce noise generation
<p>PPs Submission: Complied Proper oiling, lubrication and preventive and regular maintenance of machineries and equipment is</p>		<p>Date: 31/05/2024</p>

done to reduce noise generation. Complied.		
111	Noise Monitoring & Prevention	Construction equipment generating minimum noise and vibration shall be chosen.
PPs Submission: Complied Construction equipment generating low noise and vibration was chosen during the erection of the plant. Complied.		Date: 31/05/2024
112	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented.
PPs Submission: Complied These measures are ensured by addressing the requirements during the design phase itself. Complied.		Date: 31/05/2024
113	ENERGY PRESERVATION MEASURES	The project proponent shall Implement the application of solar energy which shall be utilized as solar lighting for illumination of common areas, lighting of internal roads and passages in addition to utilization of solar water heating systems
PPs Submission: Complied Use of Solar energy is already explored and under evaluation and approval stage.		Date: 31/05/2024
114	Noise Monitoring & Prevention	Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate.
PPs Submission: Complied Vehicles and construction equipment with internal combustion engines without proper silencer were not allowed to operate during the erection of the plant. Complied.		Date: 31/05/2024
115	ENERGY PRESERVATION MEASURES	The project proponent shall install energy efficient devices and appliances conforming to the Bureau of Energy Efficiency norms
PPs Submission: Complied Energy efficient devices have been provided in the plant like variable frequency drives etc. Complied.		Date: 31/05/2024
116	Noise Monitoring & Prevention	Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.
PPs Submission: Complied Construction equipment meeting the norms specified by EP Act, 1986 were used during the construction phase of the plants. Complied.		Date: 31/05/2024
117	Noise Monitoring & Prevention	Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas.
PPs Submission: Complied Low Noise generating DG sets are being used at the site. The site is with in industrial zone. No residential or sensitive zone nearby. Complied.		Date: 31/05/2024
118	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced - Constant monitoring of energy consumption and defining targets for energy conservation

<p>PPs Submission: Complied Department level targets have been fixed and energy consumption is monitored against those targets. Constant Monitoring of energy consumption is done by Energy cell with BEE Qualified energy manager, energy auditor. Complied.</p>		<p>Date: 31/05/2024</p>
119	ENERGY PRESERVATION MEASURES	The energy audit shall be conducted at regular Intervals and the recommendations of the audit report shall be implemented.
<p>PPs Submission: Complied Energy audit done by third party for existing facilities and the recommendations are implemented. Same is being done for CCPP. Complied.</p>		<p>Date: 31/05/2024</p>
120	ENERGY PRESERVATION MEASURES	Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort level
<p>PPs Submission: Complied Illumination level audit is being carried out once in two years as a Part of Electrical audit. Sensors have been provided in few office rooms to automatically switch off lighting in case of no movement in the room. Record of illumination audit is enclosed as Annexure LXXXIII. Complied.</p>		<p>Date: 01/06/2024</p>
121	ENERGY PRESERVATION MEASURES	Use of solar cells for lighting.
<p>PPs Submission: Complied Solar cells for traffic lights are installed. Photograph of the same is enclosed as Annexure LXI. Complied.</p>		<p>Date: 01/06/2024</p>
122	ENERGY PRESERVATION MEASURES	Variable frequency drives shall be installed.
<p>PPs Submission: Complied Variable Frequency Drives installed in the plants. Complied.</p>		<p>Date: 31/05/2024</p>
123	ENERGY PRESERVATION MEASURES	Energy conservation measures shall include use of electronic lighting system, use of CFL tubes to minimize energy use. use of programmable timers for pumping system and lighting, water level controllers for water pumps, centralized cooling etc.
<p>PPs Submission: Complied Energy conservation methods like use of LED lighting for office and street lighting, are being implemented. Photographs of the same is enclosed as Annexure LX. Complied.</p>		<p>Date: 31/05/2024</p>
124	ENERGY PRESERVATION MEASURES	Use of solar water heater for canteen & washing area.
<p>PPs Submission: Complied Use of Solar energy for water heating is already explored and Solar water heater project is under evaluation.</p>		<p>Date: 01/06/2024</p>
125	ENERGY PRESERVATION MEASURES	Proper load factor shall be maintained by the unit
<p>PPs Submission: Complied Adequate load factor is maintained. Complied.</p>		<p>Date: 01/06/2024</p>
126	ENERGY PRESERVATION MEASURES	The transformers and motors shall have minimum efficiency of 85 %.

<p>PPs Submission: Complied Transformers and motors of efficiency higher than 85% are selected at design stage itself. Complied.</p>		<p>Date: 31/05/2024</p>
127	ENERGY PRESERVATION MEASURES	Provision of day light roof to utilize maximum natural light in the production plant instead of electrical lighting
<p>PPs Submission: Complied Day light roofs are provided at our store and warehouse areas. Photograph of the same is enclosed as Annexure LXII. Complied.</p>		<p>Date: 01/06/2024</p>
128	ENERGY PRESERVATION MEASURES	Automatic switching system for lighting & water tank pumping shall be used.
<p>PPs Submission: Complied Automatic switching system for lighting are provided at various areas of plants. Automatic switching system for water tank pumping is also provided Complied.</p>		<p>Date: 01/06/2024</p>
129	WASTE MANAGEMENT	Use of automated and enclosed filling to minimize spillages.
<p>PPs Submission: Complied Automated and enclosed material transfer system implemented to minimize spillages. Complied.</p>		<p>Date: 01/06/2024</p>
130	WASTE MANAGEMENT	Use of high pressure hoses for cleaning to reduce wastewater generation
<p>PPs Submission: Complied High pressure hoses are used for cleaning which ensures reduction in wastewater generation. Complied.</p>		<p>Date: 01/06/2024</p>
131	WASTE MANAGEMENT	Waste Minimization & Cleaner Production: The unit shall undertake the Cleaner Production Assessment study through a reputed institute/organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.
<p>PPs Submission: Complied Site has adopted the best available technology for achieving resource reduction and waste minimization. Which generates low wastes and gives maximum energy efficiency for existing plants including CCPP. RIL has already submitted an application to Gujarat Cleaner Production Council for assessment. Complied.</p>		<p>Date: 01/06/2024</p>
132	WASTE MANAGEMENT	Regular preventive maintenance for avoiding leakage, spillage etc
<p>PPs Submission: Complied At plant level regular preventive maintenance of equipment is carried out and maintained in the SAP system. Complied.</p>		<p>Date: 01/06/2024</p>
133	WASTE MANAGEMENT	Reuse of by-products from the process as raw materials or raw materials substitutes in other process
<p>PPs Submission: Complied Reuse of by-products is implemented wherever possible such as Productive management of waste residue streams is done in PTA plant by recovering Suspended solids powder resulting in reuse of solid waste. Exploring reuse of Bio-sludge and spent carbon at CCPP. Complied.</p>		<p>Date: 01/06/2024</p>
134	ENERGY PRESERVATION MEASURES	Promoting awareness on energy conservation.

<p>PPs Submission: Complied Regular training and awareness campaigns are carried out for all employees on energy conservation. RIL Dahej has 28 BEE certified energy professionals. Complied.</p>		<p>Date: 01/06/2024</p>
135	GREENBELT	<p>The unit shall develop and maintain green belt within premises as per the CPCB guidelines. In addition to that the unit shall take up adequate plantation on road sides and suitable open areas in the Dahej industrial area nearby schools, gram panchayat areas and any other open areas in consultation with the local bodies/GPCB and submit an action plan of plantation for next three years to the GPCB.</p>
<p>PPs Submission: Complied Site has developed around 203 ha of green cover as per the CPCB guidelines at Dahej Petrochemical Complex. Trees have been planted throughout the periphery of the complex as well as wherever open spaces are available. Landscaping (through lawns and shrubs) have been done in areas where tree plantation is not possible. Every year plantation drive is being done to strengthen the green cover in the complex. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied. Adequate plantation carried out on road sides near the site and open areas of GIDC near site. As part of RIL Green project, plantation has been carried out in nearby villages like Ambetha and Angareshwar. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Complied.</p>		<p>Date: 01/06/2024</p>
136	WASTE MANAGEMENT	Use of close feed system into batch reactors.
<p>PPs Submission: Complied Closed feed systems are installed for existing plants and CCPP. Complied.</p>		<p>Date: 01/06/2024</p>
137	WASTE MANAGEMENT	Dry cleaning/mopping of floor instead of floor washing
<p>PPs Submission: Complied Practiced at all the administrative buildings including plant control rooms. Complied.</p>		<p>Date: 01/06/2024</p>
138	GREENBELT	<p>The RIL-DMD shall develop and maintain green belt around the jetty area, office as well as internal and approach roads as proposed. Native and fast growing species shall be planted in the green belt.</p>
<p>PPs Submission: Complied Adequate plantation carried out around the jetty area, office as well as internal and approach roads. Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX. Native plant species are selected for planting of the green belt as per the guidelines of CPCB. Few of the plant species existing at the site are: Casuarina equisetifolia (Suru), Azadirachta indica (Neem), Miletia pinnata (Karanj), Cassia siamea (Kashid), Albizia procera (Shirish), Delonix regia (Gulmohar), Peltophorum pterocarpum etc. Complied.</p>		<p>Date: 01/06/2024</p>
<p>General Conditions</p>		
Sr.No.	Condition Type	Condition Details
1	Corporate Environmental Responsibility	<p>The RIL-DMD shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forests and Environment Department and the District Collector / District Development Officer.</p>
<p>PPs Submission: Complied RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued today by Reliance Foundation not only in our area but for entire India. Complied.</p>		<p>Date: 01/06/2024</p>

2	WATER QUALITY MONITORING AND PRESERVATION	To check the ingress of salty water into landside
PPs Submission: Complied The ingress of salty water into landside is regularly monitored. Complied.		Date: 01/06/2024
3	MISCELLANEOUS	A separate Environmental Management Cell equipped with full-fledged laboratory facilities and qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project. A separate budget shall be earmarked annually for this purpose and the details shall be furnished to various regulatory authorities from time to time.
PPs Submission: Complied A separate Environment Cell, headed by Environment Head with environment qualification and 17 plus year experience. The cell is supported by 3 qualified Environment professionals (Env. Engg). Environment Head reports the Site President. The detailed organogram is presented as below : RIL-DMD has a full-fledged Quality Assurance (Laboratory) dept., manned with qualified Lab-technicians under the supervision of competent & well-experienced managers who also carry out the sample analysis. The Laboratory Head directly reports to the Technical Head of the complex. Complied. Sufficient funds are earmarked every year for environmental management including monitoring and analysis. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 53.4 Crore. Complied.		Date: 01/06/2024
4	MISCELLANEOUS	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
PPs Submission: Complied Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger/alarm is raised in the DCS system which prevents the plant from restarting. During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has been observed. Complied.		Date: 01/06/2024
5	MISCELLANEOUS	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environment Protection (CREP) published by the Central Pollution Control Board, as may be applicable.
PPs Submission: Complied Recommendations mentioned in the CREP are being complied.		Date: 01/06/2024
6	PUBLIC HEARING	All issues raised during the public hearing shall be addressed comprehensively.
PPs Submission: Complied All issues raised during the public hearing have been addressed comprehensively. Complied.		Date: 01/06/2024
7	MISCELLANEOUS	The RIL-DMD shall provide adequate funds for environment protection The funds earmarked for environment protection measures shall be maintained, in a separate account and there shall be no diversion of these funds for any other purpose.
PPs Submission: Complied Adequate fund have been allocated for implementing the environmental management and is used only for that purpose. Recurring expenditure incurred to comply with the conditions stipulated by		Date: 01/06/2024

MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 53.4 Crore. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 20.53 Lakhs • Online Continuous emission and effluent monitoring systems – INR 34.36 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 50.55 Lakhs • Waste management – INR 54.79 Lakhs • Green belt development – INR 97.04 Lakhs Complied.		
8	Statutory compliance	The RIL-DMD shall regularly submit the half-yearly compliance report on the conditions stipulated in hard and soft copies to the regulatory authorities concerned, on 1 st June and 1 st December of each calendar year.
PPs Submission: Complied Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.		Date: 01/06/2024
9	MISCELLANEOUS	Any other condition that may be stipulated by the SEIAA / SEAC / Forests & Environment Department from time to time for environmental protection / management purpose shall have to be complied with by the RIL-DMD.
PPs Submission: Complied No additional condition imposed by SEIAA / SEAC / F&E department during review period.		Date: 01/06/2024
10	Marine/Coastal	An Environmental Report indicating the changes, if any, with respect to the baseline environmental quality in the coastal and marine environment shall be submitted every year by the RIL-DMD to the Forests & Environment Department as well as to the SEIAA.
PPs Submission: Complied The Environment audit is conducted by GPCB approved Environmental Auditor covering all aspects and report is submitted to GPCB every year. Covering letter of Audit report submission for the year 2022-23 is enclosed as Annexure LXVIII. Marine environment monitoring is carried out by approved agency and the final report is submitted to RIL-DMD. Copy of marine monitoring report is enclosed as Annexure XLVIII. Complied.		Date: 01/06/2024
11	MISCELLANEOUS	All the recommendations made in the EIA/EMP and other documents submitted by the project proponent shall be strictly implemented.
PPs Submission: Complied Recommendations of the EIA / EMP reports has been implemented during project execution and operational phase. Complied.		Date: 01/06/2024
12	MISCELLANEOUS	The SEIAA may revoke or suspend the clearance, if Implementation of any of the above conditions is not found satisfactory.
PPs Submission: Complied This condition is not applicable to us.		Date: 01/06/2024
13	MISCELLANEOUS	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. The above conditions will

		be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act. 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act 1986 and Hazardous Wastes (Management Handling and Transboundary) Rules. 2008 along with their amendments and rules.
PPs Submission: Complied Noted.		Date: 01/06/2024
14	MISCELLANEOUS	A separate budget shall be earmarked for environmental management and socio-economic activities and details thereof shall be furnished to the Forests and Environment Department, SEIAA as well as the MoEF, Gol. The details with respect to the expenditure from this budget head shall also be furnished.
PPs Submission: Complied Adequate funds have been allocated for implementing environmental management and socio-economic activities. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 108.3 Crore. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied.		Date: 01/06/2024
15	MISCELLANEOUS	No further expansion or modifications or development likely to cause environmental impacts shall be carried out without obtaining prior clearance from the concerned authority.
PPs Submission: Complied Expansion or Modification of the RIL-DMD complex has been carried out after obtaining the required Environmental Clearance (EC) under the EIA Notification, 2006. Complied.		Date: 01/06/2024
16	Statutory compliance	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
PPs Submission: Complied All the stipulations laid down by GPCB consent is being complied with.		Date: 01/06/2024
17	MISCELLANEOUS	The project authorities shall inform the GPCB. Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project
PPs Submission: Complied Noted. Informed to GPCB for the date of start of the project during CCA application.		Date: 01/06/2024
18	Marine/Coastal	Mangrove plantation shall be carried out in consultation with the Gujarat Ecology Commission / Forest Department by the RIL-DMD as a part of the Corporate Social Responsibility in areas of coastal operations.
PPs Submission: Complied Mangroves plantation, along the river bank (near Erstwhile IPCL jetty) for a stretch of about 1 km from east (u/s of river) toward the estuary (west) where Narmada merge in to the Gulf of Cambay, was done in the year 1997-98. 3500 saplings were planted. However, the survival rate of this first plantation is very low due to many factors. Erstwhile IPCL had retained Gujarat Ecological Society (GES), Baroda to carry out the experimental plantation of mangroves in 2000-01. GES study found		Date: 01/06/2024

<p>more sand than clay in the soil around jetty and that is why it is not conducive for the mangrove growth. A fresh attempt was again made by planting 2500 saplings of mangrove in association with local Forest Dept. in Dec'2005 at jetty. However growth of mangroves were reported poor as the soil was not conducive for the mangrove growth. During the year 2018, 2000 saplings of mangrove plantation done. The growth is under care / observation. Photographs of mangrove plantation is enclosed as Annexure XIII.</p>		
19	Corporate Environmental Responsibility	The RIL shall ensure that the Corporate Social Responsibility (CSR) activities shall be carried out on need base of the local people
<p>PPs Submission: Complied RIL is committed to our Corporate Social Responsibility (CSR) activities for creating, maintaining and sustaining safe & clean environment of the local people. RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued today by Reliance Foundation not only in our area but for entire India. Photographs of some of the activities are enclosed as Annexure LXXXIV. Complied.</p>		Date: 01/06/2024
20	MISCELLANEOUS	The above conditions will be enforced. inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (protection) Act. 1986, Municipal Solid Wastes (Management and Handling) Rules, 2000 and the Public Liability Insurance Act, 1991 and the Rules made there under from time to time.
<p>PPs Submission: Complied Noted.</p>		Date: 01/06/2024
21	MISCELLANEOUS	The project authorities shall earmark adequate funds to Implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
<p>PPs Submission: Complied Adequate fund have been allocated for implementing the conditions stipulated conditions given by SEIAA and GPCB. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 108.3 Crore. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied. Funds allocated for Environmental Management is used only for that purpose and not diverted for any other use. Complied.</p>		Date: 01/06/2024
22	MISCELLANEOUS	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region one of which shall be in the Gujarati language and the other in English. A copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
<p>PPs Submission: Complied The public was informed through public notice published in English and Gujarati Newspaper and the information has already been submitted to the Regional Office of the MoEF&CC, Bhopal. Complied.</p>		Date: 01/06/2024
23	MISCELLANEOUS	This environmental clearance is valid for five years from the date of

		issue.
PPs Submission: Complied Noted.		Date: 01/06/2024
24	MISCELLANEOUS	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act. 1986, Municipal Solid Wastes (Management and Handling) Rules, 2000 and the Public Liability Insurance Act. 1991 and the Rules made there under from time to time.
PPs Submission: Complied Noted		Date: 01/06/2024
25	MISCELLANEOUS	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
PPs Submission: Complied Noted.		Date: 01/06/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		DMD Annexures are attached as Additional Document

**Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)**

Acknowledgment

Proposal Name	Expansion and Debottlenecking of Petrochemical Plant of Dahej Manufacturing Division (DMD) at Tehsil Vagra, District Bharuch, Gujarat by M/s Reliance Industries Limited - Environmental Clearance - reg		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	IA/GJ/IND2/51643/2016	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-11011/39/2016-IA-II (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
3	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
4	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
5	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
6	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
7	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
8	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
13	Dilute H2SO4	Tons per Annum (TPA)	N/A	4,600	3,382	
14	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
15	Caustic Soda	Tons per Annum (TPA)	N/A	2,21,000	1,69,331	
16	EG	Tons per Annum (TPA)	N/A	3,08,350	1,42,557	
17	Di Ethylene Glycol	Tons per Annum (TPA)	N/A	30,550	14,864	
18	Tri Ethylene Glycol	Tons per Annum (TPA)	N/A	1,270	663	
19	Sodium Hypochlorite	Tons per Annum (TPA)	N/A	11,000	1,158	
20	HCl	Tons per Annum (TPA)	N/A	15,000	9,282	
21	PEG	Tons per	N/A	19,850	0	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	The levels of PM10, PM2.5, SO2, NOx, VOC and CO shall be monitored in the ambient air and emissions from the stacks and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the 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 (SPCB).
<p>PPs Submission: Complied</p> <p>The levels of PM10, PM2.5, SO2, NOx and CO are monitored in the ambient air. The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex based on the mathematical modeling studies considering wind directions and the maximum Ground Level Concentration in downwind direction. The proposed expansion and debottlenecking of plant will be within the existing premises. Ambient air quality monitoring is carried out through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed AAQ Monitoring data can be referred as Annexure VI. Emissions from the stacks are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the prescribed standard. Detailed stack emission monitoring report is enclosed as Annexure III. Emission levels are displayed at a convenient location near the main gate of the company. Stack emission report and AAQ reports are regularly submitted to the Regional Office of the MoEF&CC, Bhopal / CPCB on six monthly basis and to Gujarat Pollution Control Board on monthly basis.</p>		Date: 01/06/2024
2	AIR QUALITY MONITORING AND PRESERVATION	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.
<p>PPs Submission: Complied</p> <p>There are 16 numbers of Emergency DG sets installed in the RIL complex for providing power during emergency purpose and these DG are operated only during non-availability of power from both captive power plant and Gujarat Energy Board (GEB).</p>		Date: 01/06/2024
3	WATER QUALITY MONITORING AND PRESERVATION	Total water requirement from Govt. of Gujarat, Vadodara Irrigation Division (VID) and from GIDC shall not exceed 1,86,315 m ³ /day and prior permission shall be obtained from the Competent Authority. No ground water shall be used without permission.
<p>PPs Submission: Complied</p> <p>Total water requirement from Govt. of Gujarat, Vadodara Irrigation Division (VID) and from GIDC will not exceed 1,86,315 m³/day after the proposed debottlenecking and expansion of the plant. The average fresh water requirement for the existing plant during the period Oct'23 – Mar'24 was 89,332 m³/day which is not exceeding the permissible limit of 1,38,700 m³/day as prescribed under Consolidated Consent & Authorization (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026. Fresh Water requirement is met from river Narmada through Jack wells at Angareshwar with prior approval from Irrigation department for water drawl. The summary of fresh water consumption during reporting period of Oct'23 – Mar'24 is presented as below Fresh Water Consumption (m³/day) >Prescribed Limit Avg Min Max; >1,38,700 89,332 82,008 94,667; No ground water is used for the project. The water requirement for the project is met through existing Narmada water.</p>		Date: 01/06/2024
4	WASTE MANAGEMENT	Solid wastes management shall be undertake as per Solid Waste Management Rules, 2016 and Hazardous and Other Wastes

		(Management and Trans boundary Movement) Rules 2016 will be extended to the wastes from proposed project as well.
	<p>PPs Submission: Complied</p> <p>For existing plants, solid wastes management is being undertaken as per Solid Waste Management Rules, 2016 and Hazardous and Other Wastes (Management and Trans boundary Movement) Rules 2016 and the same will be extended to the wastes from proposed project as well. At RIL Dahej, we have engaged waste management agency M/s NEPRA Environmental Solutions Pvt Ltd. Solid waste is collected from RIL-DMD complex and Saraswati Township in Reliance Collection Vehicle on daily basis. In Material Recovery Facility (MRF), mixed waste (garbage) is segregated into different recyclable categories like plastic, paper, cardboard, metal etc. and also non-recyclables as RDF. Recyclable waste will go for recycling and non-recyclable waste will go for co-processing. The authorization obtained from GPCB under these rules vide Authorization Order No. AWH-121992 dated 25th November 2022, valid upto 03.11.2026. The same waste management practices will be extended to the proposed project.</p>	Date: 01/06/2024
5	MISCELLANEOUS	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
	<p>PPs Submission: Complied</p> <p>For existing plants, necessary arrangement is made for protection of possible fire hazards during manufacturing process in material handling. Fire protection system is provided using National Fire Protection Association (NFPA) / TAC guidelines. Fire protection systems consists mainly of 7 fire tenders, more than 5500 portable fire extinguishers, 600 fire buckets, 56 foam systems and a network of more than 1100 double head hydrant posts all-round the plant area along with 250 water spray system / fume suppression system / sprinkler system and fire water pipeline network laid around 90 km. Also, more than 9000 automatic fire detection and alarm, manual fire alarm system, adequate capacity fire water storage tanks etc. have been installed. All these fire detection and protection measures are maintained and supported by a competent and experienced team of around 13 crew members / officers in each shift round the clock. The same will be extended to proposed project,</p>	Date: 01/06/2024
6	WASTE MANAGEMENT	The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said rules.
	<p>PPs Submission: Complied</p> <p>Debottlenecking (DBN) of existing petrochemical plants is being done in phased manner. Phase 1 of DBN is completed. However, the Proposed expansion / New plants of DMD petrochemical complex is yet to be started.</p>	Date: 01/06/2024
7	WASTE MANAGEMENT	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPCB shall be obtained for disposal of solid/hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency.
	<p>PPs Submission: Complied</p> <p>Hazardous waste Authorization for the existing project has been obtained from GPCB for collection / treatment / storage / disposal of hazardous wastes under the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Authorization (AWH-121992) from GPCB for collection / treatment / storage / disposal of hazardous wastes is available which is valid up to 03.11.2026. Adequate Fire protection systems have been provided in case of any emergency</p>	Date: 01/06/2024
8	Statutory compliance	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of

		Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	
		<p>PPs Submission: Complied</p> <p>For existing plants, RIL DMD complies with the rules and guidelines under provisions of the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 and as amended from time to time are being complied by ensuring the following activities: • Preparation of safety audit report (submitted to DISH regularly) enclosed as Annexure XXXIV. • Preparation of emergency response plan. Copy of one such plan is enclosed as Annexure XXXV. • Conducting mock drills on regular basis. One such mock drill report is enclosed as Annexure XXXVI. • Provision of emergency alert system like sirens, announcement etc and ensuring their healthiness. Details of siren submitted to DISH is enclosed as Annexure XXXVII • Mutual aid arrangement with neighboring industries. Agreement copy is enclosed as Annexure XXXVIII. Transportation of hazardous chemical is carried out as per the Motor Vehicle Act & Rules like: • Emergency information panel on Carrier • The product name, UN number, and CTU (Container carrier unit) identification number on the shipping document. • Training imparted to drivers by RIL Driver Safety Training Center and it is valid for one year for liquid / gas carrier drivers and two years for carrier driver. • Refresher training also shall be given by Driver Safety Training Center. • TREM Card. • Instruction to drivers on emergency situations. The same will be extended to proposed project.</p>	Date: 01/06/2024
9	Statutory compliance	Compliance to all the environmental conditions stipulated in the earlier environmental clearance shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional Office at Bhopal.	
		<p>PPs Submission: Complied</p> <p>All the environment conditions stipulated in earlier Environment Clearances are complied with. Six monthly compliance reports of all the ECs are being submitted to MoEF&CC Bhopal regularly for existing plants. Debottlenecking (DBN) of existing petrochemical plants is being done in phased manner. Phase 1 of DBN is completed. However, the Proposed expansion / New plants of DMD petrochemical plant / complex is yet to be started.</p>	Date: 01/06/2024
10	MISCELLANEOUS	All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, Greenbelt, uploading of compliance report on the website etc have been implemented.	
		<p>PPs Submission: Complied</p> <p>For existing plants, air pollution control and monitoring equipment's like Bag filters, absorbers, scrubbers, cyclone separator etc. are already installed, tested and interlocked with process to control process emissions. Consent to Establish (CTE) for proposed debottlenecking and expansion project has been granted by Gujarat Pollution Control Board via letter No: GPCB/BRCH-B/CCA-717(13)/ID-15565/465789 dated 16th August, 2018. For existing plant Gujarat Pollution Control Board has accorded Consolidated Consent & Authorization (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026.</p>	Date: 01/06/2024
11	AIR QUALITY MONITORING AND PRESERVATION	The fuel used for the proposed project shall largely ethane, lean gas, & off gas	
		<p>PPs Submission: Complied</p> <p>The clean fuels e.g. Ethane, lean gas, & off gas etc. is used as fuel in existing plants and will be continued for the proposed project.</p>	Date: 01/06/2024
12	Human Health Environment	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	
		<p>PPs Submission: Complied</p> <p>For existing plants, RIL-DMD has its own NABH accredited Occupational Health Center with</p>	Date: 01/06/2024

<p>NABL accredited pathology lab. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment Medical Examination) and on annual basis for all employees. The same will be extended to proposed project. Photograph of Occupational Health Centre is enclosed as Annexure XXX and typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI.</p>		
13	WASTE MANAGEMENT	<p>Effluent generation shall not exceed 39,686 m³/day after expansion. Effluent shall be treated in existing ETP followed by RO. The treated effluent shall be partly recycled after RO for in plant use and rest shall be discharged to Gulf of Khambhat through an existing diffuser into Narmada estuary after confirming the standards prescribed by CPCB.</p>
<p>PPs Submission: Complied Effluent generation quantity for the existing plant prescribed under Consolidated Consent & Authorization (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 51,002 m³/d. Effluent generation quantity for the existing plant prescribed under Consolidated Consent & Authorization (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 51,002 m³/d. The current effluent generation quantity from the complex for the review period of Oct'23 – Mar'24 is given below: > Description; Permissible Limit (m³/day); Avg; Min; Max; Effluent Generation 51,002 36,435 32,890 39,316 From the above table it can be seen that the average effluent generation rate from the complex for the period Oct'23 – Mar'24 is well below the permissible limit of 51,002 m³/d. Effluent is treated in existing ETP followed by RO. The Treated effluent is then recycled within the complex as Cooling tower make up, DM water production, green belt development and rest is discharged to Gulf of Khambhat through an existing diffuser into Narmada estuary after confirming the standards prescribed by MoEF&CC / CPCB / GPCB. The photographs of existing ETP & RO Plant is annexed as Annexure XXV. >Description Permissible Limit (m³/day) Average (m³/day); >Quantity of Effluent Recycle 14,710 18,338 Details of the above Treated Effluent Monitoring Results is enclosed as Annexure VII.</p>		<p>Date: 01/06/2024</p>
14	WASTE MANAGEMENT	<p>Automatic/online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.</p>
<p>PPs Submission: Complied For existing plants, Automatic/online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system are installed for existing plants. The online monitoring data is made available to the CPCB and SPCB/GPCB. One such online monitoring trend of treated effluent is annexed as Annexure LXXXV for reference</p>		<p>Date: 01/06/2024</p>
15	WASTE MANAGEMENT	<p>Process effluent/ any wastewater shall not be allowed to mix with storm water.</p>
<p>PPs Submission: Complied For existing plants, process effluent / any wastewater is not allowed to mix with storm water. Dedicated network for process effluent & storm water have been established for existing plant. The same will be continued for proposed project. Photographs of storm water channel is enclosed as Annexure LXXXVI.</p>		<p>Date: 01/06/2024</p>
16	MISCELLANEOUS	<p>At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details 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.</p>

<p>PPs Submission: Complied RIL DMD is committed to our Corporate Social Responsibility (CSR) activities for creating, maintaining and sustaining safe & clean environment of the local people. RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued by Reliance Foundation not only in our area but for entire India. Action plan for implementation of Enterprise Social Commitment (ESC) based on local needs with financial and physical breakup / details to be prepared and will be submitted to the Ministry's Regional Office at Bhopal after finalization. Photographs of some of the CSR events held during the reporting period is enclosed as Annexure LXXXVII.</p>		<p>Date: 01/06/2024</p>
17	GREENBELT	As proposed, green belt over 231 ha shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
<p>PPs Submission: Complied For existing plants, site has already developed around 203 ha of green cover as per the CPCB guidelines at Dahej Petrochemical Complex. Site has developed lush green belt on all sides along the periphery of the complex. The proposed project will be developed within existing premises. Every year plantation drive is being done to strengthen the green cover in the complex. During the reporting period Oct'23 – Mar'24: Around 8,000 trees have been planted in the complex, at open areas of GIDC near site and at road dividers outside of complex. Photographs of green belt developed during the reporting period is annexed as Annexure XXIX.</p>		<p>Date: 01/06/2024</p>
18	WASTE MANAGEMENT	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
<p>PPs Submission: Complied For existing plants, the hazardous chemicals are stored in tanks, tank farms, drums, carboys etc. as per permission granted by PESO. Flame arresters are already provided on tanks. Solvent is being transferred by pumps. Photograph of tank farm area is enclosed as Annexure LVII. The same will be continued for proposed project.</p>		<p>Date: 01/06/2024</p>
<p>General Conditions</p>		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
<p>PPs Submission: Complied RIL DMD will 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 etc, relating to the project is / will be implemented. EMP Budget expenditure taken is INR 400 Crores, out of which expenditure of INR 105 Crores done on measures of EMP during DBN of existing petrochemical plants and the remaining will be done during proposed expansion / New plants of DMD petrochemical plant / complex. Proposed expansion / New plants of DMD petrochemical plant / complex is yet to be started.</p>		<p>Date: 01/06/2024</p>
2	Statutory compliance	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, 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.
<p>PPs Submission: Complied</p> <p>Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis Proof of submission of last EC Compliance report is enclosed as Annexure XVI.</p>		Date: 01/06/2024
3	Statutory compliance	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 by e-mail.
<p>PPs Submission: Complied</p> <p>For existing plants, the environmental statement for each financial year ending 31st March in prescribed Form-V is submitted to the Gujarat Pollution Control Board. Environment Statement for the financial year 2022-23 was submitted via letter no RIL-DMD/HSEF/ENV/2023/68 dated 25th September, 2023. The same is enclosed as Annexure LXXXVIII.</p>		Date: 01/06/2024
4	Statutory compliance	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.
<p>PPs Submission: Complied</p> <p>The public was informed through public notice published in English Newspaper – The Times of India & Gujarati Newspaper – Divyabhaskar on 10th & 11th April 2017 respectively which is enclosed as Annexure LXXXIX. The copy of the same has already been submitted to the Regional Office of the MoEF&CC, Bhopal vide our letter dated 13th April 2017.</p>		Date: 01/06/2024
5	MISCELLANEOUS	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.
<p>PPs Submission: Complied Complied</p>		Date: 02/01/2024
<p>PPs Submission: Complied</p> <p>Noted. Concerned authorities will be informed.</p>		Date: 01/06/2024
6	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and any other statutory authority.

<p>PPs Submission: Complied For existing plants, as mentioned in above conditions and the summary of environmental monitoring results, RIL DMD is complying with all the standards and stipulations made by the Gujarat State Pollution Control Board, the State Government and any other statutory authority. Stipulations made by the Gujarat Pollution Control Board vide CTO (Consent to Operate) / CCA (Consolidated Consent & Authorisation) order no AWH-121992 dated 25th November 2022 which is valid up to 3rd November, 2026 are strictly adhered to.</p>		<p>Date: 01/06/2024</p>
7	<p>AIR QUALITY MONITORING AND PRESERVATION</p>	<p>The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.</p>
<p>PPs Submission: Complied The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 is being strictly followed. Details of AAQ Monitoring data can be referred as Annexure VI.</p>		<p>Date: 01/06/2024</p>
8	<p>MISCELLANEOUS</p>	<p>The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.</p>
<p>PPs Submission: Complied RIL-DMD has undertaken rainwater harvesting measures to recharge the ground water such as a rain water harvesting pond is established for collecting and storing the rain water. The collected water is used inside the plant to supplement fresh water supply thereby minimizing water drawl from the weir to that extent. It also helps in recharging of the ground water. Apart from these, various efforts are taken to minimize the water withdrawal e.g. reduction in fresh water requirement for utilization as make up water in cooling towers by recycling treated water in cooling towers etc. Photograph of Rain water harvesting pond is enclosed as Annexure XXVIII.</p>		<p>Date: 01/06/2024</p>
9	<p>Human Health Environment</p>	<p>Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.</p>
<p>PPs Submission: Complied Training is imparted to all the employees on safety and health aspects of chemicals handling. The chemical handling related, safety and health training is imparted to all workers on RIL role and all contractor workers as well. The level-1 and level-2 training is provided to the contract workers which includes the safe work practices related to safe chemical handling and use of PPEs. At RIL DMD, employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPE. Pre-employment and routine periodical medical examination for all employees is carried out by OHC annually and records are maintained as per the Gujarat Factories Act & Rules. Records of various trainings imparted to all is enclosed as Annexure LIX. Above mentioned points / measures will be extended to proposed project.</p>		<p>Date: 01/06/2024</p>
10	<p>Statutory compliance</p>	<p>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.</p>
<p>PPs Submission: Complied No further expansion or modernization of petrochemical plants at RIL-DMD have been carried out without prior approval of MoEF&CC. This EC is also issued for expansion of our existing petrochemical complex for which RIL-DMD has got the EC in 1991 and expansion was carried out</p>		<p>Date: 01/06/2024</p>

only after obtaining the prior approval from MoEF&CC / SEIAA in 2007, 2008, 2011, 2015, 2017 and 2021. No changes / deviations / alteration in the project proposal from those submitted to the Ministry for clearance have taken place at the DMD complex during the review period.		
11	AIR QUALITY MONITORING AND PRESERVATION	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 stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
<p>PPs Submission: Complied</p> <p>The location of ambient air quality monitoring is decided in consultation with the Gujarat Pollution Control Board. The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex based on the mathematical modeling studies considering wind directions and the maximum Ground Level Concentration in downwind direction. Consultation letter with GPCB and AAQM location map is enclosed in Annexure XVII for reference. Ambient air quality monitoring is carried out at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Details of AAQ Monitoring data can be referred as Annexure VI.</p>		Date: 01/06/2024
12	Noise Monitoring & Prevention	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)..
<p>PPs Submission: Complied</p> <p>The overall noise levels in and around the plant area are kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The same measures will be extended to proposed project. Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it conforms to the standard prescribed under EPA Rules, 1989 viz. 75 dBA (Day Times) and 70 dBA (Night time). MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Detailed noise monitoring report is enclosed as Annexure XIV.</p>		Date: 01/06/2024
13	MISCELLANEOUS	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
<p>PPs Submission: Complied</p> <p>RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued by Reliance Foundation not only in our area but for entire India and the same will be continued.</p>		Date: 01/06/2024
14	MISCELLANEOUS	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
<p>PPs Submission: Complied</p> <p>A separate Environment Cell, headed by Environment Head with environment qualification and 17 plus year experience. The cell is supported by 2 qualified Environment professionals (Env. Engg). Environment Head reports the Site President RIL-DMD has a full-fledged Quality Assurance (Laboratory) dept., manned with qualified Lab-technicians under the supervision of competent & well-experienced managers who also carry out the sample analysis. The Laboratory Head directly reports to the Technical Head of the complex. Photographs of the Laboratory is enclosed as Annexure XII</p>		Date: 01/06/2024

15	MISCELLANEOUS	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
PPs Submission: Complied Copy of the clearance letter is sent to all the concerned parties.		Date: 01/06/2024
16	MISCELLANEOUS	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.
PPs Submission: Complied RIL-DMD has undertaken relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities are undertaken by involving local villages and administration. Further, RIL is committed to our Corporate Social Responsibility (CSR) activities for creating, maintaining and sustaining safe & clean environment of the local people. RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued by Reliance Foundation not only in our area but for entire India.		Date: 01/06/2024
17	MISCELLANEOUS	The company shall earmark sufficient funds towards capital cost and recurring cost per annum 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. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.
PPs Submission: Complied Sufficient funds are earmarked every year for environmental management including monitoring and analysis. The funds earmarked for environment management / pollution control measures are not diverted for any other purpose. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 108.3 Crore. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores		Date: 01/06/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		DMD Annexures are uploaded as Additional Attachment

**Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)**

Acknowledgment

Proposal Name	Expansion and Debottlenecking of existing Petrochemical Plant by M/s Reliance Industries Limited located at Plot No. 1, Notified Industrial Area, GIDC Dahej, Bharuch, Gujarat - Consideration of Environmental Clearance regarding		
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED		
Village(s)	N/A		
District	BHARUCH		
Proposal No.	IA/GJ/IND2/209217/2020	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	NA
MoEF File No.	J-11011/39/2016-IA II (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office RELIANCE INDUSTRIES LIMITED

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethane/ Propane	Tons per Annum (TPA)	N/A	6,50,000	0	
2	Propylene	Tons per Annum (TPA)	N/A	1,60,000	19,480	
3	Mixed C4+	Tons per Annum (TPA)	N/A	47,450	16,420	
4	Ethylene	Tons per Annum (TPA)	N/A	7,00,000	4,30,513	
5	RARFS (Pyrolysis Gasoline)	Tons per Annum (TPA)	N/A	54,750	7,111	
6	Fuel Oil	Tons per Annum (TPA)	N/A	40,000	8,716	
7	Tar Residue	Tons per Annum (TPA)	N/A	5,472	0	
8	Ethylene Dichloride (EDC)	Tons per Annum (TPA)	N/A	5,88,000	1,95,524	
9	Vinyl Chloride Monomer (VCM)	Tons per Annum (TPA)	N/A	3,60,000	3,56,083	
10	Light Ends	Tons per Annum (TPA)	N/A	16,100	0	
11	HCl	Tons per Annum (TPA)	N/A	2,15,800	19,701	
12	Polyvinyl Chloride (PVC)	Tons per Annum (TPA)	N/A	3,60,000	3,53,809	
13	PEG	Tons per Annum (TPA)	N/A	19,850	0	
14	Ethylene Vinyl Acetate (EVA)	Tons per Annum (TPA)	N/A	15,000	0	
15	PTA	Tons per Annum (TPA)	N/A	65,00,000	25,66,340	
16	Crude Benzoic Acid Mix	Tons per Annum (TPA)	N/A	1,20,000	15,157	
17	Coal Based Power	MW	N/A	270	-	
18	Tri Ethylene Glycol	Tons per Annum (TPA)	N/A	1,270	663	
19	Chlorine	Tons per Annum (TPA)	N/A	1,87,000	1,50,343	
20	Caustic Soda	Tons per	N/A	2,21,000	1,69,331	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MoEF&CC. Outcome from the report to be implemented for conservation scheme.
PPs Submission: Complied The proposed project has not yet implemented. The condition will be complied with after the implementation of proposed project. Will be Complied With		Date: 31/05/2024
2	Risk Mitigation and Disaster Management	The company shall conduct 3D modeling for determining risk at individual & cumulative level, safety aspects related to detectors/regulators shall also be included and action taken report shall be submitted to the Ministry within nine (09) months.
PPs Submission: Complied The projects granted in the clearance are yet to be started except the additional APCM (i.e. additional incinerator in VCM plant and regenerative Thermal Oxidiser). The CTE granted by the Board for the project in line with EC vide letter no. J-11011/39/2016-IA-II (I) dated 19/08/2021. A comprehensive risk assessment will be carried out for the plants mentioned in EC once Technology and Front End Engineering Documents are finalized for the proposed project. In view of the above a comprehensive 3D model has been planned to be carried out once the design details are finalized. Being Complied.		Date: 31/05/2024
3	MISCELLANEOUS	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, and risk mitigation measures relating to the project shall implemented.
PPs Submission: Complied RIL DMD will 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 etc, relating to the project is / will be implemented. EMP Budget expenditure taken is INR 400 Crores, out of which expenditure of INR 105 Crores done on measures of EMP during DBN of existing petrochemical plants and the remaining will be done during proposed expansion / New plants of DMD petrochemical plant / complex. Proposed expansion / New plants of DMD petrochemical plant / complex is yet to be started. For details please refer to Sr. No. B (VIII) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. Proposed expansion / New plants of DMD petrochemical plant / complex is yet to be started. Noted and will be complied		Date: 31/05/2024
4	Statutory compliance	Total fresh water requirement shall not exceed 24,000 m3/day, proposed to be met from GIDC water supply and supply from Vadodara Irrigation Division. Necessary permission in this regard shall be obtained from the concerned regulatory authority.
PPs Submission: Complied Proposed expansion / New plants of DMD petrochemical plant / complex is yet to be started. Total fresh water requirement will not exceed 24,000 m3/day, proposed to be met from GIDC water supply and supply from Vadodara Irrigation Division after the proposed debottlenecking and expansion of the plant. Fresh Water requirement is met from river Narmada through Jack wells at Angareshwar with prior approval from Irrigation department for water drawl. For details please refer to Sr. No. A (VI) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. Complied		Date: 31/05/2024

5	MISCELLANEOUS	A separate Environmental Management Cell (having qualified person with Environmental Science / Environmental Engineering / specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
<p>PPs Submission: Complied</p> <p>A separate Environment Cell, headed by Environment Head with environment qualification and 17 plus year experience. The cell is supported by 2 qualified Environment professionals (Env. Engg). Environment Head reports the Site President. RIL-DMD has a full-fledged NABL Accredited Quality Assurance (Laboratory) dept., manned with qualified Lab-technicians under the supervision of competent & well-experienced managers who also carry out the sample analysis. The Laboratory Head directly reports to the Technical Head of the complex. Complied.</p>		Date: 31/05/2024
6	Risk Mitigation and Disaster Management	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be per the norms.
<p>PPs Submission: Complied</p> <p>For existing plants, necessary arrangement is made for protection of possible fire hazards during manufacturing process in material handling. Fire protection system is provided using National Fire Protection Association (NFPA) / TAC guidelines. Fire protection systems consists mainly of 7 fire tenders, more than 5500 portable fire extinguishers, 600 fire buckets, 56 foam systems and a network of more than 1100 double head hydrant posts all-round the plant area along with 250 water spray system / fume suppression system / sprinkler system and fire water pipeline network laid around 90 km. Also, more than 9000 automatic fire detection and alarm, manual fire alarm system, adequate capacity fire water storage tanks etc. have been installed. All these fire detection and protection measures are maintained and supported by a competent and experienced team of around 13 crew members / officers in each shift round the clock. The same will be extended to proposed project, Complied.</p>		Date: 31/05/2024
7	AIR QUALITY MONITORING AND PRESERVATION	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.
<p>PPs Submission: Complied</p> <p>Continuous online emission / effluent monitoring analysers (CEMS) have been provided in existing plants. We will provide CEMS in proposed projects as per the requirements. Online pH, BOD, COD & TSS analyzers are provided at the outlet of the ETP. Photograph of online monitoring system and analyzer room can be seen in Annexure XLV. Being Complied.</p>		Date: 31/05/2024
8	Human Health Environment	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 deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
<p>PPs Submission: Complied</p> <p>For existing plants, RIL-DMD has its own NABH accredited Occupational Health Center with NABL accredited pathology lab. Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC. Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment medical Examination) and on annual basis for all employees. The same will be extended to proposed project. All workers & employees are provided with required safety kits/mask for personal protection. Complied.</p>		Date: 31/05/2024
9	Statutory compliance	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.
	<p>PPs Submission: Complied</p> <p>Proposed expansion of DMD petrochemical plant / complex is yet to be started. Emissions from the stacks are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results indicate the conformance to the prescribed standard. All results are conforming to the standards prescribed. Review of monthly monitored values of process stacks for the reporting period Oct'23 – Mar'24 shows all results are conforming to the standards prescribed. Detailed stack emission monitoring report is enclosed as Annexure III. Emission levels are displayed at a convenient location near the main gate of the company. Stack emission report and AAQ reports are regularly submitted to the Regional Office of the MoEF&CC, Bhopal / CPCB on six monthly bases and to GPCB on monthly basis. Complied.</p>	Date: 31/05/2024
10	Risk Mitigation and Disaster Management	Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted through 3D modeling for worst case scenarios using latest techniques.
	<p>PPs Submission: Complied</p> <p>Proposed expansion of DMD petrochemical plant / complex is yet to be started. Being Complied</p>	Date: 31/05/2024
11	Risk Mitigation and Disaster Management	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.
	<p>PPs Submission: Complied</p> <p>For existing plants, the hazardous chemicals are stored in tanks, tank farms, drums, carboys etc. as per permission granted by PESO. Flame arresters are already provided on tanks. Solvent is being transferred by pumps. For details please refer to Sr. No. A (X) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. The same will be continued for proposed project. Complied.</p>	Date: 31/05/2024
12	AIR QUALITY MONITORING AND PRESERVATION	Regular VOC monitoring shall be done at vulnerable points.
	<p>PPs Submission: Complied</p> <p>Proposed expansion of DMD petrochemical plant / complex is yet to be started. VOCs (Benzene) monitoring in ambient air is being done regularly through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the results are being submitted to the GPCB / MoEF&CC. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II VOCs at the process areas are also being monitored in every plant under the Leak detection and Repair Program (LDAR). Typical LDAR Report of one the plant is enclosed as Annexure XIX. For details please refer to Sr. No. A (IV) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. The same will be continued for proposed project. Complied.</p>	Date: 31/05/2024
13	WASTE MANAGEMENT	The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio- remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.
	<p>PPs Submission: Complied</p> <p>Proposed expansion of DMD petrochemical plant / complex is yet to be started. Will be complied</p>	Date: 31/05/2024
14	WASTE MANAGEMENT	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. c) Use of automated filling to minimize spillage. d) Use of Close Feed system

		into batch reactors. e)Venting equipment through vapour recovery system. f)Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.
<p>PPs Submission: Complied All active ingredients are metered at all the plants. Metering and control is provided for active ingredients to ensure waste minimization. Will be continued for the proposed project. Complied. Proposed expansion of DMD petrochemical plant / complex is yet to be implemented. Will be complied Automated and enclosed material transfer system implemented to minimize spillages. Proposed expansion of DMD petrochemical plant / complex is yet to be started Complied. Proposed expansion of DMD petrochemical plant / complex is yet to be started. Will be complied Will be considered during design stage of proposed project. The proposed project is yet to be started. Will be complied The proposed project is yet to be started. Will be complied</p>		<p>Date: 31/05/2024</p>
15	GREENBELT	The green belt of 5-10 m width shall be developed in 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
<p>PPs Submission: Complied For existing plants, site has already developed 33% of green cover as per the CPCB guidelines at Dahej Petrochemical Complex. Site has developed lush green belt on all sides along the periphery of the complex. The proposed project will be developed within existing premises. Every year plantation drive is being done to strengthen the green cover in the complex. Complied.</p>		<p>Date: 31/05/2024</p>
16	Corporate Environmental Responsibility	As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.
<p>PPs Submission: Complied Number of activities are undertaken to address the socio-economic and environmental issues in the nearby area every year based on the requirements. We are supporting child education, health care facilities and drinking water supply and women empowerment in the nearby areas through various initiatives. Complied</p>		<p>Date: 31/05/2024</p>
17	Corporate Environmental Responsibility	The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development center/provide skill development training to village people.
<p>PPs Submission: Complied Proposed expansion of DMD petrochemical plant / complex is yet to be started. Will be complied</p>		<p>Date: 31/05/2024</p>
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	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.

PPs Submission: Complied Noted.		Date: 31/05/2024
2	Statutory compliance	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.
PPs Submission: Complied The public was informed through public notice published in English Newspaper – The Times of India & Gujarati Newspaper – Gujarat Samachar on 24th August 2021, which is enclosed as Annexure XC The copy of the same has already been submitted to the Regional Office of the MoEF&CC, Bhopal vide our letter dated 25th August 2021. Complied.		Date: 31/05/2024
3	MISCELLANEOUS	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, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.
PPs Submission: Complied Noted.		Date: 31/05/2024
4	Statutory compliance	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 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.
PPs Submission: Complied No further expansion or modernization of petrochemical plants at RIL-DMD have been carried out without prior approval of MoEF&CC. This EC is also issued for expansion of our existing petrochemical complex for which RIL-DMD has got the EC in 1991 and expansion was carried out only after obtaining the prior approval from MoEF&CC / SEIAA in 2007, 2008, 2011, 2015,2017 and 2021. No changes / deviations / alteration in the project proposal from those submitted to the Ministry for clearance have taken place at the DMD complex during the review period. Complied.		Date: 31/05/2024
5	ENERGY PRESERVATION MEASURES	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
PPs Submission: Complied Will be considered in the design stage for proposed project Energy conservation methods like use of LED lighting for office, street lighting and plant peripheral lighting, programmable timers for lighting in non-plant areas are being implemented. Complied.		Date: 31/05/2024
6	Noise Monitoring & Prevention	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).	
		<p>PPs Submission: Complied</p> <p>The overall noise levels in and around the plant area are kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The same measures will be extended to proposed project. Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it conforms to the standard prescribed under EPA Rules, 1989 viz. 75 dBA (Day Times) and 70 dBA (Night time). For details please refer to S.No. B(V) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II. Results indicate that the ambient noise levels during the reporting period Oct'23 – Mar'24 has not exceeded the prescribed limit. Detailed noise monitoring report is enclosed as Annexure XIV. Complied.</p>	Date: 31/05/2024
7	Corporate Environmental Responsibility	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.	
		<p>PPs Submission: Complied</p> <p>RIL-DMD has undertaken relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities are undertaken by involving local villages and administration. Further, RIL is committed to our Corporate Social Responsibility (CSR) activities for creating, maintaining and sustaining safe & clean environment of the local people. RIL-DMD has taken up many activities for the up-liftment of nearby community. The same has been continued by Reliance Foundation not only in our area but for entire India. Complied.</p>	Date: 31/05/2024
8	MISCELLANEOUS	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.	
		<p>PPs Submission: Complied</p> <p>Sufficient funds are earmarked every year for environmental management including monitoring and analysis. The funds earmarked for environment management / pollution control measures are not diverted for any other purpose. Recurring expenditure incurred to comply with the conditions stipulated by MoEF&CC / SEIAA / GPCB for the period Oct'23 – Mar'24 is about INR. 108.3 Crore. Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below: • Environment monitoring – INR 31.49 Lakhs • Online Continuous emission and effluent monitoring systems – INR 46.27 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 102.71 Crores • Waste management – INR 73.24 Lakhs • Green belt development – INR 2.83 Crores Complied.</p>	Date: 31/05/2024
9	MISCELLANEOUS	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.	
		<p>PPs Submission: Complied</p>	Date:

Copy of the clearance letter is sent to all the concerned parties. Copy of EC was submitted vide our letter no. RIL-DMD/HSEF/ENV/2021/55-61 dated 20th Aug 2021 to Collector Office, District Panchayat Office, Ambetha, Dahej Jageshwar, Lakhigam and Luvara Gram Panchayats Complied.		31/05/2024
10	Statutory compliance	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.
<p>PPs Submission: Complied</p> <p>Six monthly reports on the status of compliance of stipulated Environment Clearance conditions including results of monitored data is being submitted to the Integrated Regional Office of MoEF&CC, Gandhinagar and CPCB / GPCB / SEIAA regularly. Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis For details, please refer to S.No. B(XIV) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. Proof of submission of last EC Compliance report is enclosed as Annexure XVI. Complied.</p>		Date: 31/05/2024
11	Statutory compliance	The environmental statement for each financial year ending 31 March in Form-Vas 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.
<p>PPs Submission: Complied</p> <p>Proposed expansion of DMD petrochemical plant / complex is yet to be started. For existing plants, the environmental statement for each financial year ending 31st March in prescribed Form-V is submitted to the Gujarat Pollution Control Board. Environment Statement for the financial year 2022-23 was submitted via letter no RIL-DMD/HSEF/ENV/2023/68 dated 25th September, 2023. The same is enclosed as Annexure LXXXVIII. For details, please refer to S.No. B(XV) of compliance report of EC Order no F. No. J-11011/39/2016-IA-II (I) dated 03rd April 2017. Complied.</p>		Date: 31/05/2024
12	MISCELLANEOUS	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.
<p>PPs Submission: Complied</p> <p>Noted. Concerned authorities will be informed.</p>		Date: 31/05/2024
13	MISCELLANEOUS	The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
<p>PPs Submission: Complied</p> <p>Noted.</p>		Date: 31/05/2024

14	MISCELLANEOUS	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
PPs Submission: Complied This condition is not applicable to us.		Date: 31/05/2024
15	MISCELLANEOUS	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
PPs Submission: Complied Noted.		Date: 31/05/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		DMD Annexures are uploaded as Additional Attachment.

**Compliance Status for the Consolidated Consent & Authorisation
Consent Order No. AWH-111189 dated 16th January 2021 and its
CCA Amendment No. AWH-121992 dated 25th November 2022**

GPCB has issued Consolidated Consent and Authorization Amendment (CC & A - Amendment) vide CCA Amendment Order No. AWH-121992 dated 25/11/2022 with reference to Consolidated Consent and Authorization (CC & A) vide Consent order no. AWH-111189 dated 16/01/2021 to M/s. Reliance Industries Limited, Dahej Manufacturing Division, At & Post: Dahej-392 130, Taluka :Vagra, Dist: Bharuch, under 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 Hazardous and Other Waste (Management & Transboundary) Rules, 2016 framed under E (P) ACT 1986 which is valid upto 03/11/2026.

Sr. No.	CCA Conditions	Compliance Status of CCA Conditions												
I.	Consent Amendment Order No : AWH-121992, date of Issue 25/11/2022													
1.	SPECIFIC CONDITIONS													
a)	Quantity of HCl generated from incinerator of VCM plant shall be increased from 36,000 MTPA to 72,000 MTPA and entire quantity of it shall be recycled/consumed captively.	Complied.												
b)	In case of sending HCl generated from incinerator of VCM plant outside the premises, it shall be sent to actual end users having rule-9 permission and valid CCA.	Complied.												
c)	Unit shall comply all the conditions stipulated by MOEF & CC in the order of Environment Clearance (EC) issued vide letter no. F.No.J-11011/39/2016-IA II (1) dated 19.08.2021.	All the conditions stipulated by MOEF & CC in the order of Environment Clearance (EC) issued vide letter no. F.No.J-11011/39/2016-IA II (1) dated 19.08.2021 are complied with. Complied.												
d)	Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter.	Noted.												
2.	CONDITION UNDER THE WATER ACT:													
2.1	<p>The condition no. 3.1 for Water Consumption under the Water Act of the CCA order no: AWH-111189 issued vide letter no. GPCB/ BRCH-B/ CCA-717(18)/ ID-15565/582554 dated 02/02/2021 is amended and shall now be read as under:</p> <p>a. Domestic: 2100 KL/Day (Existing 2100 KLD+ Proposed: NIL)</p> <p>b. Industrial: 1,36,600 KL/Day (Existing 1,35,900 KLD + Proposed 700 KLD)</p> <p>Total: 1,38,700 KL/Day (Existing 1,38,000 KLD + Proposed 700 KLD)</p>	<p>Average domestic water consumption was 904 KLD and fresh water requirement was 89,332 KLD for the period Oct'23 – Mar'24 which is not exceeding the permissible limit of 1,38,700 KLD.</p> <p>The summary of Domestic water consumption during reporting period of Oct'23 – Mar'24 is presented as below:</p> <table border="1" data-bbox="841 1570 1461 1717"> <thead> <tr> <th colspan="4">Domestic Water Consumption (KL/day)</th> </tr> <tr> <th>Prescribed Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>2100</td> <td>904</td> <td>858</td> <td>959</td> </tr> </tbody> </table> <p>The summary of fresh water consumption during reporting period of Oct'23 – Mar'24 is presented as below:</p>	Domestic Water Consumption (KL/day)				Prescribed Limit	Avg	Min	Max	2100	904	858	959
Domestic Water Consumption (KL/day)														
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Prescribed Limit	Avg	Min	Max																							
1,38,700	89,332	82,008	94,667																							
2.2	<p>The condition no. 3.2 for wastewater Generation under the water Act of the CCA order No: AWH-111189, issued vide letter no. GPCB/ BRCH-B/ CCA-717(18)/ ID-15565/582554, dated 02/02/2021 is amended and shall now be read as under:</p> <p>a. Domestic: 1680 KL/Day (Existing 1680 KLD+ Proposed: NIL)</p> <p>b. Industrial: 49322 KL/Day (Existing 49,122 KLD + Proposed 200 KLD)</p> <p>Total: 51,002 KL/Day (Existing 50,802 KLD + Proposed 200 KLD)</p>	<p>Average domestic wastewater generation was 498 KLD and waste water generation was 36,435 KL/day during reporting period of Oct'23 – Mar'24 which is well within the permissible limit of 51,002 KL/day.</p> <p>Data for domestic effluent generation quantity for the Oct'23 – Mar'24 is presented below which is also being submitted to GPCB on monthly basis.</p> <table border="1"> <thead> <tr> <th colspan="4">Domestic Effluent Generation (KL/day)</th> </tr> <tr> <th>Permissible Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>1680</td> <td>498</td> <td>314</td> <td>549</td> </tr> </tbody> </table> <p>Data for effluent generation quantity for the Oct'23 – Mar'24 is presented below which is also being submitted to GPCB on monthly basis.</p> <table border="1"> <thead> <tr> <th colspan="4">Effluent Generation (KL/day)</th> </tr> <tr> <th>Permissible Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>51,002</td> <td>36,435</td> <td>32,890</td> <td>39,316</td> </tr> </tbody> </table> <p>Complied.</p>	Domestic Effluent Generation (KL/day)				Permissible Limit	Avg	Min	Max	1680	498	314	549	Effluent Generation (KL/day)				Permissible Limit	Avg	Min	Max	51,002	36,435	32,890	39,316
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2.3	<p>The condition No. 3.3 for treatment and mode of disposal of wastewater under the Water Act of the CCA order no. AWH-111189 issued vide letter no. GPCB/ BRCII-B/ CCA-717(18)/ ID-15565/582554 dated 02/02/2021 is amended and shall now be read as under:</p> <p>Out of 51,002 KLD of treated wastewater, 14,710 KLD (including proposed 200 KLD) shall be reused/recycled for industrial purpose within premises, whereas rest of 36,292 KLD after conforming norms as per previous CCA shall be discharged into the deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser. After conforming norms as per previous CCA, cooling tower blowdown shall be discharged into the deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser.</p>	<p>Average effluent recycle quantity from the complex is around 18,338 KL/day. In the review period Oct'23 – Mar'24, out of the 36,435 KL/day of effluent generated from complex, 18,097 KL/day of treated effluent was discharged into the deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser.</p> <p>The summary for the effluent data for the reporting period Oct'23 – Mar'24 is given as below:</p> <table border="1"> <thead> <tr> <th>Aspect</th> <th>Permissible Limit (KL/day)</th> <th>Avg. Quantity (KL/day)</th> </tr> </thead> <tbody> <tr> <td>Effluent Generation</td> <td>51,002</td> <td>36,435</td> </tr> <tr> <td>Effluent Discharge</td> <td>36,292</td> <td>18,097</td> </tr> <tr> <td>Effluent Recycle</td> <td>14,710</td> <td>18,338</td> </tr> <tr> <td>Percentage of Effluent Recycling</td> <td>30 %</td> <td>50%</td> </tr> </tbody> </table> <p>It can be seen from the above data table that the treated Effluent recycling is done to maximum extent possible.</p> <p>Treated effluent is being monitored on monthly basis through MoEF&CC recognised & NABL accredited</p>	Aspect	Permissible Limit (KL/day)	Avg. Quantity (KL/day)	Effluent Generation	51,002	36,435	Effluent Discharge	36,292	18,097	Effluent Recycle	14,710	18,338	Percentage of Effluent Recycling	30 %	50%									
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laboratory M/s Netel (India) Limited, Navi Mumbai and the quality of effluent is maintained well within the norm prescribed by the GPCB. The treated effluent is discharged after conforming to the GPCB standards through existing effluent disposal pipeline equipped with multipoint diffuser.

A summary of major effluent monitoring parameters results for the period Oct'23 – Mar'24 is presented below.

Parameter	Unit	GPCB Consent Limit	Avg	Min	Max
pH	-	5.5-9.0	7.91	7.72	8.20
Colour and odour	-	All efforts shall be made to remove colour and unpleasant odour as far as practicable.	Colorless and Odourless		
Suspended Solids	mg/l	100	22.50	19.00	25.00
Temperature	o C	Shall not exceed 5°C above the receiving water temperature	28.48	27.40	29.60
Oil & Grease	mg/l	20	< 0.2	< 0.2	< 0.2
Total Residual Chlorine	mg/l	1	< 0.1	< 0.1	< 0.1
Ammonical Nitrogen (as N)	mg/l	50	13.13	12.50	14.30
Total Kjeldahl Nitrogen(as NH3)	mg/l	100	17.62	5.10	32.40
Free Ammonia (as NH3)	mg/l	5	< 0.1	< 0.1	< 0.1
Biochemical Oxygen Demand	mg/l	100	39.37	34.20	42.50
Chemical Oxygen Demand	mg/l	250	147.00	124.00	172.00
Arsenic (as AS)	mg/l	0.2	< 0.01	< 0.01	< 0.01
Mercury (as Hg)	mg/l	0.01	< 0.005	< 0.005	< 0.005
Lead (as Pb)	mg/l	2	< 0.05	< 0.05	< 0.05
Cadmium (as Cd)	mg/l	2	< 0.03	< 0.03	< 0.03
Hexavalent Chromium (as Cr+6)	mg/l	1	< 0.05	< 0.05	< 0.05
Total Chromium (as Cr)	mg/l	2	< 0.01	< 0.01	< 0.01
Copper (as Cu)	mg/l	3	< 0.04	< 0.04	< 0.04
Zinc (as Zn)	mg/l	15	1.18	1.10	1.30
Selenium (as Se)	mg/l	0.05	< 0.05	< 0.05	< 0.05
Nickel (as Ni)	mg/l	5	< 0.01	< 0.01	< 0.01
Cyanide (as CN)	mg/l	0.2	< 0.03	< 0.03	< 0.03

		Fluorides (as F)	mg/l	15	0.28	0.21	0.35																																																			
		Sulphides	mg/l	5	< 0.1	< 0.1	< 0.1																																																			
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	<p>Note: Lime Stone shall be used in lime injector in Coal Based Captive Co-generation Power Plant for S02 emission control and Bed Material shall be used for temperature control.</p>			<p>Complied.</p>																																																						

3.2

The process emission through various stacks and vents of reactors, process, and vessel are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai.

A summary of the gaseous emissions from various process stacks for the period Oct'23 – Mar'24 is presented below.

The condition no. 4.4 for process Gas stacks and process Gas Emission under the Air Act of CCA order no: AWH-111189 issued vide letter no. GPCB/ BRCH-B/ CCA-717(18)/ ID-15565/582554 dated 02/02/2021 is amendment and shall now be read as under:

Existing details of process gas stacks and process gas emission as mentioned in CCA order no: AWH-111189 shall remain unchanged.

Additional Process Stack:

Stack	Stack attached to limit	Stack Height in Meter	Air Pollution Control Measure (APCM)	Parameter	Permissible Limit
14	Incinerator (VCM Plant)	65	DM Water & Caustic Scrubber (HCl Scrubber), Low NOx burner	PM SO2 NOx CO Cl2 HC HCl VCM	150 mg/Nm3 40 mg/Nm3 25 mg/Nm3 150 mg/Nm3 10 mg/Nm3 15 mg/Nm3 30 mg/Nm3 6.6 mg/Nm3

Plant	Parameter	GPCB Consent Limit	Avg	Min	Max
VCM - Stack attached to Incinerator	PM (mg/Nm ³)	150	3.22	2.38	4.25
	SO ₂ (mg/Nm ³)	40	6.80	5.45	8.46
	NO _x (mg/Nm ³)	25	17.29	12.32	20.74
	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0
	HCl (mg/Nm ³)	30	2.38	2.10	2.76
	CO (mg/Nm ³)	150	1.24	1.18	1.35
	HC (mg/Nm ³)	15	2.38	2.14	2.73
	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5
VCM Plant – Stack attached to Vent Scrubber	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0
	HCl (mg/Nm ³)	30	2.60	2.41	2.76
	HC (mg/Nm ³)	15	< 0.2	< 0.2	< 0.2
Chlor Alkali Plant - Stacks Attached to Hypo and HCl synthesis Unit	Cl ₂ (mg/Nm ³)	9	<1.0	<1.0	<1.0
	HCl (mg/Nm ³)	20	2.83	2.15	3.86
PVC Plant- Stacks attached to PVC Dryers	PM (mg/Nm ³)	150	3.43	2.75	3.85
	SO ₂ (ppm)	100	8.22	6.42	9.54
	NO _x (ppm)	50	20.55	15.32	24.36
	CO (mg/Nm ³)	150	2.36	2.24	2.63
	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5
PTA Plant - Stacks attached to Off gas scrubber, atmospheric scrubber and vent scrubber	PM (mg/Nm ³)	150	3.15	2.12	3.83
	SO ₂ (mg/Nm ³)	40	<5	<5	<5
	NO _x (mg/Nm ³)	25	<4	<4	<4

3.3	<p>The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder:</p> <table border="1" data-bbox="277 260 821 506"> <thead> <tr> <th rowspan="2">Sr. No.</th> <th rowspan="2">Parameters</th> <th colspan="2">Permissible Limit (microgram/M3)</th> </tr> <tr> <th>Annual</th> <th>24 Hours Average</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Particulate Matter (PM10)</td> <td>60</td> <td>100</td> </tr> <tr> <td>2.</td> <td>Particulate Matter (PM2.5)</td> <td>40</td> <td>60</td> </tr> <tr> <td>3.</td> <td>Oxides of Sulphur (Sox)</td> <td>50</td> <td>80</td> </tr> <tr> <td>4.</td> <td>Oxides of Nitrogen (NOx)</td> <td>40</td> <td>80</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • 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. 	Sr. No.	Parameters	Permissible Limit (microgram/M3)		Annual	24 Hours Average	1.	Particulate Matter (PM10)	60	100	2.	Particulate Matter (PM2.5)	40	60	3.	Oxides of Sulphur (Sox)	50	80	4.	Oxides of Nitrogen (NOx)	40	80	<p>The concentration of the parameters in the ambient air within the premises does not exceed the limits specified in CCA.</p> <p>The site has established 7 ambient air quality monitoring stations within and outside of the petrochemical complex based on the mathematical modelling studies carried out considering wind directions and the maximum Ground Level Concentration in downwind direction.</p> <p>Ambient Air Quality (AAQ) is being monitored twice in a week at each location through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. The report of monitoring has been submitted every month to GPCB and six monthly to Regional Office of MoEF&CC.</p> <p>A summary of the ambient air monitoring results is presented below.</p> <table border="1" data-bbox="829 716 1471 905"> <thead> <tr> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>100 µg/m³</td> <td>62.70</td> <td>43.00</td> <td>76.00</td> </tr> <tr> <td>PM_{2.5}</td> <td>60 µg/m³</td> <td>23.06</td> <td>10.00</td> <td>38.00</td> </tr> <tr> <td>SO₂</td> <td>80 µg/m³</td> <td>22.63</td> <td>12.90</td> <td>31.50</td> </tr> <tr> <td>NOx</td> <td>80 µg/m³</td> <td>29.49</td> <td>20.00</td> <td>37.60</td> </tr> </tbody> </table> <p>It can be seen from the above table that all results are conforming to the standards prescribed by GPCB.</p> <p>Complied.</p>	Parameter	GPCB Consent Limit	Avg	Min	Max	PM ₁₀	100 µg/m ³	62.70	43.00	76.00	PM _{2.5}	60 µg/m ³	23.06	10.00	38.00	SO ₂	80 µg/m ³	22.63	12.90	31.50	NOx	80 µg/m ³	29.49	20.00	37.60
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3.4	<p>Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above.</p>	<p>All plants and Air Pollution Control Equipment (APCEs) are being operated very efficiently and continuously for controlling the gaseous emissions and to achieve the GPCB prescribed standards.</p> <p>A summary of the flue gas emissions and Process emissions for the period Oct'23 – Mar'24 is given in Condition no 4.3 and 4.4. Monitoring results indicate that the emissions from the stacks are conforming to the GPCB prescribed standards.</p> <p>Also please refer to the summary of AAQ monitoring results given in Condition no 4.5, which indicates that the ambient air quality is also conforms to the GPCB standards of AAQ.</p> <p>By operating all the plants and APCEs effectively and continuously, we are able to control the gaseous emissions and hence ambient air quality well within the standards prescribed by GPCB.</p> <p>Complied.</p>																																															
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2.	The consent under Water Act –1974 shall be valid up to 03/11/2026 for the use of outlet for the discharge of treated effluent & The consent under Air Act – 1981 and Authorization under Environment (Protection) Act, 1986 to operate industrial plant for manufacture of the products mentioned in consent condition.	Products are being manufactured as per details mentioned in the conditions. Complied.												
SPECIFIC CONDITIONS														
a)	Unit shall comply with all the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. F.No.J-11011/39/2016-IA-II(I), dated 03/04/2017.	All the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. F.No.J-11011/39/2016-IA-II(I), dated 03/04/2017 are complied with. Complied.												
b)	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.	Complied.												
c)	Unit shall follow coal handling guideline framed by Board and provide close ash handling system.	Fully covered dedicated coal storage and handling shed is provided and coal handling guidelines framed by the board are complied with. Close ash handling system is also provided. Complied.												
d)	Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH.	Continuous Emission Monitoring Systems (CEMS) is installed and linked with the server of GPCB for real time data transfer. Complied.												
3. CONDITION UNDER THE WATER ACT														
3.1	The quantity of total fresh water consumption shall not exceed 1,38,000 KL/day.	Average fresh water requirement for the period Oct'23 – Mar'24 was 89,332 KLD which is not exceeding the permissible limit of 1,38,000 KLD. The summary of fresh water consumption during reporting period of Oct'23 – Mar'24 is presented as below: <table border="1" data-bbox="841 1262 1464 1409"> <thead> <tr> <th colspan="4">Fresh Water Consumption (KL/day)</th> </tr> <tr> <th>Prescribed Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>1,38,000</td> <td>89,332</td> <td>82,008</td> <td>94,667</td> </tr> </tbody> </table> Complied.	Fresh Water Consumption (KL/day)				Prescribed Limit	Avg	Min	Max	1,38,000	89,332	82,008	94,667
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1,38,000	89,332	82,008	94,667											
3.2	The quantity of total waste water generation shall not exceed 50,802 KL/day.	Average waste water generation during reporting period of Oct'23 – Mar'24 was 36,435 KL/day which is well within the permissible limit of 50,802 KL/day. Data for effluent generation quantity for the Oct'23 – Mar'24 is presented below which is also being submitted to GPCB on monthly basis. <table border="1" data-bbox="841 1696 1464 1854"> <thead> <tr> <th colspan="4">Effluent Generation (KL/day)</th> </tr> <tr> <th>Permissible Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>50,802</td> <td>36,435</td> <td>32,890</td> <td>39,316</td> </tr> </tbody> </table> Complied.	Effluent Generation (KL/day)				Permissible Limit	Avg	Min	Max	50,802	36,435	32,890	39,316
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3.3	<p>Out of 50802 KL/day of treated effluent, 14510 KL/day shall be reused/ recycled in cooling tower, green belt development/ horticulture etc. whereas rest of 36292 KL/day shall be discharge into the deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser. Cooling tower blow down shall be discharged into the sea through the existing effluent disposal pipeline equipped with multiport diffuser at Gulf of Khambhat.</p>	<p>Average effluent recycle quantity from the complex is around 18,338 KL/day. In the review period Oct'23 – Mar'24, out of the 36,435 KL/day of effluent generated from complex, 18,097 KL/day of treated effluent was discharged into the deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser.</p> <p>The summary for the effluent data for the reporting period Oct'23 – Mar'24 is given as below:</p> <table border="1" data-bbox="829 415 1471 693"> <thead> <tr> <th>Aspect</th> <th>Permissible Limit (KL/day)</th> <th>Avg. Quantity (KL/day)</th> </tr> </thead> <tbody> <tr> <td>Effluent Generation</td> <td>50,802</td> <td>36,435</td> </tr> <tr> <td>Effluent Discharge</td> <td>36,292</td> <td>18,097</td> </tr> <tr> <td>Effluent Recycle</td> <td>14,510</td> <td>18,338</td> </tr> <tr> <td>Percentage of Effluent Recycling</td> <td>30 %</td> <td>50%</td> </tr> </tbody> </table> <p>It can be seen from the above data table that the treated Effluent recycling is done to maximum extent possible.</p> <p>Complied.</p>	Aspect	Permissible Limit (KL/day)	Avg. Quantity (KL/day)	Effluent Generation	50,802	36,435	Effluent Discharge	36,292	18,097	Effluent Recycle	14,510	18,338	Percentage of Effluent Recycling	30 %	50%															
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3.4.1	<p>The quality of treated effluent shall conform to the Consent standards prior to disposal into deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser.</p>	<p>Treated effluent is being monitored on monthly basis through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the quality of effluent is maintained well within the norm prescribed by the GPCB. The treated effluent is discharged after conforming to the GPCB standards through existing effluent disposal pipeline equipped with multiport diffuser.</p> <p>A summary of major effluent monitoring parameters results for the period Oct'23 – Mar'24 is presented below.</p> <table border="1" data-bbox="824 1289 1471 1906"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>-</td> <td>5.5-9.0</td> <td>7.91</td> <td>7.72</td> <td>8.20</td> </tr> <tr> <td>Colour and odour</td> <td>-</td> <td>All efforts shall be made to remove colour and unpleasant odour as far as practicable.</td> <td colspan="3">Colorless and Odourless</td> </tr> <tr> <td>Suspended Solids</td> <td>mg/l</td> <td>100</td> <td>22.50</td> <td>19.00</td> <td>25.00</td> </tr> <tr> <td>Temperature</td> <td>o C</td> <td>Shall not exceed 5°C above the receiving water temperature</td> <td>28.48</td> <td>27.40</td> <td>29.60</td> </tr> </tbody> </table>	Parameter	Unit	GPCB Consent Limit	Avg	Min	Max	pH	-	5.5-9.0	7.91	7.72	8.20	Colour and odour	-	All efforts shall be made to remove colour and unpleasant odour as far as practicable.	Colorless and Odourless			Suspended Solids	mg/l	100	22.50	19.00	25.00	Temperature	o C	Shall not exceed 5°C above the receiving water temperature	28.48	27.40	29.60
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		Oil & Grease	mg/l	20	< 0.2	< 0.2	< 0.2
		Total Residual Chlorine	mg/l	1	< 0.1	< 0.1	< 0.1
		Ammonical Nitrogen (as N)	mg/l	50	13.13	12.50	14.30
		Total Kjeldahl Nitrogen(as NH3)	mg/l	100	17.62	5.10	32.40
		Free Ammonia (as NH3)	mg/l	5	< 0.1	< 0.1	< 0.1
		Biochemical Oxygen Demand	mg/l	100	39.37	34.20	42.50
		Chemical Oxygen Demand	mg/l	250	147.00	124.00	172.00
		Arsenic (as AS)	mg/l	0.2	< 0.01	< 0.01	< 0.01
		Mercury (as Hg)	mg/l	0.01	< 0.005	< 0.005	< 0.005
		Lead (as Pb)	mg/l	2	< 0.05	< 0.05	< 0.05
		Cadmium (as Cd)	mg/l	2	< 0.03	< 0.03	< 0.03
		Hexavalent Chromium (as Cr+6)	mg/l	1	< 0.05	< 0.05	< 0.05
		Total Chromium (as Cr)	mg/l	2	< 0.01	< 0.01	< 0.01
		Copper (as Cu)	mg/l	3	< 0.04	< 0.04	< 0.04
		Zinc (as Zn)	mg/l	15	1.18	1.10	1.30
		Selenium (as Se)	mg/l	0.05	< 0.05	< 0.05	< 0.05
		Nickel (as Ni)	mg/l	5	< 0.01	< 0.01	< 0.01
		Cyanide (as CN)	mg/l	0.2	< 0.03	< 0.03	< 0.03
		Fluorides (as F)	mg/l	15	0.28	0.21	0.35
		Sulphides	mg/l	5	< 0.1	< 0.1	< 0.1
		Phenolic compounds (as C6H5OH)	mg/l	5	< 0.001	< 0.001	< 0.001
		Manganese (as Mn)	mg/l	2	< 0.1	< 0.1	< 0.1
		Iron (as Fe)	mg/l	3	0.93	0.60	1.30
		Vanadium (as V)	mg/l	0.2	< 0.004	< 0.004	< 0.004
		Nitrate Nitrogen	mg/l	20	10.00	6.00	13.00
		Bioassay Test	-	90% survival of fish after 96 hours in 100% effluent	>90% survival of fish after 96 hours in 100% effluent		
		<p>From above results, it can be seen that the ETP is operating regularly and efficiently and all the results are complying with the GPCB norms.</p> <p>Complied.</p>					
3.4.2	The effluent conforming to the above standards shall be disposed off through existing pipeline equipped with diffuser system up to point D2 (Lat. 21.39'N - Long. 72.31'E) in to the deep sea (Gulf of Khambhat) as recommended by NIO.	<p>The effluent is being disposed off through existing pipeline equipped with diffuser system up to point D2 (Lat. 21.39'N - Long. 72.31'E) in to the deep sea (Gulf of Khambhat) as recommended by NIO.</p> <p>The treated effluent quality conforms to the standard prescribed by GPCB. The summary of treated effluent quality is given in condition 3.4.1 above.</p> <p>Complied.</p>					

3.4.3	The domestic effluent from the complex shall be treated in the Biological section of the ETP.	The domestic effluent from the complex is treated in the Biological section of the ETP. Complied.
3.4.4	All the effluent treatment units shall be operated and maintained efficiently so that the treated effluent always conforms to the specifications referred in condition no.3.4.1.	All the effluent treatment units are operated and maintained efficiently. The wastewater generated at the plant is treated in well-designed Effluent Treatment Plant consisting of Primary, Secondary and Tertiary treatment units and it is conforming to the specifications referred in condition 3.4.1. Complied.
3.4.5	A guard pond having adequate retention capacity shall be operated before discharging the effluent from the treatment plant.	A guard pond having adequate retention capacity is provided and operated before discharging the effluent. Complied.

4 CONDITIONS UNDER THE AIR ACT

4.1	The following shall be used as fuel.	Average quantity of fuel used during the reporting period Oct'23 – Mar'24 is presented below.																																																
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4.2	The applicant shall install & operate comprehensive adequate air pollution in order to achieve prescribed norms control system so as to achieve standards.	Adequate Air Pollution Control Equipment (APCEs) for controlling the process emissions have been provided in the stacks and APCEs are being operated regularly to achieve the prescribed standards by GPCB. A summary of the flue gas emissions and Process emissions for the period Oct'23 – Mar'24 is presented below in Condition no 4.3 and 4.4. Monitoring results indicate that the emissions from the stacks are conforming to the prescribed standards by operating APCEs efficiently and effectively. Complied.
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4.3	The flue gas emission through stack attached to boiler / furnace / heater shall conform to the standards as given in CCA:	Flue gas emissions though the stacks attached to boiler / furnace / heater are regularly monitored though MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. A summary of the flue gaseous emissions for the period Oct'23 – Mar'24 is presented as below.
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Plant	Parameter	GPCB Consent Limit	Avg	Min	Max
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		GCU Plant - Stack attached Furnaces VCM Plant - Stack attached to EDC Furnaces CPP Plant - Stack Attached to Boilers/HR SGs/STGs PET-3 Plant - Stacks attached to Heaters CCPP - Stacks attached to Boilers	PM (mg/Nm ³)	10	3.14	2.48	3.76																																																										
			SO ₂ (mg/Nm ³)	50	6.31	4.36	7.46																																																										
			NOx (mg/Nm ³)	350	57.85	51.25	64.13																																																										
			PM (mg/Nm ³)	10	3.20	2.25	3.92																																																										
			SO ₂ (mg/Nm ³)	50	7.21	4.75	9.16																																																										
			NOx (mg/Nm ³)	350	63.19	55.42	68.74																																																										
			PM (mg/Nm ³)	10	3.56	3.56	3.56																																																										
			SO ₂ (mg/Nm ³)	50	6.74	6.74	6.74																																																										
			NOx (mg/Nm ³)	350	62.74	62.74	62.74																																																										
		PM (mg/Nm ³)	10	3.53	3.05	4.10																																																											
		SO ₂ (mg/Nm ³)	50	8.47	7.42	9.58																																																											
		NOx (mg/Nm ³)	350	62.00	53.18	68.36																																																											
		PM (mg/Nm ³)	50	22.05	14.53	25.18																																																											
		SO ₂ (mg/Nm ³)	600	262.68	245.12	281.46																																																											
		NOx (mg/Nm ³)	300	74.97	64.65	82.54																																																											
		(" - " : Plant was not in operation / under Shutdown)																																																															
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		4.4	The process emission through various stacks / vent of reactors, process, vessel shall conform to the standards as per CCA:	The process emission through various stacks and vents of reactors, process, and vessel are regularly monitored though MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. A summary of the gaseous emissions from various process stacks for the period Oct'23 – Mar'24 is presented below.																																																													
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4.5	The concentration of the parameters in the ambient air within the premises of the industry shall not exceed the limits specified in CCA.	<p>The concentration of the parameters in the ambient air within the premises does not exceed the limits specified in CCA.</p> <p>The site has established 7 ambient air quality monitoring stations within and outside of the petrochemical complex based on the mathematical modelling studies carried out considering wind directions and the maximum Ground Level Concentration in downwind direction.</p> <p>Ambient Air Quality (AAQ) is being monitored twice in a week at each location through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. The report of monitoring has been submitted every month to GPCB and six monthly to Regional Office of MoEF&CC.</p> <p>A summary of the ambient air monitoring results is presented below.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>100 µg/m³</td> <td>62.70</td> <td>43.00</td> <td>76.00</td> </tr> <tr> <td>PM_{2.5}</td> <td>60 µg/m³</td> <td>23.06</td> <td>10.00</td> <td>38.00</td> </tr> <tr> <td>SO₂</td> <td>80 µg/m³</td> <td>22.63</td> <td>12.90</td> <td>31.50</td> </tr> <tr> <td>NOx</td> <td>80 µg/m³</td> <td>29.49</td> <td>20.00</td> <td>37.60</td> </tr> <tr> <td>O₃</td> <td>180 µg/m³</td> <td>8.20</td> <td>4.70</td> <td>10.50</td> </tr> <tr> <td>NH₃</td> <td>400 µg/m³</td> <td>18.48</td> <td>10.50</td> <td>29.40</td> </tr> <tr> <td>CO</td> <td>4 mg/m³</td> <td>1.53</td> <td>1.20</td> <td>1.86</td> </tr> <tr> <td>Benzene</td> <td>5 µg/m³</td> <td>< 1.0</td> <td>< 1.0</td> <td>< 1.0</td> </tr> </tbody> </table>	Parameter	GPCB Consent Limit	Avg	Min	Max	PM ₁₀	100 µg/m ³	62.70	43.00	76.00	PM _{2.5}	60 µg/m ³	23.06	10.00	38.00	SO ₂	80 µg/m ³	22.63	12.90	31.50	NOx	80 µg/m ³	29.49	20.00	37.60	O ₃	180 µg/m ³	8.20	4.70	10.50	NH ₃	400 µg/m ³	18.48	10.50	29.40	CO	4 mg/m ³	1.53	1.20	1.86	Benzene	5 µg/m ³	< 1.0	< 1.0	< 1.0														
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4.6	The applicant shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in Condition no. 4.3 and 4.4. & 4.5 as Above.	<p>All plants and Air Pollution Control Equipment (APCEs) are being operated very efficiently and continuously for controlling the gaseous emissions and to achieve the GPCB prescribed standards.</p> <p>A summary of the flue gas emissions and Process emissions for the period Oct'23 – Mar'24 is given in Condition no 4.3 and 4.4. Monitoring results indicate that the emissions from the stacks are conforming to the GPCB prescribed standards.</p> <p>Also please refer to the summary of AAQ monitoring results given in Condition no 4.5, which indicates that the ambient air quality is also conforms to the GPCB standards of AAQ.</p> <p>By operating all the plants and APCEs effectively and continuously, we are able to control the gaseous emissions and hence ambient air quality well within the standards prescribed by GPCB.</p> <p>Complied.</p>																				
4.7	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 in the condition no.4.3 and 4.4. & 4.5 as Above.	<p>This condition is noted. All the parameters of the gaseous emissions are maintained well within the tolerance limit specified in the condition no 4.3, 4.4 and 4.5 above. The details of monitoring results are given in the above conditions which indicates that all the parameters of gaseous emissions are well within the tolerance limit specified by GPCB during reporting period of Oct'23 – Mar'24.</p> <p>Complied.</p>																				
4.8	The applicant 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 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.	<p>All the chimneys in the complex are provided with portholes, ladders, platform etc. for monitoring the air emissions. The is accessible for inspection to/and for use of Board's staff. The Chimney vents attached to various sources of emission are identified and the identification has been also painted on each flue connected to chimneys.</p> <p>Complied.</p>																				
4.9	The Industry 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 75dB(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.	<p>Adequate measures are in place for control of noise levels from all the sources within the premises. Acoustic hoods, silencers, enclosures etc has been provided for all sources of high noise generation which ensures the control of workplace noise level generation and hence ambient noise levels conforms to the standards prescribed under EPA Rules, 1986 that is 75 dB(A) during day time and 70 dB(A) during night time.</p> <p>The summary of the ambient noise levels for the reporting period Oct'23 – Mar'24 is presented below.</p>																				

Monitoring Location	Day Time Limit – 75 dB(A)			Night Time Limit – 70 dB(A)		
	Avg	Min	Max	Avg	Min	Max
Nr. Ethane Tank	55.3	52.6	57.1	50.1	48.6	51.5
Site Guest House	51.0	48.9	52.7	48.3	45.2	49.8
Nr. CCPP	54.1	53.3	54.8	51.1	50.4	52.1
Nr. PTA	54.6	50.7	59.1	52.2	49.1	54.4
Nr. ETP Guard Pond	55.8	52.6	58.2	52.1	50.3	54.4
RDMT Jetty	54.9	51.4	57.3	51.9	48.7	54.2
Jageshwar village	55.8	53.8	57.4	50.6	48.9	52.7

The above results indicates that the ambient noise levels are maintained well within the prescribed standards.

Complied.

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

5.1	<p>Number of Authorization: AWH-111189 Date of issue: 16/01/2021</p> <p>M/s. RELIANCE INDUSTRIES LIMITED is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at Dahej Manufacturing Division, At & Post: Dahej, Taluka: Vagra, Dist: Bharuch.</p>	<p>Hazardous wastes generated at site is managed in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 and its amendments and the authorisation obtained from GPCB.</p> <p>Existing authorization (AWH-111189) is valid upto 03/11/2026 and RIL-DMD is disposing hazardous waste as per method prescribed in the authorization.</p> <p>Hazardous wastes collected, stored and disposed during Oct'23 – Mar'24 is given below:</p>																																																																																								
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	11	Spent Carbon	36.2 / l	So ever generated (500)	13	Spent Solvent (Degraded Dowtherm)	20.2 / l	23.11
	12	Spent ion exchange resin	35.2 / l	So ever generated (500)	14	Cargo / Tank Residue, Washing Water and Sludge containing Oil	3.1 / l	0.00
	13	Spent Solvent (Degraded Dowtherm)	20.2 / l	216	15	Cargo / Tank Residue and Sludge containing Chemical	3.2 / l	0.00
	14	Cargo / Tank Residue, Washing Water and Sludge containing Oil	3.1 / l	100	16	Bilge Water Containing Oil from Ships	3.4 / l	0.00
	15	Cargo / Tank Residue and Sludge containing Chemical	3.2 / l	100	Other (Non-Hazardous) Waste			
	16	Bilge Water Containing Oil from Ships	3.4 / l	100	17	Brine Sludge	--	6385.41
	Other (Non-Hazardous) Waste				18	Polymer Lumps / Sweep Powder	--	395.00
	17	Brine Sludge	--	15000	19	Bio sludge from ETP	--	3521.05
	18	Polymer Lumps / Sweep Powder	--	4800	Complied.			
	19	Bio sludge from ETP	--	18250				
	Note: Mode of disposal of hazardous wastes is as per CCA. Waste or residues containing oil* contains contaminated cotton rags, oil soaked coke, SCO reactor waste, bottom sludge from pits & tanks, waste grease, contaminated filters, oily soil, oily tarpaulin, oily wooden pieces, oily mud from effluent channels, oily sludge generated from waste water treatment plant, etc.							
5.2	The authorization is granted to operate facility for collection, storage, within the factory premises, transportation and ultimate disposal of Hazardous wastes at common TSDF and own SLF developed by the unit at a location mentioned in the notification no. GPCB/Haz/Gen-55/7/2/08 dated 05.04.1999 and Inhouse Incinerator, common incineration facility & Co-processing.				Hazardous wastes generated are collected, stored and disposed based on the methods prescribed under the authorisation issued to us. All the hazardous wastes generated at site is managed in accordance with the Hazardous Waste Rules, 2016 and its amendments thereof. Complied.			
5.3	The authorization shall be in force for a period up to 16/01/2021.				Validity period of authorisation is noted.			
5.4	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.				This condition is noted.			
5.5	TERMS AND CONDITIONS OF AUTHORISATION							
5.5.1	The authorization shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.				The authorization is produced for inspection at the request of any officer authorized by the Gujarat Pollution Control Board. Complied.			
5.5.2	The persons authorized shall not rent, lend, sell, and transfer of otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control				All the hazardous wastes generated from the complex are covered under the Authorization obtained for the Management and Handling of Hazardous Wastes. Only wastes mentioned in the authorisation are being			

	Board.	<p>handled at the complex.</p> <p>And It is noted that any hazardous waste shall not be rented, lend, sold and transferred without obtaining prior permission of the GPCB.</p> <p>Complied.</p>
5.5.3	Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.	<p>No unauthorized change made in personnel, equipment or working condition as mentioned in the authorization order.</p> <p>Every expansion and modernisation of the RIL-DMD complex has been carried out only after obtaining the required authorization from GPCB.</p> <p>This condition is noted.</p>
5.5.4	It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.	<p>Prior permission will be taken from Gujarat Pollution Control Board whenever facility will be closed down.</p> <p>This condition is noted.</p>
5.5.5	An application for the renewal of an authorization shall be made as laid down in rule 6 (2) under Hazardous and other waste (Management & Transboundary) Rules, 2016.	An application for the renewal of an authorization shall be made as per rule 6(2) to obtain the required authorization.
6	GENERAL CONDITIONS	
6.1	Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.	<p>Every expansion and modernisation of the RIL-DMD complex has been carried out only after obtaining the required authorization from GPCB / statutory agency and intimated to Board.</p> <p>Complied.</p>
6.2	Applicant shall also comply with the general conditions given in annexure.	General conditions given in condition no 6 are being complied.
6.3	Industry 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 14th October 2003.	<p>The relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No.657 of 1995 dated 14th October 2003 is displayed at the Entry of main gate of complex.</p> <p>Complied.</p>
6.4	Industry shall have to display data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emissions and solid hazardous waste generated within the factory premises.	<p>RIL-DMD is having an online display board at the main factory gate which displays the data with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water, air emissions and solid hazardous waste generated within the factory premises.</p> <p>Complied.</p>
6.5	The arrangement shall be made in each plant for drainage in such a way that all the quantity of effluent shall be taken to the central effluent treatment plant and no untreated waste water from any plant shall be discharged within the premises.	<p>Drainage from all plants are routed to the plant level Effluent Pits and then it is pumped to Central Effluent Treatment plant and no untreated waste water from any plant is discharged within the premises.</p> <p>Complied.</p>
6.6	There shall be continuous flow recording devices at the outlet of the effluent treatment plant.	<p>Flow meters have been provided at the outlet of ETP and records are maintained.</p> <p>Complied.</p>
6.7	RIL-DMD shall create and monitor test wells within its premises. The quality of the test well water shall be regularly checked every month and the data shall be submitted to GPCB.	<p>Ground water quality is being monitored near the solid waste disposal site as well as around the plant using 8 bore wells.</p> <p>The summary of Ground water monitoring results of Bore Well-1 for the period Oct'23 – Mar'24 is presented</p>

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"Biochemical Oxygen Demand (3 day at 27°C)"	mg/l	< 1.0	< 1.0	< 0.1																																																																																																																																
Carbonate (CO ₃)	mg/l	22.53	11.80	33.50																																																																																																																																
Phosphate (PO ₄)	mg/l	< 3.0	< 3.0	< 3.0																																																																																																																																
Nitrate (NO ₃)	mg/l	1.33	1.20	1.50																																																																																																																																
Fluorides (as F)	mg/l	0.57	0.31	0.66																																																																																																																																
Bicarbonate (HCO ₃)	mg/l	59.52	46.30	78.70																																																																																																																																
Sodium (Na)	mg/l	70.65	47.10	98.40																																																																																																																																
Potassium (K)	mg/l	4.80	4.10	5.80																																																																																																																																
Oil & Grease	mg/l	< 0.2	< 0.2	< 0.2																																																																																																																																
Phenol	mg/l	< 0.001	< 0.001	< 0.001																																																																																																																																
		(ND : Not Detectable)																																																																																																																																		
		Monitoring reports are submitted to GPCB on monthly basis and to MoEF&CC on six monthly basis.																																																																																																																																		
		Complied.																																																																																																																																		
6.8	RIL-DMD shall periodically carry out coastal monitoring of surrounding sea water, for its physico-chemical and biological parameters for study the effect on marine life. This shall be done in consultation with GPCB and NIO.	Complied.																																																																																																																																		
6.9	RIL-DMD shall observe safety of all the plants, processes and vessels as per the International norms practiced in advance Countries.	RIL-DMD is regularly observing safety of all the plants, processes and vessels as per the safety practices and norms followed by international organisations such as DuPont, Shell and British Petroleum. Complied.																																																																																																																																		
6.10	RIL-DMD shall prepare over all disaster plant, risk analysis for probable mishaps due to process and also for the transport, storage, handling of hazardous waste and for hazardous chemicals.	Risk analysis is being done for every activity carried out in the complex and Disaster management plan is prepared and updated by considering all activities in the complex. Every process activities and transport, storage and handling activities of hazardous waste and hazardous chemicals are covered in the Risk Assessment and Disaster management plan. Complied.																																																																																																																																		
6.11	RIL-DMD shall trained and educate surrounding village people about likely hazards from the factory and also inform to the local authorities in this respect.	Awareness session on likely hazards from the factory are conducted for surrounding village people and the same is reported to local authorities as per the Factories Act and Rules.																																																																																																																																		

		Complied.
6.12	RIL-DMD shall comply with all the provisions made under the Hazardous and other waste (Management & Transboundary) Rules, 2016.	RIL-DMD complies with all the provisions made under the Hazardous and other waste (Management & Transboundary) Rules, 2016. Complied.
6.13	For storage of fly ash closed silos of adequate capacity shall be provided. No ash pond shall be constructed in the project.	Closed silos have been provided for fly ash storage. No ash pond shall be constructed in the project. Complied.
6.14	Ash from silos shall be transported through closed tankers for utilization by cement / construction agencies.	Fly ash is transported through closed / covered trucks for utilization by cement / construction agencies. Complied.
6.15	As per "Public Liability Act-91" company shall get Insurance policy, if applicable.	Insurance policy as per "Public Liability Act-91" has been obtained, details as mentioned below: <ul style="list-style-type: none"> • Name of Insurance company: ICICI Lombard General Insurance. • Policy No. & period: 4007/154722754/05/000, valid from 1st July 2023 to 30th June 2024. Complied.
6.16	The Board reserves the right to review and /or revoke the consent and/ or make variations in the conditions which the Board deems fit at any later date taking into consideration the circumstances, in accordance with Section 27 of the Act.	Noted.
6.17	In case of change of management the name and address of the new Directors shall immediately be intimated to the GPCB.	Any change of management the name and address of the new Directors will be immediately informed to the GPCB.
6.18	The consent granted shall lapse at any time if any parameters or any condition of this consent order are not complied with.	Noted.

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L. 33004/99



भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 3404]

नई दिल्ली, शुक्रवार, अक्तूबर 18, 2019/आश्विन 26, 1941

No. 3404]

NEW DELHI, FRIDAY, OCTOBER 18, 2019/ASVINA 26, 1941

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 17 अक्तूबर, 2019

का.आ. 3744(अ).—केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 10 के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 12 की उपधारा (1) के खंड (ख) और धारा 13 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्यांक का.आ.1174(अ) तारीख 18 जुलाई, 2007 से निम्नलिखित और संशोधन करती है, अर्थात् :-

उक्त अधिसूचना की सारणी में-

- (i) क्रम संख्यांक 3, 6, 27, 32, 33, 35, 37, 44, 49, 50, 58, 65, 66, 97, 98, 105, 107, 108, 110 और 112 के स्थान पर निम्नलिखित क्रम संख्यांकों और प्रावित्तियां रखी जाएंगी, अर्थात् :-

(1)	(2)	(3)	(4)
"37	मै. नीटेल (इंडिया) लिमिटेड, अक्यू-408, राबल एमआईसीसी, कीर्त्तसी इंडस्ट्रियल एरिया, नवी मुंबई-400701-महाराष्ट्र।	(i) श्रीमती श्रद्धा श्रीराम केरे (ii) सुश्री सीविना धोंडुराम शाल्बी (iii) सुश्री सुरेखा नीताराम जामदार	17 अक्तूबर, 2019 से 16 अक्तूबर, 2024"

[फा. सं. संयू. 15018/21/2017-सीपीडब्ल्यू]

जिगमोट टकपा, संयुक्त सचिव

टिप्पण: मूल अधिसूचना भारत के राजपत्र, असाधारण, का.आ.1174(अ), तारीख 18 जुलाई 2007 द्वारा प्रकाशित की गई थी और अधिसूचना सं.का.आ. 5768(अ), तारीख 15 नवंबर, 2018 द्वारा अंतिम संशोधन किया गया।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 17th October, 2019 .

S.O. 3744(E).—In exercise of the powers conferred by clause (b) of sub-section (1) of section 12 and section 13 of the Environment (Protection) Act, 1986 (29 of 1986), read with rule 10 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following further amendments in the notification of the Government of India in the erstwhile Ministry of Environment and Forests, *vide* number S.O. 1174(E), dated the 18th July, 2007, namely: -

in the said notification, in the table, -

- (i) for serial numbers 3, 6, 27, 32, 33, 35, 37, 44, 49, 50, 55, 58, 65, 66, 97, 98, 105, 107, 108, 110 and 112 the entries relating thereto, the following serial numbers and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)
“37	M/s Netel (India) Limited. W-408, Rabale MIDC, TTC Industrial Area, Navi Mumabi-400701, Maharashtra	(i) Mrs. Shradha Sriram Kere (ii) Ms. Neelina Dhonduram Dalvi (iii) Ms. Surekha Sitaram Jamdar	17 th October, 2019 To 16 th October, 2024”

[F. No. 15018/21/2017-CPW]

JIGMET TAKPA, Jt. Secy.

Note : The principal notification was published in the Gazette of India, Extraordinary, *vide* number S.O. 1174(E), dated the 18th July, 2007 and was last amended by notification No. S.O. 5768(E), dated the 15th November, 2018.



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

NETEL (INDIA) LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

W-408, TTC INDUSTRIAL AREA, RABALE MIDC, NAVI MUMBAI, MAHARASHTRA, INDIA

in the field of

TESTING

Certificate Number: TC-6709

Issue Date: 17/06/2022

Valid Until: 16/06/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity : NETEL (INDIA) LTD.

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer

Annexure III

Stack Emission Monitoring Report

(October 2023 – March 2024)

Flue Gas Emissions through stack attached to Boiler/Furnace/Heater:

Plant >	GCU Furnace								
Source >	H-10			H-11			H-12		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ₃	10 mg/Nm ³	50 mg/Nm ₃	350 mg/Nm ₃	10 mg/Nm ₃	50 mg/Nm ³	350 mg/Nm ₃
Oct-23	2.71	6.83	57.12	2.95	6.18	56.54	2.74	6.16	51.25
Nov-23	3.32	6.67	55.62	3.61	6.43	57.83	2.87	5.83	52.27
Dec-23	3.23	6.42	53.15	3.39	6.12	56.19	3.16	6.23	58.42
Jan-24	2.81	6.74	57.15	3.54	6.32	61.28	3.76	7.14	63.75
Feb-24	3.27	4.36	59.62	2.85	4.91	62.25	2.48	5.32	64.13
Mar-24	3.61	6.83	56.47	3.32	6.63	60.59	2.81	7.25	63.74
Min	2.71	4.36	53.15	2.85	4.91	56.19	2.48	5.32	51.25
Max	3.61	6.83	59.62	3.61	6.63	62.25	3.76	7.25	64.13
Average	3.16	6.31	56.52	3.28	6.10	59.11	2.97	6.32	58.93
Percentile 10	2.76	5.39	54.39	2.90	5.52	56.37	2.61	5.58	51.76
Percentile 25	2.92	6.48	55.83	3.04	6.14	56.86	2.76	5.91	53.81
Percentile 50	3.25	6.71	56.80	3.36	6.25	59.21	2.84	6.20	61.08
Percentile 75	3.31	6.81	57.14	3.50	6.40	61.11	3.09	6.91	63.75
Percentile 98	3.58	6.83	59.37	3.60	6.61	62.15	3.70	7.24	64.09

Plant >	GCU Furnace					
Source >	H-13			H-14		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³
Oct-23	2.93	5.74	52.18	2.87	6.18	62.42
Nov-23	3.25	7.46	58.41	2.98	6.81	56.18
Dec-23	3.41	5.75	56.25	3.42	6.78	58.36
Jan-24	3.57	6.35	58.63	3.25	6.74	56.58
Feb-24	3.24	6.1	57.25	2.73	5.12	52.81
Mar-24	3.1	6.56	61.28	2.93	7.45	57.85
Min	2.93	5.74	52.18	2.73	5.12	52.81
Max	3.57	7.46	61.28	3.42	7.45	62.42
Average	3.25	6.33	57.33	3.03	6.51	57.37

Min	-	-	-	-	-	-	-	-	-
Max	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-
Percentile 10	-	-	-	-	-	-	-	-	-
Percentile 25	-	-	-	-	-	-	-	-	-
Percentile 50	-	-	-	-	-	-	-	-	-
Percentile 75	-	-	-	-	-	-	-	-	-
Percentile 98	-	-	-	-	-	-	-	-	-

Note: ' - ' Plant was not in operation / under Shutdown

Plant >	CPP III Plant								
Source >	UTILITY BOILER-3			UTILITY BOILER-4			HRSG-4		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	10 mg/Nm ³	50 mg/N m ³	350 mg/N m ³	10 mg/Nm ³	50 mg/N m ³	350 mg/N m ³	10 mg/N m ³	50 mg/N m ³	350 mg/N m ³
Oct-23	-	-	-	3.56	6.74	62.74	-	-	-
Nov-23	-	-	-	-	-	-	-	-	-
Dec-23	-	-	-	-	-	-	-	-	-
Jan-24	-	-	-	-	-	-	-	-	-
Feb-24	-	-	-	-	-	-	-	-	-
Mar-24	-	-	-	-	-	-	-	-	-
Min	-	-	-	3.56	6.74	62.74	-	-	-
Max	-	-	-	3.56	6.74	62.74	-	-	-
Average	-	-	-	3.56	6.74	62.74	-	-	-
Percentile 10	-	-	-	3.56	6.74	62.74	-	-	-
Percentile 25	-	-	-	3.56	6.74	62.74	-	-	-
Percentile 50	-	-	-	3.56	6.74	62.74	-	-	-
Percentile 75	-	-	-	3.56	6.74	62.74	-	-	-
Percentile 98	-	-	-	3.56	6.74	62.74	-	-	-

Plant >	PET-3 Plant					
Source >	HTM HEATER-A			HTM HEATER-B		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³
Oct-23	3.16	8.28	59.36	3.56	8.15	53.18
Nov-23	-	-	-	3.43	8.37	54.25
Dec-23	-	-	-	3.62	8.52	68.15
Jan-24	3.25	8.41	64.22	-	-	-
Feb-24	4.1	9.32	67.42	3.45	7.64	59.75
Mar-24	3.65	8.13	64.25	3.18	8.42	66.42

Min	3.16	8.13	59.36	3.18	7.64	53.18
Max	4.10	9.32	67.42	3.62	8.52	68.15
Average	3.54	8.54	63.81	3.45	8.22	60.35
Percentile 10	3.19	8.18	60.82	3.28	7.84	53.61
Percentile 25	3.23	8.24	63.01	3.43	8.15	54.25
Percentile 50	3.45	8.35	64.24	3.45	8.37	59.75
Percentile 75	3.76	8.64	65.04	3.56	8.42	66.42
Percentile 98	4.07	9.27	67.23	3.62	8.51	68.01

Note: - ' - ' Plant was not in operation / under Shutdown

Plant >	PET-3 Plant					
Source >	HTM HEATER-C			HTM HEATER-D		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³	10 mg/Nm ³	50 mg/Nm ³	350 mg/Nm ³
Oct-23	-	-	-	3.42	8.65	58.25
Nov-23	3.67	7.42	58.74	3.44	8.28	56.56
Dec-23	3.05	8.26	62.54	3.43	8.87	57.13
Jan-24	3.91	7.83	61.74	3.73	9.12	67.23
Feb-24	3.27	8.42	63.28	3.95	9.58	65.35
Mar-24	3.76	9.25	68.36	-	-	-
Min	3.31	8.12	57.32	3.11	7.53	54.25
Max	3.74	9.64	60.25	3.75	9.26	59.56
Average	3.53	8.73	58.98	3.48	8.34	57.11
Percentile 10	3.35	8.18	57.73	3.17	7.57	55.08
Percentile 25	3.42	8.27	58.34	3.25	7.63	56.32
Percentile 50	3.53	8.42	59.36	3.63	8.16	57.63
Percentile 75	3.64	9.03	59.81	3.65	9.11	57.78
Percentile 98	3.73	9.59	60.21	3.74	9.25	59.42

Plant >	CCPP Plant					
Source >	BOILER-1			BOILER-2		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	50 mg/Nm ³	600 mg/Nm ³	300 mg/Nm ³	50 mg/Nm ³	600 mg/Nm ³	300 mg/Nm ³
Oct-23	21.75	256.32	64.65	22.68	259.75	77.12
Nov-23	23.52	245.12	72.36	23.78	256.38	78.25
Dec-23	23.25	250.42	68.74	21.34	264.57	71.25
Jan-24	22.44	272.45	73.61	24.12	267.23	75.42
Feb-24	16.54	281.46	74.28	18.12	268.5	82.54
Mar-24	22.71	267.42	71.36	21.54	273.28	77.53

Min	16.54	245.12	64.65	18.12	256.38	71.25
Max	23.52	281.46	74.28	24.12	273.28	82.54
Average	21.70	262.20	70.83	21.93	264.95	77.02
Percentile 10	19.15	247.77	66.70	19.73	258.07	73.34
Percentile 25	21.92	251.90	69.40	21.39	260.96	75.85
Percentile 50	22.58	261.87	71.86	22.11	265.90	77.33
Percentile 75	23.12	271.19	73.30	23.51	268.18	78.07
Percentile 98	23.49	280.56	74.21	24.09	272.80	82.11

Note: ' - ' Plant was not in operation / under Shutdown

Plant >	CCPP Plant					
Source >	BOILER-3			BOILER-4		
Parameter >	PM	SO2	NOx	PM	SO2	NOx
Limit >	50 mg/Nm ³	600 mg/Nm ³	300 mg/Nm ³	50 mg/Nm ³	600 mg/Nm ³	300 mg/Nm ³
Oct-23	24.35	252.13	73.83	22.81	263.28	75.57
Nov-23	23.45	254.22	77.63	24.54	261.58	74.82
Dec-23	22.56	254.28	74.63	23.14	261.32	72.81
Jan-24	23.64	264.41	80.75	23.82	254.63	74.36
Feb-24	14.53	272.32	77.65	15.25	261.58	75.25
Mar-24	24.25	268.23	73.41	25.18	273.52	81.36
Min	14.53	252.13	73.41	15.25	254.63	72.81
Max	24.35	272.32	80.75	25.18	273.52	81.36
Average	22.13	260.93	76.32	22.46	262.65	75.70
Percentile 10	18.55	253.18	73.62	19.03	257.98	73.59
Percentile 25	22.78	254.24	74.03	22.89	261.39	74.48
Percentile 50	23.55	259.35	76.13	23.48	261.58	75.04
Percentile 75	24.10	267.28	77.65	24.36	262.86	75.49
Percentile 98	24.34	271.91	80.44	25.12	272.50	80.78

Note: ' - ' Plant was not in operation / under Shutdown

Process Emissions through various stacks /vents of reactors/process vessel:

Plant >	Chlor Alkali Plant			
Source >	Hypo Unit		HCL Synthesis Unit	
Parameter >	Cl ₂	HCl	Cl ₂	HCl
Limit >	9 mg/Nm³	20 mg/Nm³	9 mg/Nm³	20 mg/Nm³
Oct-23	<1	2.15	<1	2.53
Nov-23	<1	2.48	<1	2.72
Dec-23	<1	2.16	<1	2.59
Jan-24	<1	2.85	<1	3.26
Feb-24	<1	3.41	<1	3.86
Mar-24	<1	2.72	<1	3.24
Min	<1	2.15	<1	2.53
Max	<1	3.41	<1	3.86
Average	<1	2.63	<1	3.03
Percentile 10	<1	2.16	<1	2.56
Percentile 25	<1	2.24	<1	2.62
Percentile 50	<1	2.60	<1	2.98
Percentile 75	<1	2.82	<1	3.26
Percentile 98	<1	3.35	<1	3.80

Plant >	VCM Plant							
Source >	Incinerator [PK-701]							
Parameter >	PM	SO ₂	NOx	Cl ₂	HCl	HC	CO	VCM
Limit >	150 mg/Nm³	40 mg/Nm³	25 mg/Nm³	10 mg/Nm³	30 mg/Nm³	15 mg/Nm³	150 mg/Nm³	6.6 mg/Nm³
Oct-23	3.05	6.41	19.47	<1.0	2.36	1.23	2.41	<1.5
Nov-23	2.82	7.16	15.12	<1.0	2.26	1.21	2.32	<1.5
Dec-23	3.35	6.75	12.75	<1.0	2.1	1.24	2.41	<1.5
Jan-24	3.81	7.32	18.75	<1.0	2.21	1.21	2.35	<1.5
Feb-24	4.25	8.16	14.52	<1.0	2.45	1.25	2.73	<1.5
Mar-24	3.53	6.78	16.71	<1.0	2.31	1.18	2.25	<1.5
Min	2.82	6.41	12.75	<1.0	2.10	1.18	2.25	<1.5
Max	4.25	8.16	19.47	<1.0	2.45	1.25	2.73	<1.5
Average	3.47	7.10	16.22	<1.0	2.28	1.22	2.41	<1.5
Percentile 10	2.94	6.58	13.64	<1.0	2.16	1.20	2.29	<1.5
Percentile 25	3.13	6.76	14.67	<1.0	2.22	1.21	2.33	<1.5
Percentile 50	3.44	6.97	15.92	<1.0	2.29	1.22	2.38	<1.5

Percentile 75	3.74	7.28	18.24	<1.0	2.35	1.24	2.41	<1.5
Percentile 98	4.21	8.08	19.40	<1.0	2.44	1.25	2.70	<1.5

Plant >	VCM Plant							
Source >	Incinerator [PK-702]							
Parameter >	PM	SO ₂	NO _x	Cl ₂	HCl	HC	CO	VCM
Limit >	150 mg/Nm³	40 mg/Nm³	25 mg/Nm³	10 mg/Nm³	30 mg/Nm³	15 mg/Nm³	150 mg/Nm³	6.6 mg/Nm³
Oct-23	2.63	5.81	19.25	<1.0	2.2	1.35	2.28	<1.5
Nov-23	2.96	6.25	19.36	<1.0	2.42	1.28	2.21	<1.5
Dec-23	3.12	7.42	17.28	<1.0	2.61	1.26	2.28	<1.5
Jan-24	3.48	7.14	20.54	<1.0	2.37	1.23	2.14	<1.5
Feb-24	3.81	7.64	20.74	<1.0	2.27	1.2	2.35	<1.5
Mar-24	4.23	8.46	19.25	<1.0	2.76	1.26	2.62	<1.5
Min	2.63	5.81	17.28	<1.0	2.20	1.20	2.14	<1.5
Max	4.23	8.46	20.74	<1.0	2.76	1.35	2.62	<1.5
Average	3.37	7.12	19.40	<1.0	2.44	1.26	2.31	<1.5
Percentile 10	2.80	6.03	18.27	<1.0	2.24	1.22	2.18	<1.5
Percentile 25	3.00	6.47	19.25	<1.0	2.30	1.24	2.23	<1.5
Percentile 50	3.30	7.28	19.31	<1.0	2.40	1.26	2.28	<1.5
Percentile 75	3.73	7.59	20.25	<1.0	2.56	1.28	2.33	<1.5
Percentile 98	4.19	8.38	20.72	<1.0	2.75	1.34	2.59	<1.5

Plant >	VCM Plant							
Source >	Incinerator [PK-1701]							
Parameter >	PM	SO ₂	NO _x	Cl ₂	HCl	HC	CO	VCM
Limit >	150 mg/Nm³	40 mg/Nm³	25 mg/Nm³	10 mg/Nm³	30 mg/Nm³	15 mg/Nm³	150 mg/Nm³	6.6 mg/Nm³
Oct-23	2.95	6.16	17.4	<1.0	2.32	1.25	2.36	<1.5
Nov-23	2.71	5.69	16.49	<1.0	2.3	1.28	2.24	<1.5
Dec-23	2.71	6.28	17.15	<1.0	2.46	1.21	2.35	<1.5
Jan-24	3.36	5.45	16.41	<1.0	2.71	1.26	2.52	<1.5
Feb-24	2.84	6.28	12.32	<1.0	2.56	1.23	2.56	<1.5
Mar-24	2.38	7.25	17.63	<1.0	2.18	1.2	2.37	<1.5
Min	2.38	5.45	12.32	<1.0	2.18	1.20	2.24	<1.5
Max	3.36	7.25	17.63	<1.0	2.71	1.28	2.56	<1.5

Average	2.83	6.19	16.23	<1.0	2.42	1.24	2.40	<1.5
Percentile 10	2.55	5.57	14.37	<1.0	2.24	1.21	2.30	<1.5
Percentile 25	2.71	5.81	16.43	<1.0	2.31	1.22	2.35	<1.5
Percentile 50	2.78	6.22	16.82	<1.0	2.39	1.24	2.37	<1.5
Percentile 75	2.92	6.28	17.34	<1.0	2.54	1.26	2.48	<1.5
Percentile 98	3.32	7.15	17.61	<1.0	2.70	1.28	2.56	<1.5

Plant >	VCM Plant		
Source >	VCM Vent Scrubber		
Parameter >	Cl ₂	HCl	HC
Limit >	10 mg/Nm³	30 mg/Nm³	15 mg/Nm³
Oct-23	< 1	2.53	< 0.2
Nov-23	< 1	2.74	< 0.2
Dec-23	< 1	2.56	< 0.2
Jan-24	< 1	2.76	< 0.2
Feb-24	< 1	2.41	< 0.2
Mar-24	< 1		< 0.2
Min	< 1	2.41	< 0.2
Max	< 1	2.76	< 0.2
Average	< 1	2.60	< 0.2
Percentile 10	< 1	2.46	< 0.2
Percentile 25	< 1	2.53	< 0.2
Percentile 50	< 1	2.56	< 0.2
Percentile 75	< 1	2.74	< 0.2
Percentile 98	< 1	2.76	< 0.2

Plant >	PTA-5 Plant								
Source >	OFF GAS SCRUBBER			ATM SCRUBBER			VENT SCRUBBER		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	150 mg/Nm³	40 mg/Nm³	25 mg/Nm₃	150 mg/Nm₃	40 mg/Nm₃	25 mg/Nm₃	150 mg/Nm₃	40 mg/Nm³	25 mg/Nm₃
Oct-23	2.85	<5	<4	2.81	<5	<4	2.67	<5	<4
Nov-23	2.74	<5	<4	2.82	<5	<4	2.78	<5	<4
Dec-23	2.54	<5	<4	2.12	<5	<4	2.78	<5	<4
Jan-24	2.76	<5	<4	2.38	<5	<4	3.25	<5	<4

Feb-24	3.56	<5	<4	2.84	<5	<4	3.46	<5	<4
Mar-24	3.12	<5	<4	2.41	<5	<4	3.65	<5	<4
Min	2.54	<5	<4	2.12	<5	<4	2.67	<5	<4
Max	3.56	<5	<4	2.84	<5	<4	3.65	<5	<4
Average	2.93	<5	<4	2.56	<5	<4	3.10	<5	<4
Percentile 10	2.64	<5	<4	2.25	<5	<4	2.73	<5	<4
Percentile 25	2.75	<5	<4	2.39	<5	<4	2.78	<5	<4
Percentile 50	2.81	<5	<4	2.61	<5	<4	3.02	<5	<4
Percentile 75	3.05	<5	<4	2.82	<5	<4	3.41	<5	<4
Percentile 98	3.52	<5	<4	2.84	<5	<4	3.63	<5	<4

Plant >	PTA-6 Plant								
Source >	OFF GAS SCRUBBER			ATM SCRUBBER			VENT SCRUBBER		
Parameter >	PM	SO ₂	NO _x	PM	SO ₂	NO _x	PM	SO ₂	NO _x
Limit >	150 mg/Nm ₃	40 mg/Nm ³	25 mg/Nm ³	150 mg/Nm ₃	40 mg/Nm ₃	25 mg/Nm ³	150 mg/Nm ₃	40 mg/Nm ₃	25 mg/Nm ₃
Oct-23	3.81	<5	<4	2.87	<5	<4	3.25	<5	<4
Nov-23	3.75	<5	<4	3.32	<5	<4	3.66	<5	<4
Dec-23	3.58	<5	<4	2.84	<5	<4	3.32	<5	<4
Jan-24	3.69	<5	<4	3.25	<5	<4	3.73	<5	<4
Feb-24	3.67	<5	<4	3.52	<5	<4	3.28	<5	<4
Mar-24	3.83	<5	<4	3.39	<5	<4	3.12	<5	<4
Min	3.58	<5	<4	2.84	<5	<4	3.12	<5	<4
Max	3.83	<5	<4	3.52	<5	<4	3.73	<5	<4
Average	3.72	<5	<4	3.20	<5	<4	3.39	<5	<4
Percentile 10	3.63	<5	<4	2.86	<5	<4	3.19	<5	<4
Percentile 25	3.68	<5	<4	2.97	<5	<4	3.26	<5	<4
Percentile 50	3.72	<5	<4	3.29	<5	<4	3.30	<5	<4
Percentile 75	3.80	<5	<4	3.37	<5	<4	3.58	<5	<4
Percentile 98	3.83	<5	<4	3.51	<5	<4	3.72	<5	<4

Plant >	PVC Plant									
Source >	PVC Dryer [IH:1]					PVC Dryer [IH:2]				
Parameter >	PM	SO ₂	NO _x	CO	VCM	PM	SO ₂	NO _x	CO	VCM
Limit >	150 mg/Nm ₃	100 ppm	50 ppm	150 mg/Nm ₃	6.6 mg/Nm ₃	150 mg/Nm ₃	100 ppm	50 ppm	150 mg/Nm ₃	6.6 mg/Nm ₃
Oct-23	3.85	8.74	23.45	2.32	<1.5	3.42	7.63	24.36	2.25	<1.5
Nov-23	3.38	8.36	23.28	2.41	<1.5	2.81	8.45	17.15	2.36	<1.5
Dec-23	3.65	8.42	21.63	2.25	<1.5	3.26	7.41	18.46	2.29	<1.5
Jan-24	3.42	8.78	22.45	2.31	<1.5	3.75	9.25	21.27	2.47	<1.5
Feb-24	3.81	9.54	20.36	2.63	<1.5	3.42	8.27	15.32	2.41	<1.5
Mar-24	3.64	7.41	21.36	2.24	<1.5	2.75	6.42	17.52	2.32	<1.5
Min	3.38	7.41	20.36	2.24	<1.5	2.75	6.42	15.32	2.25	<1.5
Max	3.85	9.54	23.45	2.63	<1.5	3.75	9.25	24.36	2.47	<1.5
Average	3.63	8.54	22.09	2.36	<1.5	3.24	7.91	19.01	2.35	<1.5
Percentile 10	3.40	7.89	20.86	2.25	<1.5	2.78	6.92	16.24	2.27	<1.5
Percentile 25	3.48	8.38	21.43	2.27	<1.5	2.92	7.47	17.24	2.30	<1.5
Percentile 50	3.65	8.58	22.04	2.32	<1.5	3.34	7.95	17.99	2.34	<1.5
Percentile 75	3.77	8.77	23.07	2.39	<1.5	3.42	8.41	20.57	2.40	<1.5
Percentile 98	3.85	9.46	23.43	2.61	<1.5	3.72	9.17	24.05	2.46	<1.5

Photograph of State of the art Control Room equipped with DCS



Reliance
Industries Limited
CIN & L17110MH1973PLC019786

RIL-DMD/HSEF/ENV/2018/29

June 18, 2018

To,
Member Secretary
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 A,
Gandhinagar - 382 010

Rel
DMD
Gandhinagar

Kind Attn: Sh. A V Shah, Sr. Environmental Engineer

Sub: Ambient Air Quality Monitoring Stations at RIL-DMD [Industry ID: 15565]
Ref: (1) CTO /CCA order no. W-76082 dated 04/02/2016, valid upto 03/11/2020
(2) Environmental Clearance F. No. J-11011/39/2016-IA-II(I) dated 3rd April 2017

Dear Sir,

As you are aware, RIL-Dahaj Manufacturing Division is a manufacturing site of the earstwhile IPCL - a "Navaratna" Public sector undertaking, which was acquired by Reliance Industries Limited in June 2002 and subsequently merged with itself, in September 2007. After merger, DMD site is expanded at regular interval after obtaining necessary approval from MoEF/SEIAA/ GPCB.

The Ambient Air Quality Monitoring is being carried at five locations within complex and 2 locations outside the complex; 1 at Jetty and 1 in nearby village, suggested based on dispersion modelling study since beginning.

As per General condition B (iii) of EC dated 3rd April 2017, granted by MoEF, stated that "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."

In this context, we had engaged M/s Environment Resource Management (ERM) to identify and suggest the locations for AAQM based on dispersion modeling study due to Expansion and Debottlenecking of RIL-DMD. Based on study, M/s ERM has suggested to relocate four AAQM stations and three will be at existing location. A copy of study report received from ERM is enclosed for your ready reference.

Dahaj Manufacturing Division

P. O. : Dahaj, Taluka : Vagra, District : Bharuch - 392 130, Gujarat, India. Phone: +91-02641-282000

Registered Office : 3rd Floor, Maker Chambers IV, 222, Nariman Point, Mumbai - 400 021, India.

In compliance to the above referred condition of the Environment Clearance, we request you to kindly consider the locations for Ambient Air Quality Monitoring.

Thanking you,

Yours faithfully,
For Reliance Industries Limited


Anand Sutaria
Head - Environment

Cc:
The Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmada Nagar,
BHARUCH - 392015.



Ambient Air Monitoring Locations
Post Expansion & Debottlenecking:
*Dahej Manufacturing Division (DMD),
Dahej, Gujarat, India*

Reliance Industries Limited

Report

January 2016

www.erm.com

Ambient Air Quality Monitoring Report

(October 2023 – March 2024)

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT – PM 2.5	$\mu\text{g}/\text{m}^3$						$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Site Guest House	10.0	13.1	16.0	20.0	22.0	26.0	27.0	19.0
Nr. CCPP	18.0	21.0	23.8	26.0	29.0	34.0	35.0	26.2
Nr. PTA	13.0	15.0	18.0	23.0	26.0	30.9	33.0	22.1
Nr. ETP Guard Pond	16.0	21.0	23.0	25.0	29.0	35.0	37.0	25.7
RDMT Jetty	11.0	14.2	18.0	21.0	24.0	29.0	29.0	21.0
Nr. Ethane Tank	20.0	22.0	24.8	27.0	30.3	36.0	38.0	27.6
Jageshwar Village	11.0	14.1	17.0	20.0	23.0	28.0	29.0	19.7

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT – PM 10	$\mu\text{g}/\text{m}^3$						$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Site Guest House	48.0	51.1	56.0	60.0	63.0	67.0	68.0	58.9
Nr. CCPP	53.0	58.2	63.0	66.5	70.3	75.0	76.0	66.3
Nr. PTA	48.0	54.2	59.0	64.0	67.0	72.0	73.0	62.6
Nr. ETP Guard Pond	52.0	56.0	60.8	63.5	67.0	72.0	74.0	63.4
RDMT Jetty	43.0	53.2	57.0	63.0	66.0	71.0	72.0	61.7
Nr. Ethane Tank	51.0	57.2	62.0	66.5	70.0	74.0	75.0	65.5
Jageshwar Village	48.0	53.0	56.0	61.5	65.0	71.0	72.0	60.5

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT - SO₂	$\mu\text{g}/\text{m}^3$						$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Site Guest House	13.8	16.2	18.1	21.1	22.6	25.1	25.8	20.4
Nr. CCPP	18.3	21.8	23.6	25.4	28.5	30.6	31.5	25.7
Nr. PTA	16.7	19.4	21.5	23.6	25.5	28.5	29.2	23.4
Nr. ETP Guard Pond	17.3	19.1	21.0	23.2	25.4	28.2	29.0	23.2
RDMT Jetty	14.8	16.6	19.4	22.4	24.7	27.7	28.2	22.0
Nr. Ethane Tank	17.8	20.3	22.7	24.3	26.7	29.5	29.7	24.5
Jageshwar Village	12.9	14.5	16.3	19.7	21.8	24.6	25.1	19.2

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT - NO_x	µg/m ³						µg/m ³	µg/m ³
Site Guest House	20.0	23.2	24.8	26.9	28.4	31.5	32.3	26.5
Nr. CCPP	23.8	26.9	29.1	31.9	33.7	37.2	37.5	31.4
Nr. PTA	25.2	26.3	28.8	30.5	32.4	35.4	36.5	30.5
Nr. ETP Guard Pond	24.9	26.7	29.1	31.5	33.6	36.8	37.5	31.2
RDMT Jetty	20.7	24.1	26.4	28.3	30.6	33.4	33.6	28.3
Nr. Ethane Tank	25.2	28.3	29.3	32.1	34.5	36.8	37.6	31.9
Jageshwar Village	20.2	22.8	24.8	27.0	28.4	31.3	32.2	26.7

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT – O₃	µg/m ³						µg/m ³	µg/m ³
Site Guest House	6.8	7.0	7.3	7.7	8.1	8.8	8.9	7.7
Nr. CCPP	7.3	7.6	8.1	8.5	8.9	9.5	10.3	8.5
Nr. PTA	4.8	7.6	8.0	8.5	8.9	9.6	9.8	8.5
Nr. ETP Guard Pond	6.5	7.0	7.3	8.1	8.4	9.7	10.5	8.0
RDMT Jetty	4.7	7.4	7.6	8.0	8.3	8.8	9.1	7.9
Nr. Ethane Tank	7.0	7.4	7.8	8.3	8.9	9.6	9.9	8.3
Jageshwar Village	6.9	7.5	8.1	8.5	8.8	9.4	9.5	8.4

LOCATION	MINIMUM VALUE	PERCENTILE					MAXIMUM VALUE	AVERAGE VALUE
		10	25	50	75	98		
POLLUTANT - NH₃	µg/m ³						µg/m ³	µg/m ³
Site Guest House	10.5	12.4	13.3	14.8	16.5	19.2	20.3	15.0
Nr. CCPP	15.2	19.2	20.5	22.6	24.4	27.5	29.4	22.5
Nr. PTA	15.2	17.2	18.4	20.4	22.6	25.8	26.4	20.5
Nr. ETP Guard Pond	13.8	15.2	16.7	18.6	20.5	24.1	24.2	18.6
RDMT Jetty	11.6	13.1	14.7	16.2	18.1	20.6	21.4	16.3
Nr. Ethane Tank	13.6	16.1	18.3	20.3	22.6	25.8	26.1	20.3
Jageshwar Village	11.4	13.2	14.5	16.2	17.6	20.3	21.1	16.2

**Details of Hazardous Waste Collection, Storage, Treatment and Disposal
(October 2023 – March 2024)**

Sr. No.	Physical / Chemical Form	Waste Category	Consented Quantity (MT / Yr)	Disposal Quantity (MT / Yr)	Description of Storage	Treatment	Details of Transportation	Mode of Disposal
1	Spent Catalyst from various units and Molecular Sieve / alumina desiccant	1.6 / I	411.75	0.00	Collected in Bags / Drums. Bags / Drums are stored on impervious flooring during storage period.	---	Spent catalyst / Molecular Sieve / alumina desiccant is transported for recycling / reprocessing by authorized transporter.	Sold to authorized vendors for recycle.
2	Oil from wastewater treatment	1.7 / I	1060	124.81	Stored in Slop Oil Tank	---	Oil from wastewater treatment is transported for reprocessing by authorized transporter.	Disposal by selling to registered rerefiners.
3	Chemical Sludge from Waste water treatment	35.3 / I	3200	182.12	Stored in Sludge Drying Bed	---	Transported in tractor trolley.	Disposal at own / Common TSDF.
4	ETP Sludge containing polymeric constituents	35.3 / I	300	12.53	Stored in Sludge Drying Bed during storage period and filled in drums prior to disposal.	---	ETP Sludge containing Polymeric constituents is transported for Co processing by authorized transporter.	Disposal at Co-processing Facility
5	Used or Spent oil	5.1 / I	225	77.89	Collected in Drums. Drums are stored on impervious flooring during storage period.	---	Used or Spent Oil is transported for reprocessing by authorized transporter.	Disposal by selling to registered rerefiners.
6	Wastes or residues containing oil*	5.2 / I	So ever generated (600)	13.02	Collected in Drums. Drums are stored on impervious flooring during storage period.	---	Waste or residues containing oil is transported for incineration / final disposal by authorized transporter.	Disposal at Co-processing Facility
7	Process residues (Residue from Vinyl Chloride Monomer VCM production)	22.2 / I	20750	4330.67	Stored in Heavy End Storage Tank	---	---	Disposal by Incineration at own Incinerator.

Sr. No.	Physical / Chemical Form	Waste Category	Consented Quantity (MT / Yr)	Disposal Quantity (MT / Yr)	Description of Storage	Treatment	Details of Transportation	Mode of Disposal
8	Empty barrels / liners contaminated with hazardous chemicals / wastes (Discarded Containers)	33.1 / I	450	75.04	Collected in Drums / containers. Drums / containers are stored on impervious flooring during storage period.	Decontamination	Decontaminated containers are transported for recycling / reprocessing by authorized transporter	Disposal by selling to authorized vendors for recycle.
9	Empty barrels / liners contaminated with hazardous chemicals / wastes (Bags / Liners)	33.1 / I	11	0.00	Packed in Bundles and stored on impervious flooring during storage period.	Decontamination	---	Disposal by selling as scrap after decontamination.
10	Sludge and filters contaminated with oil	3.3 / I	So ever generated (500)	0.00	Collected in Drums / Bags are stored on impervious flooring during storage period.	---	Sludge & Filters contaminated with oil is transported for recycling / reprocessing by authorized transporter	Disposal at TSDF / sell to authorized vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant.
11	Spent Carbon	36.2 / I	So ever generated (500)	0.00	Collected in Drums. Drums are stored on impervious flooring during storage period.	---	Spent Carbon is transported for recycling / reprocessing by authorized transporter.	Disposal at Common Incineration Facility and / or sell to authorized vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant.
12	Spent ion exchange resin	35.2 / I	So ever generated (500)	27.58	Collected in Bags. Bags are stored on impervious flooring during storage period.	---	Spent ion exchange resin is transported for TSDF / recycling / reprocessing by authorized transporter	Disposal at TSDF, sell to authorized vendors for recycle/ reprocessing / Co-processing facility / co-processing in captive coal based power plant.
13	Spent Solvent (Degraded Dowtherm)	20.2 / I	216	23.11	Collected in Bags. Bags are stored on impervious flooring during storage period.	---	Spent Solvent is transported for recycling / reprocessing by authorized transporter	Disposal at TSDF / sell to authorized vendors for recycle / reprocessing/ Co-processing facility / co-processing in captive coal based power plant.
14	Cargo / Tank Residue, Washing Water and Sludge containing Oil	3.1 / I	100	0.00	Collected in Drums. Drums are stored on impervious flooring during storage period.	---	Cargo / Tank Residue, Washing Water and Sludge containing Oil is transported	Disposal at common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant

Sr. No.	Physical / Chemical Form	Waste Category	Consented Quantity (MT / Yr)	Disposal Quantity (MT / Yr)	Description of Storage	Treatment	Details of Transportation	Mode of Disposal
15	Cargo / Tank Residue and Sludge containing Chemical	3.2 / I	100	0.00	Collected in Drums. Drums are stored on impervious flooring during storage period.	---	Cargo / Tank Residue and Sludge containing Chemical is transported for recycling / reprocessing by authorized transporter.	Disposal at common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant
16	Bilge Water Containing Oil from Ships	3.4 / I	100	0.00	Collected in Drums. Drums are stored on impervious flooring during storage period.	ETP	Bilge Water Containing Oil from Ships is transported for recycling / reprocessing by authorized transporter.	Disposal by treatment at ETP / at common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant

a. Spent Catalyst:

Spent catalyst generated is collected in bags / drums and stored at designated storage location. It is sold to authorize recycler / reprocessor for recovery of metals.

b. Molecular Sieve:

Molecular Sieve generated is collected in bags / drums and sent for landfilling at own / common TSDF.

c. Oil from Waste Water treatment:

Slop oil is stored in tanks and sold to approved recyclers / reprocessors.

d. Chemical Sludge from Wastewater treatment:

Chemical sludge generated from Effluent treatment plant is sent for landfilling at own / common TSDF.

e. ETP Chemical Sludge containing Polymeric constituents:

ETP Chemical sludge containing Polymeric constituents is sent for co-processing in cement industries.

f. Used or Spent oil:

Used oil is collected in drums and stored at designated storage location. It is sold to approved recyclers / reprocessors.

g. Waste or Residues containing oil:

Waste & residues containing oil generated is collected in drums and stored at designated storage location. Disposal at Co-processing facility.

h. Process Residue (Residue from Vinyl chloride monomer production):

Process Residue generated from Vinyl chloride monomer production plant is incinerated into own incinerator.

- i. Discarded containers:** Decontaminated containers & used empty paint drums are sold to authorized vendors.
- j. Bags / Liners:** Whenever generated, packed in Bundles and stored on impervious flooring. It is sold to approved recyclers / reproprocessors.
- k. Sludge & Filters contaminated with oil:** It is collected in Drums / Bags and stored on impervious flooring. It is sold to approved recyclers / reproprocessors / Co-processing facility / co-processing in captive coal based power plant.
- l. Spent Carbon:** It is collected in drums and sold to authorized recyclers / re-processors / Co-processing facility / co-processing in captive coal based power plant.
- m. Spent ion exchange resin:** It is collected in bags and sold to authorized recyclers / reproprocessors / Co-processing facility / co-processing in captive coal based power plant.
- n. Alumina Desiccant:** It is collected in drums and sold to authorized recyclers / reproprocessors / Co-processing facility / co-processing in captive coal based power plant.
- o. Spent Solvent (Degraded Dowtherm):** It is collected in drums and sold to an authorized recyclers / reproprocessors / Co-processing facility / co-processing in captive coal based power plant.
- p. Cargo / Tank Residue, Washing Water and Sludge containing Oil:** It is collected in drums and sold to common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant.
- q. Cargo / Tank Residue and Sludge containing Chemical:** It is collected in drums and sold to common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant.
- r. Bilge Water Containing Oil from Ships:** It is collected in drums and disposal by treatment at ETP / at common TSDF for incineration / sell to authorised vendors for recycle / reprocessing / Co-processing facility / co-processing in captive coal based power plant.
- s. E waste:** It is sold to approved E-waste recyclers.



RIL-DMD/HSEF/ENV/2023/32

June 19, 2023

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

Sub: Submission of Form 4 (Annual Return) under the Hazardous and other wastes (Management & Transboundary Movement) Rules, 2016.

Ref: Authorization No. AWH-121992 dated 25.11.2022 via Letter No. GPCB/BRCH-B-CCA-717(20)/ID-15565/689234

Dear Sir,

Please find enclosed the duly filled Form 4 under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for the financial year 2022-23.

Thanking you,

Yours faithfully,
For **Reliance Industries Limited,**

Raja Raman Chaudhary
Head - Environment

Encl: As above

Cc:
The Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmadanagar,
BHARUCH - 392015

mk
23/06/23
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010



RIL-DMD/HSEF/ENV/2023/32

June 19, 2023

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The Member Secretary,
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The Regional Officer,
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C - 1/119/3, GIDC Phase II,
Narmadanagar,
BHARUCH - 392015

Post Received
Gujarat Pollution Control Board
BHARUCH
22/6/23

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 30th day of June of every year for the preceding period April to March]

1.	Name and address of facility:	Reliance Industries Limited, Dahej Manufacturing Division, P.O. Dahej - 392130 Ta. Vagra, Dist. Bharuch.
2.	Authorisation No. and Date of issue:	AWH-121992 issued on 25.11.2022
3.	Name of the authorised person and full address with telephone, fax number and e-mail:	Shailesh Nigam, Site President, Reliance Industries Limited, Dahej Manufacturing Division, P.O. Dahej - 392130 Ta. Vagra, Dist. Bharuch. Telephone No: 02641-356018
4.	Production during the year (product wise), wherever applicable	Please refer Annexure 1

Part A. To be filled by hazardous waste generators

1.	Total quantity of waste generated category wise	Please refer Annexure 2
2.	Quantity dispatched (i) to disposal facility (ii) to recycler or co-processors or pre-processor (iii) others	Please refer Annexure 2
3.	Quantity utilized in-house, if any -	Nil
4.	Quantity in storage at the end of the year -	680.22 MT

Part B. To be filled by Treatment, Storage and Disposal Facility Operators

1.	Total quantity received -	8180.36 MT (Generated)
2.	Quantity in stock at the beginning of the year -	Please refer Annexure 2
3.	Quantity treated -	Nil
4.	Quantity disposed in landfills as such and after treatment -	677.32 MT
5.	Quantity incinerated (if applicable) -	7574.32 MT
6.	Quantity processed other than specified above -	Nil
7.	Quantity in storage at the end of the year -	Landfill - 187.08 MT Incinerate - 398.54 MT

Part C. To be filled by recyclers or co-processors or other users

1.	Quantity of waste received during the year – (i) domestic sources (ii) imported (if applicable)	Not Applicable Not Applicable
2.	Quantity in stock at the beginning of the year –	Not Applicable
3.	Quantity recycled or co-processed or used –	Not Applicable
4.	Quantity of products dispatched (wherever applicable) –	Not Applicable
5.	Quantity of waste generated –	Not Applicable
6.	Quantity of waste disposed –	Not Applicable
7.	Quantity re-exported (wherever applicable) –	Not Applicable
8.	Quantity in storage at the end of the year –	Not Applicable

Date: 16.06.2023

Place: Dahej

**Signature of the Occupier or
Operator of the disposal facility**

Shailesh Nigam

**Shailesh Nigam
Site President
Reliance Industries Limited
Dahej Manufacturing Division
P.O. Dahej – 392130.
Ta. Vagra, Dist. Bharuch.
Gujarat**



RELIANCE INDUSTRIES LIMITED
DAHEJ MANUFACTURING DIVISION

Annexure - 1

Production during April 2022 to March 2023

Sr. No.	Plants	Products	Capacity (MTPA)	Production (MTPA)
1.	Ethane Propane Recovery Unit (EPRU)	Ethane / Propane	6,50,000	0
2.	Gas Cracker Unit (GCU)	Ethylene	5,50,000	4,59,670
		Propylene	1,60,000	18,195
3.	Vinyl Chloride Monomer (VCM)	Ethylene Dichloride	5,88,000	2,03,879
		Vinyl Chloride Monomer	3,60,000	3,39,375
4.	Polyvinyl Chloride (PVC)	Polyvinyl Chloride	3,60,000	3,45,376
5.	Chlor Alkali Plant (CA)	Chlorine	1,87,000	1,56,436
		Caustic Soda	2,21,000	1,77,550
6.	Ethylene Oxide (EO) / Ethylene Glycol (EG)	Ethylene Oxide	50,000	42,310
		Ethylene Glycol	3,08,350	1,93,064
7.	High Density Poly Ethylene (HDPE)	HDPE - I / HDPE - II	2,40,000	1,79,377
		UHMW - PE	2,500	0
8.	Ethylene Vinyl Acetate (EVA)	EVA	13,000	0
9.	Purified Terephthalic Acid (PTA)	Purified Terephthalic Acid	30,00,000	24,54,437
10.	Polyethylene Terephthalate (PET)	Polyethylene Terephthalate	10,00,000	6,51,022

Sr. No.	Plants	Products	Capacity (MTPA)	Production (MTPA)
11.	Gas Cracker Unit (GCU)	Mixed C ₄ +	47,500	17,090
		RARFS (Pyrolysis gasoline)	54,750	9,095
		Fuel Oil	40,000	9,294
		Tar Residue	5,472	0
12.	Vinyl Chloride Monomer (VCM)	HCL	36,000	19,232
13.	Chlor Alkali Plant (CA)	Sodium Hypochlorite	11,000	1,410
		Dilute H ₂ SO ₄	4,600	3,195
		HCL	15,000	10,138
14.	Ethylene Oxide (EO) / Ethylene Glycol (EG)	Di Ethylene Glycol	30,550	19,319
		Tri Ethylene Glycol	1,270	821
		PEG	19,850	0
		TEG Bottom	2,880	443
15.	Purified Terephthalic Acid (PTA)	Crude Benzoic Acid Mix	60,000	14,487

Details of Hazardous Waste (April 2022 to March 2023)

Sl. No.	Name of the Waste	Physical/ Chemical Form	Hazard Category	Consent Quantity (MT/Yr)	Opening Stock (MT/Yr)	Generated Quantity (MT/Yr)	Transfer Quantity (MT/Yr)			Disposal of Storage	Treatment	Details of Transportation	Mode of Disposal
							To Recycle or re-process	To disposal facility	Others				
1	Solvent Containing Iron oxides and traceable Benzene (solvent)	Solid /Liquid	1.6 (I)	41.35	39.98	0.00	369.58	0.00	0.00	41.35	Collected in Drums / Drums, Bags / Drums are stored in impervious lining during storage period	Solvent extracted / Molecular Sieves / Adsorbent is transported for recycling / reprocessing through authorized transporter	289.93 MT sent to authorized vendors for recycling / reprocessing. 5 MT disposed in surface S.F.
2	Oil from wastewater treatment	Liquid / Hydrocarbon	1.7 (I)	1050	42.50	199.43	0.00	219.43	0.00	32.80	Stored in Steel Oil Tank	Oil from wastewater treatment is transported for recycling through authorized transporter	Disposal by selling to registered recyclers / reprocessors
3	Chemical Sludge from Waste Water Treatment	Solid / Inorganic Solids	33.3 (I)	2098	127.70	727.70	0.00	0.00	608.32	167.88	Heaped in Storage Drying Bed	Sludge containing Polymeric contaminants, transported for reprocessing through authorized transporter	Disposal at own S.F.
4	PTM Sludge containing polymeric constituents	Semi Solid / Organic Solids	35.3 (I)	390	16.00	83.33	0.00	71.45	0.00	3.67	Stored in Drums / Drums are stored in impervious lining during storage period	Used as fuel for reprocessing through authorized transporter	Disposal by selling to registered recyclers / reprocessors
5	Liquid / Spent oil	Liquid / Hydrocarbon	5.1 (I)	325	1.52	100.93	0.00	119.2	0.00	10.96	Collected in Drums, Drums are stored in impervious lining during storage period	Waste or residues remaining are transported for reprocessing through authorized transporter	Disposal at Co-processing Facility
6	Waste oil remaining containing oil	Liquid / Carbon	5.2 (I)	So over generated (600)	3.21	17.08	0.00	53.94	0.00	6.25	Collected in Drums, Drums are stored in impervious lining during storage period	Waste or residues remaining are transported for reprocessing through authorized transporter	Disposal at Co-processing Facility
7	Process residues (Methane from Air Oxidation) (Waste processing)	Liquid / Hydrocarbon	22.2 (I)	2070	629.20	7443.05	0.00	0.00	1574.32	384.54	Stored in Heavy Duty Storage Tank	—	Disposed by incineration at own incinerator
8	Empty barrels / containers / drums / cans containing hazardous chemicals / wastes (Chloroform Containing)	Solid / Metal & Plastic	23.1 (I)	465	13.52	151	0.00	153.77	0.00	10.15	Collected in Drums / containers / Drums / containers are stored in impervious lining during storage period	—	Disposed by selling as scrap after decontamination
9	Empty barrels / containers / drums / cans containing hazardous chemicals / wastes (Benzene / Limonene)	Solid / Plastic	23.1 (I)	11	0.99	0.00	0.00	0.00	0.00	0.00	—	—	—
10	Sludge and Barium containing waste oil	Solid / Sludge along with hydrocarbon	3.3 (I)	So over generated (500)	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—
11	Spent Carbon	Solid / Carbon	35.2 (I)	So over generated (500)	0.00	0.08	0.00	0.00	0.00	0.08	Collected in Drums / Bags / Drums / Bags are stored in impervious lining during storage period	Spent Carbon is transported for recycling / reprocessing through authorized transporter	Disposal at Co-processing Facility
12	Spent Solvent (Charged Sorbent)	Solid / Liquid	35.2 (I)	So over generated (500)	0.00	149.90	0.00	149.90	0.00	0.00	Spent on exchange resin is transported for recycling / reprocessing through authorized transporter	Spent Solvent (Degraded/Overused) is transported for recycling / reprocessing through authorized transporter	Disposal at Co-processing Facility
13	Spent Solvent (Charged Sorbent)	Solid / Liquid	35.2 (I)	276	0.00	39.26	0.00	38.98	0.00	0.00	Spent on exchange resin is transported for recycling / reprocessing through authorized transporter	Spent Solvent (Degraded/Overused) is transported for recycling / reprocessing through authorized transporter	Disposal at Co-processing Facility
14	Chemical Waste from Wastewater Treatment	Solid / Sludge	3.1 (I)	188	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—
15	Sludge / Tank Residue and Sludge containing Chemical	Solid / Inorganic Solids	3.2 (I)	160	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—
16	Sludge Water Containing Oil from Sludge	Solid / Hydrocarbon	3.4 (I)	190	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—
				Total Quantity (MT)				668	974.79	0.00	8251.84	940.25	

**Ground Water Monitoring Report
(October 2023 – March 2024)**

October 2023

Sr. No	Location		UNIT	Bore Well-01		Bore Well-02		Bore Well-03		Bore Well-04		Bore Well-05		Bore Well-06		Bore Well-07		Bore Well-08		MIN	MAX	AVG
	Parameter	Visitor Pass Section		SLF North Corner	SLF East Corner	SLF South Corner	SLF West Corner	Material Gate-2	Watch Tower No.2	Watch Tower No.4												
1	pH		-	7.5	7.7	7.7	7.7	7.7	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	7.9	7.5	7.9	7.7
2	Conductivity		µS/cm	1118.0	828.0	675.0	828.0	631.0	1128.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	745.0	745.0	613	1128	807
3	TDS		mg/l	856.0	555.0	471.0	555.0	415.0	770.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	507.0	507.0	412	770	550
4	Turbidity		NTU	4.9	6.7	5.6	6.7	5.3	7.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	10.2	10.2	5	10	8
5	P-alkalinity as CaCO3		mg/l	< 5.0	< 5.0	< 5.0	< 5.0	14.6	21.3	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	< 5.0	< 5.0	15	21	18
6	M-Alkalinity (as CaCO3)		mg/l	34.5	37.4	28.3	37.4	31.9	32.4	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	25.8	25.8	26	72	42
7	Total Suspended Solids		mg/l	< 5.0	15.0	15.0	15.0	11.0	18.3	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	11	18	15
8	Total Hardness as CaCO3		mg/l	22.5	104.1	116.5	104.1	365.2	188.1	235.1	235.1	235.1	235.1	235.1	235.1	235.1	235.1	112.5	112.5	23	365	209
9	Ca-hardness as CaCO3		mg/l	11.6	59.2	72.8	59.2	123.3	98.3	116.5	116.5	116.5	116.5	116.5	116.5	116.5	116.5	71.6	71.6	12	165	101
10	Mg hardness (as CaCO3)		mg/l	10.9	48.9	43.7	48.9	221.9	97.8	122.6	122.6	122.6	122.6	122.6	122.6	122.6	122.6	30.9	30.9	11	222	109
11	Chloride as Cl		mg/l	178.3	181.3	188.7	181.3	414.5	183.8	146.2	146.2	146.2	146.2	146.2	146.2	146.2	146.2	182.3	182.3	146	415	233
12	Sulphates as SO4		mg/l	52.2	43.2	38.6	43.2	44.3	65.2	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	35.6	35.6	36	65	48
13	Free Residual Cl2		mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
14	Iron as Fe		mg/l	0.2	0.2	< 0.1	0.2	0.2	< 0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
15	Chemical Oxygen Demand		mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
16	Biochemical Oxygen Demand (3 day at 27°C)		mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
17	Carbonate (CO3)		mg/l	13.1	< 5.0	< 5.0	< 5.0	11.6	13.6	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	< 5.0	< 5.0	11.6	13.6	12.6
18	Phosphate (PO4)		mg/l	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
19	Nitrate (NO3)		mg/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
20	Fluorides (as F)		mg/l	0.6	< 0.2	< 0.2	< 0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	< 0.2	< 0.2	0.5	0.5	0.5
21	Bicarbonate (HCO3)		mg/l	46.3	52.6	28.5	52.6	47.5	45.3	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	44.2	44.2	28.5	62.1	49.0
22	Sodium (Na)		mg/l	50.5	62.5	43.5	62.5	44.1	67.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	55.3	55.3	43.5	67.2	56.1
23	Potassium (K)		mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.0	0.0	0.0
24	Oil & Grease		mg/l	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.0	0.0	0.0
25	Phenol		mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0	0.0	0.0

November 2023

Sr. No.	Location		UNIT	Bore Well-01		Bore Well-02		Bore Well-03		Bore Well-04		Bore Well-05		Bore Well-06		Bore Well-07		Bore Well-08		MIN	MAX	AVG
	Parameter			Visitor Pass Section	SLF North Corner	SLF East Corner	SLF South Corner	SLF West Corner	Material Gate-2	Watch Tower No.2	Watch Tower No.4	SLF East Corner	SLF South Corner	SLF West Corner	Material Gate-2	Watch Tower No.2	Watch Tower No.4					
1	pH		-	7.5	7.7	7.7	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	7.9	7.5	7.9	7.8			
2	Conductivity		µS/cm	1275.0	616.0	875.0	625.0	1047.0	825.0	682.0	703.0	616	1047	616	1047	616	1047	616	1047	803		
3	TDS		mg/l	748.0	695.0	585.0	870.0	812.0	568.0	615.0	615.0	531	870	531	870	531	870	531	870	673		
4	Turbidity		NTU	6.2	5.7	4.8	6.5	8.7	9.3	8.9	10.8	5	11	5	11	5	11	5	11	8		
5	P-alkalinity as CaCO3		mg/l	< 5.0	< 5.0	< 5.0	22.9	23.1	20.5	< 5.0	< 5.0	21	23	21	< 5.0	< 5.0	21	< 5.0	23	22		
6	M-Alkalinity (as CaCO3)		mg/l	39.7	32.4	42.5	38.4	34.5	41.6	74.1	30.4	30	74	30	74	30	74	30	74	46		
7	Total Suspended Solids		mg/l	< 5.0	< 5.0	8.0	10.0	9.0	< 5.0	< 5.0	< 5.0	8	10	8	< 5.0	< 5.0	8	< 5.0	10	9		
8	Total Hardness as CaCO3		mg/l	78.6	122.8	107.2	352.8	191.5	242.5	225.6	106.3	79	353	79	106.3	106.3	79	106.3	353	207		
9	Ca-hardness as CaCO3		mg/l	66.8	76.4	60.5	134.6	98.3	119.3	177.5	78.9	61	178	61	78.9	78.9	61	78.9	178	113		
10	Mg hardness (as CaCO3)		mg/l	52.8	44.4	46.7	218.2	93.2	123.2	98.1	27.4	27	218	27	27.4	27.4	27	218	107			
11	Chloride as Cl		mg/l	176.5	166.2	195.6	284.5	156.1	175.2	199.2	198.2	156	285	156	198.2	198.2	156	285	206			
12	Sulphates as SO4		mg/l	57.8	42.1	35.8	47.2	63.1	56.2	42.6	38.5	36	63	36	38.5	38.5	36	63	48			
13	Free Residual Cl2		mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.0	0.0	0.0	< 0.1	< 0.1	0.0	< 0.1	0.0	0.0		
14	Iron as Fe		mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.0	0.0	0.0	< 0.1	< 0.1	0.0	< 0.1	0.0	0.0		
15	Chemical Oxygen Demand		mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.0	0.0	0.0	< 1.0	< 1.0	0.0	< 1.0	0.0	0.0		
16	Biochemical Oxygen Demand (3 day at 27°C)		mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.0	0.0	0.0	< 1.0	< 1.0	0.0	< 1.0	0.0	0.0		
17	Carbonate (CO3)		mg/l	12.3	< 5.0	< 5.0	12.8	14.5	13.2	< 5.0	< 5.0	12.3	14.5	12.3	< 5.0	< 5.0	12.3	< 5.0	14.5	13.5		
18	Phosphate (PO4)		mg/l	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	0.0	0.0	0.0	< 3.0	< 3.0	0.0	< 3.0	0.0	0.0		
19	Nitrate (NO3)		mg/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.0	0.0	0.0	< 0.5	< 0.5	0.0	< 0.5	0.0	0.0		
20	Fluorides (as F)		mg/l	0.3	< 0.2	< 0.2	0.6	0.4	0.5	< 0.2	< 0.2	0.3	0.6	0.3	< 0.2	< 0.2	0.3	< 0.2	0.6	0.5		
21	Bicarbonate (HCO3)		mg/l	53.5	45.1	51.7	46.3	45.2	59.6	52.5	48.1	45.1	59.6	45.1	48.1	48.1	45.1	59.6	51.0			
22	Sodium (Na)		mg/l	56.2	49.3	62.3	42.6	65.5	65.2	63.2	51.3	42.6	65.5	42.6	51.3	51.3	42.6	65.5	57.3			
23	Potassium (K)		mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.0	0.0	0.0	< 0.1	< 0.1	0.0	< 0.1	0.0	0.0		
24	Oil & Grease		mg/l	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.0	0.0	0.0	< 0.2	< 0.2	0.0	< 0.2	0.0	0.0		
25	Phenol		mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0	0.0	0.0	< 0.001	< 0.001	0.0	< 0.001	0.0	0.0		

December 2023

Sr. No	Location		UNIT	Bore Well-01	Bore Well-02	Bore Well-03	Bore Well-04	Bore Well-05	Bore Well-06	Bore Well-07	Bore Well-08	MIN	MAX	AVG
	Parameter	Visitor Pass Section		SLF North Corner	SLF East Corner	SLF South Corner	SLF West Corner	Material Gate-2	Watch Tower No.2	Watch Tower No.4				
1	pH	-	7.6	7.8	7.8	7.8	7.9	7.9	7.9	7.8	7.8	7.6	7.9	7.8
2	Conductivity	µS/cm	1242.0	688.0	854.0	681.0	1175.0	841.0	841.0	685.0	726.0	681	1175	852
3	TDS	mg/l	831.0	481.0	566.0	448.0	895.0	531.0	531.0	509.0	547.0	448	895	605
4	Turbidity	NTU	5.3	5.5	6.3	5.9	9.1	9.6	9.6	9.1	10.1	5	10	8
5	P-alkalinity as CaCO3	mg/l	<5.0	<5.0	<5.0	21.6	20.6	19.7	19.7	<5.0	<5.0	20	22	21
6	M-Alkalinity (as CaCO3)	mg/l	34.5	30.1	38.1	32.5	39.7	40.1	40.1	79.3	26.3	26	79	45
7	Total Suspended Solids	mg/l	<5.0	<5.0	9.0	7.0	8.0	<5.0	<5.0	<5.0	<5.0	7	9	8
8	Total Hardness as CaCO3	mg/l	168.2	125.6	111.5	349.2	197.2	238.1	238.1	265.1	115.2	112	349	217
9	Ca-hardness as CaCO3	mg/l	140.1	79.3	73.1	128.6	100.3	116.2	116.2	190.7	83.9	73	191	120
10	Mg hardness (as CaCO3)	mg/l	28.1	46.3	38.4	220.6	96.9	121.9	121.9	74.4	31.3	28	221	104
11	Chloride as Cl	mg/l	176.2	165.4	193.4	327.8	182.3	144.6	144.6	208.2	189.2	145	328	215
12	Sulphates as SO4	mg/l	56.3	32.6	37.1	48.6	68.2	55.3	55.3	38.5	41.2	33	68	49
13	Free Residual Cl2	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0	0.0	0.0
14	Iron as Fe	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0	0.0	0.0
15	Chemical Oxygen Demand	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0
16	Biochemical Oxygen Demand (3 day at 27°C)	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0
17	Carbonate (CO3)	mg/l	11.8	<5.0	<5.0	13.8	12.9	13.5	13.5	<5.0	<5.0	11.8	13.8	13.2
18	Phosphate (PO4)	mg/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	0.0	0.0	0.0
19	Nitrate (NO3)	mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	0.0	0.0
20	Fluorides (as F)	mg/l	0.7	<0.2	<0.2	0.5	0.6	0.6	0.6	<0.2	<0.2	0.5	0.6	0.6
21	Bicarbonate (HCO3)	mg/l	51.2	42.3	51.5	47.3	46.5	64.1	64.1	52.1	45.8	42.3	64.1	51.7
22	Sodium (Na)	mg/l	47.1	36.2	66.5	45.2	63.5	55.2	55.2	57.5	58.2	36.2	66.5	56.1
23	Potassium (K)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0	0.0	0.0
24	Oil & Grease	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.0	0.0	0.0
25	Phenol	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0	0.0	0.0

January 2024

Sr. No	Location		Bore Well-01	Bore Well-02	Bore Well-03	Bore Well-04	Bore Well-05	Bore Well-06	Bore Well-07	Bore Well-08	MIN	MAX	AVG
	Parameter	UNIT											
1	pH	-	7.8	7.8	7.9	7.7	7.8	7.8	7.9	7.7	7.9	7.9	7.8
2	Conductivity	µS/cm	1210.0	795.0	895.0	1045.0	1102.0	975.0	1123.0	887.0	795	1123	994
3	TDS	mg/l	807.0	547.0	613.0	760.0	779.0	667.0	777.0	607.0	547	779	691
4	Turbidity	NTU	5.1	5.3	6.7	6.2	8.1	9.3	8.7	10.3	5	10	8
5	P-alkalinity as CaCO3	mg/l	22.5	18.5	24.6	23.7	28.4	18.4	17.2	15.6	16	28	21
6	M-Alkalinity (as CaCO3)	mg/l	50.6	33.4	49.3	48.5	37.3	36.8	77.3	28.1	28	77	48
7	Total Suspended Solids	mg/l	<5.0	<5.0	11.0	15.0	8.7	<5.0	<5.0	<5.0	9	15	12
8	Total Hardness as CaCO3	mg/l	285.3	162.5	147.2	331.1	285.3	240.7	275.4	167.3	147	331	241
9	Ca-hardness as CaCO3	mg/l	194.9	98.3	96.6	119.7	184.7	116.1	185.4	118.4	97	185	138
10	Mg hardness (as CaCO3)	mg/l	90.4	64.2	50.6	211.4	100.6	124.6	90.0	48.9	49	211	111
11	Chloride as Cl	mg/l	224.1	202.6	235.2	219.9	199.3	195.2	209.6	211.4	195	235	213
12	Sulphates as SO4	mg/l	72.3	46.8	58.5	52.3	79.5	50.4	63.1	45.4	45	80	59
13	Free Residual Cl2	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0	0.0	0.0
14	Iron as Fe	mg/l	1.2	2.1	2.5	1.7	3.1	4.5	4.7	3.7	1.2	4.7	3.3
15	Chemical Oxygen Demand	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0
16	Biochemical Oxygen Demand (3 day at 27°C)	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0
17	Carbonate (CO3)	mg/l	32.6	33.2	29.8	25.6	37.1	25.3	34.8	28.4	25.3	37.1	30.4
18	Phosphate (PO4)	mg/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	0.0	0.0	0.0
19	Nitrate (NO3)	mg/l	1.2	1.0	1.1	1.0	1.1	1.3	1.1	1.2	1.0	1.3	1.1
20	Fluorides (as F)	mg/l	0.5	0.5	0.4	0.3	0.5	0.5	0.6	0.5	0.3	0.6	0.5
21	Bicarbonate (HCO3)	mg/l	65.3	41.6	50.4	42.6	57.8	61.3	56.5	57.8	41.6	61.3	53.7
22	Sodium (Na)	mg/l	84.5	52.5	64.1	53.5	79.6	57.1	69.5	71.1	52.5	79.6	65.9
23	Potassium (K)	mg/l	4.1	4.2	3.8	2.9	4.8	5.1	3.7	3.6	2.9	5.1	4.0
24	Oil & Grease	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.0	0.0	0.0
25	Phenol	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0	0.0	0.0

February 2023

Sr. No	Location		UNIT	Bore Well-01	Bore Well-02	Bore Well-03	Bore Well-04	Bore Well-05	Bore Well-06	Bore Well-07	Bore Well-08	MIN	MAX	AVG
	Parameter	Visitor Pass Section		SLF North Corner	SLF East Corner	SLF South Corner	SLF West Corner	Material Gate-2	Watch Tower No.2	Watch Tower No.4				
1	pH		-	7.8	7.9	8.1	7.9	7.8	7.9	7.9	7.9	4.0	8.1	7.4
2	Conductivity		1255.0	774.0	952.0	978.0	1218.0	1025.0	938.0	1025.0	909.0	5.0	1218	905
3	TDS		835.0	491.0	601.0	620.0	753.0	653.0	609.0	653.0	629.0	5.0	753	578
4	Turbidity		5.6	4.8	6.5	6.8	7.8	7.8	6.5	7.8	9.1	0.1	9	7
5	P-alkalinity as CaCO3		21.3	17.2	26.3	24.2	29.5	19.4	20.2	19.4	17.2	5.0	30	21
6	M-Alkalinity (as CaCO3)		44.2	30.9	47.1	43.6	39.1	42.4	42.4	65.2	32.6	5.0	65	43
7	Total Suspended Solids		<5.0	9.0	15.0	17.0	11.0	12.0	12.0	14.0	10.0	5.0	17	13
8	Total Hardness as CaCO3		231.2	148.6	141.5	295.3	258.2	234.5	234.5	228.2	191.5	5.0	295	206
9	Ca-hardness as CaCO3		147.3	99.3	86.3	97.1	161.4	131.4	131.4	141.4	132.3	5.0	161	115
10	Mg hardness (as CaCO3)		83.9	49.3	55.2	198.2	96.8	103.1	103.1	86.8	59.2	5.0	198	100
11	Chloride as Cl		196.5	181.8	258.1	191.2	221.5	176.3	176.3	181.8	203.3	2.5	258	187
12	Sulphates as SO4		63.8	32.5	46.3	50.5	81.3	47.6	47.6	51.3	51.4	1.0	81	51
13	Free Residual Cl2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1
14	Iron as Fe		2.5	3.1	3.2	2.1	4.0	4.2	4.2	5.1	4.4	0.1	5.1	3.5
15	Chemical Oxygen Demand		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.0	1.0
16	Biochemical Oxygen Demand (3 day at 27°C)		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.0	1.0
17	Carbonate (CO3)		33.5	22.4	24.3	21.9	46.1	17.2	17.2	26.7	28.1	5.0	45.1	26.7
18	Phosphate (PO4)		<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	3.0	3.0
19	Nitrate (NO3)		1.5	1.2	1.4	1.5	1.3	1.6	1.6	1.3	1.2	0.5	1.6	1.3
20	Fluorides (as F)		0.7	0.5	0.5	0.4	0.5	0.6	0.6	0.8	0.6	0.2	0.8	0.5
21	Bicarbonate (HCO3)		62.1	51.3	54.2	47.1	53.5	59.2	59.2	63.1	59.3	5.0	63.1	50.6
22	Sodium (Na)		87.2	49.6	72.3	41.3	86.2	58.3	58.3	53.1	82.8	0.1	86.2	60.0
23	Potassium (K)		4.5	5.3	4.7	3.0	5.5	6.2	6.2	4.7	4.1	0.1	6.2	4.3
24	Oil & Grease		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.2	0.2
25	Phenol		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0	0.0	0.0

1. Gaseous Storage Licences under SMPV(U) Rules issued by Chief Controller of Explosives, Nagpur.

Sr. No	Plant	Name of licensed area	Licence Number	Validity
1	VCM	VCM Storage	S/HO/GJ/03/249(S1419)	30.09.2027
2	CA	Chlorine storage	S/HO/GJ/03/246(S1412)	30.09.2027
3	N2O2 (IOP)	Oxygen gas storage	S/HO/GJ/03/318(S1597)	30.09.2027
4	VCM	Nitrogen storage	S/HO/GJ/03/355(S1677)	30.09.2027
5	EOEG	EO storage with loading facility	S/HO/GJ/03/351(S1674)	30.09.2027
6	HDPE	Butene & hydrogen	S/HO/GJ/03/368(S1688)	30.09.2027
7	OSBL	Ethylene & propylene storage	S/HO/GJ/03/394(S1728)	30.09.2027
8	PTD	Propane, Propylene and C4 Mix storage	S/HO/GJ/03/386(S1716)	30.09.2027
9	N2O2 (IOP)	Liquid, Nitrogen Storage	S/HO/GJ/03/1567(S56097)	30.09.2027

2. Details of Petroleum Storage Licenses issued by Chief Controller of Explosives, Nagpur under Petroleum rules, 2002

Sr. No	Plant	Name of Licensed Area	License Number	Licensed Capacity	Validity
1	PTD	Naptha Storage	P/HQ/GJ/15/2048(P12367)	Class A:54000 KL	31.12.2028
2	CPP	Naptha and HSD	P/HQ/GJ/15/1982(P12304)	Class A: 2147 KL, Class B: 407 KL	31.12.2028
3	IOP (Fire)	HSD	P/HQ/GJ/15/2044(P12363)	Class B: 15 KL	31.12.2028
4	GCU	Wash Oil	P/HQ/GJ/15/2063(P12377)	Class B: 20 KL	31.12.2028
5	HDPE	Hexane	P/HQ/GJ/15/2025(P12344)	Class A:1403 KL	31.12.2028
6	GCU	Methanol	P/HQ/GJ/15/1975(P12297)	Class A:21.5 KL	31.12.2028
7	ETP-I	Slop oil	P/HQ/GJ/15/1984(P12306)	Class A:100 KL	31.12.2028
8	PTD	PG-LFO-PFO-WO	P/HQ/GJ/15/2002(P12324)	Class A: 920 KL, Class B: 550 KL, Class C: 200 KL	31.12.2028
9	ETP-II	Slop oil	P/HQ/GJ/15/1908(P12239)	Class A:106 KL	31.12.2028
10	PTA	p-Xylene, HSD, Methanol	P/HQ/GJ/15/5364(P346978)	Class A: 332 KL, Class B: 11202 KL	31.12.2028

3. Details of Gas Cylinder Storage Licences issued by Chief Controller of Explosives, Nagpur under Gas Cylinder Rules 2016-Explosive Act , 1984

Sr. No	Name of licensed area	Licence Number	Renewed upto / license status
1	Gas Cylinder Storage	G/WC/GJ/06/924(G14117)	30.09.2028

Annexure XII

Photographs of Quality Assurance Department (Central Laboratory)



Annexure XIII

Photograph of Mangrove plantation done in RDMT Jetty



Annexure XIV

Ambient Noise Level Monitoring Report
(October 2023 – March 2024)

Month	Monitoring Location													
	Nr. Ethane Tank		Site Guest House		Nr. CCPP		Nr. PTA		Nr. ETP Guard Pond		RDMT Jetty		Jageshwar Village	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Ambient Noise Levels in dB(A)														
Oct-23	55.2	51.5	48.9	45.2	54.8	52.1	59.1	54.4	53.7	50.3	52.6	49.1	57.4	52.7
Nov-23	52.6	50.1	51.3	48.7	53.3	50.8	55.8	51.3	52.6	50.3	51.4	48.7	53.8	50.6
Dec-23	54.9	50.1	50.5	48.2	54.7	51.3	57.8	54.1	55.9	54.4	55.2	53.8	56.6	51.4
Jan-24	55.4	49.7	52.7	49.1	53.8	50.4	50.7	53.7	57.9	53.1	56.3	54.2	55.8	50.3
Feb-24	56.3	48.6	51.8	49.8	54.1	50.9	51.7	49.1	58.2	52.7	57.3	53.1	56.2	49.6
Mar-24	57.1	50.3	50.7	48.7	53.8	51.2	52.2	50.8	56.7	51.6	56.8	52.5	54.8	48.9
Limit	75.0	70.0	75.0	70.0	75.0	70.0	75.0	70.0	75.0	70.0	75.0	70.0	75.0	70.0
Min	52.6	48.6	48.9	45.2	53.3	50.4	50.7	49.1	52.6	50.3	51.4	48.7	53.8	48.9
Max	57.1	51.5	52.7	49.8	54.8	52.1	59.1	54.4	58.2	54.4	57.3	54.2	57.4	52.7
Avg	55.3	50.1	51.0	48.3	54.1	51.1	54.6	52.2	55.8	52.1	54.9	51.9	55.8	50.6

20 December, 2023

To:
Dy. Director of Industrial Safety & Health,
Office of the DISH,
Multistory building, 2nd Floor,
Kanbi Vaga, Opp-Gayatri Nagar,
Bharuch - 392 001.

Kind Attn: Dy. Director of Industrial Safety & Health.

Subject: Submission of "Mock drill" report.

Reference: GFR 68-J-12(5)

Dear Sir,

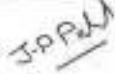
Please find enclosed copy of the report on mock drill, which was carried out at Reliance Industries Ltd. Dahej Site.

Sr. No.	Date	Location	Scenario
1	14.12.2023	PET3 Plant	Line Reactor bottom flange leak


This is for your kind information and record please.

Thanking you,

Yours faithfully,
For Reliance Industries Limited,


(Jignesh P. Patel)
Head - Safety

Encl: As above


જીગ્નેશ પટેલ 21/12/2023
ઐતિહાસિક સલામતી અને સ્વાસ્થ્ય
ભરૂચ -

olc

Reliance
Industries Limited

RIL-DMD/HSEF/ENV/2023/87

Date: 28th November, 2023

To,
The Member Secretary
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

Sub: Submission of Compliance Status Report of EC's received by RIL - Dahej Manufacturing Division for the period April 2023 to September 2023.

Ref: 1) EC Order no. J-11011/27/90-IA-II dated 14th March 1991
2) EC Order no. J-16011/45/96-IA-III dated 26th December 1996
3) EC Order no. J-11012/11/97-IA-II dated 21st May 1998
4) EC Order no. J-11011/482/2006-IA-II (I) dated 11th June 2007
5) EC Order no. J-11011/402/2007- IA II (I) dated 20th March 2008
6) EC Order no. SEIAA /GUJ/EC/5(e)&1(d)/124/2011 dated 23rd June 2011
7) Amendments in EC No. SEIAA / GUJ/ EC/ 5(e) & 1(d)/160/2011, dated 9th August 2011 and No. SEIAA / GUJ/ EC/ 7(e)/278/2011, Dated 13th September 2012
8) EC Order no. SEIAA/GUJ/EC/1(d)&7(e)/96/2015 dated 02nd March 2015
9) Amendment in EC No. SEIAA/GUJ/EC/1(d) & 7(e)/583/2016, dated 28th September 2016
10) EC Order no. J-11011/39/2016-IA-II (I) dated 03rd April 2017
11) EC Order no. J-11011/39/2016-IA-II (I) dated 19th August 2021

Dear Sir,

Please find attached herewith the point wise compliance to the Environment Clearances granted to Reliance Industries Limited - Dahej Manufacturing Division (earlier known as IPCL - Gandhar Petrochemical Complex) by MoEF&CC and SEIAA, Gujarat (referenced above).

Please refer to the annexure number mentioned against the compliances from the common annexure file.

We hope that the above is in line with your requirements and request to kindly acknowledge the receipt.

Thanking you,
For **Reliance Industries Limited**


Raja Raman Chaudhary
Head Environment


(Post Retired)
Gujarat Pollution Control Board
BHARUCH

Encl: As above

Cc: 1. Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmadanagar, Bharuch - 392015.

2. State Environment Impact Assessment Authority (SEIAA),
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

RIL-DMD/HSEF/ENV/2023/87

Date: 28th November, 2023

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

Sub: Submission of Compliance Status Report of EC's received by RIL - Dahej Manufacturing Division for the period April 2023 to September 2023

- Ref:**
- 1) EC Order no. J-11011/27/90-IA-II dated 14th March 1991
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 - 5) EC Order no. J-11011/402/2007-IA-II (I) dated 20th March 2008
 - 6) EC Order no. SEIAA /GUJ/EC/5(e)&1(d)/124/2011 dated 23rd June 2011
 - 7) Amendments in EC No. SEIAA / GUJ/ EC/ 5(e) & 1(d)/160/2011, dated 9th August 2011 and No. SEIAA / GUJ/ EC/ 7(e)/278/2011, Dated 13th September 2012
 - 8) EC Order no. SEIAA/GUJ/EC/1(d)&7(e)/96/2015 dated 02nd March 2015
 - 9) Amendment in EC No. SEIAA/GUJ/EC/1(d) & 7(e)/583/2016, dated 28th September 2016
 - 10) EC Order no. J-11011/39/2016-IA-II (I) dated 03rd April 2017
 - 11) EC Order no. J-11011/39/2016-IA-II (I) dated 19th August 2021


Dear Sir,

Please find attached herewith the point wise compliance to the Environment Clearances granted to Reliance Industries Limited - Dahej Manufacturing Division (earlier known as IPCL - Gandhar Petrochemical Complex) by MoEF&CC and SEIAA, Gujarat (referenced above)

Please refer to the annexures number mentioned against the compliances from the common annexure file.

We hope that the above is in line with your requirements and request to kindly acknowledge the receipt.

Thanking you,
For Reliance Industries Limited


Raja Raman Chaudhary
Head Environment

Encl.: As above

- Cc: 1. Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmadanagar, Bharuch - 382015.
2. State Environment Impact Assessment Authority (SEIAA),
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

RIL-DMD/HSEF/ENV/2023/85

Date: 28th November, 2023

To,
The Regional Officer,
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A Wing – 407 & 409, Aranya Bhawan,
Near CH - 3 Circle, Sector - 10A,
Gandhinagar, Gujarat – 382 010

Subject: Submission of Compliance Status Report of EC's received by RIL – Dahej manufacturing Division for the period April 2023 to September 2023.

Reference:

1. EC Order no. J-11011/27/90-IA-II dated 14th March 1991
2. EC Order no. J-16011/45/96-IA-III dated 26th December 1996
3. EC Order no. J-11012/11/97-IA-II dated 21st May 1998
4. EC Order no. J-11011/482/2006-IA-II (I) dated 11th June 2007
5. EC Order no. J-11011/402/2007- IA II (I) dated 20th March 2008
6. EC Order no. SEIAA /GUJ/EC/5(e)&1(d)/124/2011 dated 23rd June 2011
7. Amendments in EC No. SEIAA / GUJ/ EC/ 5(e) & 1(d)/160/2011, dated 09th August 2011 and No. SEIAA / GUJ/ EC/ 7(e)/278/2011, dated 13th September 2012
8. EC Order no. SEIAA/GUJ/EC/1(d)&7(e)/96/2015 dated 02nd March 2015
9. Amendment in EC No. SEIAA/GUJ/EC/1(d) & 7(e)/583/2016, dated 28th September 2016
10. EC Order no. J-11011/39/2016-IA-II (I) dated 3rd April 2017
11. EC Order no. J-11011/39/2016-IA-II (I) dated 19th August 2021

Dear Sir,

Please find attached herewith the point wise compliance to the Environment Clearances granted to Reliance Industries Limited – Dahej Manufacturing Division (earlier known as IPCL - Gandhar Petrochemical Complex) by MoEF&CC and SEIAA, Gujarat (referenced above).

Please refer to the annexures number mentioned against the compliances from the common annexure file.

We hope that the above is in line with your requirements and request to kindly acknowledge the receipt.

Thanking you,
For **RELIANCE INDUSTRIES LIMITED**


Raja Ramani Chaudhary
Head Environment

Encl.: As above

Cc,
The Member of Secretary,
State Environment Impact Assessment Authority (SEIAA), Gandhinagar

Reliance
Industries Limited
CIN # L17110MH1973PLC019786

RIL-DMD/HSEF/ENV/2018/29

June 18, 2018

To,
Member Secretary
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 A,
Gandhinagar - 382 010

Handwritten signature
Sh. A V Shah
Sr. Environmental Engineer

Kind Attn: Sh. A V Shah, Sr. Environmental Engineer

Sub: Ambient Air Quality Monitoring Stations at RIL-DMD [Industry ID: 15565]

Ref.: (1) CTO /CCA order no. W-76082 dated 04/02/2016, valid upto 03/11/2020

(2) Environmental Clearance F. No. J-11011/39/2016-IA-II(I) dated 3rd April 2017

Dear Sir,

As you are aware, RIL-Dahej Manufacturing Division is a manufacturing site of the erstwhile IPCL - a "Navratna" Public sector undertaking, which was acquired by Reliance Industries Limited in June 2002 and subsequently merged with itself, in September 2007. After merger, DMD site is expanded at regular interval after obtaining necessary approval from MoEF/SEIAA/ GPCB.

The Ambient Air Quality Monitoring is being carried at five locations within complex and 2 locations outside the complex; 1 at Jetty and 1 in nearby village, suggested based on dispersion modelling study since beginning.

As per General condition B (iii) of BC dated 3rd April 2017, granted by MoEF, stated that "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."

In this context, we had engaged M/s Environment Resource Management (ERM) to identify and suggest the locations for AAQM based on dispersion modeling study due to Expansion and Debottlenecking of RIL-DMD. Based on study, M/s ERM has suggested to relocate four AAQM stations and three will be at existing location. A copy of study report received from ERM is enclosed for your ready reference.

Dahej Manufacturing Division

P. O. : Dahej, Taluka : Vagra, District - Bharuch - 392 130, Gujarat, India. Phone: +91-02641-282000

Registered Office : 3rd Floor, Maker Chambers IV, 222, Nariman Point, Mumbai - 400 021, India.

In compliance to the above referred condition of the Environment Clearance, we request you to kindly consider the locations for Ambient Air Quality Monitoring.

Thanking you,

Yours faithfully,
For Reliance Industries Limited


Anand Sutaria
Head - Environment

Cc:
The Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmada Nagar,
BHARUCH - 392015.



Ambient Air Monitoring Locations
Post Expansion & Debottlenecking:
*Dahej Manufacturing Division (DMD),
Dahej, Gujarat, India*

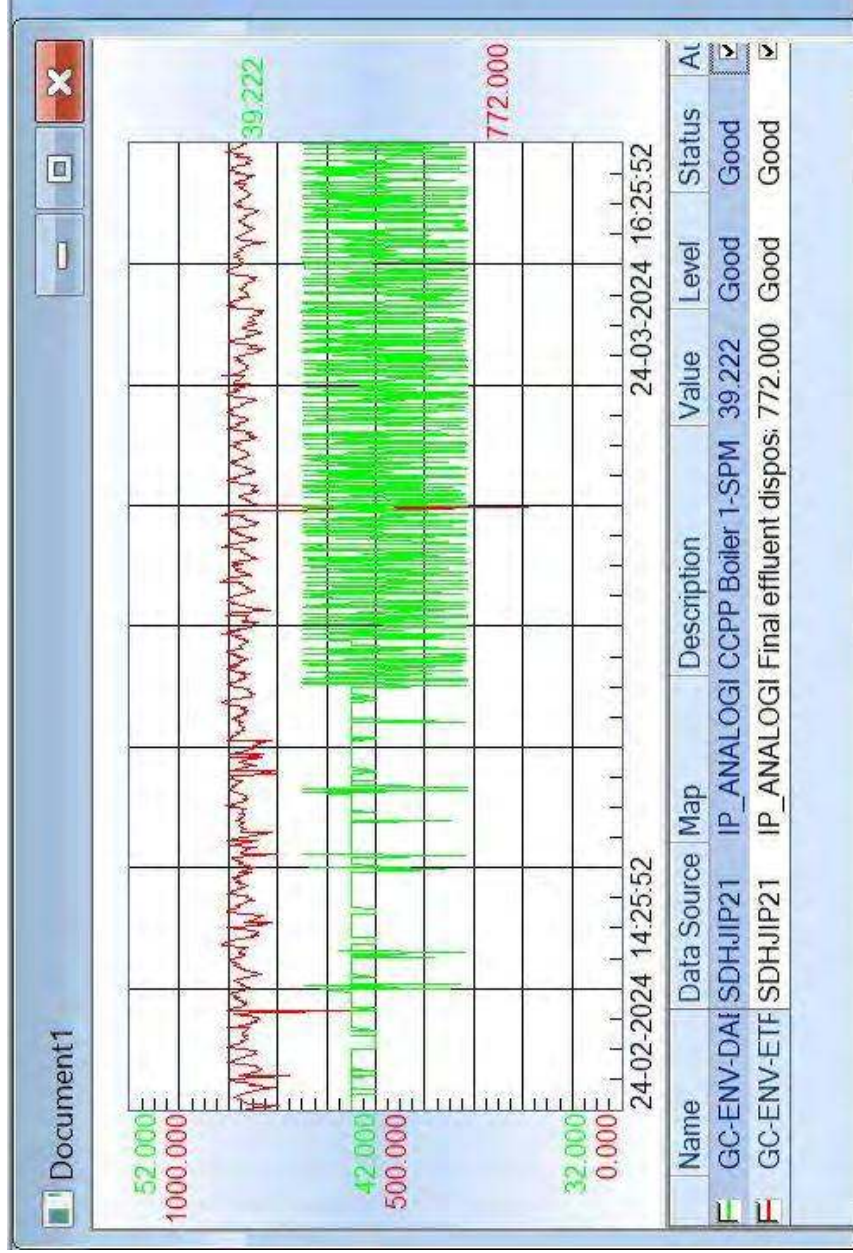
Reliance Industries Limited

Report

January 2016

www.erm.com

CCPP Boiler-1 Stack – Aspen Process Explorer



LDAR LEVEL - Frequency: Daily Plant: HPPF

DATE DD/MM/YYYY	Odour Y/N	Drooping Y/N	Blowing Sound Y/N	Leak Y/N	Fluency/ Vapour Y/N	Temp. Y/N	Any Other Y/N	If Yes, Give Detail of			REMARK	N. OF SIGN OF OPERATOR	NAME & SIGN OF ENGINEER				
								Section Name	Sub Section Name	Equipment Type (Pump, Compressor, FRV, Valve, Flanges etc.)							
16/2/24	N	N	N	N	N	N	N										
17/2/24	N	N	N	N	N	N	N										
18/2/24	N	N	N	N	N	N	N										
19/2/24	N	N	N	N	N	N	N										
20/2/24	N	N	N	N	N	N	N										
21/2/24	N	N	N	N	N	N	N										
22/2/24	N	N	N	N	N	N	N										
23/2/24	N	N	N	N	N	N	N										
24/2/24	N	N	N	N	N	N	N										
25/2/24	N	N	N	N	N	N	N										
26/2/24	N	N	N	N	N	N	N										
27/2/24	N	N	N	N	N	N	N										
28/2/24	N	N	N	N	N	N	N										
29/2/24	N	N	N	N	N	N	N										
30/2/24	N	N	N	N	N	N	N										

Open: Shree (Vikram Mas)

[Signature]
(Supt Pandey)

Plant: HDPPE

LDAR - LEVEL - II

Frequency: Monthly

Month: FEB-24

Name of Person Monitoring: Hardik Thakkar

Equipment used:

Sl No.	Monitoring Date	Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PRVs, Valves, Flanges etc.)	Sources ID Number	Service Material	Concentration observed (%)	Date of Notification to Plant Maintenance	Status of leak (Attended/ S/D Job, Inaccessible)	Date of monitoring after repair	Concentration after Repair (%)	Remark
1	18.02.2024	100	AV1901	VALVE	2.00-EE3-16020-EBR703	Hexane	NIL					
2	18.02.2024	100	P1254	Pump	1400000.00	Hexane	NIL					
3	18.02.2024	100	P1254	SUCTION VALVE	1400000.00	Hexane	NIL					
4	18.02.2024	100	P1254	DISCHARGE VALVE	1400000.00	Hexane	NIL					
5	18.02.2024	100	P1219	Pump	1400000.00	Hexane	NIL					
6	18.02.2024	100	P1224	Pump	1400000.00	Hexane	NIL					
7	18.02.2024	100	P1224	SUCTION VALVE	1400000.00	Hexane	NIL					
8	18.02.2024	100	P1228	Pump	1400000.00	Hexane	NIL					
9	18.02.2024	100	P1228	SUCTION VALVE	1400000.00	Hexane	NIL					
10	18.02.2024	100	P1228	DISCHARGE VALVE	1400000.00	Hexane	NIL					
11	18.02.2024	100	AV1701	Valve	2.00-EE3-17020-EBR703	Hexane	NIL					
12	18.02.2024	100	P1254	Pump	10.00-SML-805518	Hexane	NIL					
13	18.02.2024	100	P1254	SUCTION VALVE	10.00-SML-805518	Hexane	NIL					
14	18.02.2024	100	P1254	DISCHARGE VALVE	10.00-SML-805518	Hexane	NIL					
15	18.02.2024	100	P1228	Pump	10.00-SML-805518	Hexane	NIL					
16	18.02.2024	100	P1228	SUCTION VALVE	10.00-SML-805518	Hexane	NIL					
17	18.02.2024	100	P1228	DISCHARGE VALVE	10.00-SML-805518	Hexane	NIL					
18	18.02.2024	100	LV1604	Valve	10.00-SML-19020-EBR703	Hexane	NIL					
19	18.02.2024	100	P1254	Pump	10.00-SML-19020-EBR703	Hexane	NIL					
20	18.02.2024	100	P1254	SUCTION VALVE	10.00-SML-19020-EBR703	Hexane	NIL					

Signature (Plant Manager): [Signature]

Signature (Maintenance Manager): [Signature]

Plant **HDFE**

LDAR - LEVEL - III
Frequency: Quarterly
Quarter: **30/12/2023**

Sl. No.	Monitoring Date	Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PRVs, Valves, Flanges etc.)	Source ID Number	Service Material	Concentration observed (ppm / ppb)	Date of Notification to Start Maintenance	Status of leak (Attended/ SID job, Inaccessible)	Date of monitoring after repair	Concentration after Repair (ppm / ppb)	Remark
30.12.2023	Gas valve	XX121	Valve	6.00-623-8897C	Ethylene	NIL						
30.12.2023	Gas valve	SV125	Control valve	6.00-623-8897C	Ethylene	NIL						
30.12.2023	Gas Valve	PV 1235	Valve	6.00-623-8897C	Ethylene	NIL						
30.12.2023	Gas valve	SV124	Control valve	6.00-623-8897C	Ethylene	NIL						
30.12.2023	Gas valve	XX123	Valve	2.00-09-3-8897H	Ethylene	NIL						
30.12.2023	Gas valve	SV123	Control valve	2.00-09-3-8897H	Ethylene	NIL						
30.12.2023	Gas valve	XX122	Valve	1.00-09-08	Ethylene	NIL						
30.12.2023	Gas valve	SV124	Control valve	1.00-09-11023-8825N	Ethylene	NIL						
30.12.2023	Gas valve	XX125	Valve	4.00-09-8897L-1100P-8819C	Ethylene	NIL						
30.12.2023	Gas valve	XX126	Valve	1.00-ATP-12019-8825C	Ethylene	NIL						
30.12.2023	XX126	Valve	2.00-623-1600-8817D	Ethylene	NIL							
30.12.2023	300	P121A	Pump	1450060.00	Heptane	NIL						
30.12.2023	300	P121A	SUCTION VALVE	1450060.00	Heptane	NIL						
30.12.2023	300	P121A	DISCHARGE VALVE	1450060.00	Heptane	NIL						
30.12.2023	300	P121B	Pump	1450060.00	Heptane	NIL						
30.12.2023	300	P121A	Pump	1450060.00	Heptane	NIL						
30.12.2023	300	P121B	Pump	1450060.00	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	1450060.00	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	1450060.00	Heptane	NIL						
30.12.2023	300	XX121	Valve	1450060.00	Ethylene	NIL						
30.12.2023	300	P121A	Pump	2.00-623-1320-8817D	Heptane	NIL						
30.12.2023	300	P121A	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121A	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Pump	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121A	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121A	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121A	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121A	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Pump	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	Valve	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	SUCTION VALVE	10.00-51L-8825C	Heptane	NIL						
30.12.2023	300	P121B	DISCHARGE VALVE	10.00-51L-8825C	Heptane	NIL						

LDAR LEVEL 1

Frequency: Daily

Plant: P-11-2

DATE DD/MM/YYYY	Odour Y/N	Dripping Y/N	Hissing Sound Y/N	Leak Y/N	Fumes/ Vapour Y/N	Temp. Y/N	Any Other Y/N	If Yes, Give Detail of					REMARK	NAME & SIGN OF OPERATOR	NAME & SIGN OF ENGINEER	
								Section Name	Sub section Name	Equipment Type (Pump, Compressor, P.V.V., Valves, Flanges etc.)	Source ID number	Seal/Leak Material				
16/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	JAC	JAC
17/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	LOP	LOP
18/02/24	Y	Y	Y	Y	Y	Y	Y	Naphtha Pump P-1201HS → Naphtha					OK	LAD	LAD	
19/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	LAD	LAD
20/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	LAD	LAD
21/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	RFM	RFM
22/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	RST	RST
23/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	SAD	SAD
24/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	SAD	SAD
25/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	KLV	KLV
26/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	SAD	SAD
27/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	KSP	KSP
28/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	KPP	KPP
29/02/24	Y	Y	Y	Y	Y	Y	Y	1	1	1	1	1	1	OK	KPP	KPP

Plant: PTD

LDAR - LEVEL - I
Names of Person Monitoring: Frequency: Monthly Month: FEBRUARY 2024
Equipment used: LEL meter

Sl No	Monitoring Date	Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PPUK, Valves, Flanges etc.)	Source ID Number	Service Material	P&ID Number	Concentration observed (%)	Date of Modification (Attended S/O job, Inaccessible)	Status of leak monitoring after repair	Date of monitoring after repair	Concentration after Repair (%)	Remark
1		Service Area	S-03 A	Flange: PGV 3101 AB	4-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
2		Service Area	S-03 A	Flange: PGV 3101 A W	4-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
3		Service Area	S-03 A	Flange: PGV 3101 B W	4-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
4		Service Area	S-03 A	Flange: PGV/Repress. SW	1-02-P-02-3128-B1A	PROPANE	3276-02-04-1 131 H	0					
5		Service Area	S-03 A	Flange: PGV 3101 A Flare SW W	6-FL-02-3126-B1A	PROPANE	3276-02-04-1 131 H	0					
6		Service Area	S-03 A	Flange: PGV 3101 B Flare SW W	6-FL-02-3127-B1A	PROPANE	3276-02-04-1 131 H	0					
7		Service Area	S-03 A	Flange: Nutsche for sds, Jety line to sphere, Jety line W/V, Line to sphere, W/V, Line W/V	S-03 A	PROPANE	3276-02-04-1 131 H	0					
8		Service Area	S-03 A	Flange: LSH 3101 LT 3102 LT 3102 W, S.Ts PG PG 3103 para LT 3101 P, 3101 T, 3101 D, LT 2102	S-03 A	PROPANE	3276-02-04-1 131 H	0					
9		Service Area	S-03 A	Flange: Bottom ROV 3101, Jety line ROV 3102 W/V, Line ROV 3102	S-03 A	PROPANE	3276-02-04-1 131 H	0					
10		Service Area	S-03 A	Flange: Sphere bottom line D2 Head W/V	10-P-02-3104-B1A	PROPANE	3276-02-04-1 131 H	0					
11		Service Area	S-03 A	Flange: Bottom line TG 3101	S-03 A	PROPANE	3276-02-04-1 131 H	0					
12		Service Area	S-03 A	Flange: bottom line HPV W/V	7-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
13		Service Area	S-03 A	Flange: bottom line LRD W/V	7-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
14		Service Area	S-03 A	Flange: Propane bottom line W/V	8-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
15		Service Area	S-03 A	Flange: P&L 4101 W & Dr taking	S-03 A	PROPANE	3276-02-04-1 131 H	0					
16		Service Area	S-03 A	Flange: Jety line W/V	8-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
17		Service Area	S-03 A	Flange: Jety line W/V	10-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
18		Service Area	S-03 A	Flange: Calculation line W/V	3-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
19		Service Area	S-03 A	Flange: Propane line from Garry W & NW	8-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
20		Service Area	S-03 A	Flange: Propane line from Garry W & NW	8-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
21		Service Area	S-03 A	Flange: Propane line from Garry W & NW	8-P-02-3102-B1A	PROPANE	3276-02-04-1 131 H	0					
22		Service Area	S-03 A	Flange: Vap. Balance ROV 3103 W	4-P-02-4102-B1A	PROPANE	3276-02-04-1 131 H	0					
23		Service Area	S-03 A	Flange: Propane/Propylene Vap. Line W/V	3-P-02-3178-B1A	PROPANE	3276-02-04-1 131 H	0					
24		Service Area	S-03 A	Flange: Propane/Propylene Vap. Line W/V	4-P-02-3179-B1A	PROPANE	3276-02-04-1 131 H	0					
25		Service Area	S-03 A	Flange: Propane Vap. from ROV W, W	2-P-02-4102-B1A	PROPANE	3276-02-04-1 131 H	0					
26		Service Area	S-03 A	Flange: Propane Vap. from Garry W, W, W, W	S-03 A	PROPANE	3276-02-04-1 131 H	0					

01/02/24

01/02/24

SR No.	Monitoring Date	Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PRVs, Valves, Flanges etc.)	Source ID Number	Service Material	Concentration observed (ppm/ppb)	Date of Notification to Plant Maintenance	Status of leak (Attended/ S/D job, Inaccessible)	Date of monitoring after repair	Concentration after Repair (ppm/ppb)	Remark
47	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53B Pump Discharge NRV-2, valve UP stream	3-P-092-00813-RA1A-N	EDC	0					
48	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53B Discharge NRV-2, valve Down stream	3-P-092-00813-RA1A-N	EDC	0					
49	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53C Discharge NRV-2, valve UP stream	3-P-092-00812-RA1A-N	EDC	0					
50	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53C Discharge NRV-2, valve Down stream	3-P-092-00812-RA1A-N	EDC	0					
51	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A Pump Discharge valve, UP stream	3-P-092-00811-RA1A-N	EDC	0					
52	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A Pump Discharge valve Down stream	3-P-092-00811-RA1A-N	EDC	0					
53	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53B Pump Discharge valve UP stream	3-P-092-00811-RA1A-N	EDC	0					
54	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53B Discharge valve Down stream	3-P-092-00812-RA1A-N	EDC	0					
55	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53C Discharge valve UP stream	3-P-092-00812-RA1A-N	EDC	0					
56	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53C Discharge valve Down stream	3-P-092-00813-RA1A-N	EDC	0					
57	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53C Discharge FT	3-P-092-00812-RA1A-N	EDC	0					
58	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 1 UP stream	3-P-092-00813-RA1A-N	EDC	0					
59	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 1 Down stream	3-P-092-00813-RA1A-N	EDC	0					
60	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 1 Down stream	3-P-092-00813-RA1A-N	EDC	0					
61	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 1 Down stream	3-P-092-00813-RA1A-N	EDC	0					
62	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header NRV Down stream	3-P-092-00813-RA1A-N	EDC	0					
63	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header NRV Down stream	3-P-092-00813-RA1A-N	EDC	0					
64	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 2 UP stream	3-P-092-00813-RA1A-N	EDC	0					
65	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header isolation valve 2 Down stream	3-P-092-00813-RA1A-N	EDC	0					
66	20.01.2024	PTD 2	EDC unloading Gantry	Flange, P53A/B/C Discharge header end blind	3-P-092-00813-RA1A-N	EDC	0					

Signature (Plant Manager): *[Signature]*
 Signature (Maintenance Manager): _____

16231241
[Signature]
 m.e.parc

Annexure XXI

List of Alarms in DMD				
S/N	PLANT/ TYPE OF ALARM	FIRE	LEL	TOXIC
		Instld. Qty	Instld. Qty	Instld. Qty
1	PTA 5	770	77	65
2	PTA 6	382	20	45
3	PET 3	287	--	--
4	ETP 3	200	10	3
5	UB	419	29	11
6	CPP 1	875	16	--
7	CPP 2	177	33	--
8	CPP 3	211	19	--
9	CCPP	973	128	70
10	GCU	308	167	4
11	EPRU	309	37	--
12	OSBL	336	78	--
13	ETHANE	290	87	4
14	JETTY	25	6	--
15	EOEG	256	30	--
16	HDPE 1	255	23	--
17	HDPE 2	90	27	--
18	EVA	97	41	--
19	IOP	166	7	1
20	PTD 1	192	56	--
21	VCM	290	188	16
22	PVC	350	68	--
23	DM	108	6	--
24	CA	408	25	30
25	UFRO	73	4	2
26	HSEF	104	--	--
27	ADMIN BLD	56	--	--
Total		8007	1182	251

Photograph of Flare



Diagram & Schematic Plan of Vapour Recovery Unit



AIR POLLUTION CONTROL MEASURES

Air Pollution Control measures installed at each flue gas stack is mentioned below:

Sr. No	Stack attached to	Stack height (m)	Stack Dia (m)	Parameter	Permissible Limit	Air Pollution Control Equipment
[A]	Gas Cracker Unit (GCU Plant)					
01	Furnace H-10	38	1.115	Particulate matter	10 mg/Nm ³ (Gas) 100 mg/Nm ³ (Liquid)	Low Sulphur Fuel Low NOx Burner
02	Furnace H-11	38	1.115	SO ₂	50 mg/Nm ³ (Gas) 1700 mg/Nm ³ (Liquid)	
03	Furnace H-12	38	1.115	NOx	350 mg/Nm ³ (Gas) 450 mg/Nm ³ (Liquid)	
04	Furnace H-13	38	1.115			
05	Furnace H-14	38	1.115			
[B]	Vinyl Chloride Monomer Plant (VCM)					
06	EDC Furnace H- 210	60	1.4	Particulate matter	10 mg/Nm ³ (Gas) 100 mg/Nm ³ (Liquid)	Low Sulphur Fuel Low NOx Burner
07	EDC Furnace H- 220	60	1.4	SO ₂	50 mg/Nm ³ (Gas) 1700 mg/Nm ³ (Liquid)	
				NOx	350 mg/Nm ³ (Gas) 450 mg/Nm ³ (Liquid)	
08	EDC Furnace H- 1220	75	1.4			
[C]	<u>Captive Power Plant I (CPP I Plant)</u> 1 GT with 1 HRSG, 2 UB, 1 STG)					
09	Common Stack 1	80	5.46	Particulate matter	10 mg/Nm ³ (Gas) 100 mg/Nm ³ (Liquid)	Low Sulphur Fuel, Steam Injection in Gas Turbine to reduce NOx emissions, Low Nox burners
				SO ₂	50 mg/Nm ³ (Gas) 1700 mg/Nm ³ (Liquid)	
				NOx	350 mg/Nm ³ (Gas) 450 mg/Nm ³ (Liquid)	

[D]	CPP II Plant (2 GT, 2 HRSG)						
10	Common Stack 1	100	3.6	Particulate matter	10 mg/Nm ³ (Gas) 100 mg/Nm ³ (Liquid)	Low Sulphur Fuel, Water Injection in Gas Turbine to reduce NOx Emissions, Low NOx burners	
11	Common Stack 2	100	3.6				SO ₂
[E]	CPP III Plant (2 UB, 1 HRSG, 2 GT, 1 STG)						
12	UB3	60	2.6	NOx	350 mg/Nm ³ (Gas) 450 mg/Nm ³ (Liquid)		
13	UB4	60	2.6				
14	HRSG 4	60	3.2				
[F]	Polyethylene Terephthalate Plant (PET Plant)						
15	HTM Heater A	60	1.20	Particulate matter	10 mg/Nm ³ (Gas) 100 mg/Nm ³ (Liquid)	Low Sulphur fuel, Low NOx burners,	
16	HTM Heater B	60	1.20	SO ₂	50 mg/Nm ³ (Gas) 1700 mg/Nm ³ (Liquid)		
17	HTM Heater C	60	1.20	NOx	350 mg/Nm ³ (Gas) 450 mg/Nm ³ (Liquid)		
18	HTM Heater D	60	1.20				
[G]	Coal based Captive Co-generation Power Plant (CCPP)						
19	Boiler 1	220	3.7	Particulate matter	50 mg/Nm ³	Dust-trapping through Electrostatic Precipitator (ESP).	
20	Boiler 2	220	3.7				
21	Boiler 3	220	3.7	SO ₂	600 mg/Nm ³		
22	Boiler 4	220	3.7	NOx	300 mg/Nm ³		

Process emissions stacks:

Sr. No	Stack attached to	Stack height in meters	Stack Dia (m)	Parameter	Permissible Limit	Air Pollution Control Equipment
[A] Chlor- Alkali Plant						
01	Hypo Unit	30	0.35	Cl ₂ HCl	09 mg/Nm ³ 20 mg/Nm ³	Caustic Scrubber (2 stage)
02	HCL Synthesis Unit	30	0.08	Cl ₂ HCl	09 mg/Nm ³ 20 mg/Nm ³	DM Water & Caustic Scrubber
[B] VCM Plant						
03	Incinerator PK701	65	0.6	Particulate matter SO ₂ NO _x	150 mg/Nm ³ 40 mg/Nm ³ 25 mg/Nm ³	DM Water & Caustic Scrubber
04	Incinerator PK702	65	0.6	HC CO Cl ₂ HCl VCM	15 mg/Nm ³ 150 mg/Nm ³ 10 mg/Nm ³ 30 mg/Nm ³ 6.6 mg/Nm ³	
05	VCM Vent Scrubber*	30	0.9	Cl ₂ HCl HC	10 mg/Nm ³ 30 mg/Nm ³ 15 mg/Nm ³	Water / Caustic Scrubber
[C] PVC Plant						
06	PVC Dryer (1H1)	21	1.3	Particulate matter SO ₂	150 mg/Nm ³ 100 ppm	Cyclone Separator & Water Scrubber
07	PVC Dryer (1H2)	21	1.3	NO _x CO VCM	50 ppm 150 mg/Nm ³ 6.6 mg/Nm ³	
[D] PTA 5 Plant						
08	Off-gas Scrubber Vent D5-172	51.7	2.5	Particulate matter	150 mg/Nm ³	Hydrosonic Scrubber followed by cyclone separator
09	Atmospheric Scrubber D5-508	53.2	0.9			
10	Vent Scrubber (F5-1615) Stream	44.9	1.1	NO _x	25 mg/Nm ³	
[E] PTA 6 Plant						
11	Off-gas Scrubber Vent D6-172	51.7	2.5	Particulate matter	150 mg/Nm ³	Hydrosonic Scrubber

12	Atmospheric Scrubber D6-508	53.2	0.9	SO ₂	40 mg/Nm ³	followed by cyclone separator
13	Vent Scrubber (F6-1615) Stream	44.9	1.1	NO _x	25 mg/Nm ³	
* Process vent is attached to VCM vent scrubber which is provided as part of emergency pressure release system.						

Photographs of Effluent Treatment Plant



AERATION TANKS



MEDIA FILTRATION SYSTEM



ASP Tank



MBR Aeration Tank

Photographs of RO Plant



Water Reservation for the Financial Year 2023-2024

We, Reliance Industries Limited-Dahej hereby wish to reserve the quantity of water to be booked with Gujarat Industrial Development Corporation, Bharuch for year 2023-2024.

Details are as below:

Sr. No.	Name of Industry with Plot No.	Ultimate Water demand as per GIDC Agreement	Water Quantity Booked in Last Financial Year 2022-23.	Reservation required of Water Quantity for Financial Year 2023-24 (01/04/2023 to 31/03/2024)
1	Reliance Industries Limited, Plot No No:1, Dahej-I Estate, Dahej	8 MGD	8 MGD	8 MGD

Our reservation quantity will not change throughout the year (from 1st April 2023 to 31st March 2024) and will follow minimum (±2%) maximum (125%) off take rules of the irrigation department and the agreement made between GIDC & RIL.

1. "BORE IS NOT DRILLED IN THE PREMISES ALLOWED TO US. IF BORE IS FOUND ON INSPECTION ON OUR ALLOTTED PREMISES, LEGAL ACTION WHAT EVER TAKEN BY GIDC, SHALL BE BINDING TO US. WE SHALL SUBMIT DECLARATION IN SUBJECT MATTER EVERY YEAR."

Our present GPCB consent is enclosed here with duly attested bearing No. GPCB/BBCH/CCA-71720/ID-45365/089234 dtd. 25/11/2022, which shows the restriction to use the quantity of water as 1,38,700 KL/day and quantity of effluent as 31,002 KL/day. The GPCB consent is valid up to 03/11/2026 and failing which reservation quantity shall be considered as "Zero".

We assure to adhere to the consented "quantity of water" and "quantity for effluent"

Place: Dahej
Date: 30/01/2023



Sign & Seal of Authorized Person

Contact Person: Mr. Anis Desai
Designation: Sr. General Manager-Corporate Affairs
Mobile No. 76007-96685
Mail ID: anis.desai@ril.com
Telephone: 02611-353934



Solemnly Affirmed Signed
Declared Before Me:

MRS. BINA P. MODI
ADVOCATE & NOTARY
(Govt. Of India)
REGD No. NTR/21284/2020
No 9925096577

31 JAN 2023



Photograph of Rain Water Harvesting Pond





Photographs of Green Belt developed



Photographs of Facilities at Occupational Health Centre



**National Accreditation Board
for Hospitals & Healthcare Providers**
(Constituent Board of Quality Council of India)

Scope of Accreditation

Occupational Health Centre
Reliance Industries Limited
Dahej Manufacturing Division
At & Po- Dahej Ta- Vagra
Bharuch - 382130, Gujarat

Certificate No. C-2018-0043
Valid from : December 02, 2018
Valid thru : December 01, 2021

Clinical Services
• General Practitioner / Family Physician
Diagnostics and Other Services

**National Accreditation Board for
Testing and Calibration Laboratories**
(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION
**MEDICAL LABORATORY, OCCUPATIONAL HEALTH
CENTRE, RELIANCE INDUSTRIES LIMITED**
Has been assessed and accredited in accordance with the standard
ISO 15189:2012
**"Medical laboratories - Requirements for quality and
competence"**
for its facilities at
DAHEJ MANUFACTURING DIVISION, DAHEJ, BHARUCH, GUJARAT, INDIA
In the field of
Medical Testing

Certificate Number: **MLC-2018** Issue Date: **13/04/2019** Valid Until: **31/04/2021**

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of ISIRI.
(To see the scope of accreditation of this laboratory, visit www.nabl-india.org)

Signed for and on behalf of NABL:

Ant Hells
Chief Executive Officer



Occupational Health Centre

Reliance Industries Limited, Dahej Manufacturing Division, Ta - Vagra, Dahej.

To	XXXXXXXXXX	Date of Examination	01 Jan 2024
Dept	MFG DMD Ops - CCPP Production	Type of Examination	Periodic
Emp No	XXXXXXXXXX	Case No	XXXXXXXXXX
Phone(O/M)	/ XXXXXXXXXX	Birth Date	17 Mar 1977
Cadre	PL	Join Date	01 Dec 2007
Location	Occupational Health Center - DMD	Ext. Exam Date	

Medical Examination Report

General Profile

Height	177	cms
Weight / BMI	86	Kg/ 27.48
Blood Group	B+	
Blood Pressure(SI)	138	mm/Hg
Blood Pressure(DI)	86	mm/Hg
Allergy		

Vision Profile

	Without Correction		With Correction	
	R. Eye	L. Eye	R. Eye	L. Eye
Distant			6/6	6/6
Near	N/6	N/6		
Colour Vision	Normal			

Lipid Profile

S. Cholesterol	176	mg/dl
S. Triglycerides	144	mg/dl
HDL	33	mg/dl
LDL	114	mg/dl
VLDL	29	mg/dl
LDL/HDL Ratio	3.5	
Cholesterol/HDL Ratio	5.3	

Basic Profile

HB	15.6	gm/dl	Neutrophils	46
ESR	8	mm/1st Hr	Lymphocytes	43
Total WBC	6470	cells/cumm	Mid Cells	
Total RBC	5.45	M/Cumm	Eosinophils	4
Platelet Count	319000	cells/cumm	Monocytes	6
Blood Sugar(F)	103	mg/dl	Basophils	1
Blood Sugar(PP)		mg/dl	Mean Blood Glucose	120
Blood Sugar(R)		mg/dl	Glycosylated Hb %	5.8

Pulmonary Function

FVC		Litres
FEV1		Litres
PLHK		Litres
FEV1/FVC		Litres
Fit for Respirator Use	Yes	
WNL		

Kidney Profile

S. Creatinine	0.87	mg/dl
BUN	7.94	mg/dl
Blood Urea	17	mg/dl
S. Uric Acid	5.6	mg/dl
eGFR	102.77	mL/min/1.73m ²

Liver Profile

S. Bilirubin	0.4	mg/dl
S. Proteins		gm/dl
S. Alk. Phosphate	100	IU/L
S. GOT	22	IU/L
S. GPT	27	IU/L
GGT	27	IU/L

Special Investigation

S. Calcium - **ND**, Prostate Specific Antigen **0.62**, Urine for Micro Albumin **ND**, TSH **ND**, TMT **ND**, CClO - **ND**, UGG Aluminium **ND**

Note: Prostate Specific Antigen report can be viewed after 3 days of PME.

Urine Report

Color-**COLORLESS**, Reaction-**7.0**, Epithelial Cells-**Nil**, RBC-**Nil**, Pus Cell-**1-2**, Crystals-**Nil**, Casts-**Nil**, Protein-**Nil**, Sugar-**Nil**, Acetone- , ketones-**Nil**, Urobilinogen-**NORMAL**

Clinical Exam		Other Investigation	
X-Ray	NAD	Health Score	88
ECG	Normal		
Audiometry	Not Done		
Health Status	Fit For All Work		
Recommendation			

* WNL = Within Normal Limit

* NAD = No Abnormality Detected

* ND = Not Done

Release On : 01 Jan 2024

Workplace Noise Level Monitoring Report

(October 2023 – March 2024)

Locations		Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Avg	Min	Max
		Unit : dB(A)						Unit : dB(A)		
Chlor Alkali Plant	Operator Cabin Cell House	53.3	55.2	56.1	55.8	54.9	54.3	60.63	53.30	68.30
	Operator Cabin Secondary Brine Area	63.6	62.9	60.8	59.9	60.1	59.8			
	Operator Cabin Chlorine Area	68.3	62.5	63.6	63.3	62.5	62.4			
	Operator Cabin Primary Brine Area Operator Cabin	65.2	64.9	63.8	63.4	61.8	61.9			
	CA Control Room	58.8	61.3	59.6	58.4	62.7	57.7			
VCM Plant	Operator Cabin Unit 2 & 7 O/C	51.4	51.9	53.4	52.8	54.1	52.7	52.75	50.70	56.20
	VCM Control Room	52.7	52.3	56.2	53.3	51.5	50.7			
PVC Plant	Operator Cabin Near Receiving Pit	61.4	61.9	62.4	61.8	65.3	64.9	59.42	48.50	66.20
	Operator Cabin Bagging Area	65.8	66.2	64.9	65.2	64.4	63.7			
	Operator Cabin Near Chiller Compressor	57.2	57.4	59.2	58.9	59.6	60.1			
	PVC Control Room	52.7	52.3	49.8	49.2	48.5	53.3			

Locations		Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Avg	Min	Max
		Unit : dB(A)						Unit : dB(A)		
EO-EG Plant	Local Control Room Panel in EO Storage Area	56.9	55.8	54.3	53.8	54.3	52.8	56.18	45.20	63.40
	Operator Cabin behind Control Room	59.5	60.7	61.2	59.6	60.1	63.4			
	Operator Cabin Mechanical Workshop	56.2	60.1	51.2	45.2	50.5	53.5			
	EOEG Control Room	57.9	56.6	57.1	58.3	59.2	50.1			
GCU Plant	Operator Cabin Area 1	70.5	71.6	72.1	70.7	71.2	70.1	68.66	57.30	75.10
	Operator Cabin Area 2	75.1	74.1	72.3	73.1	72.8	71.9			
	Operator Cabin Area 3	71.2	69.9	68.3	67.9	67.4	66.8			
	Operator Cabin Area 4	70.9	72.1	70.5	71.2	71.9	70.7			
	GCU Control Room	57.3	59.4	59.2	62.7	58.3	58.7			
EPRU-OSBL	Operator Cabin Near Control Room	52.8	51.9	51.2	52.3	51.9	52.6	53.04	54.40	52.10
	EPRU Control Room	51.5	52.1	51.9	50.9	51.2	51.9			
	OSBL Control Room	54.8	55.5	54.4	55.8	57.6	54.5			
HDPE	Operator Cabin Extruder Building	62.3	61.8	62.7	61.2	60.8	61.1	58.90	50.40	62.70
	HDPE Control Room	50.4	58.4	57.1	59.9	52.6	58.5			

Locations		Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Avg	Min	Max
		Unit : dB(A)						Unit : dB(A)		
CPP I	Operator Cabin GT	62.8	55.4	60.4	58.2	52.2	51.9	55.28	49.30	62.80
	CPP Control Room	54.2	56.1	52.9	49.3	55.4	54.6			
CPP II	Mechanical Room Nr. Stack	61.3	62.4	60.9	61.3	60.1	59.7	58.32	54.30	62.40
	CPP-II Control Room	55	56.2	57.2	56.2	55.2	54.3			
CPP III	Maintenance Office	45.9	43.6	47.5	46.9	46.3	49.70	56.45	43.60	66.30
	Rack Room	63.8	64.8	63.1	62.8	64.8	63.10			
	Sub Station	62.9	63.6	66.3	65.4	57.3	56.80			
	Control Room	57.9	56.3	55.2	49.2	50.4	51.20			
CCPP	Maintenance Room - 0 Meter	52.7	51.8	53.8	52.7	51.7	52.10	61.30	51.70	69.40
	CCR Security Desk	61.4	64.7	63.3	64.1	63.2	63.90			
	Boiler Porta Cabin-Block 1	69.2	65.6	62.6	63.3	62.8	62.40			
	O&M Porta Cabin	59.4	61.3	59.9	60.4	59.3	60.10			
	Operator Cabin STG-1 –SWASS Room	68.4	67.3	69.4	68.9	66.5	66.90			
	STG 1 – North Side Porta Cabin	56.5	55.8	57.4	56.8	55.4	55.60			
	MCC Room – Ash Handling Area	63.8	61.6	62.6	61.9	62.1	62.40			
CCPP Control Room	64.7	61.7	59.8	63.3	64.3	67.40				

Locations		Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Avg	Min	Max
		Unit : dB(A)						Unit : dB(A)		
PTD I & II	Operator Cabin Propylene Area	58.8	57.4	56.2	55.8	53.7	53.90	55.46	45.70	61.60
	PTD I Control Room	53.9	54.1	58.1	57.2	60.5	59.80			
	PTD II Control Room	53.9	54.9	61.6	46.7	45.7	56.10			
PET-3	HTF Control Room	52.3	53.9	53.6	52.9	60.3	59.60	55.90	52.30	60.30
	PET Control Room	55.1	59.3	58.8	54.8	55.4	54.80			
PTA-5	Mechanical Office	54.9	56.2	55.8	52.4	53.8	54.30	57.74	49.80	65.70
	Instrument Workshop	60.6	59.3	57.9	54.1	54.4	56.20			
	PTA-5 Warehouse	63.8	62.6	63.4	60.4	61.3	62.40			
	PTA-5 Permit Issuer Room	52.2	54.5	53.9	55.7	56.2	49.80			
	PTA-5 Control Room	57.1	59.2	64.1	65.7	62.5	57.60			
PTA-6	Mechanical Office	54.9	58.1	55.8	54.2	53.8	54.10	57.20	52.30	62.80
	Instrument Workshop	60.6	61.3	57.9	56.3	56.1	57.10			
	Operator Cabin	52.3	57.7	57.2	55.4	56.2	55.80			
	PTA-6 Control Room	57.2	57.6	62.8	58.3	59.4	62.70			
Time Office, MG 1	Time Office	57.8	55.2	57.4	56.4	58.2	57.9	56.78	52.70	61.10
	MG-I	61.1	55.7	56.3	56.6	52.7	56.1			

Locations		Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Avg	Min	Max
		Unit : dB(A)						Unit : dB(A)		
ETP	Main Gate Spent Caustic Treatment Plant	61.5	60.1	61.2	58.8	59.5	61.30	58.38	54.90	61.50
	ETP Control Room	55.2	56.7	55.6	57.6	58.1	54.90			
Jetty	Jetty Control Room Main Gate Near Terminal Building	53.8	49.8	50.2	51.7	52.3	51.90	47.73	40.40	53.80
	Jetty Control Room	43.1	42.4	40.4	41.6	48.7	46.90			
IOP	ASU-4 Substation	70.2	71.2	72.1	71.5	70.4	69.90	62.89	54.90	73.10
	N2O2 Control Room	57.4	56.8	55.9	56.1	54.9	55.10			
	ASU Control Room	60.3	61.2	59.8	60.4	59.2	59.20			
	Raw Water Treatment Plant Control Room	61.2	60.4	62.4	57.6	60.3	60.60			
	Fire Water Treatment Plant Control Room	55.1	60.9	58.8	59.1	58.9	59.20			
	On Road at Main Gate at N2O2 Control Room (East S/S Side)	72.2	73.1	72.7	71.2	69.5	69.10			
Ethane Plant	Sub Station	55.9	56.6	56.1	54.9	55.4	56.4	54.08	48.80	56.60
	Ethane Control Room	48.8	50.2	50.4	54.8	54.2	55.3			

Noise Control Measures provided in Plants



Acoustic Enclosure for Turbines



Acoustic Enclosure for Generators



Acoustic Enclosure for Compressors

23rd Feb ,2024

To,
Deputy Director (Industrial Safety & Health)
Office of the Dy. Director (Industrial Safety & Health)
Multistory building, 2nd floor,
Kanbi Vaga, Opp. Gayatri Nagar,
Bharuch - 392001

Sub: Submission of Safety Report

Respected Sir,


Please find enclosed herewith the copy of safety Report of Reliance Industries Limited, Dahej Manufacturing Division prepared as per the requirements of Gujarat Factories Rules 68-J Sub Rule 10.


This is for your information and record please.

Yours sincerely,
For Reliance Industries Limited,


(Jignesh P Patel)
Head-Safety.

Enclosures:
1. Safety Report


23/01/2024
જિજ્ઞેશ પટેલ
સુરક્ષા અધિકારી
દાહેજ મેન્યુફેક્ચરિંગ ડિવિઝન

 Reliance Industries Limited <small>Corporation of India</small>	Reliance Industries Limited	DMD Emergency Plan
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Reliance Industries Limited

Dahej Manufacturing Division

DMD EMERGENCY PLAN

• 0.1 Siren Tones

The actuation of the siren varies with regard to the incident nature like fire and flammable gas/ toxic release and air raid. Following are the various configurations set for different types of emergency scenarios:

SR. No	Type of Emergency	Siren Tone
1	Fire Mode	Wailing tone for 2minutes (8 times) 10 sec -On, 5 sec- Off, 10 sec - On , 5sec - Off.
2	Gas Release Mode	Wailing type siren for 2.5 minutes (6 times) 20 sec - On, 5 sec - Off, 20 sec - On, 5 sec - Off
3	Air Raid Warning	Wailing type siren for 6 minutes (10 times) 30 sec - On, 5 sec - Off, 30 sec - On, 5 sec - Off
4	All Clear / Testing	Continuous siren tone for 2 minutes
5	Testing	Every Wednesday at 10:00 hrs. for 2 minutes

FIRE: 16000, 101

AMBULANCE: 16031,102

SSM: 16021, 16022

PBA 28-11-17

012

Prepared By : SSM HEAD
 Reviewed By : FIRE DEPT. HEAD
 Approved By : SITE PRESIDENT

Rev. : 14
 Date : 25.11.2017
 Page no: 1

20 December, 2023

To:
Dy. Director of Industrial Safety & Health,
Office of the DISH,
Multistory building, 2nd Floor,
Kanbi Vaga, Opp-Gayatri Nagar,
Bharuch - 392 001.

Kind Attn: Dy. Director of Industrial Safety & Health.

Subject: Submission of "Mock drill" report.

Reference: GFR 68-J-12(5)

Dear Sir,

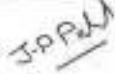
Please find enclosed copy of the report on mock drill, which was carried out at Reliance Industries Ltd. Dahej Site.

Sr. No.	Date	Location	Scenario
1	14.12.2023	PET3 Plant	Line Reactor bottom flange leak


This is for your kind information and record please.


Thanking you,

Yours faithfully,
For Reliance Industries Limited,


(Jignesh P. Patel)
Head - Safety

Encl: As above


જીગ્નેશ પટેલ 21/12/2023
ઐતિહાસિક સલામતી અને સ્વાસ્થ્ય
ભરૂચ -

 Reliance Industries Limited <small>Corporation of India</small>	Reliance Industries Limited	DMD Emergency Plan
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Reliance Industries Limited

Dahej Manufacturing Division

DMD EMERGENCY PLAN

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The actuation of the siren varies with regard to the incident nature like fire and flammable gas/ toxic release and air raid. Following are the various configurations set for different types of emergency scenarios:

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FIRE: 16000, 101

AMBULANCE: 16031,102

SSM: 16021, 16022

PBA 28-11-17

012

Prepared By : SSM HEAD
 Reviewed By : FIRE DEPT. HEAD
 Approved By : SITE PRESIDENT

Rev. : 14
 Date : 25.11.2017
 Page no: 1

Photograph of Siren installed at SSM Building





ગુજરાત ગુજરાત GUJARAT

વારીયા 1114118
 નામ પેટ્રોલ ઇન્ડિયા લિમિટેડ
 સરનામું દેહજ
 મુલ રૂપિયા 50/-
 રજી. નંબર 1055-
 નામી આચાર્ય ઇ.
 દેહજ પોલ્ટ ઇન્ડિયા લિમિટેડ

AE 157156
 સ્ટેમ્પ લેન્ડર
 નીતા આર. ઠા
 સીવીલ કોર્ટ, ભરૂચ
 તા. નં. ૧/૯૯

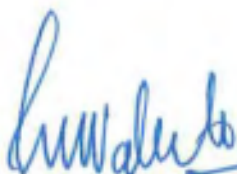
MUTUAL AID SCHEME

We, the members of Mutual Aid Scheme of Dahej industrial area hereby agree to abide by the terms & conditions. The terms and conditions of Agreement are as under:

President RIL, DMD	President/COO HIL	Managing Director GCPTCL	Sr. VP. (Plant Head) PLL	G.M. (Plant Head) GACL
Plant Manager (ONGC Dahej Plant)	Chief Operating Officer ONGC Petro additions Limited (OPaL) Dahej	Executive Director (O & M) Torreny Power Ltd. Dahej- SEZ		

MEMBERS

1. M/s RELIANCE INDUSTRIES LIMITED, DAHEJ MANUFACTURING DIVISION
GANDHAR PETROCHEMICALS COMPLEX,
PO: DAHEJ, TALUKA VAGRA, DIST. BHARUCH-392130
2. M/s HINDALCO INDUSTRIES LIMITED
(UNIT-BIRLA COPPER LIMITED, DAHEJ)
LAKHIGAM, PO: DAHEJ, TALUKA VAGRA, DIST-BHARUCH-392130
3. M/s GUJARAT CHEMICAL PORT TERMINAL COMPANY LIMITED
LAKHIGAM, PO: DAHEJ, TALUKA VAGRA, DIST. BHARUCH-392130
4. M/s PETRONET LNG LIMITED
LAKHIGAM, PO: DAHEJ, TALUKA VAGRA, DIST. BHARUCH-392130
5. M/s GUJARAT ALKALIES AND CHEMICALS LIMITED
Plot No- 03, PO: DAHEJ , TALUKA VAGRA, DIST. BHARUCH -392130
6. M/s OIL AND NATURAL GAS CORPORATION LIMITED
(Unit: DAHEJ PLANT, DAHEJ)
Works: SEZ PART II, AT & PO: DAHEJ, TALUKA VAGRA, DIST. BHARUCH-392130.
7. M/s ONGC PETRO ADDITIONS LIMITED (OPaL)
PLOT No.-1 & PLOT No.-83
DAHEJ SEZ -I, DAHEJ INDUSTRIAL AREA
P.O. DAHEJ, TALUKA- VAGRA, DISTT- BHARUCH
GUJARAT-392130
8. M/S TORRENT POWER LIMITED
DGEN Mega Power Project , Plot No. Z-9, Dahej SEZ-1
P.O. Dahej, Taluka- Vagra, Distt.- Bharuch,
Gujarat - 392 130, India



President

RIL, DMD



President/COO

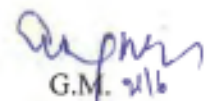
HIL



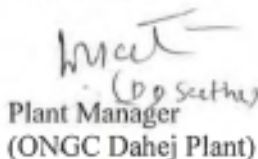
Managing
Director
GCPTCL



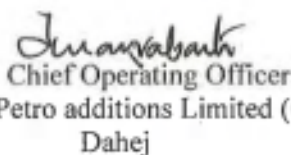
Sr. VP.
(Plant Head)
PLL



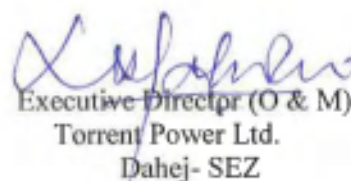
G.M. 216
(Plant Head)
GACL



(D. P. Seetha)
Plant Manager
(ONGC Dahej Plant)



Chief Operating Officer
ONGC Petro additions Limited (OPaL)
Dahej



Executive Director (O & M)
Torrent Power Ltd.
Dahej- SEZ

Annexure XXXIX

Photographs of Waste Storage Area



**Compliance Status for the Environmental Clearance Order No. J-11011/482/2006-IA II (I),
dated 11th June 2007 as on 31st March 2024**

SR. No.	Conditions of the Environment Clearance	Compliance Status of the Conditions of EC																																																																																																																									
1	<p>The gaseous emissions (SO₂, NO_x, CO, NMHC, Cl₂ and HCl) from the various process units should conform to the standards prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent.</p>	<p>Gaseous emissions of SO₂, NO_x, HC, Cl₂ and HCl from process units are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standards.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>A summary of the emission results from process stacks monitored as per consolidated consent & authorization for the period Oct'23 – Mar'24 is presented below.</p> <table border="1" data-bbox="735 730 1466 1873"> <thead> <tr> <th>Plant</th> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td rowspan="8">VCM - Stack attached to Incinerator</td> <td>PM (mg/Nm³)</td> <td>150</td> <td>3.22</td> <td>2.38</td> <td>4.25</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>40</td> <td>6.80</td> <td>5.45</td> <td>8.46</td> </tr> <tr> <td>NO_x (mg/Nm³)</td> <td>25</td> <td>17.29</td> <td>12.32</td> <td>20.74</td> </tr> <tr> <td>Cl₂ (mg/Nm³)</td> <td>10</td> <td><1.0</td> <td><1.0</td> <td><1.0</td> </tr> <tr> <td>HCl (mg/Nm³)</td> <td>30</td> <td>2.38</td> <td>2.10</td> <td>2.76</td> </tr> <tr> <td>CO (mg/Nm³)</td> <td>150</td> <td>1.24</td> <td>1.18</td> <td>1.35</td> </tr> <tr> <td>HC (mg/Nm³)</td> <td>15</td> <td>2.38</td> <td>2.14</td> <td>2.73</td> </tr> <tr> <td>VCM (mg/Nm³)</td> <td>6.6</td> <td><1.5</td> <td><1.5</td> <td><1.5</td> </tr> <tr> <td rowspan="3">VCM Plant – Stack attached to Vent Scrubber</td> <td>Cl₂ (mg/Nm³)</td> <td>10</td> <td><1.0</td> <td><1.0</td> <td><1.0</td> </tr> <tr> <td>HCl (mg/Nm³)</td> <td>30</td> <td>2.60</td> <td>2.41</td> <td>2.76</td> </tr> <tr> <td>HC (mg/Nm³)</td> <td>15</td> <td>< 0.2</td> <td>< 0.2</td> <td>< 0.2</td> </tr> <tr> <td rowspan="2">Chlor Alkali Plant - Stacks Attached to Hypo and HCl synthesis Unit</td> <td>Cl₂ (mg/Nm³)</td> <td>9</td> <td><1.0</td> <td><1.0</td> <td><1.0</td> </tr> <tr> <td>HCl (mg/Nm³)</td> <td>20</td> <td>2.83</td> <td>2.15</td> <td>3.86</td> </tr> <tr> <td rowspan="5">PVC Plant- Stacks attached to PVC Dryers</td> <td>PM (mg/Nm³)</td> <td>150</td> <td>3.43</td> <td>2.75</td> <td>3.85</td> </tr> <tr> <td>SO₂ (ppm)</td> <td>100</td> <td>8.22</td> <td>6.42</td> <td>9.54</td> </tr> <tr> <td>NO_x (ppm)</td> <td>50</td> <td>20.55</td> <td>15.32</td> <td>24.36</td> </tr> <tr> <td>CO (mg/Nm³)</td> <td>150</td> <td>2.36</td> <td>2.24</td> <td>2.63</td> </tr> <tr> <td>VCM (mg/Nm³)</td> <td>6.6</td> <td><1.5</td> <td><1.5</td> <td><1.5</td> </tr> <tr> <td rowspan="3">PTA Plant - Stacks attached to Off gas scrubber, atmospheric scrubber and vent scrubber</td> <td>PM (mg/Nm³)</td> <td>150</td> <td>3.15</td> <td>2.12</td> <td>3.83</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>40</td> <td><5</td> <td><5</td> <td><5</td> </tr> <tr> <td>NO_x (mg/Nm³)</td> <td>25</td> <td><4</td> <td><4</td> <td><4</td> </tr> </tbody> </table>						Plant	Parameter	GPCB Consent Limit	Avg	Min	Max	VCM - Stack attached to Incinerator	PM (mg/Nm ³)	150	3.22	2.38	4.25	SO ₂ (mg/Nm ³)	40	6.80	5.45	8.46	NO _x (mg/Nm ³)	25	17.29	12.32	20.74	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0	HCl (mg/Nm ³)	30	2.38	2.10	2.76	CO (mg/Nm ³)	150	1.24	1.18	1.35	HC (mg/Nm ³)	15	2.38	2.14	2.73	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5	VCM Plant – Stack attached to Vent Scrubber	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0	HCl (mg/Nm ³)	30	2.60	2.41	2.76	HC (mg/Nm ³)	15	< 0.2	< 0.2	< 0.2	Chlor Alkali Plant - Stacks Attached to Hypo and HCl synthesis Unit	Cl ₂ (mg/Nm ³)	9	<1.0	<1.0	<1.0	HCl (mg/Nm ³)	20	2.83	2.15	3.86	PVC Plant- Stacks attached to PVC Dryers	PM (mg/Nm ³)	150	3.43	2.75	3.85	SO ₂ (ppm)	100	8.22	6.42	9.54	NO _x (ppm)	50	20.55	15.32	24.36	CO (mg/Nm ³)	150	2.36	2.24	2.63	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5	PTA Plant - Stacks attached to Off gas scrubber, atmospheric scrubber and vent scrubber	PM (mg/Nm ³)	150	3.15	2.12	3.83	SO ₂ (mg/Nm ³)	40	<5	<5	<5	NO _x (mg/Nm ³)	25	<4	<4	<4
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	At no time the emission level shall go beyond the stipulated standards.	<p>During Oct'23 – Mar'24, emission levels have not exceeded the prescribed / stipulated standards. Details of the same can be seen in Annexure III.</p> <p>Complied.</p>																																																																	
	In the event of failure of Pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	<p>Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger/alarm is raised in the DCS system which prevents the plant from restarting and pollution control system is rectified immediately.</p> <p>During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has happened.</p> <p>Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV.</p> <p>Complied.</p>																																																																	
2	Ambient air quality monitoring stations (SPM, SO ₂ , NO _x and NMHC) shall be set up in the petrochemical complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down wind direction of wind.	<p>The site has established 7 ambient air quality monitoring stations within and outside the petrochemical complex considering wind directions and the maximum Ground Level Concentration in downwind direction.</p> <p>Mathematical Modelling report submitted to GPCB along with AAQM location map can be seen in Annexure XVII.</p> <p>Ambient air monitoring is carried out twice a week at each location through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>A summary of the AAQ monitoring results of Oct'23 – Mar'24 are as given below</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Average</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>100 µg/m³</td> <td>62.70</td> <td>43.00</td> <td>76.00</td> </tr> <tr> <td>PM_{2.5}</td> <td>60 µg/m³</td> <td>23.06</td> <td>10.00</td> <td>38.00</td> </tr> <tr> <td>SO₂</td> <td>80 µg/m³</td> <td>22.63</td> <td>12.90</td> <td>31.50</td> </tr> <tr> <td>NO_x</td> <td>80 µg/m³</td> <td>29.49</td> <td>20.00</td> <td>37.60</td> </tr> <tr> <td>O₃</td> <td>180 µg/m³</td> <td>8.20</td> <td>4.70</td> <td>10.50</td> </tr> <tr> <td>NH₃</td> <td>400 µg/m³</td> <td>18.48</td> <td>10.50</td> <td>29.40</td> </tr> <tr> <td>CO</td> <td>4 mg/m³</td> <td>1.53</td> <td>1.20</td> <td>1.86</td> </tr> <tr> <td>Benzene</td> <td>5 µg/m³</td> <td>< 1.0</td> <td>< 1.0</td> <td>< 1.0</td> </tr> <tr> <td>Pb</td> <td>1 µg/m³</td> <td>< 0.1</td> <td>< 0.1</td> <td>< 0.1</td> </tr> <tr> <td>As</td> <td>6 ng/m³</td> <td>< 1.0</td> <td>< 1.0</td> <td>< 1.0</td> </tr> <tr> <td>Ni</td> <td>20 ng/m³</td> <td>5.32</td> <td>0.00</td> <td>8.30</td> </tr> <tr> <td>BAP</td> <td>1 ng/m³</td> <td>< 0.5</td> <td>< 0.5</td> <td>< 0.5</td> </tr> </tbody> </table>	Parameter	GPCB Consent Limit	Average	Min	Max	PM ₁₀	100 µg/m ³	62.70	43.00	76.00	PM _{2.5}	60 µg/m ³	23.06	10.00	38.00	SO ₂	80 µg/m ³	22.63	12.90	31.50	NO _x	80 µg/m ³	29.49	20.00	37.60	O ₃	180 µg/m ³	8.20	4.70	10.50	NH ₃	400 µg/m ³	18.48	10.50	29.40	CO	4 mg/m ³	1.53	1.20	1.86	Benzene	5 µg/m ³	< 1.0	< 1.0	< 1.0	Pb	1 µg/m ³	< 0.1	< 0.1	< 0.1	As	6 ng/m ³	< 1.0	< 1.0	< 1.0	Ni	20 ng/m ³	5.32	0.00	8.30	BAP	1 ng/m ³	< 0.5	< 0.5	< 0.5
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	<p>It can be seen from the above table that all results are conforming to the standards prescribed by GPCB.</p> <p>Detailed AAQ Monitoring data can be referred as Annexure VI.</p> <p>Complied.</p>																																																																	
The monitoring network must be decided based on modelling exercise to represent short term GLCs	<p>AAQ monitoring network is decided based on the mathematical modeling carried out by NEERI / ERM for short term maximum GLCs.</p> <p>Report of mathematical modelling carried out by M/s. ERM is enclosed as Annexure XVII.</p> <p>Complied.</p>																																																																	
Continuous online stack monitoring equipment should be installed for measurement of SO ₂ and NO _x .	<p>Continuous online stack monitoring analysers have been provided for monitoring of SO₂ and NO_x and other parameters as per requirement in all stacks.</p> <p>One such trend of CEMS of one of the plant is enclosed as Annexure XVIII.</p> <p>Complied.</p>																																																																	
Data on VOC shall be monitored and submitted to the SPCB/Ministry.	<p>VOCs (Benzene) monitoring in ambient air is being done regularly through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the results are being submitted to the GPCB / MoEF&CC.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>The monitoring results for the VOCs (Benzene) are given in the AAQM monitoring results of Oct'23 – Mar'24 as given below</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Average</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>100 µg/m³</td> <td>62.70</td> <td>43.00</td> <td>76.00</td> </tr> <tr> <td>PM_{2.5}</td> <td>60 µg/m³</td> <td>23.06</td> <td>10.00</td> <td>38.00</td> </tr> <tr> <td>SO₂</td> <td>80 µg/m³</td> <td>22.63</td> <td>12.90</td> <td>31.50</td> </tr> <tr> <td>NO_x</td> <td>80 µg/m³</td> <td>29.49</td> <td>20.00</td> <td>37.60</td> </tr> <tr> <td>O₃</td> <td>180 µg/m³</td> <td>8.20</td> <td>4.70</td> <td>10.50</td> </tr> <tr> <td>NH₃</td> <td>400 µg/m³</td> <td>18.48</td> <td>10.50</td> <td>29.40</td> </tr> <tr> <td>CO</td> <td>4 mg/m³</td> <td>1.53</td> <td>1.20</td> <td>1.86</td> </tr> <tr> <td>Benzene</td> <td>5 µg/m³</td> <td>< 1.0</td> <td>< 1.0</td> <td>< 1.0</td> </tr> <tr> <td>Pb</td> <td>1 µg/m³</td> <td>< 0.1</td> <td>< 0.1</td> <td>< 0.1</td> </tr> <tr> <td>As</td> <td>6 ng/m³</td> <td>< 1.0</td> <td>< 1.0</td> <td>< 1.0</td> </tr> <tr> <td>Ni</td> <td>20 ng/m³</td> <td>5.32</td> <td>0.00</td> <td>8.30</td> </tr> <tr> <td>BAP</td> <td>1 ng/m³</td> <td>< 0.5</td> <td>< 0.5</td> <td>< 0.5</td> </tr> </tbody> </table> <p>VOCs at the process areas are also being monitored in every plant under the Leak detection and Repair Program (LDAR). Typical LDAR Report of one the plant is enclosed as Annexure XIX.</p> <p>Complied.</p>	Parameter	GPCB Consent Limit	Average	Min	Max	PM ₁₀	100 µg/m ³	62.70	43.00	76.00	PM _{2.5}	60 µg/m ³	23.06	10.00	38.00	SO ₂	80 µg/m ³	22.63	12.90	31.50	NO _x	80 µg/m ³	29.49	20.00	37.60	O ₃	180 µg/m ³	8.20	4.70	10.50	NH ₃	400 µg/m ³	18.48	10.50	29.40	CO	4 mg/m ³	1.53	1.20	1.86	Benzene	5 µg/m ³	< 1.0	< 1.0	< 1.0	Pb	1 µg/m ³	< 0.1	< 0.1	< 0.1	As	6 ng/m ³	< 1.0	< 1.0	< 1.0	Ni	20 ng/m ³	5.32	0.00	8.30	BAP	1 ng/m ³	< 0.5	< 0.5	< 0.5
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The CPCB shall independently monitor the air quality of the project.	This condition is not applicable to us.																																																																	

3	Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored.	Fugitive emissions of HC from product storage tanks are monitored on weekly basis by LEL meters and on monthly basis by PID meters under the Leak Detection and Repair Program. Around 56 LEL detectors are installed in Tank Farm area i.e. Product Transfer Department (PTD). Typical LDAR Report of Product Transfer Department (PTD) plant is enclosed as Annexure XX . Complied.																																																																																							
	Sensors for detecting HC leakage shall also be provided at strategic locations.	1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like near the pumps, compressors, storage tanks, yards, etc. List of detectors installed is enclosed as Annexure XXI . Complied.																																																																																							
	The company shall use low sulphur fuel to minimize SO2 Emission.	The Low Sulfur fuels are used in the plant to minimize SO ₂ emissions. Ethane / NG usage is maximized in the plant having sulphur content <1 ppm. Complied.																																																																																							
4	The company shall install online O ₂ monitor in the furnaces	20 online O ₂ monitors are installed in the furnaces to keep the track of combustion efficiency. Complied.																																																																																							
	Boilers shall be operated with minimum excess air for optimal fuel consumption and to minimize NO _x emission.	Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II . The summary of flue gas emission results for the period of Oct'23 – Mar'24 is presented as below.																																																																																							
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		NOx (mg/Nm ³)	300	74.97	64.65	82.54
		("– ": Plant was not in operation / under Shutdown) The above results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24. Detailed stack emission monitoring report is enclosed as Annexure III . Complied.				
	Fire stack burners and steam injection system shall be designed for smokeless operation to minimize NOx emission.	Steam injection system is provided in flare stacks for reducing NOx generation and have smokeless operation. Complied.				
5	For Control of fugitive emission, the company shall provide for a main flare system and an auxiliary flare system and route all unsaturated hydrocarbons to the flare system.	All plant vents containing unsaturated hydrocarbons are routed to the main flare and auxiliary flare (LP flare) system for controlling of fugitive emissions. An auxiliary flare system (LP flare) is provided for routing the discharge from the dump valve on cryogenic tanks. Whereas the main flare system is provided for all process units and non-cryogenic storage area. Photograph of Flare installed is enclosed as Annexure XXII . Complied.				
	All the pump and other equipment's where there is like hood of HC leakage shall be provided with LEL indicators	1182 LEL detectors for monitoring HC leakages have been installed at strategic locations like main pumps, compressors, storage tanks yards, etc. List of detectors installed is enclosed as Annexure XXI . Complied.				
	also provide for immediate isolation to such equipment, in case of a leakage,	Isolation of leaking equipment is immediately done based on the LEL detector alarm. Complied.				
	The company shall adopt leak detection and repair (LDAR) programme for quantification and control of fugitive emissions.	LDAR program has been implemented in all plants for quantification and control of fugitive emissions. LDAR is carried out in each plant on quarterly basis. During the review period (Oct'23 – Mar'24) the same were carried out at all the plants. Typical LDAR Report of one the plant is enclosed as Annexure XIX . Complied.				
6	The product-loading gantry shall be connected to the product sphere in closed circuit through the vapour arm connected to the tanker	The product loading gantry is connected with the respective product tanks with vapor arm connected to the tanker. The vapors are recovered through vapor recovery system which consists of RARFS scrubber, membrane unit & activated carbon filters and then recovered material is sent back to the tank. This system is installed at Product loading gantry. Photographs of vapour recovery system is enclosed as Annexure XXIII . Complied.				
	Data on fugitive emissions shall be regularly monitored and records maintained.	Data on Fugitive emissions are being regularly monitored through LDAR program and records maintained. Typical LDAR Report of one the plant is enclosed as Annexure XIX .				

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7	The company shall ensure that no halogenated organic is sent to the flares	No halogenated organics are sent to flares. It is always sent to incinerator unit. Complied.																																																																																																			
	If any of the halogenated organic are present then the respective streams may be incinerated, if there are no technically feasible or economically viable reduction/recovery options.	Halogenated organics from VCM plant are incinerated in the incinerator provided at the plant as recovery is not techno-economically feasible. Complied.																																																																																																			
	Any stream containing organic carbon, other than halogenated shall be connected to proper flaring system, if not to a recovery device or an incinerator.	Emission streams containing organic carbon i.e unsaturated hydrocarbons, are connected to the existing flares. Halogenated compounds are not sent to flare. Complied.																																																																																																			
8	All new standards/norms that are being proposed by the CPCB for petrochemical plants shall be applicable for the proposed expansion unit. The company shall conform to the process vent standards for organic chemical including non-VOCs and all possible VOCs i.e. TOCs standard and process vent standards for top priority chemicals	The site is conforming to the standards / norms prescribed by CPCB / GPCB whichever is stringent, for petrochemical plants. The process vents of various plants are monthly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results shown below indicate the conformance to the GPCB prescribed standard which is more stringent. MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II . Summary of monthly monitored values for the reporting period Oct'23 – Mar'24 is presented as below																																																																																																			
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	The company shall install online monitors for VOC measurements. Action on above should be taken during the detailed design stage of NCC and intimate to this ministry	<p>Online detectors (1182 LEL type) for VOC measurements have been installed at appropriate locations in the plants based on the properties of chemicals being handled at the particular location.</p> <p>List of detectors installed is enclosed as Annexure XXI.</p> <p>Complied.</p>																																																																																			
9	The company shall install bag filters to control flue gas emission. Process emission shall be controlled by Scrubbers.	<p>Suitable air pollution control equipment like Bag filters, absorbers, scrubbers, cyclone separator etc are installed as per process requirement of respective plant to control process emissions.</p> <p>Details of Air pollution control equipments installed in plants is enclosed as Annexure XXIV.</p> <p>Complied.</p>																																																																																			
	Flue gas emission from the various stacks attached to the boiler, furnace/heaters shall conform to the prescribed standards.	<p>Flue gas emissions from the stacks attached to the boiler, furnaces / heaters are regularly monitored through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>The summary of flue gas emission results for the period of Oct'23 – Mar'24 is presented as below.</p> <table border="1"> <thead> <tr> <th>Plant</th> <th>Parameter</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td colspan="6">Flue Gas Emissions</td> </tr> <tr> <td rowspan="3">GCU Plant - Stack attached Furnaces</td> <td>PM (mg/Nm³)</td> <td>10</td> <td>3.14</td> <td>2.48</td> <td>3.76</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>50</td> <td>6.31</td> <td>4.36</td> <td>7.46</td> </tr> <tr> <td>NOx (mg/Nm³)</td> <td>350</td> <td>57.85</td> <td>51.25</td> <td>64.13</td> </tr> <tr> <td rowspan="3">VCM Plant - Stack attached to EDC Furnaces</td> <td>PM (mg/Nm³)</td> <td>10</td> <td>3.20</td> <td>2.25</td> <td>3.92</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>50</td> <td>7.21</td> <td>4.75</td> <td>9.16</td> </tr> <tr> <td>NOx (mg/Nm³)</td> <td>350</td> <td>63.19</td> <td>55.42</td> <td>68.74</td> </tr> <tr> <td rowspan="3">CPP Plant - Boilers / HRSGs stacks</td> <td>PM (mg/Nm³)</td> <td>10</td> <td>3.56</td> <td>3.56</td> <td>3.56</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>50</td> <td>6.74</td> <td>6.74</td> <td>6.74</td> </tr> <tr> <td>NOx (mg/Nm³)</td> <td>350</td> <td>62.74</td> <td>62.74</td> <td>62.74</td> </tr> <tr> <td rowspan="3">PET-3 Plant - Stacks attached to Heaters</td> <td>PM (mg/Nm³)</td> <td>10</td> <td>3.53</td> <td>3.05</td> <td>4.10</td> </tr> <tr> <td>SO₂ (mg/Nm³)</td> <td>50</td> <td>8.47</td> <td>7.42</td> <td>9.58</td> </tr> <tr> <td>NOx (mg/Nm³)</td> <td>350</td> <td>62.00</td> <td>53.18</td> <td>68.36</td> </tr> <tr> <td></td> <td></td> <td>PM (mg/Nm³)</td> <td>50</td> <td>22.05</td> <td>14.53</td> <td>25.18</td> </tr> </tbody> </table>	Plant	Parameter	GPCB Consent Limit	Avg	Min	Max	Flue Gas Emissions						GCU Plant - Stack attached Furnaces	PM (mg/Nm ³)	10	3.14	2.48	3.76	SO ₂ (mg/Nm ³)	50	6.31	4.36	7.46	NOx (mg/Nm ³)	350	57.85	51.25	64.13	VCM Plant - Stack attached to EDC Furnaces	PM (mg/Nm ³)	10	3.20	2.25	3.92	SO ₂ (mg/Nm ³)	50	7.21	4.75	9.16	NOx (mg/Nm ³)	350	63.19	55.42	68.74	CPP Plant - Boilers / HRSGs stacks	PM (mg/Nm ³)	10	3.56	3.56	3.56	SO ₂ (mg/Nm ³)	50	6.74	6.74	6.74	NOx (mg/Nm ³)	350	62.74	62.74	62.74	PET-3 Plant - Stacks attached to Heaters	PM (mg/Nm ³)	10	3.53	3.05	4.10	SO ₂ (mg/Nm ³)	50	8.47	7.42	9.58	NOx (mg/Nm ³)	350	62.00	53.18	68.36			PM (mg/Nm ³)	50	22.05	14.53	25.18
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	NOx (mg/Nm ³)	350	63.19	55.42	68.74																																																																																
CPP Plant - Boilers / HRSGs stacks	PM (mg/Nm ³)	10	3.56	3.56	3.56																																																																																
	SO ₂ (mg/Nm ³)	50	6.74	6.74	6.74																																																																																
	NOx (mg/Nm ³)	350	62.74	62.74	62.74																																																																																
PET-3 Plant - Stacks attached to Heaters	PM (mg/Nm ³)	10	3.53	3.05	4.10																																																																																
	SO ₂ (mg/Nm ³)	50	8.47	7.42	9.58																																																																																
	NOx (mg/Nm ³)	350	62.00	53.18	68.36																																																																																
		PM (mg/Nm ³)	50	22.05	14.53	25.18																																																																															

		<table border="1"> <tr> <td rowspan="2">CCPP – Stacks attached to Boilers</td> <td>SO₂ (mg/Nm³)</td> <td>600</td> <td>262.68</td> <td>245.12</td> <td>281.46</td> </tr> <tr> <td>NO_x (mg/Nm³)</td> <td>300</td> <td>74.97</td> <td>64.65</td> <td>82.54</td> </tr> </table> <p>("– ": Plant was not in operation / under Shutdown)</p> <p>The above results are conforming to the norms specified by GPCB during review period of Oct'23 – Mar'24.</p> <p>Detailed stack emission monitoring report is enclosed as Annexure III.</p> <p>Complied.</p>	CCPP – Stacks attached to Boilers	SO ₂ (mg/Nm ³)	600	262.68	245.12	281.46	NO _x (mg/Nm ³)	300	74.97	64.65	82.54
CCPP – Stacks attached to Boilers	SO ₂ (mg/Nm ³)	600		262.68	245.12	281.46							
	NO _x (mg/Nm ³)	300	74.97	64.65	82.54								
10	The additional effluent generation shall not exceed 39,020 m ³ /d.	<p>The additional effluent generation from the proposed plant does not exceed 37,447 m³/day. However, the total effluent generation quantity prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026 is 51,002 m³/d.</p> <p>The current effluent generation quantity from the complex for the review period of Oct'23 – Mar'24 is given below:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Permissible Limit (KLD)</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>Effluent Generation</td> <td>51,002</td> <td>36,435</td> <td>32,890</td> <td>39,316</td> </tr> </tbody> </table> <p>From the above table it can be seen that the average effluent generation rate from the complex for the period Oct'23 – Mar'24 is well below the permissible limit of 51,002 m³/d.</p> <p>Complied.</p>	Description	Permissible Limit (KLD)	Avg	Min	Max	Effluent Generation	51,002	36,435	32,890	39,316	
Description	Permissible Limit (KLD)	Avg	Min	Max									
Effluent Generation	51,002	36,435	32,890	39,316									
	The wastewater generated shall be treated in comprehensive wastewater treatment plant.	<p>Wastewater generated from the individual process units is being treated in the comprehensive effluent treatment facility consisting of Primary, Secondary and Tertiary treatment units.</p> <p>Some of the photographs of Effluent treatment plant can be seen in Annexure XXV.</p> <p>Complied.</p>											
	As reflected in the EIA/EMP report, the company shall maximize the recycling of treated effluent	<p>All points mentioned in the EIA / EMP report regarding maximizing the recycling of treated effluent is complied with such as Advanced Anaerobic UASB system and Membrane based Aeration system i.e., Membrane Bioreactor (MBR), Ultrafiltration and Reverse Osmosis (RO) systems have been commissioned in the plant for achieving the maximum recycling of treated water.</p> <p>Photographs of UASB, MBR & RO plant installed for maximizing the recycling of treated effluent can be seen in Annexure XXVI.</p> <p>Treated effluent is being recycled within the complex as Cooling tower make up, DM water production, green belt development.</p> <p>The average of effluent generation, recycle and discharge quantities during reporting period of Oct'23 – Mar'24 is presented below as against the Permissible limits prescribed Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026.</p>											

Description	Permissible Limit (KLD)	Average (KLD)
Quantity of Effluent Generation	51,002	36,435
Quantity of Effluent Discharge	36,292	18,097
Quantity of Effluent Recycle	14,710	18,338
Percentage of Recycle	30 %	50%

It can be seen from the above table that the Percentage of treated effluent recycled is maximized against the limit.

Complied.

<p>Treated effluent after conforming to the prescribed standards shall be discharged through the existing marine disposal system.</p>	<p>Treated effluent is being monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and the quality of effluent is maintained well within the norm prescribed by the GPCB and the same is discharged through the marine disposal system after conforming to the standards.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>The summary of treated effluent quality monitoring reports for Oct'23 – Mar'24 is presented below.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>GPCB Consent Limit</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>-</td> <td>5.5-9.0</td> <td>7.91</td> <td>7.72</td> <td>8.20</td> </tr> <tr> <td>Colour and odour</td> <td>-</td> <td>All efforts shall be made to remove colour and unpleasant odour as far as practicable</td> <td colspan="3">Colorless and Odourless</td> </tr> <tr> <td>Suspended Solids</td> <td>mg/l</td> <td>100</td> <td>22.50</td> <td>19.00</td> <td>25.00</td> </tr> <tr> <td>Temperature</td> <td>°C</td> <td>Shall not exceed 5° C above the receiving water temperature</td> <td>28.48</td> <td>27.40</td> <td>29.60</td> </tr> <tr> <td>Oil & Grease</td> <td>mg/l</td> <td>20</td> <td>< 0.2</td> <td>< 0.2</td> <td>< 0.2</td> </tr> <tr> <td>Total Residual Chlorine</td> <td>mg/l</td> <td>1</td> <td>< 0.1</td> <td>< 0.1</td> <td>< 0.1</td> </tr> <tr> <td>Ammonical Nitrogen (as N)</td> <td>mg/l</td> <td>50</td> <td>13.13</td> <td>12.50</td> <td>14.30</td> </tr> <tr> <td>Total Kjeldahl Nitrogen (as NH₃)</td> <td>mg/l</td> <td>100</td> <td>17.62</td> <td>5.10</td> <td>32.40</td> </tr> <tr> <td>Free Ammonia (as NH₃)</td> <td>mg/l</td> <td>5</td> <td>< 0.1</td> <td>< 0.1</td> <td>< 0.1</td> </tr> <tr> <td>Biochemical Oxygen Demand</td> <td>mg/l</td> <td>100</td> <td>39.37</td> <td>34.20</td> <td>42.50</td> </tr> <tr> <td>Chemical Oxygen Demand</td> <td>mg/l</td> <td>250</td> <td>147.00</td> <td>124.00</td> <td>172.00</td> </tr> <tr> <td>Arsenic (as AS)</td> <td>mg/l</td> <td>0.2</td> <td>< 0.01</td> <td>< 0.01</td> <td>< 0.01</td> </tr> <tr> <td>Mercury (as Hg)</td> <td>mg/l</td> <td>0.01</td> <td>< 0.005</td> <td>< 0.005</td> <td>< 0.005</td> </tr> <tr> <td>Lead (as Pb)</td> <td>mg/l</td> <td>2</td> <td>< 0.05</td> <td>< 0.05</td> <td>< 0.05</td> </tr> <tr> <td>Cadmium (as Cd)</td> <td>mg/l</td> <td>2</td> <td>< 0.03</td> <td>< 0.03</td> <td>< 0.03</td> </tr> <tr> <td>Hexavalent Chromium (as Cr⁺⁶)</td> <td>mg/l</td> <td>1</td> <td>< 0.05</td> <td>< 0.05</td> <td>< 0.05</td> </tr> </tbody> </table>	Parameter	Unit	GPCB Consent Limit	Avg	Min	Max	pH	-	5.5-9.0	7.91	7.72	8.20	Colour and odour	-	All efforts shall be made to remove colour and unpleasant odour as far as practicable	Colorless and Odourless			Suspended Solids	mg/l	100	22.50	19.00	25.00	Temperature	°C	Shall not exceed 5° C above the receiving water temperature	28.48	27.40	29.60	Oil & Grease	mg/l	20	< 0.2	< 0.2	< 0.2	Total Residual Chlorine	mg/l	1	< 0.1	< 0.1	< 0.1	Ammonical Nitrogen (as N)	mg/l	50	13.13	12.50	14.30	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	100	17.62	5.10	32.40	Free Ammonia (as NH ₃)	mg/l	5	< 0.1	< 0.1	< 0.1	Biochemical Oxygen Demand	mg/l	100	39.37	34.20	42.50	Chemical Oxygen Demand	mg/l	250	147.00	124.00	172.00	Arsenic (as AS)	mg/l	0.2	< 0.01	< 0.01	< 0.01	Mercury (as Hg)	mg/l	0.01	< 0.005	< 0.005	< 0.005	Lead (as Pb)	mg/l	2	< 0.05	< 0.05	< 0.05	Cadmium (as Cd)	mg/l	2	< 0.03	< 0.03	< 0.03	Hexavalent Chromium (as Cr ⁺⁶)	mg/l	1	< 0.05	< 0.05	< 0.05
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	A holding pond for treated effluent for bio test shall be constructed before discharging the effluent into the sea.	<p>Bioassay test for monitoring toxicity is conducted in the laboratory with the test containers for the treated effluent. The local fishes are taken as the Testing animal for this experiment and the test is carried out in the laboratory as per the IS 6582. Result of 96% survival of fish after 96 hours in 100% effluent is achieved for the review period of Oct'23 – Mar'24. The analysis results of Bioassay test are provided in the above condition.</p> <p>Complied.</p>																																																																																				
	The domestic effluent after treatment and conforming to the prescribed standards shall be used for green belt development.	<p>The domestic effluent generated within the site is treated in the biological section of the effluent treatment plant with the prior approval from GPCB and it conforms to the prescribed standards.</p> <p>As mentioned above, about 18,097 KLD of treated effluent is being reused as CW make up, DM water production and for green belt development.</p> <p>The average of effluent generation, recycle and discharge quantities during reporting period of Oct'23 – Mar'24 is presented below as against the Permissible limits prescribed under Consolidated Consent & Authorisation (CCA) Order No. AWH-121992 dated 25th November 2022, valid up to 3rd November, 2026.</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Permissible Limit (KLD)</th> <th>Average (KLD)</th> </tr> </thead> <tbody> <tr> <td>Quantity of Effluent Generation</td> <td>51,002</td> <td>36,435</td> </tr> <tr> <td>Quantity of Effluent Discharge</td> <td>36,292</td> <td>18,097</td> </tr> <tr> <td>Quantity of Effluent Recycle</td> <td>14,710</td> <td>18,338</td> </tr> <tr> <td>Percentage of Recycle</td> <td>30 %</td> <td>50%</td> </tr> </tbody> </table>	Description	Permissible Limit (KLD)	Average (KLD)	Quantity of Effluent Generation	51,002	36,435	Quantity of Effluent Discharge	36,292	18,097	Quantity of Effluent Recycle	14,710	18,338	Percentage of Recycle	30 %	50%																																																																					
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		<p>It can be seen from the above table that the Percentage of treated effluent recycled is maximized against the limit.</p> <p>Complied.</p>
11	The company shall obtain necessary approval from the state Irrigation Department to meet the additional water requirement.	<p>Company has obtained approval to meet the water requirement. The sanction / approval for 22 MGD of water drawl from Narmada River has been obtained from the Vadodara Irrigation Division and additional 8 MGD from G.I.D.C.</p> <p>Please refer the copy of water drawl approval from Irrigation Department for 22 MGD and 8 MGD from G.I.D.C as Annexure XXVII.</p> <p>Complied.</p>
12	M/s RIL shall undertake rainwater harvesting measures, to recharge the ground water and also to minimize the water drawl from the weir.	<p>RIL has undertaken rainwater harvesting measures to recharge the ground water such as a rain water harvesting pond is established for collecting and storing the rain water. The collected water is used inside the plant to supplement fresh water supply thereby hence minimizing water drawl from the weir to that extent. It also helps in recharging of the ground water.</p> <p>Apart from these, various efforts are taken to minimize the water withdrawal e.g. reduction in fresh water requirement for utilization as make up water in cooling towers by recycling treated water in cooling towers etc.</p> <p>Photograph of Rain water harvesting pond is enclosed as Annexure XXVII.</p> <p>Complied.</p>
13	Green belt shall be raised in an area of 300 ha to mitigate the fugitive emissions from the plant.	<p>This condition has been revised in subsequent EC order no. J-11011/39/2016-IA-II (I) dated 19th August 2021 granted by MoEF&CC.</p> <p>However, the site has developed around 203 ha of Green cover within Dahej Petrochemical Complex to mitigate the fugitive emissions and additional greenbelt area is developed outside the plant area</p> <p>During the reporting period Oct'23 – Mar'24: Around 8,080 trees have been planted in the complex, at open areas of GIDC near site and at road dividers outside of complex.</p> <p>Photographs of green belt developed during the reporting period is enclosed as Annexure XXIX.</p> <p>Complied.</p>
	Selection of plant species shall be as per the central pollution control board guidelines.	<p>Selection of plant species is done as per CPCB guidelines; mainly native plant species are selected for the green belt development as per the guidelines of CPCB. Few of the plant species existing at the site are: Casuarina equisetifolia (Suru), Azadirachta indica (Neem), Miletia pinnata (Karanj), Cassia siamea (Kashid), Albizia procera (Shirish), Delonix regia (Gulmohar), Peltophorum pterocarpum etc.</p> <p>Complied.</p>
14	Occupation Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	<p>RIL-DMD has its own NABH accredited Occupational Health Center with NABL accredited pathology lab.</p> <p>Occupational Health Surveillance of employees (both contractors as well as company employees) is one of the on-going activities at RIL-DMD and is carried out at a frequency prescribed in the</p>

		<p>Factories Act and Gujarat Factory Rules and the records are being maintained in OHC.</p> <p>Occupational Health Surveillance is carried out - At the time of joining formality (i.e. Pre-Employment Medical Examination) and on annual basis for all employees.</p> <p>Details of checks conducted at the time of Fitness Examination is appended as below for ready reference:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Fitness Examination Parameter</th> <th style="text-align: center;">Pre-Employment Medical Examination</th> <th style="text-align: center;">Periodic Medical Examination</th> </tr> </thead> <tbody> <tr> <td>Physician Check-up</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>Eye – Check-up</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>X-ray</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>ECG</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>Urine Routine</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>CBC+ESR</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>Blood Group</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>Random Blood Sugar</td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> </tbody> </table> <p>Photograph of Occupational Health Centre is enclosed as Annexure XXX and typical sample lab analysis reports of periodic medical examination of one such employee is attached as Annexure XXXI.</p> <p>Complied.</p>	Fitness Examination Parameter	Pre-Employment Medical Examination	Periodic Medical Examination	Physician Check-up	√	√	Eye – Check-up	√	√	X-ray	√	√	ECG	√	√	Urine Routine	√	√	CBC+ESR	√	√	Blood Group	√	√	Random Blood Sugar	√	√
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B. General Conditions

i	<p>The project authorities must strictly adhere to the stipulations made by the Gujarat State Pollution Control Board and the state Government</p>	<p>As seen in the above conditions and the summary table of environmental monitoring results, we are complying with all the standards and stipulations made by the Gujarat State Pollution Control Board and the State Government.</p> <p>Stipulations made by the Gujarat Pollution Control Board vide CTO (Consent to Operate) / CCA (Consolidated Consent & Authorisation) order no AWH-121992 dated 25th November 2022 which is valid up to 3rd November, 2026 are strictly adhered to.</p> <p>The major stipulations given by GPCB vide CCA is given as below</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Cond. No.</th> <th style="text-align: center;">CCA Conditions</th> <th style="text-align: center;">Compliance Status of CCA Conditions</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3.1</td> <td>The quantity of total fresh water consumption shall not exceed 1,38,700 KL/day</td> <td>Average fresh water consumption for the period Oct'23 – Mar'24 was 89,332 KLD which is not exceeding the permissible limit of 1,38,700 KLD. Complied.</td> </tr> <tr> <td style="text-align: center;">3.4.1</td> <td>The quality of treated effluent shall conform to the following standards prior to disposal into deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser. Note: Standards are prescribed in CCA</td> <td>Treated effluent is being monitored on monthly basis through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. The quality of effluent maintained well within the norms prescribed by GPCB and then it is discharged through existing effluent disposal pipeline equipped with multiport diffuser. Results of treated effluent quality monitoring given in Condition No. 8 indicates the conformance to</td> </tr> </tbody> </table>	Cond. No.	CCA Conditions	Compliance Status of CCA Conditions	3.1	The quantity of total fresh water consumption shall not exceed 1,38,700 KL/day	Average fresh water consumption for the period Oct'23 – Mar'24 was 89,332 KLD which is not exceeding the permissible limit of 1,38,700 KLD. Complied.	3.4.1	The quality of treated effluent shall conform to the following standards prior to disposal into deep sea (Gulf of Khambhat) through the existing effluent disposal pipeline equipped with multiport diffuser. Note: Standards are prescribed in CCA	Treated effluent is being monitored on monthly basis through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai. The quality of effluent maintained well within the norms prescribed by GPCB and then it is discharged through existing effluent disposal pipeline equipped with multiport diffuser. Results of treated effluent quality monitoring given in Condition No. 8 indicates the conformance to
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		4.4	The process emissions through various stacks /vents of reactors, process, vessel shall conform to the following standards Note: Standards are prescribed in CCA.		The gaseous emissions from various process units are monitored on monthly basis through MoEF&CC recognised & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and its results given in the Condition no 4 indicates the conformance to the GPCB prescribed standards vide this CCA. Complied.																																																																		
		5.1 Sr. No. 5	Spent Catalyst from various units and Molecular Sieve/alumina desiccant (Sr.No. 1) Used or Spent Oil (Sr.No.5) Discarded containers (Sr.No.8) Facility prescribed for Above listed wastes: Collection, Storage, Treatment and Disposal by selling to registered approved recyclers/reprocessors/Co-processing facility/co-processing in captive power plants.		Spent catalyst generated from the plants is collected, stored properly and sold to authorized reprocessors for recovery of metal / final disposal. Used or spent oil generated from the facility is collected in the drums and sold to registered oil recyclers for recovery / final disposal. Discarded containers generated from the plants are collected, decontaminated, stored properly and then sold to authorized vendor. Complied.																																																																		
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ii	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment and Forests	All expansion or modernization of petrochemical plants at RIL-DMD have been carried out with prior approval of MoEF&CC / SEIAA. Complied.																																																																					
iii	At no time, the emissions should go beyond the prescribed standards.	At no time, emissions have exceeded the stipulated standards during the reporting period of Oct'23 – Mar'24. The summary of flue gas emission results for the period of Oct'23 – Mar'24 is presented as below.																																																																					
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PET-3 Plant - Stacks attached to Heaters	SO ₂ (mg/Nm ³)	50	8.47	7.42	9.58
	NO _x (mg/Nm ³)	350	62.00	53.18	68.36
CCPP – Stacks attached to Boilers	PM (mg/Nm ³)	50	22.05	14.53	25.18
	SO ₂ (mg/Nm ³)	600	262.68	245.12	281.46
	NO _x (mg/Nm ³)	300	74.97	64.65	82.54

(" – " : Plant was not in operation / under Shutdown)⁴

Summary of emission results from process stacks for the reporting period Oct'23 – Mar'24 is presented as below

Plant	Parameter	GPCB Consent Limit	Avg	Min	Max
VCM - Stack attached to Incinerator	PM (mg/Nm ³)	150	3.22	2.38	4.25
	SO ₂ (mg/Nm ³)	40	6.80	5.45	8.46
	NO _x (mg/Nm ³)	25	17.29	12.32	20.74
	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0
	HCl (mg/Nm ³)	30	2.38	2.10	2.76
	CO (mg/Nm ³)	150	1.24	1.18	1.35
	HC (mg/Nm ³)	15	2.38	2.14	2.73
VCM Plant – Stack attached to Vent Scrubber	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5
	Cl ₂ (mg/Nm ³)	10	<1.0	<1.0	<1.0
	HCl (mg/Nm ³)	30	2.60	2.41	2.76
Chlor Alkali Plant - Stacks Attached to Hypo and HCl synthesis Unit	HC (mg/Nm ³)	15	< 0.2	< 0.2	< 0.2
	Cl ₂ (mg/Nm ³)	9	<1.0	<1.0	<1.0
PVC Plant- Stacks attached to PVC Dryers	HCl (mg/Nm ³)	20	2.83	2.15	3.86
	PM (mg/Nm ³)	150	3.43	2.75	3.85
	SO ₂ (ppm)	100	8.22	6.42	9.54
	NO _x (ppm)	50	20.55	15.32	24.36
	CO (mg/Nm ³)	150	2.36	2.24	2.63
PTA Plant - Stacks attached to Off gas scrubber, atmospheric scrubber and vent scrubber	VCM (mg/Nm ³)	6.6	<1.5	<1.5	<1.5
	PM (mg/Nm ³)	150	3.15	2.12	3.83
	SO ₂ (mg/Nm ³)	40	<5	<5	<5
	NO _x (mg/Nm ³)	25	<4	<4	<4

Above tables indicates that the emissions from various stacks are well within the prescribed standards. Detailed emission results from various stacks can be seen in **Annexure III**.

Complied.

In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved

Pollution control systems in the plant are connected through the DCS system. In the event of failure of pollution control system, a trigger / alarm is raised in the DCS system which prevents the plant from restarting.

During the period of Oct'23 – Mar'24, no such failure of pollution control equipment has been observed.

		<p>Photograph of the state-of-art control room equipped with DCS system can be seen in Annexure IV.</p> <p>Complied.</p>																																																																																							
iv	<p>The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA)</p>	<p>Noise level at the site is monitored on monthly basis through MoEF&CC recognized & NABL accredited laboratory M/s Netel (India) Limited, Navi Mumbai and it is observed to be well within the prescribed workplace noise level of 85 dBA.</p> <p>MoEF&CC recognition letter and NABL certificate of M/s Netel (India) Limited is enclosed as Annexure II.</p> <p>The summary of Workplace Noise Level monitoring reports for Oct'23 – Mar'24 is presented below:</p> <table border="1" data-bbox="732 611 1430 1472"> <thead> <tr> <th rowspan="2">Plants</th> <th colspan="3">Workplace Noise Levels dB(A)</th> </tr> <tr> <th>Average</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr><td>CA Plant</td><td>60.63</td><td>53.30</td><td>68.30</td></tr> <tr><td>VCM Plant</td><td>52.75</td><td>50.70</td><td>56.20</td></tr> <tr><td>PVC Plant</td><td>59.42</td><td>48.50</td><td>66.20</td></tr> <tr><td>GCU Plant</td><td>68.66</td><td>57.30</td><td>75.10</td></tr> <tr><td>EOEG Plant</td><td>56.18</td><td>45.20</td><td>63.40</td></tr> <tr><td>EPRU-OSBL Plant</td><td>53.04</td><td>54.40</td><td>52.10</td></tr> <tr><td>HDPE Plant</td><td>58.90</td><td>50.40</td><td>62.70</td></tr> <tr><td>CPP-I Plant</td><td>55.28</td><td>49.30</td><td>62.80</td></tr> <tr><td>CPP-II Plant</td><td>58.32</td><td>54.30</td><td>62.40</td></tr> <tr><td>TIME OFFICE, MG-1</td><td>56.78</td><td>52.70</td><td>61.10</td></tr> <tr><td>ETP Plant</td><td>58.38</td><td>54.90</td><td>61.50</td></tr> <tr><td>PTD - I & II Plant</td><td>55.46</td><td>45.70</td><td>61.60</td></tr> <tr><td>IOP Plant</td><td>62.89</td><td>54.90</td><td>73.10</td></tr> <tr><td>JETTY</td><td>47.73</td><td>40.40</td><td>53.80</td></tr> <tr><td>CPP-3 Plant</td><td>56.45</td><td>43.60</td><td>66.30</td></tr> <tr><td>PET-3 Plant</td><td>55.90</td><td>52.30</td><td>60.30</td></tr> <tr><td>PTA-5 Plant</td><td>57.74</td><td>49.80</td><td>65.70</td></tr> <tr><td>PTA-6 Plant</td><td>57.20</td><td>52.30</td><td>62.80</td></tr> <tr><td>CCPP Plant</td><td>61.30</td><td>51.70</td><td>69.40</td></tr> <tr><td>Ethane</td><td>54.08</td><td>48.80</td><td>56.60</td></tr> </tbody> </table> <p>Detailed noise monitoring report is enclosed as Annexure XXXII.</p> <p>Complied.</p>	Plants	Workplace Noise Levels dB(A)			Average	Min	Max	CA Plant	60.63	53.30	68.30	VCM Plant	52.75	50.70	56.20	PVC Plant	59.42	48.50	66.20	GCU Plant	68.66	57.30	75.10	EOEG Plant	56.18	45.20	63.40	EPRU-OSBL Plant	53.04	54.40	52.10	HDPE Plant	58.90	50.40	62.70	CPP-I Plant	55.28	49.30	62.80	CPP-II Plant	58.32	54.30	62.40	TIME OFFICE, MG-1	56.78	52.70	61.10	ETP Plant	58.38	54.90	61.50	PTD - I & II Plant	55.46	45.70	61.60	IOP Plant	62.89	54.90	73.10	JETTY	47.73	40.40	53.80	CPP-3 Plant	56.45	43.60	66.30	PET-3 Plant	55.90	52.30	60.30	PTA-5 Plant	57.74	49.80	65.70	PTA-6 Plant	57.20	52.30	62.80	CCPP Plant	61.30	51.70	69.40	Ethane	54.08	48.80	56.60
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	<p>By providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.</p>	<p>Provision of noise control measures including acoustic hoods, silencers, enclosures etc. has been made for all sources of high noise generation.</p> <p>Photographs of the same is enclosed as Annexure XXXIII.</p> <p>Complied.</p>																																																																																							
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Nr. CCPP	54.1	53.3	54.8	51.1	50.4	52.1																																																										
Nr. PTA	54.6	50.7	59.1	52.2	49.1	54.4																																																										
Nr. ETP Guard Pond	55.8	52.6	58.2	52.1	50.3	54.4																																																										
RDMT Jetty	54.9	51.4	57.3	51.9	48.7	54.2																																																										
Jageshwar village	55.8	53.8	57.4	50.6	48.9	52.7																																																										
v	The project authorities must 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 etc.	<p>Provisions of the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended in 2000 are being complied by ensuring the following activities :</p> <ul style="list-style-type: none"> • Preparation of safety audit report (submitted to DISH regularly) enclosed as Annexure XXXIV. • Preparation of emergency response plan. Copy of one such plan is enclosed as Annexure XXXV. • Conducting mock drills on regular basis. One such mock drill report is enclosed as Annexure XXXVI. • Provision of emergency alert system like sirens, announcement etc and ensuring their healthiness. Details of siren submitted to DISH is enclosed as Annexure XXXVII. • Mutual aid arrangement with neighboring industries. Agreement copy is enclosed as Annexure XXXVIII. <p>Complied.</p>																																																														
	Necessary approvals from Chief Control of Explosives must be provided before commission of the project.	<p>The approvals required for storage of HC from Chief Control of Explosives are in place and they were obtained before commissioning of the project.</p> <p>Approval details of the same is enclosed as Annexure XI.</p> <p>Complied.</p>																																																														
vi	The project authorities must strictly comply with the rules and regulations with the Hazardous Wastes (Management and Handling) Rules, 2003.	<p>RIL DMD strictly complies with the rules and regulations of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its subsequent amendments thereof.</p> <p>Handling and Disposal of Hazardous wastes generated at site is being done in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its subsequent amendments thereof.</p> <p>Photographs of Hazardous waste storage area is enclosed as Annexure XXXIX.</p> <p>Complied.</p>																																																														
	Authorization form the State Pollution Control Board must be obtained for	Hazardous waste Authorization has been obtained from GPCB for collection / treatment / storage / disposal of hazardous wastes.																																																														

	collection/treatment/ Storage/ disposal of hazardous wastes.	<p>Authorization (AWH-121992) from GPCB for collection / treatment / storage / disposal of hazardous wastes is available which is valid up to 03.11.2026.</p> <p>Hazardous wastes collected, stored and disposed during reporting period Oct'23 – Mar'24 is given in Annexure VIII.</p> <p>Please refer Form - 4 submitted to GPCB for the year 2023-24 as Annexure IX.</p> <p>Complied.</p>
vii	<p>The project authorities will provide adequate funds both recurring and non-recurring 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.</p>	<p>Adequate funds have been allocated for implementing the conditions stipulated by the statutory authorities. The Environmental Funds expenditure during the reporting period Oct'23 – Mar'24 was around INR. 53.4 Crores.</p> <p>Some of the major areas where environment expenditure incurred during Oct'23 – Mar'24 is appended below:</p> <ul style="list-style-type: none"> • Environment monitoring – INR 20.53 Lakhs • Online Continuous emission and effluent monitoring systems – INR 34.36 Lakhs • Pollution control systems (Effluent treatment & management / APCM) – INR 50.55 Lakhs • Waste management – INR 54.79 Lakhs • Green belt development – INR 97.04 Lakhs <p>Complied.</p>
	The funds so provided should not be diverted for any other purpose.	<p>The funds provided for Environmental improvement activities are used only for the said purpose. They are not diverted for other activities at site.</p> <p>Complied.</p>
viii	<p>The stipulated conditions will be monitored by the Regional of this Ministry at Bhopal/ Central Pollution Control Board/ State Pollution Control Board.</p>	<p>This condition is not applicable to us.</p>
	A six monthly compliance report and the monitored data should be submitted to them regularly.	<p>Six monthly compliance report and monitoring data is submitted to MoEF&CC regularly.</p> <p>Last Compliance report was submitted vide our letter no. RIL-DMD/HSEF/ENV/2023/87 dated 28th November, 2023 to SEIAA and Gujarat Pollution Control Board and vide letter no. RIL-DMD/HSEF/ENV/2023/85 dated 28th November, 2023 to Integrated Regional office of MoEF&CC. Also Stacks, Ambient Air Quality Effluent, Noise monitoring reports & Hazardous reports are submitted to GPCB on monthly basis.</p> <p>Proof of submission of last EC Compliance report is enclosed as Annexure XVI.</p> <p>Complied.</p>
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 State Pollution Control Board/	<p>The public has been informed about the Environment Clearance accorded to this project through Newspaper in English and Gujarati language. The copy of the newspaper publication has been submitted to the MoEF&CC along with the first compliance report of this EC.</p>

	Committee and may also be seen at website of the Ministry of Environment and Forests at http://www.envfor.nic.in This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same should be forwarded to the Regional office.	Newspaper cutting is enclosed as Annexure XL . Complied.
x	The project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and the date of the commencing the land development work.	The project is completed and commissioned. The necessary information about the project's financial closure and project commencement was provided along with the first compliance report of this EC. Complied.
5	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	This condition is not applicable to us.
6	The ministry reserves the right to stipulate additional conditions if found necessary.	This condition is not applicable to us.
	The company in a time bound manner will implement these conditions	Company has implemented all the conditions prescribed by the Ministry in this EC. Complied.
7	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, Hazardous Wastes (Management And Handling) Rules 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

Reliance Industries Limited
Dahej Manufacturing Division

FORM 9

[See rule 18 (2)]

TRANSPORT EMERGENCY (TREM) CARD

1. Characteristics of hazardous wastes and Other wastes :

Sr. No.	Type of waste	Physical Properties	Chemical Constituents	Exposure Hazards	First aid Requirements
1	Used / Spent Oil	Liquid	Oil / Hydrocarbon	Exposure to open cut/wounds on body may cause irritation	Wash the exposed part of the body with water.

2. Procedure to be followed in case of fire : In case of foam based fire extinguisher to be used

3. Procedure to be followed in case of spillage/accident/explosion :

- ✓ Notify police and Fire brigade immediately.
- ✓ If possible, move the vehicle to open ground.
- ✓ Stop the engine.
- ✓ Mark roads and warn other road users
- ✓ Keep people away from the area.
- ✓ No naked lights. No smoking. (For vehicle safety.)
- ✓ Contain the leaking liquid with sand or earth or consult an expert

4. For expert services, please contact :

v) Name & Address : Site Shift Manager
Reliance Industries Ltd.
Dahej Manufacturing Division
P.O.: Dahej 392130
Taluka: Vagra, Dist.: Bharuch
Gujarat

vi) Telephone No. : +91-2641-616021 / 616022
+ 91-9998001085

(Name, contact number and Signature of sender)

Date:

Place:



Asian Barrels. [50924]
(Hazardous Waste Manifest)

Manifest No:
2328304
04/01/2024

Copy 2

To be forwarded by To be Carried by the occupier after taking signature on it form the transporter.

Sender's Details					
Sender Name	Reliance Industries Ltd. [15565]				
Address	Dahej Manufacturing Division,P.O. DAHEJ, TAL. VAGRA, Taluka :VAG Distict:BHA Pin no:392130				
Contact Details	6352260494 rajaraman.c@ril.com	GPS Coordinates	Lat :21.684880353570033 Long :72.58639820539504		
Receiver's Details					
State	Gujarat	Type of Facility	Actual user (within state)		
Facility Details	Asian Barrels. [50924]				
Contact Details	8401936258 asian_barrels@yahoo.com	GPS Coordinates	Lat :21.579830926025984 Long:72.9981311201169		
Address	Opp; Gate no:1 of GIDC, Panoli, NH -8,- Taluka :ANK Distict:ANK Pin no:394116				
Waste Details					
Waste Details					
Waste Intended for	Recycling	Total Qty	1.180MT	Consistency	Solid
Transporter Details					
Name	Asian Barrels	Contact Details	9824122480 asian_barrels@yahoo.com		
Address	OPP GATE NO 1 GIDC PANOLI,N. H. No. 8, District :Bharuch Taluka :Bharuch				
Vehicle Details					
Vehicle no	GJ16AW0305 (IMEI No :869604062318372)	GPS Enabled	Yes	Type of Vehicle	Tempo
Driver name	ABDUR RAHIM	Driver Contact No	9839960462		
Waste Transportation Details					
Vehicle Depart.	04/01/2024 2:15PM	Number of Drums	126	Loose Waste	0.000
Remarks	Decontaminated Empty Barrels / Containers - Plastic drums, CAP. 200 Ltrs. (CAT No. 33.11)	No of bags	0		
Sender's Declaration :					
1. I hereby declare that contents of the consignment are fully and accurate described above by proper shipping name and are categorized , packed, marked , and labeled , and are all in all respects in proper condition for transport by road according to applicable national government regulations.					
2. I hereby declare that we have obtained membership of common facility / carried out agreement with actual user for disposal/ actual use of hazardous waste.					
Name and stamp of sender:		Date:	Signature:		
Transporter's Acknowledgement of Receipt of waste					
Stamp:		Date:	Signature:		
Receiver's Certification of Receipt of Hazardous waste					
In Principal Approval Details :Accepted - 04/01/2024 2:05PM - Remarks :ok					
Stamp:		Date:	Signature:		



By scanning QR code, copy of transporter will be display. (All copy has same information)

Photograph of Flow Meters installed at ETP



Flow Meters installed at ETP inlet



Flow Meters installed at ETP outlet

Photographs of Continuous Effluent Monitoring System



Analysers of Continuous Effluent Monitoring System installed at outlet



Analyzer room for Continuous Effluent Monitoring System

Reliance Industries Limited

DAHEJ MANUFACTURING DIVISION

Effluent Treatment Plant

PH-1 FIELD LOG SHEET

DATE: 03/01/2024
DAY: Wednesday

TIME	SANITARY WASTE				VCM WASTE				DM, CA & CHEMICAL WASTE				TREATED EFFLUENT				BLOWER				COOLING TOWER				HCL Tank Level					
	PUMP 94-P-15		94-K-02		EQ. TANK		PUMP 94-P-03		N.P.T. INLET		N.P.T. OUTLET		AGITATOR		PUMP 94-P-07		F		G		H		94-K-03		94-P-07		94-T-07		94-P50-A	94-P50-B
	PRE	A	B	PH	A	PH	D	PRE	PH	PH	A	B	A	B	Amp.	Pre.	Amp.	Pre.	Amp.	Pre.	Amp.	Pre.	A	B	D	E	Pre.	Pre.		
	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
06:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
07:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
08:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
09:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
10:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
11:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
12:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
13:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
14:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
15:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
16:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
17:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
18:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
19:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
20:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
21:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
22:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
23:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
00:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
01:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
02:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
03:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
04:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
05:30	2.6	7.3	7.4	2.6	7.3	7.4	2.6	7.3	7.4	7.6	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.6	7.5	7.6	7.5	7.6	NR	NR	NR	NR	NR	NR	NR	NR
TOTAL RUNNING HRS.																														
"A" SHIFT TECH: HRP																	"B" SHIFT TECH: JOP				"C" SHIFT TECH: KJH									
																SHIFT INCHARGE: [Signature]				SHIFT INCHARGE: [Signature]				SHIFT INCHARGE: [Signature]						

THE ADEQUACY CERTIFICATE OF ENVIRONMENT MANAGEMENT SYSTEM

M/s Parul Institute of Technology is recognized by the GPCB, Gandhinagar under the Environmental Audit scheme introduced by the Gujarat High Court vide its Orders dtd. 20/12/96 & 13/3/97 and modified vide Order dtd. 16/9/99 as and Environmental auditor for the purpose of the auditing having carried out Environmental Audit of

- a) M/s : **Reliance Industries Limited
(Dahej Manufacturing Division)**
- b) Located at : At & Post: Dahej
Taluka: Vagra Dist: Bharuch 392130
- c) Manufacturing products as under :

Sr. No.	Plants	Products	Total Capacity (MTPA)
1.	Ethane Propane Recovery Unit (EPRU)	Ethane / Propane	650000
2.	Gas Cracker Unit (GCU)	Ethylene	550000
		Propylene	160000
3.	Vinyl Chloride Monomer (VCM)	Ethylene Dichloride	588000
		Vinyl Chloride Monomer	360000
4.	Polyvinyl Chloride (PVC)	Polyvinyl Chloride	360000
5.	Chlor Alkali Plant (CA)	Chlorine	187000
		Caustic Soda	221000
6.	Ethylene Oxide (EO) / Ethylene Glycol (EG)	Ethylene Oxide	50000
		Ethylene Glycol	308350
7.	High Density Poly Ethylene (HDPE)	HDPE-I / HDPE-II	240000
		UHMW - PE	2500
8.	Ethylene Vinyl Acetate (EVA)	EVA	13000
9.	Purified Terephthalic Acid (PTA)	Purified Terephthalic Acid	3000000
10.	Polyethylene Terephthalate (PET)	Polyethylene Terephthalate	1000000
11.	Captive Power Plant	Power	195 MW
12.	Coal based Captive Co-generation Power	Power	270 MW
13.	Gas Cracker Unit (GCU)	Mixed C ₄ +	40000
		RARFS (Pyrolysis gasoline)	54750
		Fuel Oil	40000
		Tar Residue	5472
14.	Vinyl Chloride Monomer (VCM)	HCl	36000

Sr. No.	Plants	Products	Total Capacity (MTPA)
15.	Chlor Alkali Plant (CA)	Sodium Hypochlorite	11000
		Dilute H ₂ SO ₄	4600
		HCl	15000
16.	Ethylene Oxide (EO)/ Ethylene Glycol (EG)	Di Ethylene Glycol	30550
		Tri Ethylene Glycol	1270
		PEG	19850
		TEG Bottom	2880
17	Purified Terephthalic Acid (PTA)	Crude Benzoic Acid Mix	60000

Having completed the Environmental Audit period on personnel monitoring and audit report prepared as per the directions of Hon. High Court in Environmental Audit Scheme, it is certified that the Environmental Management System (EMS) provided by this industry for the products manufactured and capacity as stated above is adequate and efficient to achieve the quality of effluents (Air + Wastewater + Solid Waste) as specified/required under Consent/ Notifications by GPCB, Gandhinagar for following quantity of waste generation.

- a) **Liquid effluent** : 48802 KL/Day Industrial + 2000 KL/Day Domestic
b) **Solid Waste** :

Sr. No.	Type of Waste	Quantity MT/Year
1	Spent catalyst from various units and molecular sieves/ Alumina Desiccant	411.75
2	Slop Oil from Waste Water treatment	1060
3	Chemical Sludge from waste water treatment	3200
4	ETP Sludge containing Polymeric constituents	300
5	Used or Spent Oil	225
6	Waste /residues containing oil	So ever Generated (600)
7	Process Residue (Residue from Vinyl Chloride Monomer Production)	20750
8	Discarded Containers	450
9	Bags / Liners	11
10	Sludge & Filters contaminated with oil	So ever Generated (500)
11	Spent Carbon	So ever Generated (500)
12	Spent ion exchange resin	So ever Generated (500)
13	Spent Solvent (Degraded Dowtherm)	216
14	Cargo/Tank Residue, Washing water and Sludge containing Oil	100
15	Cargo/Tank Residue and Sludge Containing Chemical	100

Sr. No.	Type of Waste	Quantity MT/Year
16	Bilge Water Containing Oil from Ships	100
Other (Non- Hazardous) Waste		
17	Brine Sludge	15000
18	Polymer Lumps/ Sweep Powder	4800
19	Bio sludge from ETP	18250

- c) **Air Emission :** Adequate/ efficacious
(Flue gas stack as well as process stacks)

This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in product profile/capacity, quality & quantity of effluents (Air + Water + Solid) and efficiency of EMS equipment.

This certificate forms part of Environmental Audit Report.

Date:
Place: **Vadodara**



Name & Address of the Auditor:
Parul Institute of Technology
Parul University,
P.O. Limda, T.A. Waghodia
Vadodara

Signature of the Authorized Person

(Ms. Seema Nihalani)
Coordinator
Environmental Audit Team

(Dr. Bhavesh Mewada)
Director
Parul Institute of Technology

MONITORING OF MARINE WATER AND SEABED SEDIMENT QUALITY

PRE-MONSOON SEASON

March - June

For

Reliance Industries Limited,
Dahej Manufacturing Division, Dahej
Dist: Bharuch, Gujarat.



INDOMER COASTAL HYDRAULICS (P) LTD.

(ISO 9001: 2015 CERTIFIED, NABET-QCI, NABL AND CDC - MoST ACCREDITED)

63, GANDHI ROAD, ALWAR THIRUNAGAR, CHENNAI 600 087.

Tel: + 91 44 2486 2482 to 84 Fax: + 91 44 2486 2484

Web site: www.indomer.com, E-mail: ocean@indomer.com

**INDOMER COASTAL HYDRAULICS (P) LTD.**

(ISO 9001 : 2015 CERTIFIED, QCI-NABET, NABL & CDC-MoST ACCREDITED)

63, Gandhi Road, Alwar Thirunagar, Chennai 600 087.

Tel: + 91 44 2486 2482 to 84; M: + 91 99401 41650; Fax: + 91 44 2486 2484

Web site: www.indomer.com, E-mail: ocean@indomer.com

Client	Reliance Industries Limited, Dahej Manufacturing Division, Dahej, Bharuch district, Gujarat.				
Project Title	Monitoring of marine water and seabed sediment quality, Pre-monsoon season (March – June)				
Abstract	<p>Reliance Industries Ltd., (RIL) is India's largest company in the private sector and is organized in three major business segments viz. exploration and production of oil and gas, refining/ marketing of petroleum products and manufacturing and marketing of petrochemicals, polymers, polyesters, polyester intermediates. RIL has major manufacturing facilities located in Jamnagar, Dahej, Hazira, Baroda and Naroda in Gujarat. Nagothane, and Patalganga in Maharashtra, Silvassa in Union Territory (UT) of Dadra & Nagar Haveli and Kakinada in Andhra Pradesh.</p> <p>Dahej Manufacturing Division (DMD) of RIL which was originally called the Gandhar Petrochemical Plant (GPP) of the erstwhile Indian Petrochemical Corporation Ltd. (IPCL) is located in the Notified Industrial Area declared by Gujarat Industrial Development Corporation (GIDC), Government of Gujarat, Tehsil Vagra, District Bharuch, state of Gujarat. It is a multi-product, fully integrated complex manufacturing a wide range of petrochemicals, polymers and polymer intermediates. The design of effluent treatment system at DMD is such that each plant has its own effluent collection system where it is given a preliminary treatment and then sent to the Central Effluent Treatment Plant for further treatment. The treated effluent is recycled to the maximum extent and only unused effluent is discharged into Gulf of Khambhat through a 6.5 km pipeline provided with a multiport, subsurface diffuser.</p> <p>Indomer Coastal Hydraulics (P) Ltd. was appointed by RIL to carry out one season marine monitoring as a part of its post project environment monitoring requirement. Accordingly, the marine water and seabed sediment sampling was conducted during Pre-monsoon season (April 2017).</p>				
Foreword	The materials presented in the report carry the copyright of RIL and INDOMER and should not be altered or distorted or copied or presented in different manner by other organizations without the written consent from RIL and INDOMER.				
Document type	Controlled				
Date	Report Type	Originator	Checked by	Approved by	Approver's Sign
06.09.2017	Final	Dr. A. Kannathasan	V. Kesava Das	Dr. P. Chandramohan	
	File Location	F:/2017 Projects/Sep 17/ RIL			Text pages 38
					Tables
					Figures



Annexure XLIX

Photographs of Stacks in PTA and PET Plants



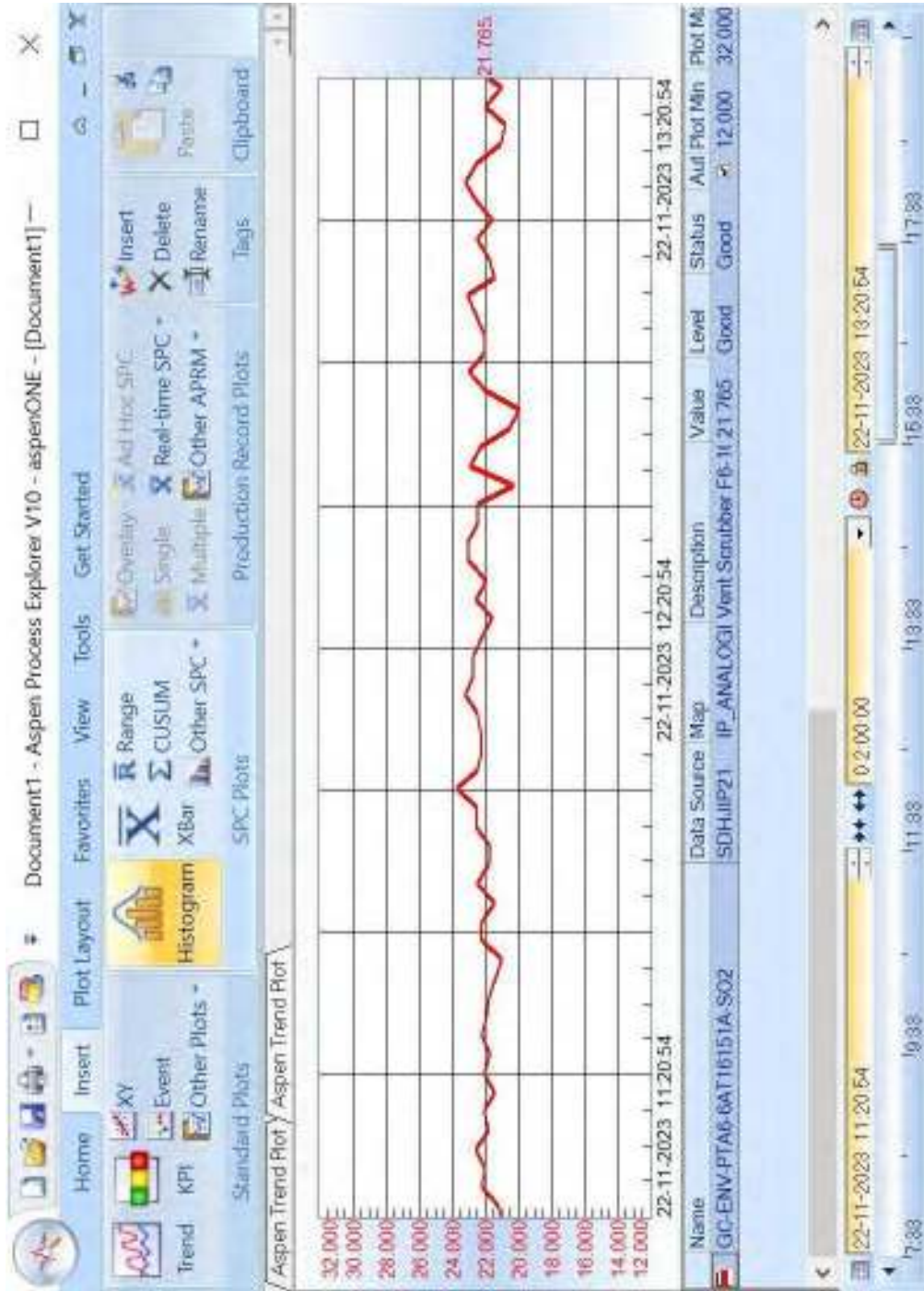
Stack attached with Off Gas Scrubber in PTA Plant



Stacks attached with HTM Heaters in PET Plant

Annexure L

PTA Stack- Aspen Process Explorer V10- aspen ONE - [PTA Stack]



Frequency: Daily

Plant: PTA-6 Feb 2024

DATE	OLOUR	DFF/Blnc	Hissing Sound	Ickle	Fumes/Vapour	Temp.	Any Other	If Yes, Give Detail of							
								Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PMS, Valves, Plunges etc.)	Source ID number	Service Material	REMARK	NAME & SIGN OF OPERATOR	NAME & SIGN OF ENGINEER
01-Feb-24	Y	Y	2	2	2	2	2	OX3	D-CL-200	M6-410B		AA	Seal Leakage	[Signature]	[Signature]
02-Feb-24	Y	Y	2	2	2	2	2	"	"	M6-410B		AA	" "	[Signature]	[Signature]
03-Feb-24	Y	Y	2	2	2	2	2	"	"	" "		AA	" "	[Signature]	[Signature]
04-Feb-24	Y	Y	2	2	2	2	2	OX3	D-CL-200	" "		AA	Seal Leakage	[Signature]	[Signature]
05-Feb-24	Y	Y	2	2	2	2	2	"	"	M6-410B		AA	" "	[Signature]	[Signature]
06-Feb-24	Y	Y	2	2	2	2	2	OX3	T-CL-200	CP6-606, 607		AA	Suction line	[Signature]	[Signature]
07-Feb-24	Y	Y	2	2	2	2	2	OX3	" "	" "		AA	BD - Leakage	[Signature]	[Signature]
08-Feb-24	Y	Y	2	2	2	2	2	"	" "	" "		AA	" "	[Signature]	[Signature]
09-Feb-24	Y	Y	2	2	2	2	2	OX3	" "	" "		AA	" "	[Signature]	[Signature]
10-Feb-24	Y	Y	2	2	2	2	2	OX3	T-CL-200	SIS 42511		AA	SIS vapour line	[Signature]	[Signature]
11-Feb-24	Y	Y	2	2	2	2	2	"	T-CL-200	" "		AA	to SIS DH	[Signature]	[Signature]
12-Feb-24	Y	Y	2	2	2	2	2	"	" "	" "		AA	solvent spray	[Signature]	[Signature]
13-Feb-24	Y	Y	2	2	2	2	2	"	" "	" "		AA	line leakage	[Signature]	[Signature]
14-Feb-24	Y	Y	2	2	2	2	2	OX3	T-CL-200	" "		AA	" "	[Signature]	[Signature]
15-Feb-24	Y	Y	2	2	2	2	2	OX3	T-CL-200	" "		AA	" "	[Signature]	[Signature]

LDAR LEVEL 1

Frequency: Daily

Plant: PTA-6 Feb 2024

DATE	Odour	Drift/dust	Hissing Sound	Leak	Fumes/Vapour	Temp.	Any Other	If Yes, Give Detail of				REMARK	NAME & SIGN OF OPERATOR	NAME & SIGN OF ENGINEER	
								Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PEXA, Valve, Flanges etc.)	Source ID number				Service Material
16-Feb-24	Y	Y	N	N	N	N	N	OX3	D-Clarey	M6-410 B		AA	Seal leakage	R	R
17-Feb-24	Y	Y	N	N	N	N	N	OX3	"	"		AA	"	S	R
18-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
19-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
20-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
21-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
22-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
23-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
24-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
25-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
26-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
27-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
28-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		AA	"	S	R
29-Feb-24	Y	Y	N	N	N	N	N	OX4	"	"		Water	plate cooler leakage	S	S

Plant: PTA-6

Frequency: Monthly

Month: Feb

LOAR - LEVEL - II

Name of Person Monitoring:

Equipment used:

Sl No.	Monitoring Date	Section Name	Sub Section Name	Equipment Type (Pump, Compressor, PRVs, Valves, Flanges etc.)	Sources ID Number	Service Material	Concentration observed (%)	Date of Notification to Plant Maintenance	Status of leak (Attended/ SID job, Inaccessible)	Date of monitoring after repair	Concentration after Repair (%)	Remark
1	26/2/24	T		FC-515 V4 pump line O.H. Solvent valve	--	A.A		26/2/24	SPN			Safety
2												
3												
4	26/2/24	B		FCV-3102 valve body (leak) (only report)	--	A.A	Report	26/2/24	SPN			Safety
5												
6												
7												
8												
9												
10												

Signature (Plant Manager): [Signature]

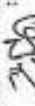
Signature (Maintenance Manager): [Signature]

SI No.	Monitor No.	ng Date	Section Name	Sub Section Name	Sources ID number	Equipment Type (Pump, Compressor, PRVs, Valves, Flanges etc.)	Service Material	Concentration on observed (ppm / ppb)	Date of Notification to Plant Maintenance	Status of leak (Attended/ SID job, inaccessibility)	Date of monitoring after repair	Concentration after Repair (ppm / ppb)	Remark
1	1	21/02/21	In	A	HP H2 iv (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
2	2	21/02/21	Hydrogen	E area	Vent 1302nd iv (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
3	3	21/02/21	Hydrogen	E area	HP H2 2nd iv (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
4	4	21/02/21	Hydrogen	E area	PVS-130307 (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
5	5	21/02/21	Hydrogen	E area	FT-13101 (flange)	Flange	Hydrogen	0 PPM					Nb
6	6	21/02/21	Hydrogen	E area	PI-13102 iv related flanges	Flange	Hydrogen	0 PPM					Nb
7	7	21/02/21	Hydrogen	E area	FCV-13101 (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
8	8	21/02/21	Hydrogen	E area	FCV-13101 ds NRV's (u/s,d/s flange)	Valve	Hydrogen	0 PPM					Nb
9	9	21/02/21	Hydrogen	E area	TT-13103 related flanges	Valve	Hydrogen	0 PPM					Nb
10	10	21/02/21	Hydrogen	E area	PT-13126 manifold related valve(u/s,d/s flange)	Valve	Hydrogen	0 PPM					Nb
11	11	21/02/21	Hydrogen	E area	PT-13126 ds NRV's (u/s,d/s flanges)	Valve	Hydrogen	0 PPM					Nb
12	12	21/02/21	Hydrogen	E area	XV-13106 u/s iv (u/s,d/s flange)	Valve	Hydrogen	0 PPM					Nb
13	13	21/02/21	Hydrogen	E area	XV-13106 (u/s,d/s flange)	Valve	Hydrogen	0 PPM					Nb
14	14	21/02/21	Hydrogen	E area	XV-13106 ds iv (u/s,d/s flange)	Valve	Hydrogen	0 PPM					Nb
15	15	21/02/21	Hydrogen	E area	PT-13109 manifold related valve(u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb
16	16	21/02/21	Hydrogen	E area	HP H2 vent to chemical drain related valves (u/s,d/s flange)	Flange	Hydrogen	0 PPM					Nb

Signature (Field Executive) :- 

No. of Leakages found = 0

For necessary action to attend leak and inform action taken :

Sign (Plant Manager):- 

No. of Inaccessibles Points/Area :

Sign (Maintenance Manager):- 

Back to Plant Manager

Copy : HOD (Environment)

Photograph of PTA Storage Tanks



Photograph of Oil Separator Unit and Slop Oil Tank



Oil Separator Unit



Slop Oil Storage Tanks

Photograph of CAAQMS





BEIL Infrastructure Ltd [40137]

Manifest No:
2422414
26/02/2024

Copy 1

To be forwarded by To be forwarded by the occupier to the State Pollution Control Board or Committee.

Sender's Details					
Sender Name	Reliance Industries Ltd. [15565]				
Address	Dahej Manufacturing Division,P.O. DAHEJ, TAL. VAGRA, Taluka :VAG Distict:BHA Pin no:392130				
Contact Details	6352260494 rajaraman.c@ril.com	GPS Coordinates	Lat :21.684880353570033 Long :72.58639820539504		
Receiver's Details					
State	Gujarat	Type of Facility	Common TSDF		
Facility Details	BEIL Infrastructure Ltd [40137]				
Contact Details	9099057365 mistryrg@beil.co.in	GPS Coordinates	Lat :21.7240193450719 Long:72.59621502850457		
Address	GIDC , DAHEJ, Taluka :VAG Distict:BHA Pin no:392130				
Waste Details					
Waste Details	I~35~35.3~Chemical sludge from waste water treatment				
Waste Intended for	LandFill	Total Qty	12.840MT	Consistency	Solid
Transporter Details					
Name	KRUNAL LOGISTICS SERVICES	Contact Details	9510232722 radhe.service2012@gmail.com		
Address	PHFW+VPH, Dahej, Gujarat 392130,PHFW+VPH, Dahej, Gujarat 392130 District :Bharuch Taluka :Bharuch				
Vehicle Details					
Vehicle no	GJ01JT4857 (IMEI No :358980100169441)	GPS Enabled	Yes	Type of Vehicle	Special vehicle
Driver name	Pankaj Pargi	Driver Contact No	7737319713		
Waste Transportation Details					
Vehicle Depart.	26/02/2024 6:00PM	Number of Drums	0	Loose Waste	12.840
Remarks	ETP Chemical Sludge		No of bags	0	
Sender's Declaration :					
1. I hereby declare that contents of the consignment are fully and accurate described above by proper shipping name and are categorized , packed, marked , and labeled , and are all in all respects in proper condition for transport by road according to applicable national government regulations.					
2. I hereby declare that we have obtained membership of common facility / carried out agreement with actual user for disposal/ actual use of hazardous waste.					
Name and stamp of sender:		Date:		Signature:	
Transporter's Acknowledgement of Receipt of waste					
Stamp:		Date:		Signature:	
Receiver's Certification of Receipt of Hazardous waste					

Stamp:

Date:

Signature:



By scanning QR code, copy of transporter will be display. (All copy has same information)

Photograph of Internal Garland Drains



Annexure LVII

Photographs of Tank Farm Area



Naphtha Tank



MEG / DEG Storage Tanks



Loading Arms at Tank Farm

Photograph of First Aid Box kept at Plant Control Room



First Aid Kit at CCP

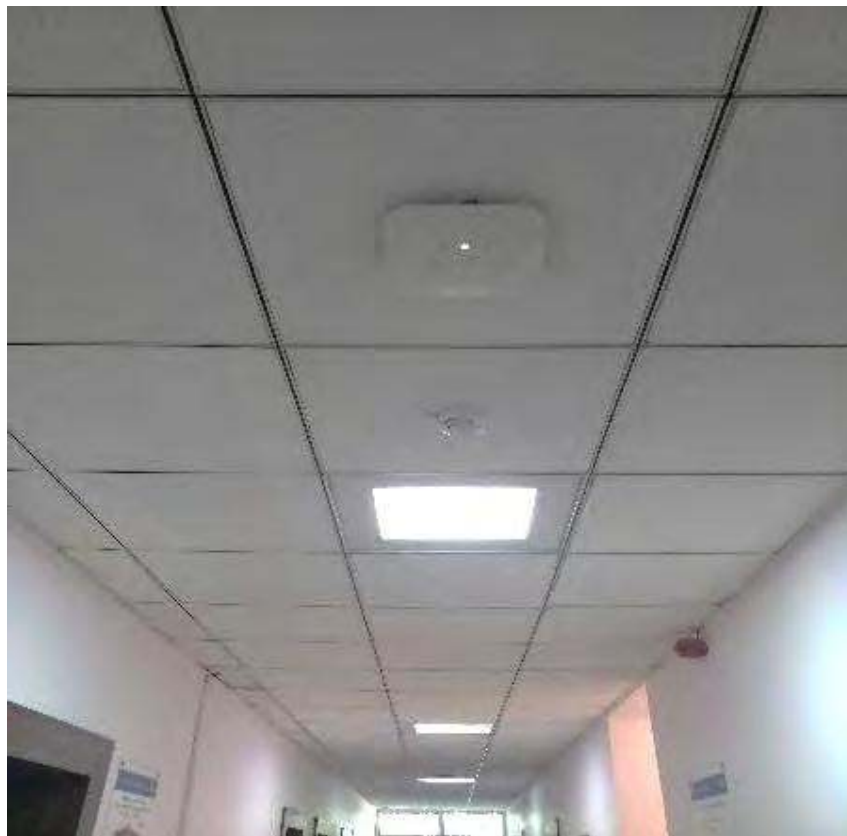


First Aid Kit at ETP

Training Details - October 2023 - March 2024

Sr.No.	EC	Name of Participant	Org Unit	Title of Program	Date of Program	Month	Duration (Hrs)
1	10051962	Mr. Subhash Choudhary	MFG DMD Ops - CCPP Production	IMS Awareness	16.10.2023	Oct-23	3
2	10071743	Mr. Vijay Kumar Sharma	MFG DMD Ops - CCPP Production	IMS Awareness	16.10.2023	Oct-23	3
3	16246994	Mr. Uday Singh	MFG DMD Ops - PTIA 5 Production	IMS Awareness	16.10.2023	Oct-23	3
4	16247178	Mr. Hariom Mishra	MFG DMD Ops - PET 3 Production	IMS Awareness	16.10.2023	Oct-23	3
5	16246376	Mr. Eldho S Thomas	MFG DMD REAM - CCPP Area Maintenance	IMS Awareness	16.10.2023	Oct-23	3
6	16246357	Mr. Arpit Tewari	MFG DMD HSEF - Fire Protection	IMS Awareness	16.10.2023	Oct-23	3
7	10086710	Mr. Gaurav Ashok Chandewar	MFG DMD HSEF - Fire Protection	IMS Awareness	16.10.2023	Oct-23	3
8	16243773	Mr. Pratik Yadav	MFG DMD Ops - PVC/NCM	IMS Awareness	16.10.2023	Oct-23	3
9	16231565	Mr. Mukeshkumar Patel	MFG DMD Ops - HDPE 1 Production	IMS Awareness	16.10.2023	Oct-23	3
10	16246728	Mr. Sohail Aslam Shekh	MFG DMD Ops - PET 3 Production	IMS Awareness	16.10.2023	Oct-23	3
11	16247197	Mr. Nikunj Kumar Gandabhai Prajapati	MFG DMD Ops - PVC Production	IMS Awareness	16.10.2023	Oct-23	3
12	16247183	Mr. Ravi Ranjan Kumar	MFG DMD Ops - PVC Production	IMS Awareness	16.10.2023	Oct-23	3
13	16246922	Mr. R T Viswak Kumar	MFG DMD Ops - PVC Production	IMS Awareness	16.10.2023	Oct-23	3
14	16231566	Mr. Brijesh Shastri	MFG DMD HSEF - Health & Safety	IMS Awareness	16.10.2023	Oct-23	3
15	10059670	Mr. Satyendra Chouhan	MFG DMD HSEF - Health & Safety	IMS Awareness	16.10.2023	Oct-23	3
16	16231194	Mr. Ashish Nanevati	MFG DMD Ops - Cracker Production	IMS Awareness	16.10.2023	Oct-23	3
17	16245715	Mr. Sanjay Kumar Bhatt	MFG DMD Ops - Cracker / EPRU	IMS Awareness	16.10.2023	Oct-23	3
18	10062676	Mr. Vikramsinh Raj	MFG DMD Ops - ASU Production	IMS Awareness	16.10.2023	Oct-23	3
19	16241814	Mr. Vimal Pithwa	MFG DMD Ops - CPP 1,3 Production	IMS Awareness	16.10.2023	Oct-23	3
	16246349	Mr. Alok Jagtanand Thakur	MFG DMD REAM - CCPP Area Maintenance	IMS Awareness	16.10.2023	Oct-23	3

Photograph of LED lighting in offices



Photograph of Solar Power run Traffic Signal



Photograph of Natural Illumination in Warehouse



Photograph of Closed Material Transfer





GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpctb.gov.in

By.R.P.A.D

NO.GPCB/BRCH-CCA-717(10)/ID-15565/ 340779 /Date: 06/01/2016
Amendment to consent to establish (CTE) dated : 10/10/2012

TO
M/S. RELIANCE INDUSTRIES LIMITED
DAHEJ MANUFACTURING DIVISION
AT & POST: DAHEJ : 392 130
TAL: VAGRA,
DIST: BHARUCH.

SUB: - Amendment to Consent to Establish (CTE) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981

REF: - (1) Your earlier CTE issued vide letter no: GPCB/BRCH/CCA-717(6)/15565/127604 dated 10/10/2012

(2) Your application for CTE Amendment inward no: 97876 dated: 21/08/2015

Sir,

This has reference to the Consent to Establish (CTE) Order issued vide letter no. GPCB/BRCH/CCA-717(6)/15565/127604 dated 10/10/2012 under section 25 of Water Act 1974 and section 21 of Air Act 1981, which stands amended as under,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants Consent to Establish (CTE)(Amendment) for installation of coal based captive power plant (CCPP) 270 MW, modification of the existing RDMT Jetty to handle 2.5 MMTPA Coal and change of fuel from natural gas to coal in Dow vaporizer of PET plant at DAHEJ MANUFACTURING DIVISION, AT & POST: DAHEJ : 392 130 TAL: VAGRA, DIST: BHARUCH.

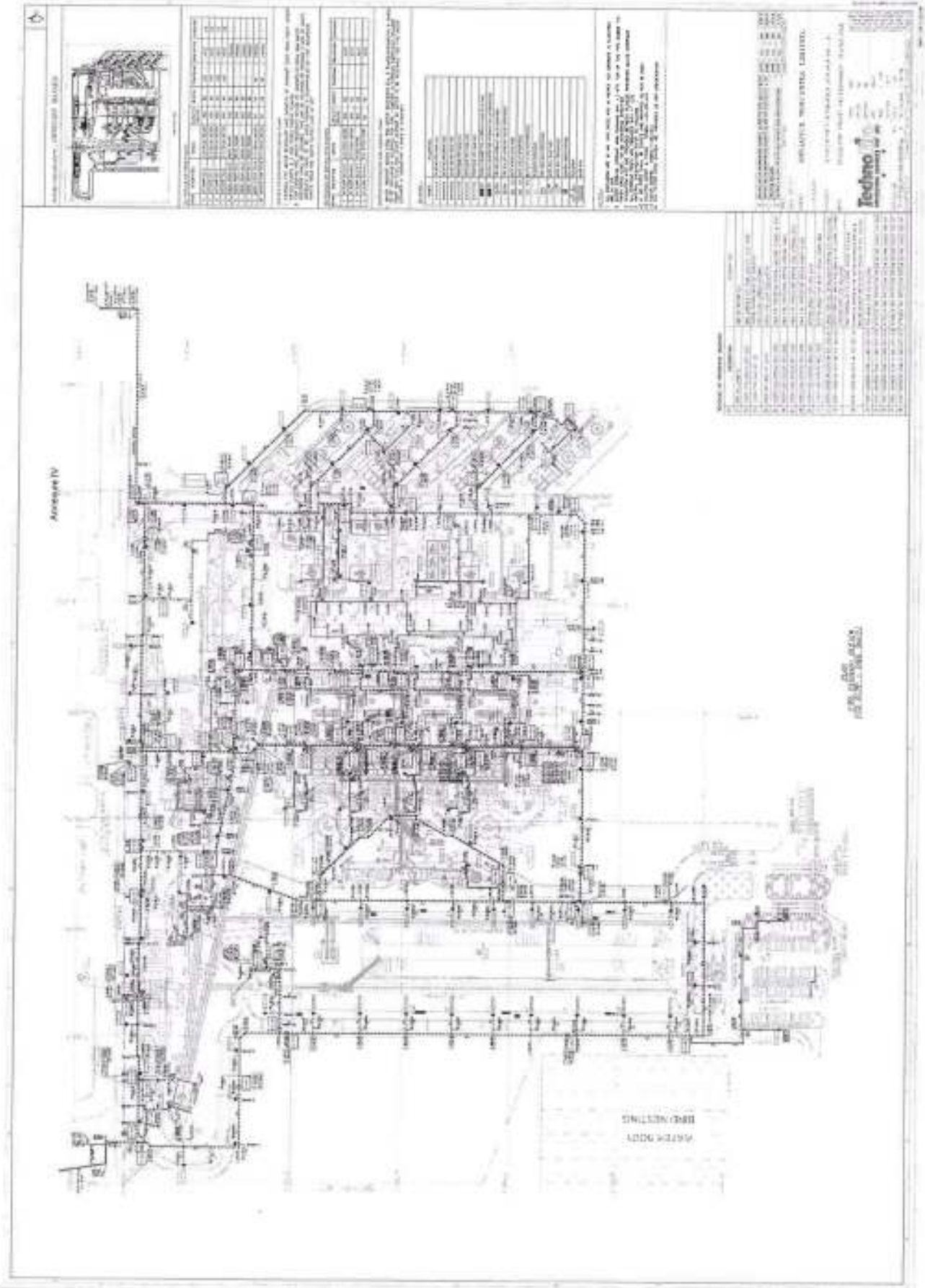
1.0 The condition no: 1(of CTE dated:10/10/2012) shall be read as.

NAME OF THE PRODUCTS ALONG WITH QUANTITY

A. Products :

Sr. No.	Plants	Products	Existing Capacity (MTPA)	Proposed Capacity (MTPA)	Total capacity (MTPA)
1.	Ethane Propane Recovery Unit (EPRU)	Ethane / Propane	650,000	-	650,000
2.	Gas Cracker Unit (GCU)	Ethylene	500,000	-	500,000
		Propylene	160,000	-	160,000
3.	Vinyl Chloride Monomer (VCM)	Ethylene dichloride	498,960	-	498,960
		Vinyl chloride monomer	315,000	-	315,000
4.	Polyvinyl Chloride (PVC)	Polyvinyl chloride	315,000	-	315,000

Clean Gujarat Green Gujarat



Annexure IV

WATER BODY
BREASTING

DATE: 10/10/2019



Sl. No.	Particulars	Quantity	Unit
1
2
3
4
5
6
7
8
9
10

...

Sl. No.	Particulars	Quantity	Unit
1
2
3
4
5
6
7
8
9
10

...

Sl. No.	Particulars	Quantity	Unit
1
2
3
4
5
6
7
8
9
10

...

Sl. No.	Particulars	Quantity	Unit
1
2
3
4
5
6
7
8
9
10

Tedhno

Photographs of Coal Transportation, Unloading Bay and Storage Facility



Covered Vehicle used for Coal Transportation



Coal Unloading Bay

Photographs of ESP, Conveyors, Chimney, Coal Storage Area



Coal Unloading Bay



Fully Covered Coal Storage Area



ESP's Installed at CCPP



Covered Conveyor Belts



Tall Stack (Ht 220m) attached with Boilers



RIL-DMD/HSEF/ENV/2023/38

June 30, 2023

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

Sub: Submission of Environmental Audit report for the year 2022-23, RIL, Dahej Manufacturing Division. (Industry ID: 15565)

Dear Sir,

As required under the Environment Audit Scheme and as directed by Hon. High Court, please find enclosed the Environment Audit Report for the Year 2022-23.

The Audit has been carried out by M/s. Sophisticated Instrumentation Center for Applied Research and Testing (SICART), a GPCB approved Schedule I Auditor. The report in the prescribed format with required attachments (in triplicate) is enclosed herewith.

The Net Payment Receipt of INR 10,000/- as scrutiny fee has been processed to the account in GPCB XGN Portal and is enclosed herewith for ready reference.

Thanking you.

Yours faithfully,
For Reliance Industries Limited,

Raja Raman Chaudhary
Head - Environment

- Encl: 1. Environment Audit Report – 3 Copies.
2. Net Payment Receipt of INR. 10,000 /-, dtd. 29.06.2023.
3. A copy of ISO 14001:2015 certificate

Cc:
Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmadanagar,
BHARUCH - 392015

8.8.42412
30/5/23
Regional Officer
Gujarat Pollution Control Board
BHARUCH

RIL-DMD/HSEF/ENV/2023/38

June 30, 2023

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar - 382 010.

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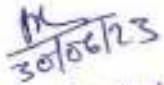
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Thanking you.

Yours faithfully,
For Reliance Industries Limited,


Raja Raman Chaudhary
Head - Environment


30/06/23
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

- Encl: 1. Environment Audit Report – 3 Copies.
2. Net Payment Receipt of INR. 10,000 /-, dtd. 29.06.2023.
3. A copy of ISO 14001:2015 certificate

Cc:
Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmadanagar,
BHARUCH - 392015



Reliance
Industries Limited

Crisis and Continuity Management Procedure

Dahej Manufacturing Division

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Photograph of Guard Pond



Photographs of Stacks attached with CFBC Boilers



Stacks (Ht 220m) attached with Boilers

Photographs of ESP



ESP's Installed at CCPP

Annexure LXXIV

Photograph of CEMS Display at CCPP





PERSONAL BREATHING ZONE DUST SAMPLE RESULTS

Dahej Manufacturing Division

Annexure LXXV

Date	SAMPLE ID	Plant	LOCATION	SHIFT	SAMPLE TIME (Min)	Name/EC No.	JOB POSITION/ACTIVITY	Agent	Results TLV-TWA (PPM/mg/m3)	ACGIH Limit TLV-TWA (PPM/mg/m3)	CURRENT CONTROL	RECOMMENDATIONS (ACTION PLAN)
1/25/2020	DMD-250120-33	CCPP	Ash Silo Area	G	355	Mr. Vasant Misty (5800079454)	Housekeeping Activity	Respirable Dust	0.083 mg/m3	3 mg/m3	PPE (Dust Mask)	-The result of Dust exposure monitoring was found within acceptable occupational exposure limits. -It is still recommended that the operator shall always wear a dust mask during the housekeeping activity and field round.

Survey Conducted by: Mayursinh Vaghela
Designation: Industrial Hygienist

Photograph of Conveyors Belts



Annexure LXXVII

Photographs of Coal Unloading Bay and Storage Area



Annexure LXXVIII

Photographs of Pucca Internal Roads



Photographs of Mr. Clean – Automatic Road Sweeping Machine



Photographs of Coal Storage Area



Photograph of CAAQMS



Photograph of Fly Ash Silo





RIL - DMD

Self Safety Audit checklist No. 30

ILLUMINATION MONITORING REPORTPlant : CCPP-ELECTRICAL Area: MHFFrequency : Yearly/upon modification or MOC

Sr. No	Location	Present Lux Level	Recommended Value	Corrective action taken Date	Action taken	Lux level after corrective action
1	CHP TRUCK unloading area	105	20			
2	CONV-1A/B	170	50			
3	T.T-1	160	60			
4	CONV-2	120	50			
5	CONV-7A/B	125	50			
6	CONVEYER 3A/B	110	50			
7	CONVEYER 4AB	135	50			

Survey carried out by : Name : Vijay Bhatnagar Sign : [Signature] Date : 4/09/2020Reviewed by : Harshal Joshi Name : [Signature] Sign : [Signature] Date : 4/09/2020

Note : Lux shall be measured one meter above the ground level.
Master list to be kept in the file for the identified location where the lux level is to be measured.

Revision 1 on 09/03/2012 by Rakesh Bhargava (previous lux value in table removed)



RIL - DMD

Self Safety Audit checklist No. 30

ILLUMINATION MONITORING REPORT

Plant : CCPP - ELECTRICAL Area: MHF

Frequency : Yearly/upon modification or MOC

Sr. No	Location	Present Lux Level	Recomm ended Value	Corrective action taken Date	Action taken	Lux level after corrective action
8	Coal shed	100	20			
9	Street light	21	15			
10	lime unloading Area	155	20			
11	lime building	180	60			
12	Conv - 10A/B	170	50			
13	Street light LHP	21	15			
14	lime-shed	120	100			

Survey carried out by : Name : Vijay Rane Sign : Rane Date : 4/09/2020

Reviewed by : Name : Harshal Joshi Sign : Joshi Date : 4/09/2020

Note : Lux shall be measured one meter above the ground level.
Master list to be kept in the file for the identified location where the lux level is to be measured.

Revision 1 on 09/03/2012 by Rakesh Bhargava (previous lux value in table removed)



RIL - DMD

Self Safety Audit checklist No. 30

ILLUMINATION MONITORING REPORT

Plant : CCPP-ELECTRICAL Area: BOILER

Frequency : Yearly/upon modification or MOC

Sr. No	Location	Present Lux Level	Recomm ended Value	Corrective action taken Date	Action taken	Lux level after corrective action
1	BLR #1	175	100			
2	BLR #2	180	100			
3	BLR #3	165	100			
4	BLR #4	166	100			
5	ESP #1	135	100			
6	ESP #2	125	100			
7	ESP #3	132	100			
8	ESP #4	160	100			

Survey carried out by : Name : Vijaykumar Sign : Pany Date : 4/09/2020

Reviewed by : Name : Harshajoshi Sign : Hjoshi Date : 4/09/2020

Note : Lux shall be measured one meter above the ground level.
Master list to be kept in the file for the identified location where the lux level is to be measured.

Revision 1 on 09/03/2012 by Rakesh Bhargava (previous lux value in table removed)



RIL - DMD

Self Safety Audit checklist No. 30

ILLUMINATION MONITORING REPORT

Plant : CCPP - ELECTRICAL Area: STG

Frequency : Yearly/upon modification or MOC

Sr. No	Location	Present Lux Level	Recomm ended Value	Corrective action taken		Lux level after corrective action
				Date	Action taken	
1	STU-1 '0' mtr	220	100			
2	STU-1 '08' mtr	179	100			
3	STU-1 '13' mtr	202	100			
4	Detector Floor	66	60			
5	STU-2 '0' mtr	221	100			
6	STU-2 '7' mtr	265	100			
7	STU-2 '13' mtr	275	100			
8	STU-2 Detector Floor	75	60			
9	STU-3 '0' mtr	220	100			
10	STU-3 '7' mtr	340	100			

Survey carried out by : Name : Vijay Panu Sign : Panu Date : 04/09/2020

Reviewed by : Name : Harshal Joshi Sign : Hjoshi Date : 04/09/2020

Note : Lux shall be measured one meter above the ground level.
Master list to be kept in the file for the identified location where the lux level is to be measured.

Revision 1 on 09/03/2012 by Rakesh Bhargava (previous lux value in table removed)



Financial Inclusion

Climate Resilience



Disease Management

Prevention and Cure



Excel

Nurture



Training

Well-being

Social Cohesion



Culture

Art



Relief

Rescue

Preparedness



Skilling

Livelihood Building

Income Generation

We Care

For a connected, prosperous and shared future

VISION

For Reliance, social commitment is strongly driven with the philosophy of 'We Care'. While addressing the nation's multifaceted development challenges, the central philosophy is the commitment to enhance the quality of life of people from marginalised and vulnerable communities. Through Reliance Foundation, the aim is to create replicable and scalable models of development through an integrated approach. These CSR initiatives are carried out in the true Reliance spirit of maximising social value for all, towards sustainable development.



Isha Ambani



Dr. Tarang Gianchandani



Dhanraj Nathwani



Jagannatha Kumar



B. Srinivasan



Towards our stated vision, we work hand-in-hand with the government, civil society organisations and communities. What inspires us is how our innovative approaches for the social and development sector happen with the Reliance approach of creating social impact with unique pathways, with innovations for sustainable development and towards India's national priorities.

KEY MILESTONES

Touched lives of
over **69.5 million**
people
Impacted **595**
districts including
54,200 villages and
urban locations

TABLE OF CONTENTS

Integrated outcome report of Reliance Industries – social impact areas contributing to 14 SDGs

Rural Transformation



Improving the quality of life and economic well-being of people living in rural areas through a variety of Initiatives

→ PAGE 03

Women Empowerment



Promoting gender equality and enabling women to reach their full potential and participate equally in all aspects of society

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Art, Culture and Heritage



Supporting initiatives essential to our society by promoting creativity, inclusion, and economic development

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Health



Funding for healthcare organisations and initiatives, supporting public health campaigns, and advocating for policies that improve access to care

→ PAGE 15

Disaster Management



Helping communities prepare for, respond to, and recover from disasters through technology-enabled disaster relief efforts

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Other Initiatives



Ensuring high-quality animal care and Treatment, protecting wildlife and animals, and reducing human-animal conflict

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Enhancing access to quality education for all, with a strong focus on the disadvantaged and marginalised

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Standard Plot Documents SPC Documents Production Record Documents

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Navigation Tools

Name	Data Source	Map	Description	Value	Level	Status	Aut Plot Min	Plot Max	Units	St
GC-ENV-ETP-1207N-PH	SDHJIP21		IP_ANALOGI pH meter for final eff	7.590	Good	Good	-2.000	18.000	pH	0
GC-ENV-ETP-1211N-COD	SDHJIP21		IP_ANALOGI COD of final treated	62.697	Good	Good	-100.000	400.000	mg/L	0

22-11-2023 22:11:33 07-12-2023 22:11:33 22-12-2023 22:11:33

22-11-2023 22:11:33 30 0:00:00 22-12-2023 22:11:33

17-2023 18-2023 19-2023 10-2023 11-2023 12-2023

Ready

Photograph of Storm Water Drainage



Photographs of Some of the CSR activities



- Flood Relief Activities



- Construction of Home for BPL Family

o/c



RIL-DMD/HSEF/ENV/2023/68

Date: 25th September 2023

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector 10 A,
Gandhinagar – 382 010.

**Sub : Submission of Environmental Statement of RIL – Dahej Manufacturing Division
for the year 2022 – 23 (PCB ID: 15565)**

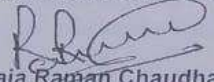
Ref : Consent Order No. AWH-111189 dated 16.01.2021 and valid upto 03.11.2026.

Dear Sir,

Please find enclosed herewith the Environmental Statement for the year 2022 – 23 of
Reliance Industries Limited – Dahej Manufacturing Division.

Thanking you.

Yours faithfully,
For **Reliance Industries Limited**


Raja Raman Chaudhary
Head - Environment

Enclosed: As above.

Cc:

The Regional Officer,
Gujarat Pollution Control Board,
C - 1/119/3, GIDC Phase II,
Narmada Nagar,
Bharuch – 392 015.

8.9.22/12
24/123
Post Received
Gujarat Pollution Control Board
BHARUCH

Date: 11.04.2017

ક વ્યવ માર્ગ
અર્થિક નાટક એક
મા ૨૪ કરવામાં

કરા નવપુરા પુસ્તક વ્યાક
પાઠરાયા સંનુમાનજીઠાકાના
મરિરે પઠોચી પુસ્તકોતિ
કરવામાં આવશે.

અત્યાજી પાલાલકામ દરમ દારૂના
ત્રણ અઢીઓ તથા ૧,૧૩૭ સીટર
દેમી દારૂનો વોગનો નાશ કર્યો તતી.
જ્યારે ૧૧૬ સીટર દેમી તથા વિદેમી
દારૂ સાથે ત્રણ ભૂતલેવણોને ઝડપી
પાયાં છે.

મમખતા તથા દરમ દારૂના
સાટડીઓમાંથી ૧૨૩૭ સીટર દેમી
દારૂનો વોસ જે પતરાવા પીડોમાં
ખરેલા તમા જે સંઢી જેનો મારા
કરવામાં આવ્યો તતી.

દેમી દારૂ ૧૧૬ સીટર તથા
આબે તતે. વિદેમી દારૂના
બોવર અને કવર ઢીવા મળી આવા
પોલીસે ઝડપી પાડવામાં આવ્યા
તતા. જેકે આરોપીઓ સાથે મુખો
નોંધીને કાપડેસરની કારવાલી
તમા કરવામાં આવ્યો તતી.

ધાર્થીઓને લાભ મળ્યો હતો

સાધકનું વિતરણ

ધાર્થીઓને લાભ મળ્યો હતો



મ સાઈકલમાં કાગળોને સાધકનું વિતરણ કરવામાં
કેરે અનુસરેલ

નર્મદા જલવામાં
જલવા પોલીસ તમા મહેન્દ્ર
બગડિયાની સુખનાથી
કીનારએઠથી મનોવરલિલ જાહેલ
અને આર એમ અઢીરિપના
મુલકર્તાન લેકજ નર્મદા

રિલાયન્સ ઇન્ડસ્ટ્રીઝ લિમિટેડ - દહેજ મેન્યુફેચરિંગ ડિવિઝન
ગાઢેર નિવિદા
નવા પ્રોજેક્ટ માટે પર્ચાવરણ મંબુટી

આથી જાહલવ્યાનું કે ભારત સરકારના પર્ચાવરણ, પન અને જાગવાનું પરિવહન
 મંજાલવ, તવીરિલ્લી કાસમુ, દહેજ, તા, વાગાઢ, ડા, લાગ્ય રિલત અમાલા દેવેજ
 મેન્યુ, ડિવિઝન આતેના પેટ્રોકેમિકલ પ્લાન્ટના વિસ્તુતિકાણ અને
 ડિલોરલમેકિંગ માટે પર્ચાવરણીય મંબુટી તેઓના તા, વડ એપ્રિલ, ૨૦૧૫નાં
 પન ક. નં. ૩-૧૧૦૧૧/૩૭/૨૦૧૬-૧૫-૧ (૧) થી આગેલ છે. જેની લકલ
 મુખસત પ્રતુપલ નિર્ચમણ કોર્કેવી કરેટીએ તેમજ ની વેપસાઈટ સેટલે કે
<http://www.mool.nic.in> ઉપર જોઈ શકાયો.

સહી/-
 તારીખ: ૧૦-૦૪-૨૦૧૭ પ્રેસિડન્ટ-રિલાયન્સ દહેજ મેન્યુ, ડિવિઝન

EC: Even manufacturers can't manipulate EVMs

New Delhi: The EVMs are robust and tamper-proof and even the manufacturers cannot manipulate them at the time of production, the Election Commission said on Sunday, countering allegations that the machines are unreliable.

With the Opposition's questions on the reliability of the electronic voting machines getting louder, the Commission has come out with a list of frequently asked questions to put across its views in public domain.

Recently the Commission had issued two statements defending the machines. The FAQs are the third attempt by the poll watchdog to counter the doubts on the machines' reliability.

One of the first questions the FAQ addresses is whether the machine can be hacked? No, asserts the Commission.

The M1 (model one) of EVM was manufactured till 2006 and had all necessary technical features it 'non-hackable contrary to claims made by some activists', it said.

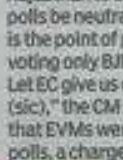
The M2 model of EVMs produced after 2006 and up to 2012 incorporated additional safety features. It can detect 'malicious sequenced key presses'.

'Further, the ECI-EVMs are not computer controlled, are stand alone machines and not connected to the internet or any other network. Hence, there is no chance of hacking by remote devices... also do not have any frequency receiver or decoder for da-

Kejriwal again raises issue of rigged EVMs

New Delhi: Delhi Chief Minister Arvind Kejriwal on Sunday raked up the issue of alleged EVM manipulation, despite the election commission's assertion that the voting machines are robust and tamper-proof. Kejriwal raised the issue referring to media reports that a few machines, used during the bypoll in Rajasthan's Dholpur today, may have been tampered with and claimed that EVMs were being brought from

Rajasthan to be used in the upcoming municipal polls. "Will the MCD polls be neutral? Why does not the EC probe these machines? What is the point of polls in a situation like this? "Why defective EVMs voting only BJP? They (are) not 'defective'. Their software changed. Let EC give us one of these EVM, we'll prove they are tampered (sic)," the CM said in a series of tweets. Earlier, Kejriwal had claimed that EVMs were being brought from Uttar Pradesh to conduct the polls, a charge the State Election Commission had rejected. **PH**



ta for wireless or any external hardware port for connection to any other non-EVM accessory or device. Hence no tampering is possible," the poll panel said.

The Commission also rejected suggestions that the machines can be manipulated by the manufacturer itself.

"Not possible," it said. The EVMs have been manufactured in different years since 2006 and sent to different states. The manufacturers - ECIL and BEL - would not know several years ahead which candidate will contest from a particular constituency and what will be the sequence of the candidates on the ballot unit," it said.

It also asserted that no 'trojan horse' can be injected into the EVM in the field. In fact, the new M3 EVIN produced after 2013 have additional features like tamper detection and self diagnostics.

The tamper detection feature makes an EVM inoper-

ative the moment anyone tries to open the machine. The self diagnostic feature checks the EVM fully every time it is switched on. Any change in its hardware or software will be detected.

It said contrary to 'misinformation and as alleged by some', India does not use any EVMs produced abroad.

The EVMs are produced indigenously and the software programme code is written in-house and not outsourced.

"The programme is converted into machine code and only then given to the chip manufacturer abroad because we don't have the capability of producing semi-conductor microchips within the country.

"Every microchip has an identification number embedded into memory and the producers have their digital signatures on them. So, the question of their replacement does not arise at all," it said. **PH**

NEWS DIGEST

Mamata misusing police, says Rijju

Union Minister of State for Home Kiren Rijju on Sunday accused the Mamata Banerjee government in West Bengal of running a 'dictatorship', alleging that it was misusing state power to 'torture' political opponents. The minister told reporters that the police in the state was acting under the pressure of politicians as evident by the "fake cases" launched against his party leaders for carrying arms. "In this state, the government is running a dictatorship," he said in Suri.

Curfew relaxed in Bhadrak

The Rapid Action Force (RAF) and CRPF took out a flag march even as curfew was relaxed for four hours on Sunday in Bhadrak town where violence had broken out over alleged abusive remarks against Hindu deities on social media. The RAF and CRPF personnel staged the march through sensitive areas after they arrived at the arson-hit town, a senior official said.

NRI offers 2kg gold ornaments at Tirupati

An NRI woman devotee has made an offering of golden foot covers (Paaduka) weighing two kg and worth about Rs 61 lakh, at the famous hill shrine of Lord Venkateswara at Tirumala on Sunday. A Lakshmi from Andhra Pradesh, who has settled down in USA, sent the offering through her parents to the hill temple as a fulfillment of her vow as she was blessed with a child after a decade of her marriage.

Don't fall prey
Only adopt Pata

'3.50cr women support triple talaq'

Jaipur: The All India Muslim Personal Law Board (AIMPLB) on Sunday claimed that it has received 3.50 crore forms from Muslim women around the country favouring Shariat and triple talaq.

Some people are trying to create "an atmosphere that the Muslim community has a high rate of divorce", chief organiser of the AIMPLB's women wing Asma Zohra said while addressing a gathering of

around 20,000 women at a workshop in Eidgah here.

"We have received 3.50 crore forms in favour of Shariat and triple talaq from Muslim women in the country and the number of women against these are very less," she claimed.

"It is a conspiracy to malign the Muslim community and an attempt to break the social structure of the community in the name of women's rights," Zohra alleged. **PH**



Reliance Industries Limited - Dahej Mfg. Div. PUBLIC NOTICE Environmental Clearance for New Project

This is to inform that the Ministry of Environment, Forest & Climate Change, Government of India, New Delhi has accorded **ENVIRONMENTAL CLEARANCE** for Expansion & Debottlenecking of Petrochemical Plant of Dahej Manufacturing Division (DMD) at Tehsil Vagra, District Bharuch, Gujarat vide their letter no. J-11011/39/2016-IA-II (I) dated 3rd April 2017. Copy of the same is available at the Gujarat Pollution Control Board Office and may also be seen on the Website of the Ministry of Environment, Forest & Climate Change at <http://www.moef.nic.in>.

Sd/-

Date : 10-04-2017

President-RIL, Dahej Mfg. Div.



રિલાયન્સ ઇન્ડસ્ટ્રીઝ લિમિટેડ - દહેજ મેન્યુફેક્ચરિંગ કોર્પોરેશન
મુ. દહેજ, તા. વાગરા, જી. ભરૂચ-૩૯૨૧૩૦

જાહેર નિવેદન

પર્યાવરણ મંજૂરી

આથી જાણવવાનું કે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય, નવી દિલ્હી, દ્વારા પ્લોટ-૧, જી.આઈ.ડી.સી.-દહેજ, મુ. દહેજ, તા. વાગરા, જી. ભરૂચ સ્થિત અમારા દહેજ મેન્યુફેક્ચરિંગ કોર્પોરેશન ખાતેના પેટ્રોકેમિકલ્સ પ્લાન્ટના વિસ્તૃતીકરણ અને ડીબોટલનેકીંગ માટે તા. ૧૯ ઓગસ્ટ, ૨૦૨૧ ના પત્ર ક્ર. નં. J-11011/39/2016-IA-II (I) થી પર્યાવરણ મંજૂરી આપેલ છે.

જેની નકલ ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડની કચેરીએ તેમજ મંત્રાલયની વેબસાઈટ એટલે કે <https://parivesh.nic.in> ઉપર જોઈ શકાશે.

તા. ૨૪/૦૮/૨૦૨૧

સહી
પ્રેસિડેન્ટ - રિલાયન્સ ઇન્ડસ્ટ્રીઝ લિમિટેડ
દહેજ મેન્યુફેક્ચરિંગ કોર્પોરેશન



Reliance Industries Limited

Dahej Manufacturing Division

P.O. : Dahej, Ta: Vagra, Dist: Bharuch-392 130

PUBLIC NOTICE

ENVIRONMENTAL CLEARANCE

It is hereby informed that the Ministry of Environment, Forest & Climate Change, Government of India, New Delhi has accorded **ENVIRONMENTAL CLEARANCE** to M/s Reliance Industries Limited for Expansion & Debottlenecking of existing Petrochemical Plant of Dahej Manufacturing Division (DMD) at Plot No. 1, GIDC Dahej, District Bharuch, Gujarat vide their letter No. J-11011/39/2016-IA-II (I) dated 19th August 2021

Copy of the clearance letter is available at Gujarat State Pollution Control Board and may also be seen on the Website of the Ministry of Environment, Forest & Climate Change at <https://parivesh.nic.in>

Sd/-

Date: 24/08/2021

President – Dahej Mfg. Div.

Sena workers protest Deo meet Rahul; no BJP over Rane's resignation leadership change

Workers Square Off Against Each Other

Mumbai/Pune/Amravati: Union minister Narayan Rane's remarks against Maharashtra Chief Minister Uddhav Thackeray set off protests in Mumbai and several other cities which included pelting of stones and vandalising offices of BJP in some areas by Shiv Sena cadres.

In Mumbai, activists of Yuva Sena, the youth wing of the Sena, and the BJP clashed with each other near Rane's residence on the Juhu Tara Road in Santacruz (West).

Stones were pelted from both sides, following which police used tear-gas to disperse the agitators, an official

while he was having his lunch. He is nearly 70. Should a person of such age be treated like this? We feel there is a



Police personnel wield their batons against the supporters and BJP as a clash breaks out between them in Mumbai.

needs to be checked and he should be hospitalized," the BJP legislator added. Lad also expressed appre-

na leader and brao Patil said his balance". He should



Chhattisgarh CM Bhupesh Baghel with state in-charge PI, Punjab and Chhattisgarh health minister T S Singh Deo comes out of Congress leader Rahul Gandhi's residence in New Delhi on Tuesday.

Baghel and Deo, with the in-charge Punjab for months to request Chief Minister Bhupesh Baghel. This walk-out of the Congress leader was a protest against the Congress national leadership to direct Sidhu to immediately

in July this year. During his Delhi visit, Baghel said he would abide by the decision of the leadership. "I am sure party state President K. Annamalai over his decision to quit,"

Fuel price: Min says people will get relief soon

New Delhi: The government is very sensitive to the issue of rise in fuel prices, Union Minister for Petroleum and Natural Gas Hardeep Singh Puri said on Tuesday, asserting that people will get some relief in the coming months.

International oil prices are slowly coming down and stabilising, the minister added, addressing a press conference here.

"The central government is very sensitive to this issue. I see that in the coming months relief will come," he told reporters, replying to a query if any relief can be expected in the near future.

Puri, however, defended the government on the consistent rise of fuel prices in the country, saying the Centre imposes an excise duty of Rs 32 per litre and the revenue thus generated is spent on various welfare schemes.

"The central government is also very sensitive to other responsibilities that we have...the government provided free rations to 80 crore people, free vaccines, all other facilities. So it's a part of that picture," he said.

Rahul slams Mo

New Delhi: Congress leader Rahul Gandhi on Tuesday slammed the Centre's move to monetise its assets across key sectors, saying the Modi dispensation is in the process of selling India's "crown jewels" built by previous governments with public money over 70 years.

Addressing a press conference here with former Union finance minister P Chidambaram, he said the BJP has claimed that nothing happened in India for 70 years, but now all assets created in all these years are be-



Congress leader Rahul Gandhi.

ingsold. Gandhi alleged Narendra Modi's privatisation

Reliance Industries Limited
Dahej Manufacturing Division
P.O. : Dahej, Tal: Vagra, Dist: Bharuch-392 130

PUBLIC NOTICE ENVIRONMENTAL CLEARANCE

It is hereby informed that the Ministry of Environment, Forest & Climate Change, Government of India, New Delhi has accorded **ENVIRONMENTAL CLEARANCE** to M/s Reliance Industries Limited for Expansion & Debottlenecking of existing Petrochemical Plant of Dahej Manufacturing Division (DMD) at Plot No. 1, GIDC Dahej, District Bharuch, Gujarat vide their letter No. I-11011/39/2016-IA-II (I) dated 19th August 2021.

Copy of the clearance letter is available at Gujarat State Pollution Control Board and may also be seen on the Website of the Ministry of Environment, Forest & Climate Change at <https://parvesth.nic.in>

Sd/-
President - Dahej Mfg. Div.

Date: 23/08/2021

Tender Notice

Directorate of Archaeology and Museums,
Government of Gujarat,
Abhilekhagar Bhavan, Sector-17, Gandhinagar

Directorate of Archaeology and Museums, Government of Gujarat invites interested Bidders to participate in the bidding process for Construction of Compound Wall, Landscaping (plantation of Bougainvillea along the compound wall) and Maintenance for three years of Kaleshwari Temple Complex at Lavana, Tal: Khanpur, Dist: Mahisagar. The Bid Documents can be downloaded from 25th August 2021 at 11 AM from website <https://tenders.gujarat.gov.in>. Last date of submission of Online Bid is on 09th September 2021 at 5 PM and Submission of Hard Copies of the Documents is 09th September 2021 at 5 PM. For more detail please contact 079-23256730/40.

Director, Archaeology & Museum

बैंक ऑफ बरोडा
Bank of Baroda

Airforce - 2 Gate Road
Jamnagar. M. 978763

E-Auction Sale Notice for Sale of Immovable Assets under the Securitization

Notice is hereby given to the public in general and in particular to those which has been taken by the Authorized Officer of Bank of Baroda. The details of Barometer/Metricpaper/Guarantors/Circular Assets.

Sr/ Lot No.	Name of Branch	Name of Borrowers	Give short description of the im
1	59 Jamnagar	M/s Kalyan Industries	Owner - Chandrikaben Anopsinh Ch... All that Piece and Parcel of Open La... 74, Admeasuring 367.00 Sq. Mtrs. ... Admeasuring 375.00 Sq. Mtrs. jami... originally converted in to Non-Agri... present converted in to industrial purpo...

For detailed terms and conditions of sale, please refer to the link provided
Date : 25.08.2021
Place : Jamnagar (In The Event Of Any Discrepancy Bet...

ONLINE TENDERING

ROADS AND BUILDING DEPARTMENT, GUJARAT STATE

TENDER NOTICE NO. 14 OF 2021-22
CORRIGENDUM NO.1

Tender Notice No. 14 of 2021-22 published by the Executive Engineer, Tapi (R&B) Division, Vyas, Jilla Sewa Sahan, Block No.10, 2nd Floor, Pernadi, Vyas, Ph.No. (02526) 220418 is now partly corrected below. Interested bidders may note the correction.

Sr.No. 1. Tender Bid document will be available on website <http://mb.iprocure.com> on 01/09/2021 upto 18.00 PM & submission of bid document online on 01/09/2021 up to 18.00 PM.